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That giant tarantula is terrifying, but I'll touch it

Expressing your emotions can reduce fear, UCLA psychologists report

By **Stuart Wolpert** | September 04, 2012



"Give sorrow words."

—Malcolm in Shakespeare's "Macbeth"

Can simply describing your feelings at stressful times make you less afraid and less anxious?

A new UCLA psychology study suggests that labeling your emotions at the precise moment you are confronting what you fear can indeed have that effect.

The psychologists asked 88 people with a fear of spiders to approach a large, live tarantula in an open container outdoors. The participants were told to walk closer and closer to the spider and eventually touch it if they could.

How close would you get?

The subjects were then divided into four groups and sat in front of another tarantula in a container in an indoor setting.

In the first group, the subjects were asked to describe the emotions they were experiencing and to label their reactions to the tarantula — saying, for example, "I'm anxious and frightened by the ugly, terrifying spider."

"This is unique because it differs from typical procedures in which the goal is to have people think differently about the experience — to change their emotional experience or change the way they think about it so that it doesn't make them anxious," said Michelle Craske, a professor of psychology at UCLA and the senior author of the study. "Here, there was no attempt to change their experience, just to state what they were experiencing."

In a second group, the subjects used more neutral terms that did *not* convey their fear or disgust and were aimed at making the experience seem less threatening. They might say, for example, "That little spider can't hurt me; I'm not afraid of it."

"This is the usual approach for helping individuals to confront the things they fear," Craske said.

In a third group, the subjects said something irrelevant to the experience, and in a fourth group, the subjects did not say anything — they were simply exposed to the spider.

All the participants were re-tested in the outdoor setting one week later and were again asked to get closer and closer to the tarantula and potentially touch it with a finger. The researchers measured how close subjects could get to the spider, how distressed they were and what their physiological responses

were, focusing in particular on how much the subjects' hands sweated, which is a good measure of fear, Craske said.

The researchers found that the first group did far better than the other three. These people were able to get closer to the tarantula — much closer than those in the third group and somewhat closer than those in the other two groups — and their hands were sweating significantly less than the participants in all of the other groups.

The results are published in the online edition of the journal *Psychological Science* and will appear in an upcoming print edition.

"They got closer and they were less emotionally aroused," Craske said. "The differences were significant. The results are even more significant given the limited amount of time involved. With a fuller treatment, the effects may be even larger.

"Exposure is potent," she added. "It's surprising that this minimal intervention action had a significant effect over exposure alone."

So why were the people in the first group — those who performed what the life scientists call "affect labeling" — able to get closer to the tarantula?

"If you're having less of a threat response, which is indicated by less sweat, that would allow you to get closer; you have less of a fear response," said study co-author Matthew Lieberman, a UCLA professor of psychology and of psychiatry and biobehavioral sciences. "When spider-phobics say, 'I'm terrified of that nasty spider,' they're not learning something new; that's exactly what they were feeling — but now instead of just feeling it, they're saying it. For some reason that we don't fully understand, that transition is enough to make a difference."

The scientists also analyzed the words the subjects used. Those who used a larger number of negative words did better, in terms of both how close they were willing to get to the tarantula and their skin-sweat response. In other words, describing the tarantula as terrifying actually proved beneficial in ultimately reducing the fear of it.

"Doing more affect labeling seemed to be better," Lieberman said.

"That is so different from how we normally think about exposure therapy, where you try to get the person to think differently, to think it's not so bad," Craske said. "What we did here was to simply encourage individuals to state the negative."

"We've published a series of studies where we asked people, 'Which do you think would make you feel worse: looking at a disturbing image or looking at that disturbing image and choosing a negative emotional word to describe it,'" Lieberman said. "Almost everyone said it would be worse to have to look at that image *and* focus on the negative by picking a negative word. People think that makes our negative emotions more intense. Well, that is exactly what we asked people to do here. In fact, it's a little better to have people label their emotions — multiple studies now show this. Our intuitions here are wrong."

This is the first study to demonstrate benefits for affect labeling of fear and anxiety in a real-world setting, Craske and Lieberman said.

"The implication," Craske said, "is to encourage patients, as they do their exposure to whatever they are fearful of, to label the emotional responses they are experiencing and label the characteristics of the stimuli — to verbalize their feelings. That lets people experience the very things they are afraid and say, 'I feel scared and I'm here.' They're not trying to push it away and say it's not so bad. Be in the moment and allow yourself to experience whatever you're experiencing."

Craske and Lieberman are studying how this approach can help people who have been traumatized, such as rape victims and victims of domestic violence. The approach potentially could benefit soldiers returning from war as well.

"I'm far more optimistic than I was before this study," Lieberman said. "I'm a believer that this approach can have real benefits for people.

"There is a region in the brain, the right ventrolateral prefrontal cortex, that seems to be involved in labeling our feelings and our emotional reactions, and it is also associated with regulating our emotional responses," he said. "Why those two go together is still a bit of a mystery. This brain region that is involved in simply stating how we are feeling seems to mute our emotional responses, at least under certain circumstances."

"There's a trend in psychology of acceptance-based approaches — honestly label your feelings. This study has that flavor to it," Craske said.

Katharina Kircanski, a former UCLA graduate student and current postdoctoral scholar at Stanford University, is lead author of the study; she conducted this research as a graduate student in Craske's laboratory.

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