Social stress + darkness = increased anxiety

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Just in time for Halloween, researchers are releasing new data that show darkness increases the impact of social stress, in an article scheduled for publication in the November 15th issue of *Biological Psychiatry*. As children and adults alike gear up for the anticipation and excitement of this "spooky" holiday, this study lends a further understanding to our inherent fear of the dark.

Grillon and colleagues at the National Institute of Mental Health sought to examine whether stress increases unconditioned fear in humans. To do this, they measured the startle reflex of healthy volunteers in either light or dark conditions, and after either a socially stressful situation of public speaking, or after a period of relaxation.

The startle response is a sensitive tool for measuring anxiety levels, and in this study, was measured when volunteers were presented with white noise stimuli via headphones. The authors found that the startle response was boosted when the volunteers were in complete darkness, and this effect was more pronounced after the stressor.

Dr. Christian Grillon, lead author on the project, explains, "Because stress has been linked to the precipitation of emotional disturbances, sometimes to a pathological level, it is important to understand how stress affects our brain and behavior." He adds, "We report that a mild acute stressor increases subsequent experimental anxiety in healthy subjects. The demonstration of stress-induced anxiety in the laboratory is important because it provides how stress alters nervous system function."

John H. Krystal, M.D., Editor of Biological Psychiatry and affiliated with both Yale University School of Medicine and the VA Connecticut Healthcare System, comments, “The authors show that social stress and darkness interact to increase the startle response. The refinement of this research method may help us to understand how threatening contexts and stressful social interactions interact at a mechanistic level to contribute to anxiety disorders."

Although this work is performed to further the scientific community’s understanding of anxiety disorders, nearly all of us have felt scared or anxious in the dark at one time or another. So, the next time you check for monsters in the closet before climbing into bed, or when you peer into the dark bushes before your next “trick-or-treat,” just remember that it’s normal to jump when someone shouts “Boo!”

Source: Elsevier

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