



Scientist as star

Sleep researcher Sara Mednick has straddled the line between media darling and respected scientist. But why is there still a line at all?

BY ERIK VANCE

Sara Mednick was flying high in January 2007. She was doing a television appearance a day, every day, for a month. And she was being featured on radio shows around the United States, repeating talking points from her just-released book, *Take a Nap! Change Your Life*. Dozens of businesses were calling for her expertise and endorsements, including the Silicon Valley juggernaut, Google, which requested a ‘napping strategy’ for its employees. By all appearances, Mednick had joined a class of scientists that spans academia and popular culture with aplomb.

But it wasn’t easy. “It’s such a crazy experience where you are in a different city every day, and you’re working these ridiculous hours to do these daybreak TV shows,” she says. She was baffled by the experience, and a little flattered. “There was a part of me that was wondering, could I still do my work and try to also be this next big thing?”

It is a question being asked by a rising number of scientists, as the 24-hour news cycle and proliferation of media outlets and blogs have made achieving 15 minutes, or more, of fame easier than ever. Polls suggest that the scientific community want a better portrayal of science in the media, but are unsure whether they should be the ones to provide it. A 2009 study by the Pew Research Center in Washington DC found that 85% of scientists see the public’s lack of scientific understanding as a major problem, and most were unimpressed with the traditional media coverage of the subject. Still, a poll by *Nature* earlier this year suggests that many researchers think that their institutions put little emphasis on press exposure and that it shouldn’t be a major factor when determining career advancement (see go.nature.com/em7auj).

That is a tide that is changing, says Stephen Hinshaw, a psychology department chair at the University of California, Berkeley. What might have been seen by previous generations as garish or vain is quickly becoming another part of a scientist’s workday. “Years ago, somebody who was media savvy would have been viewed pejoratively as too slick. Today, it could well be an advantage, given fundraising, appealing to donors and appealing to a wide audience to make psychological science relevant. All of those are good things.”

But as Mednick’s story shows, celebrity science is

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not all good. She has had an impact on people outside the tight-knit circle of her scientific peers and enjoyed the celebrity status. But she still wants to be seen as a serious scientist in traditional academia. She has found that scientific celebrity needs to be maintained, rarely pays and can have unintended consequences on one's professional reputation.

Mednick conducts her research at a sleep laboratory at the University of California, San Diego. "We need to be really quiet," she says, gently closing the door to her office. "Someone is napping in the next room."

The lab consists of hotel-like rooms for napping, plus rooms for researchers to monitor sleeping subjects — quietly. Despite being there for five years, keeping quiet still seems to be a struggle for Mednick, who has piercing blue eyes and an eruptive laugh. Within a few minutes, she seems to have forgotten the person sleeping in the next room and is animatedly describing her work.

Colleagues refer to Mednick as one of the world's leading experts on naps. Her work looks at various types of sleep and its effect on human cognitive and motor skills. She and her colleagues have shown, for example, that 60- and 90-minute naps can improve performance as much as a full night's sleep on several visual-perception tasks (S. Mednick *et al.* *Nature Neurosci.* **6**, 697–698; 2003).

Mednick's fascination with naps started in the late 1990s when she was a psychology PhD student at Harvard University in Cambridge, Massachusetts, studying visual memory in patients with schizophrenia. But after hearing lectures by sleep expert Robert Stickgold, she decided she wanted a new direction. She started working with Stickgold at Harvard, and later landed a postdoc position at the Salk Institute in San Diego, California, in 2003. In the competitive academic atmosphere at Salk, colleagues expected her to write as many papers as possible and then go on to a tenure-track position.

Instead, Mednick spent her final postdoc year writing a book on napping for the public. Her publisher, Workman Publishing, is a New York company that prints titles such as *The Cake Mix Doctor*, *How to Satisfy a Woman Every Time* and *The Betty White Wall Calendar*.

"What the hell are you doing?" That's what all my scientific friends were saying," she says. "This is not helping you get tenure." Mednick says that she wrote the book, together with co-author Mark Ehrman, because she wanted her research to reach people. "It was such an obvious book to write," she says. "I just like the idea of having my research being real world." She concedes that vanity and the hope for a pay cheque were a small part of the motivation. Ultimately, however, Mednick seems driven by a desire to overturn conventions. A former actress, Mednick marches to her own drumbeat, say friends and colleagues. The book definitely got her noticed — leading to the whirlwind of media attention in 2007.

Widespread preoccupation with sleep science has fostered a bustling book market. Amazon.com carries more than 750 titles under the headings 'sleep' and 'medicine'. Only a minority of these have been written by scientists with experience in sleep research (about one-third of the 30 top-selling authors have advanced degrees). Many of the rest are written by self-help gurus, yoga teachers and even pastors. So the media jumped at the chance to talk to Mednick: a bona fide scientist with evidence that midday naps were beneficial.

Despite some 150 media appearances and countless interviews, however, Mednick's book only netted her about US\$30,000, which barely covered her advance. She says that Google did not pay her for the consulting work she did. A Google representative said the company could



Sara Mednick's book proselytizes the public to the power of napping.

not provide details of the arrangement. The only corporate money she received was from the Dutch company MetroNaps, which markets a futuristic napping 'pod' for snoozing at work. Mednick says she made \$10,000–\$15,000 designing sleep survey questions for the company's website, and to this day has been unable to convince them to remove her picture.

"It was before I really knew what I was doing," she says. "I allowed them to use my picture and my name. I suddenly realized that that wasn't at all what I wanted to be affiliated with."

Back in her lab, Mednick goes into the monitoring room, fretting for a moment that the noise in her office has disturbed the subject. Her current study is examining the benefits of short bursts of rapid-eye-movement (REM) sleep, so she needs the nappers to sleep well. According to an electroencephalography readout — which records the electrical activity of the brain — this individual has had a fitful nap.

Much of Mednick's research, as well as her book, looks at the best nap length and

the best time of day to take one. To illustrate this, she and Ehrman have designed a 'nap wheel' to help people to visualize their sleep schedule. But nap wheels don't exactly further one's career. Mednick has won grant money for her research but is still looking for a tenure-track position. "She is taking a risk," says James Maas, creator of several educational documentaries on sleep and author of the *New York Times* bestselling book *Powersleep* (Harper, 1998). "I would have advised her to wait until she had tenure," says Maas. He says that few academics would openly criticize such behaviour but that it can affect scientists more subtly, tarnishing them in the eyes of funders, for example, who question the dedication to daytime TV shows rather than the lab (for more on the rewards and potential pitfalls of media engagement, see page 465).

Stickgold says that Mednick's public persona has undoubtedly affected her career, but in ways that are hard to spot — a missed grant opportunity or a keynote address being offered to someone else, for example. Mednick can't point to specific instances in which this has happened. She does lament the fact that she has not managed to publish in either of the field's primary journals, *Sleep* and the *Journal of Sleep Research*, even though she has published in higher-impact mainstream journals.

David Dinges, editor-in-chief of *Sleep*, says that Mednick is "a respected scientist who has done interesting work", but that 75% of all submitted manuscripts are rejected. Mednick doesn't blame the journal, but is concerned that her outside activities could hinder her progress. Even so, she claims to have no regrets about her book or media presence. She continues to make television appearances and write for the popular press. And she advises younger colleagues to do the same.

Mednick is still deciding where she belongs. But every step in the direction of celebrity has to be negotiated carefully. In late August, Mednick got a call from the popular talk show, *Dr. Phil*, known for high-drama confrontations. The talk-show producers said they loved her book and were interested in making a show about sleep. In the end, however, they decided to avoid what they called 'the scientific route', instead opting for someone to interpret the dreams of women who think their partners might be unfaithful.

"Probably for the best," says Mednick. ■ SEE CAREERS P.465

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