

Researchers say feeling sleepy at work—or even when applying for a job—can heighten your negativity

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You know that prickly co-worker who gets bent out of shape over the slightest things? Could be that he or she just isn't getting enough sleep.

So say NIU psychology professor Larissa Barber and graduate student Christopher Budnick.

The researchers are publishing results of three related studies, all of which will appear in a forthcoming article in the *Journal of Organizational Behavior*. They say their results demonstrate that [sleepiness](#) causes workers to become more likely to interpret ambiguous situations in a threatening way.

"Sleepiness may be a key factor for explaining why people in the [work environment](#) sometimes turn molehills into mountains," says Barber, lead author of the research article.

A body of research had already shown that lack of sleep makes it difficult for people to manage their emotions and reactions to workplace events. So sleepyheads might also be hotheads.

But the new studies go a step further.

"Our research indicates that when workers are sleepy, they are also more likely to initially evaluate social situations more negatively," Barber says.

Among psychologists, the tendency to evaluate situations in a negative light is known as "interpretive bias." It is affected by situational factors that can create a perceived vulnerability or threat.

For example, a new employee excluded from a group-email conversation regarding the next happy hour may err on the side of interpreting this as intentional ostracism instead of an honest mistake. In this case, "being new" is the situational vulnerability factor that biases the interpretation of the event (email exclusion) toward a more sinister attribution (they did it on purpose).

"Biased evaluations are important because interpreting events as a threat will likely affect employee stress and can result in counterproductive work behavior, such as retaliation," Barber says. "We expected that

sleepiness would be another factor that would make people feel vulnerable and thus increase interpretive bias—and our study results agree with those expectations."

One of the three studies has implications for job candidates.

The NIU researchers had 148 undergraduate students complete a test that is commonly used by companies to predict counterproductive work behavior in job applicants. Applicants evaluate an array of vignettes describing ambiguous situations, and the test measures the tendency for applicants to negatively evaluate those situations.

Employers are more likely to screen out job candidates that have high "negative bias" scores on this test.

"We found that the state of sleepiness was associated with higher negative bias scores on this test," co-author Budnick says. "This effect was not limited to people with hostile personality traits. Even people who scored low on trait hostility and other personality traits often linked with counterproductive work behavior scored higher on the test when sleepy."

A second study was conducted using an experimental survey of 433 U.S. adults. Participants were randomly assigned to read a vignette about a fair or unfair work scenario and provide fairness judgments. For example, one scenario involved unfair pay in relation to other workers.

Results showed that increased sleepiness heightened negative evaluations in the unfair work scenarios but, as predicted, did not affect evaluations in the absence of unfairness.

"Sleepiness may not always make us evaluate situations more negatively," Barber says. "There is no bias when evaluating a fair work environment. However, it becomes a factor when situations have clear or

ambiguous social threat information."

A third study of 175 undergraduate students replicated and extended the two previous studies. To objectively measure sleep loss, a quasi-experimental design was used to manipulate minor sleep restriction and monitor rest and activity cycles.

Study participants were provided with actigraphs—devices worn on the wrist that estimate sleep periods by monitoring movement and light exposure.

Results showed that, again, sleepy individuals scored higher on the interpretive bias test using ambiguous scenarios and rated unfair workplace scenarios as more unfair than their wide-awake counterparts. But again, sleepy people did not show a negative bias when evaluating fair work environments.

Additionally, the study showed that actual sleep loss only affected interpretative bias when study participants "felt sleepy."

"It's the state of sleepiness that affects bias, rather than sleep loss itself," Barber says. "Of course, those participants who had less sleep were much more likely to feel sleepy."

The research has practical implications, she adds.

"Biases due to sleepiness are important to organizations because they may have significant downstream implications for employee health and counterproductive behavior," Barber says. "We suggest that creating a positive work environment, such as a fair workplace, actually can counteract the effect of sleepiness on bias.

"Also, employees should be aware that, when they are sleepy, they may

be more likely to jump to negative conclusions in ambiguous situations or have more extreme negative evaluations of truly negative events," she adds. "Finally, job applicants should be aware that being sleepy might affect their performance on a commonly used selection test."

More information: "Turning molehills into mountains: Sleepiness increases workplace interpretive bias." *J. Organiz. Behav.*, [DOI: 10.1002/job.1992](https://doi.org/10.1002/job.1992).

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