

# Psychology & all that jazz

STORY BY DALE SMITH PHOTOS BY ROB HILL  
ILLUSTRATIONS BY DENNIS MURPHY

New faculty member Dr. Julian Thayer is well-connected. He has built relationships between teaching classes, playing avant-garde jazz and researching the effect of music on emotion.

**I**n experiments, you come looking for a relationship," says Dr. Julian Thayer to a room full of undergraduates studying psychology. He begins with a hypothesis.

Bold man of science voice: "Anxiety increases the desire to affiliate."

Thayer pauses.

Formerly on the Penn State faculty, Thayer is new to MU this fall.

Class takes notes. He scans the room.

Looking for connections and relationships is a habit of mind for Thayer, associate professor of psychology. He seems comfortable leading his audience in this direction, too.

Hypothesis scene, take two.  
Wimpy voice: "When I'm anxious, I want my friends."

Eyes up. Chuckles.

Mad rapper with hands flying: "In other words, when I'm stressed, I wanna

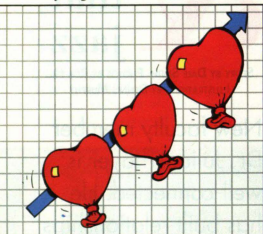
---

Psychologist Julian Thayer merges  
psychology, music and emotion.

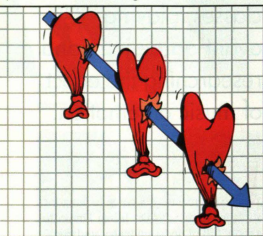
hang wid da home boys.”

Laughter.

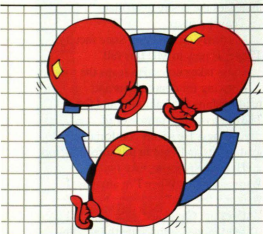
Thayer tells the students that statistics is a way of describing relationships. Although he's not always joking in class, the relationships he describes below are of young love.



**Positive relationship.** “Every time one is seen, the significant other is seen.”



**Love on the rocks.** “In this negative relationship, wherever he is, she isn't.”



**The runaround.** “Too many times this was the way my relationships went. There is no relationship between when one is seen and the other is seen.”

**T**hose are surely some of the simplest relationships Thayer talks about. As he likes to say, this is where it gets a little tricky. He's fascinated by something called unified field theory.

“Everything is the same but just in different forms. Space is time, and time is space. They are transformations of the same basic essence.”

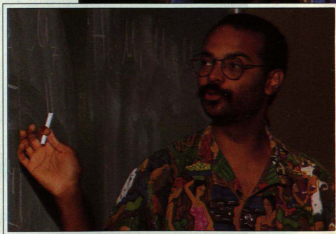
If that sounds like something an Einstein would dream up, you're right. He did. But what does it have to do with teaching undergraduate psychology?

“I'm the same as everything and everyone else. For example, students' exam scores are a function of what they knew coming into the course and what I taught them. We both contribute, and that makes me partly responsible for how they do. So, I feel an empathy — I'm them, they're me.”

One of Thayer's Penn State students, Meredith Faith, corroborates this philosophy. “Julie is a gem. He reads widely and is always willing to share what he's read and what he's thinking about. He's kind of unique in that he has time to give you. He's very approachable. It's everything a mentoring relationship should be.”

Here's another connection. For Thayer, playing jazz and studying psychophysiology — mind/body connections — are the same thing. He can't think of any differences worth mentioning.

**A**s a psychophysicist and professional avant-garde jazz bassist, he ought to know. If you're nice, he will even let you call him a neurojazzologist. Thayer has composed music and played in bands since junior high school. After high school, he attended Boston's Berklee College of Music to learn film scoring. Thayer balked at the school taught time-honored rules of composition. His teachers preached, “Play these kinds of chords in these kinds of progressions and, voila, you can evoke any emotion you like.” But he needed



more. He knew that few listeners recite rules, yet everyone responds to music.

While at Berklee, Thayer pursued this mystery as a composer and player in an avant-garde group called the Baryon Octet. He broke all the rules, but people were still responding. He was becoming more and more certain that something more basic was going on than his teachers could explain. After enrolling as an undergraduate at Indiana University, Thayer set out to discover why. He received master's and doctoral degrees from New York University.

One of his early experiments in the psychophysiology of music used an industrial safety film. Several workers were shown getting hurt in various ways. Thayer composed two scores to accompany the film. One group heard a version emphasizing the accidents; a second group heard music downplaying them; and a third group viewed without musical sound. Judging by measurements of viewers' heart rate, pulse and movement, the “emphasis” music intensified their response to the accident. The “downplay” music did the opposite.



Thayer discusses a point with Marcia Milburn of Eldon, Mo., after a Psychology 1 class session. In addition to his talents in music and research, he is known as a laudable and likeable teacher.

Encouraged by this work, he continued exploring the connections between music, emotion and human physiology.

Over time, Thayer has discovered that two characteristics of music — pitch and tempo — pretty much determine how we'll respond. It's no matter if we've never heard the piece before or if it's in a style that we don't care for. Basically, high-pitched fast music is likely to make people happy, Thayer says. Slow and low makes us sad.

This understanding allows scientists to more reliably produce emotions in the lab, Thayer says. Before, emotion researchers could be found asking people to imagine a happy or a sad situation and questioning them later on just how happy or how sad they were. That was a bit of a problem. But now Thayer produces a whole range of emotions — from joy to disgust — by playing anything from African drumming to Stockhausen's avant-garde classical.

How does one produce disgust?

"It's tricky, but you find that music quick in tempo and low-pitched elicits a range of negative emotions including disgust."

On the applied side, high-pitched, fast music decreases stress and fatigue, which helps explain why walkers wear Walkmans. Thayer adds that moving to the beat also decreases fatigue.

His own synchronicity is with a dreadlocked percussionist living in New York.

"I move to the sound of a different drummer — Pheeroan ak Laff — whatever beat he lays down," says Thayer who has created avant-garde jazz with this extraordinary musician on many occasions. They connect where music touches the human spirit.

"One of the joys of playing music is that you can make contact with an audience without actually touching them," ak Laff says. "Jules has the ability to involve people in the music. He's often aware of who his audience is very quickly. He, based on this sensitivity, interacts with them and plays to these people as well as with the band."

Thayer once extended this relationship by including a lecture on how music affects the human mind, body and spirit. That connects teaching and music.

"There's another intangible about Jules. In some ways he invokes the spirit of Oscar Pettiford when he plays," ak Laff says. Pettiford was a grand master of the acoustic jazz bass.

Friend, former Berkeley roommate and Baryon Octet member Scott Robinson describes the Thayer connection in terms of his own spirit. Even so, his and ak Laff's remarks could be as much about what Thayer brings to his students.

"The welling up of possibilities. That's the thing that both of us have noticed about playing together," Robinson says. "I'll listen to a recording of ours and say, 'What was that? I've never in my life got a sound like that. I've never even tried to think of a sound like that.'"

"Of all the people I've played with over the years, there are very few that I really long to play with again. I really need to play with this cat again. Even though he's in academics now, I think he needs to play, too." ☺