MENTIONS DIVE FIELDS (SEE OVER)

HANG UP AND DRIVE

DAVID MEYER WARNED THE WORLD ABOUT THE DANGERS OF MULTITASKING. NOW, HE SAYS, BATTLE LINES ARE BEING DRAWN, AND MILLIONS OF LIVES ARE AT STAKE.

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A new study from University of Utah psychologists found a small group of people with an extraordinary ability to multitask: Unlike 97.5 percent of those studied, they can safely drive while chatting on a cell phone.

—University of Utah press release, March 29, 2010

If it sounds too good to be true, says U-M psychology professor David Meyer, that's because it is. Meyer is an international authority on multitasking—back in the 1990s, experiments in his East Hall lab revealed that the human brain can sometimes handle more than one simple task at a time. But just because we can successfully multitask on some occasions, Meyer says, doesn't mean we always should—especially if we're behind the wheel of a car.

Meyer calls the Utah press release "highly irresponsible." In the study, a group of undergraduate students were given math problems and word memorization tasks over the phone while operating a simulator that mimicked freeway driving. Under those conditions, the researchers found, 97.5 percent of the participants were consistently impaired in either their thinking or their driving—but 2.5 percent were not.

Meyer, however, points out that the challenges presented by real-world phone conversations and driving tasks can be much more complex and absorbing than those the scientists considered. Nor, he adds, is there any reason to think that Utah college students accurately reflect the performance of all U.S. drivers.

Meyer called two Utah psychologists "highly irresponsible" for "encouraging the misguided view that, at present, alleged 'supertaskers' may cell phone and drive under certain conditions with impunity." Media coverage of the Utah study confirmed his fears.

In an email, Meyer warned the scientists: "You and your publicists are encouraging the misguided view that, at present, alleged 'supertaskers' may cell phone and drive under all conditions with impunity." The qualifications buried in the press release, Meyer predicted, "will be totally ignored by a multitude of folks who would like to believe otherwise."

Within days, Meyer was proven right. First came an article in *Wired* headlined, "Think You're Good at Driving While on Your Cellphone? You May Be Right." A few days later *Time* magazine exaggerated the results even further. "Maybe you even consider yourself one of the few supertaskers who, unlike the rest of us, are so mentally agile that they can safely talk or text—or pen a novel—while driving," *Time* wrote—even though texting played no part in the Utah study.

"See what happens," Meyer asks, "when the media gets hold of a misleading story?"

Meyer is an expert on how the media cover multitasking because he's a popular source himself. When the phone in his cluttered fourth-floor office of East Hall rings, it may be CNN or NPR—or even the *New York Times*.

In fact, if you measure fame by the number of quotes attributed to him online, on the air, and in print, Meyer arguably is one of the U-M's most famous living professors. As a newly named member of the National Academy of Sciences, he is also one of the most prestigious. And certainly Meyer is the *only* Michigan prof ever to give a PowerPoint presentation to the Dalai Lama.

Yet the man *New York* magazine called "the world's foremost expert on multitasking and distraction" is not well known in Ann Arbor. In fact, when AnnArbor.com reported recently on the City Council's deliberations about banning cell phone use while driving, it quoted *another* U-M professor as an expert on the subject.

Meyer didn't mind that—he didn't seek out the spotlight that's now trained on him. It fell on him serendipitously after his life was shattered by the kind of tragedy he has been warning the world about ever since.

"lucked out."

It's a phrase Meyer uses repeatedly when recounting his career. Though he acknowledges brains and hard work have played their parts, he recognizes that he's often been in the right place at the right time.

At sixty-seven, Meyer still has an athlete's body—6 foot 5, long legs and arms. He plays racquetball regularly with a congenital competitiveness. During interviews, he drapes his tall frame over a small chair almost wedged between a computer stand and his desk. The desk's surface hasn't seen daylight in twelve years, judging by a paper dated July 1998 that peeks out from the bottom of a pile. On his office door hangs a poster of Yoda and his admonition: "Fear is the path to the dark side. Fear leads to anger. Anger leads to hate. Hate leads to suffering."

Growing up in Louisville, Kentucky, Meyer split his days between the library and ball fields. A science and math whiz, he enrolled at Case Institute of Technology (now Case Western Reserve), thinking he'd be an engineer. But he ended up

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instead majoring in psychology at Wittenberg, a small Ohio liberal arts school. In 1964, he came to U-M to do graduate work in mathematical psychology, which seeks to quantify human behavior. "Many of the top people in the field were here," says Meyer, his voice registering nostalgic excitement. Among the first to study "semantic memory"—how words and their meanings are stored and retrieved in the brain—Meyer quickly became a rising star.

"I got discovered, so to speak," he says. And just in time. In 1969, after completing his doctorate, he was about to be drafted when Bell Telephone Laboratories in New Jersey snagged him. His new job was deemed essential to national defense, so he escaped the Vietnam War.

He stayed at Bell for eight years, enjoying the labs' heady atmosphere of unshackled scientific inquiry. But he'd always wanted to be a college professor, teaching as well as doing research, so he returned to U-M in 1977. "It worked out far beyond my wildest dreams," he says.

During the late 1970s and through the 1980s, he was inspired by his students to undertake many new lines of investigation, conducting experiments that shed light on the "cognitive architecture" of information processing in the brain, as well as hand-eye coordination and other "perceptual-motor interactions."

"I got well known for that kind of research," says Meyer, with a figurative wave of the hand concerning stuff that's now old hat to him. "I made some interesting discoveries."

Meyer was one of the earliest academic researchers to use computers in processing experimental data, and he grew increasingly intrigued by the close match between the workings of the human brain and the operating systems of computers. Then, in the early 1990s, the navy proposed that he and David Kieras, a professor of electrical engineering and computer science, collaborate on a long-term research project. Its goal: to come up with a powerful new model for exploring and predicting human behavior in practical situations—such as piloting ships and planes.

In 1992, Meyer and Kieras opened the Brain, Cognition, & Action Laboratory and started enlisting U-M students for basic experiments. "We were among the first to build theories that took into account the interaction between the mind, the brain, and the body," Meyer says—as opposed to studying the mind as a disembodied entity. They wanted to learn how thought worked, not abstractly, but in the service of action.

The lab "enabled me to bring together all the previous threads of my research," Meyer says. For an academic keenly engaged in his craft, nothing could be more fulfilling.

But suddenly, that work no longer mattered.

In August 1995, a sleep-deprived graduate student just back from a road trip to the East Coast ran a red light at Stadium and South Industrial and broadsided a car driven by Meyer's younger son, Tim. Just weeks away from starting his senior year at Pioneer, Tim died in the accident, and his father, mother, and older brother were devastated.

His grief caused Meyer to take stock. "You gotta go on and make the best of what there is afterwards," he says now, softly. He continued to teach, but for many months, he couldn't do any research. "I lost zest for what I was doing," he says. "It seemed like pretty mundane stuff."

In 1994, Meyer and two of his graduate students had written a seminal paper on the lab's early findings about multitasking. The paper was submitted to the American Psychological Association, but by the time of Tim's death had been returned to the authors for revision. Due to Meyer's state of mind, it languished for years.

Though unpublished, the paper nonetheless became widely known among Meyer's peers in cognitive psychology. "It was a samizdat document," he chuckles. "While underground, it was one of the two or three most influential papers on the topic," frequently cited by other researchers.

Finally, in August 2001, six years after Tim's death, the revised paper was published in the APA's *Journal of Experimental Psychology*. During the interim the APA had changed its stance on the value of public relations. Until the late 1990s, the organization had rarely sought publicity, feeling mass media exposure would sully an academic's reputation. By the turn of the century, however, the APA had opened its own press office.

In 1995, few people had been concerned about multitasking. Cell phones and email were just starting to become popular, and text messages were unknown. If Meyer's paper had been published and promoted then, it wouldn't have raised many eyebrows outside of academia.

In 2001, however, APA's press release unleashed a deluge. The media immediately began calling Meyer—he was swamped with inquiries the weekend it came out, including CNN, Lou Dobbs, and NPR. By Monday he was on ABC's morning show.

The calls and emails have kept coming ever since—and not just from the media worldwide, but from anxious parents, overtaxed workers, and concerned teachers. In response, Meyer has embraced his bully pulpit with the attitude that it's a gift.

"If Tim had not died, none of this would have happened," Meyer says. His son's death also explains "why I want to talk to the media about the work that I've done." The driver who hit Tim's car wasn't phoning or texting—but she surely was distracted.

Meyer keeps his message boiled down to the essentials. He does *not* talk about how his research actually showed that