



Programs and Schedules

[ARCHIVES](#) [TRANSCRIPTS](#) [DISCUSSIONS](#) [STATIONS](#) [NPR SHOP](#) [ABOUT NPR](#) [HELP](#)

find your local member station:

(or enter zip code)



News

Politics & Society

Business

People & Places

Health & Science

Books

Music

Arts & Culture

Diversions

Opinion

[Morning Edition](#)

[All Things Considered](#)

[Day to Day](#)

[Talk of the Nation](#)

[Fresh Air](#)

[Tavis Smiley Show](#)

[Weekend Edition](#)

[Saturday](#)

[Weekend Edition Sunday](#)

[Wait Wait...Don't Tell Me!](#)

[Performance Today](#)

[Motley Fool Radio](#)

[More Programs](#)

Hourly Newscast

Program Stream
24-Hour [schedule](#)

[Audio Help](#)

[Contact NPR](#)

[Sponsor NPR](#)

[Press Room](#)

The Thief of Time

Multitasking is Inefficient, Studies Show

[Listen to Joanne Silberner's report](#)

[Host Renee Montagne tries hard to talk about multitasking](#)

August 6, 2001 -- "To do two things at once," said the Roman sage Publilius Syrus, "is to do neither." And this was 2,000 years ago, long before people tried to drive while talking on their cellphones and digging for tollbooth change and yelling at the kids and (ahem) listening to the radio.



David Meyer
Photo courtesy of David Meyer

Syrus may have overstated the case, but a new study concludes that performance does drop off when people try to accomplish more than one task at a time. Another sage -- William Shakespeare this time -- called procrastination "the thief of time." But it looks like multitasking is giving procrastination a run for its money.

Professor David Meyer of the University of Michigan and his colleagues set out to measure the effects of multitasking. They asked several dozen student volunteers to switch back and forth between different types of arithmetic problems. If they had to switch rapidly from, say, multiplication to division, it took them "quite a bit" longer to finish, Meyer said.

For instance, it might take a minute to finish 10 multiplication problems, but a mix of 10 multiplication and division problems might take 15 or 20 seconds longer.

Professor Marcel Just of Carnegie Mellon University said there is a drop-off in efficiency even when different parts of the brain are used for different tasks. Just used a brain-imaging machine to see what



Marcel Just
Photo courtesy of Carnegie Mellon University

part of the brain that test subjects used when they listened to complicated sentences while simultaneously looking at a geometric object they were told to mentally rotate. Just had expected that the different parts of the brain wouldn't be affected by what the other part was working on. Or, he thought, each part might have to work harder to complete its task. Instead, it turned out that both parts of the brain worked less efficiently, meaning that less brainpower in total was directed at both tasks than would have been used if only one task were attempted at a time.

Meyer has done studies concluding that people can, through training, improve their ability to multitask. He calls this "mental yoga." For instance, with practice,



[latest show](#)

[previous shows](#)

[radio expeditions](#)

[talking plants](#)

[about morning edition](#)

[where can i hear it?](#)

morning@npr.org



[Submit Ideas](#)[Corrections](#)[Ombudsman](#)

Get NPR
Headlines via
RSS




people can improve the time it takes them to respond to a visual prompt on a computer while also reacting to auditory prompts through headphones.

But Meyer says there's a limit to the improvement, and that workers -- and bosses -- tend to overestimate the ability to multitask. His advice: "If you can avoid it, don't multitask."

And, for the record, both Meyer and Just oppose talking on the phone while driving, except in the safest driving conditions -- well-known roads with little traffic, and no tollbooths.

Other Resources

 In this audio feature from *All Things Considered* last fall, commentator David Weinberger argues that slicing your attention is like slicing a plum -- [you lose some of the juice.](#)

- Technology is the prime reason for our increasingly multitasked lives. We do it because, thanks to our gadgets, we can. But does that mean technology is to blame? In her 1999 [examination of three books](#) on the subject by James Gleick, Douglas Rushkoff, and David Shenk, Salon's Janelle Brown asks whether the problem is technology or our failure to wisely adapt to it.
- Consultants Michelle Weil and Larry Rosen offer tips for coping with "[Multitasking Madness](#)" in a 1998 article in *Context* magazine.
- Check out the University of Michigan psychology department's [Brain, Cognition, and Action Laboratory](#) home of David Meyer's research, where the goal is "developing an accurate and precise Universal Theory of Cognition."
- And finally, Carnegie Mellon's [Center for Cognitive Brain Imaging](#), where Marcel Just is co-director.

[ARCHIVES](#) [TRANSCRIPTS](#) [STATIONS](#) [SHOP](#) [ABOUT](#) [HELP](#)

Copyright 2004 NPR [Terms of Use](#) [Permissions](#) [Privacy Policy](#)

-->