

# Don't worry, be grumpy and take nature's cycles in stride



Next time you're in a bad mood, don't fight it. Put it to work, and thank evolution for giving you such a flexible cognitive toolbox.

That's one of the take-home messages in behavioral sciences writer Bruce Bower's article (Page 18) about the unexpected benefits of negative moods. Gloomy moods just make people better

suited to certain tasks. Years of laboratory studies show that a low mood — a diffuse, lingering and largely unconscious state distinct from an intensely experienced burst of emotion — can improve memory, judgment, motivation and consideration of others. Some research suggests that a bad mood promotes shifting to alternative ways of thinking about a problem, while a good mood encourages people to stay the course. Of course, happy moods have their advantages too: creative, big-picture thinking is one. Psychologist Joseph Forgas of the University of New South Wales in Sydney believes that that's as it should be, and worries that "our current cultural epoch is characterized by a unilateral emphasis on the benefits of happiness." Moods, good or bad, give humans important clues about how to best respond to a situation, he says.

And if being positive about feeling sad doesn't fulfill all of

your needs for embracing opposites, how about a sun that has reached its 11-year peak of activity with barely a whimper? On Page 22, contributing correspondent Alexandra Witze provides a full account of Solar Cycle 24, from its lackluster number of sunspots to the new discoveries scientists are making about the magnetic flows that power solar tempests. The latest solar cycle, Witze reports, underscores just how hard it still is to predict the behavior of our nearest star.

Scientists have long known that the sun influences the behavior of life on Earth by syncing up circadian clocks with daylight. Now, two studies reveal the moon's pull on animal rhythms. On Page 6, molecular biology writer Tina Hesman Saey reports that a marine worm's newly discovered biological clock uses moonlight to time its monthly spawning. She also describes a 12-hour biological clock that enables sea lice to time their foraging with the rise and fall of the tides. The findings raise the tantalizing possibility that many animals, including perhaps humans, have multiple biological clocks attuned to a variety of cues from the natural world. A moon clock could explain some cycles observed in people, from menstruation to a report linking changes in sleep patterns to phases of the moon. So far, though, there is nothing to report about the moon's influence on bad moods.

— *Eva Emerson, Editor in Chief*

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