

If you're feeling helpless, it's best to be alone

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If you're going to experience a period of helplessness, it's best to be alone. New research at the University of Haifa found that laboratory rats that were on their own when exposed to uncontrollable conditions, which create a feeling of helplessness, learned to avoid situations which create such feelings better than rats that were exposed to uncontrollable conditions in pairs.

The way laboratory rats react to uncontrollable situations in which their behaviors have no influence on subsequent events has been researched in the past. Results show that rats that are exposed to a situation in which they are powerless, for example, electric shocks that they can't possibly avoid, have a more difficult time learning how to avoid them in the future than rats that were never exposed to situations of helplessness – a phenomenon known as "learned helplessness". Researchers choose to experiment with rats because they are known as social animals and their brains work much the same way as human brains. However, most of the research done until now was done on rats exposed to uncontrollable conditions when they are alone.

In his doctoral dissertation, Dr. Qutaiba Agbaria, under the supervision of Dr. Richard Shuster, examined the differences in learned helplessness among rats that were exposed to uncontrollable conditions alone and in pairs. The researcher began with the hypothesis that rats would learn to be more adaptable in social situations, or in pairs, however, the research results revealed a very different picture. Rats that were exposed to uncontrollable conditions in pairs coped less well when they were no longer in uncontrollable situations than rats that were exposed to these

situations alone.

The next phase of the research examined the influence of a rat that had never been exposed to an uncontrollable situation on a rat that had. These pairs of rats showed greater adaptability than pairs that had been exposed to helplessness as individuals or in pairs. In addition, the researchers did not find outstanding differences between the learning ability of these pairs of rats – where one had been exposed to uncontrollable conditions and the other hadn't – and pairs that were never exposed to uncontrollable conditions, which means that the effect of "learned helplessness" is effectively erased. "Now that we have seen that "learned helplessness" can be "unlearned", we should continue to examine whether this change is a result of exposure to a rat that was not exposed to helplessness or rather that the social behavior between the two animals has another meaning," said Dr. Agbaria.

Source: University of Haifa

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