

## **Study finds presence of another person diminishes fear responses in women**

January 22 2020, by Bob Yirka



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A team with several members from the University of Wurzburg and one from Peking University has found that women respond less strongly to aversive sounds if there is another person nearby. In their paper published in the journal *Proceedings of the Royal Society B*, the group describes experiments they conducted with female volunteers and what they learned from them.



Scientists have learned how to make direct measurements of a person's experience of <u>fear</u>. Instead of asking volunteers in experiments to give a rating to their fear levels, researchers can affix sensors to the <u>skin</u> and measure chemical responses. The technology is called skin conductance response (SCR). Scientists have found that when people are aroused, whether sexually or fearfully, chemicals are produced that make their way to the surface of the skin. SCR sensors apply a small electrical charge to the skin and use it to measure changes in skin conductivity due to arousal chemicals—the higher the conductivity, the higher the degree of arousal—or the more fear that a person is experiencing.

To learn more about how the presence of another person might impact fear levels in women, the researchers asked 97 female volunteers to sit at a desk and listen to scary noises via headphones while wearing an SCR sensor. The researchers tested the volunteers by playing a variety of sounds, some of which were intended to elicit a fear <u>response</u>, such as a person screaming. They played the noises when the volunteers were either sitting alone or when there was another anonymous person present nearby. The researchers also varied characteristics of the other person such as their gender and race—and they also asked each of the volunteers to rate their level of fear on a manual scale.

The data from both the written responses and the SCR showed that the women experienced less fear when there was another person present—even if they did not know that person. It also showed that the effect was stronger when the <u>volunteer</u> judged the nearby person as dissimilar to themselves regardless of their gender or race. According to the researchers, the results indicate that humans instinctively put themselves on higher alert when alone.

**More information:** Yanyan Qi et al. The mere physical presence of another person reduces human autonomic responses to aversive sounds, *Proceedings of the Royal Society B: Biological Sciences* (2020). <u>DOI:</u>



## 10.1098/rspb.2019.2241

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