

More competitors, less competition

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(PhysOrg.com) -- Americans love competition, but the more challengers involved, the less likely we are to compete, says a University of Michigan professor.

A series of studies by Stephen Garcia of U-M's Ross School of Business finds that increasing the number of competitors can decrease competitive [motivation](#).

Garcia and colleague Avishalom Tor of the University of Haifa conducted three studies that show evidence of what they dub the "N-effect." That is, when the number (N) of participants in a [competition](#) increases, the [competitiveness](#) of individual competitors decreases, even when the probability of winning remains constant.

The researchers say that since [social comparison](#) processes often motivate individuals to compete, when the number of competitors increases, social comparison becomes diffused.

"While participants can experience or anticipate social comparisons between themselves and a few others, it becomes less viable and informative to compare oneself, or anticipate comparisons, with a great number of participants," said Garcia, who is also an assistant professor of psychology and organizational studies.

Garcia and Tor collected data from the 2005 SAT results published by the College Board for all 50 states. When they compared the density of the test-taking environment to the SAT score, they found a correlation.

When test-taking environments were more heavily populated, the average scores were lower. This was true for the Cognitive Reflective Test, as well. The CRT was taken by a relatively homogenous sample of U-M students, rather than students from 50 states, and provided further evidence of the N-effect.

In another study, participants were given quizzes and told to finish as fast as possible without compromising accuracy. Participants taking the quiz with 10 others completed it much faster than participants taking it with 100 others.

Garcia and Tor also ran tests to probe the role of social comparison in the N-effect. Social comparison occurs when individuals begin to compare themselves to others around them.

"We found that participants with high social comparison orientation were more likely to exhibit the N-effect," Garcia said.

In all, while there may be other contributions to the N-effect besides social comparison, the researchers find it to be a strong contributor. They also say their findings can be applied to the real world in many ways.

"Some people suggest that class size in schools is rather insignificant, while others deem it important," Garcia said. "The N-effect sheds new light on this debate by revealing that as the mere number of students in the classroom increases, motivation to compete and exert academic effort are likely to decrease.

"In fact, perhaps the N-effect could partly solve the mystery of the falling SAT scores in recent years, if one were to find that the average number of test-takers reporting to testing venues is continually increasing."

Their research may also have implications for the business world, they say. If employers want employees to perform better, for example, they might surround them with fewer co-workers (who could be seen as potential competitors).

Provided by University of Michigan ([news](#) : [web](#))

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