

Cornell, who writes his score out in pencil before transferring it to his computer, says his music ordinarily does not represent events literally. "But with this piece," he says, "the emotional reaction is not to the poem, but rather to the events that it recalls."

Snyder doesn't dwell on the chaos, but a personal, internal state at a particular moment. "In my treatment," Cornell says, "I needed to have both the external turbulence we all remember, as well as the almost calm clarity of that moment of choice."

As is often the case, he says, he did not write his piece from beginning to end. The choral section, representing that internal voice, came first, providing the heart of the piece, which the composer could find his way to and from.

"I found out a long time ago that by the time an idea has gotten to the point where I can write it down, it has a lot of history behind it," he says. "It doesn't come fully formed; it has to kind of bubble up to the surface."

And all that bubbles up does not remain. Cornell threw away four endings and about 30 percent more than remains in the final piece. "I just felt that it wasn't contributing to the argument," he says.

But the argument isn't over. Cornell plans at least two more compositions inspired by "Falling from a Height, Holding Hands."

"There are pieces that you want to write, and there are pieces that you have to write," he says. "Falling from a Height, Holding Hands was a piece I had to write — it didn't give me any choice about its form."

The Weight of Racism

STRESS OF INCIDENTS MAY TRIGGER FAT RETENTION BY CHRIS BERDIK

America's weight problem, researchers have long known, does not weigh equally on all people. The nation's expanding girth, with its associated risks of diabetes and cardiovascular disease, hits African-American women particularly hard. According to one study, between 1999 and 2002, 77 percent of black women were overweight or obese compared to 57 percent of white women.



YVETTE COZIER, an SPH assistant professor, says that women reporting the most everyday racism gained about a pound more over eight years than those perceiving the least discrimination.



VERNON DOUCETTE

Now research out of Boston University's Slone Epidemiology Center suggests that racism — or at least the perception of racism — may be the force behind some of this disparity. The study, which appeared in the June 2009 *Annals of Epidemiology*, was led by Yvette Cozier, a School of Public Health assistant professor of epidemiology, and was based on data gathered by the ongoing Black Women's Health Study, administered by the Slone Center and Howard University.

Cozier began with a 1997 questionnaire, which asked about 43,000 women if they ever felt treated unfairly because of their race on the job, in housing, or by the police. The women were asked to rate the frequency (from "never" to "almost every day") of experiences such as receiving poorer service in restaurants and stores or being treated as dishonest or less intelligent or threatening.

About 34 percent of the women reported at least one incident of everyday racism per month, and 80 percent said they'd experienced some form of job, housing, or police discrimination based on race.

"These were certainly high rates of exposure," says Cozier. "But they weren't entirely surprising."

She says that the questions were meant to measure perception only, and that "because of the historical context," rude or shoddy treatment can mean one thing to a white person and another to a minority.

"You can't validate that a racist event actually took place, and that's not the point," says Cozier. "It's

the response." And that response, she says, is all about stress and the physiological impacts it can trigger.

The researchers then tracked the women's weight change over eight years with follow-up questionnaires every two years (and a sampling of physical examinations to confirm the data). On average, participants gained a little more than eleven pounds. But women reporting the most everyday racism gained about a pound more than women perceiving the least discrimination. A similar difference in weight gain emerged between women who said they

part of the study. "This was observational research," she says. "Hormone studies would need to be properly timed to coincide with exposure to the stressor."

Fellow researcher Lynn Rosenberg, an SPH professor of epidemiology, also at the Slone Center, speculates that perceived racism may also affect behaviors in a way that leads to weight gain. Rude treatment at the only nearby grocery store with a variety of fresh fruits and vegetables might discourage somebody from shopping there, she offers as an example. "Racism has all sorts of effects on people's behaviors that might tend toward poor health outcomes," she says.

Of course, there are plenty of other sources of stress besides perceived racism, Cozier says. But

treatment, which results in uneven health," Cozier says.

The researchers concede that perceived racism accounted for just a small percentage of the average gains. "It's not negligible," says Rosenberg, "but it's not as if you could eliminate racism and then all this weight gain would go away."

Cozier says the findings fit a pattern of health disparities that lead black women to be at greater risk than white women for several diseases, including cancer and heart disease. Two years ago, for instance, she found an apparent link between comparatively high levels of hypertension (high blood pressure) in black women and the fact that these women tend to live in poorer neighborhoods than white women of the same education and income.



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had or had not experienced discrimination on the job, in housing, or by police.

Cozier and fellow researchers hypothesize that stress related to perceived racism may elevate hormone levels in the central nervous system, possibly increasing cortisol secretion and activating lipoprotein lipase, which increases fat retention.

Cozier points out that much of the evidence for this link is from animal studies and that blood work was not a

when the researchers controlled for "competing variables," such as income and education, they found the weight gain difference persisted. To take into account the possible effects of weight discrimination, they analyzed the data within every level of initial body-mass index. And no matter what their initial body size, women who reported more perceived racism gained more weight.

About 97 percent of the study participants were high school graduates and 44 percent had college degrees. "This shows that even among educated black women, there are still effects of racism and uneven

For the recent study, the women were asked the perceived racism questions only once, in 1997. The data from a 2009 follow-up survey asking the same questions have yet to be analyzed, says Rosenberg, who is hoping that the new information will help researchers to "identify a group that has had very intense experiences of racism over this period and to analyze these women separately."

If nothing else, says Cozier, the latest research will help people acknowledge that "there are multiple sources of stress, that racism is one of them, and that it has physiological effects."