

Motivational factors in collaboration: Achievement, affiliation and power

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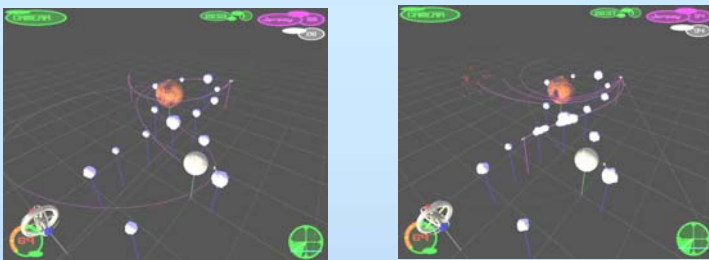
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Introduction

There exists a vast amount of research on the role of motivation on learning and performance. However, most of this research has only studied individuals with an exclusive focus on "achievement motivation". However, when studying collaborative tasks, there are probably other "social" motive-dimensions that come into play. Two other important dimensions are "power motivation" and "affiliation motivation".

Space-miners: A multi-player collaboration environment

Space-miners is an experimental platform in the form of a multi-player video game. In the cover story, the participants are told that they are miners, operating in pairs in a space mission. Both players have an explorer ship which they can position at any point in the space to fire drones which have to describe a trajectory to collect ore bearing asteroids on its way to the space station. Planets, of differing densities, alter the trajectory of the drone, making it possible to set up stable or instable orbits around different planets.



Experimental conditions

Participants (11 male-male and 31 female-female dyads) were put into either a "group score only" or in a "group score plus individual score" team configuration. In the first condition, the task was described exclusively as a team task and the participants only received feedback about the team's score. In the second condition, partners were also encouraged to optimize their team's score but in addition they received feedback about their individual scores.

Hypotheses

- > Persons with a high need for achievement, more precisely high on hope for success, should prefer a situation in which the individual part of the performance is explicitly mentioned compared to a situation in which only the group score is communicated. This should also be the case for persons with a high need for control. On the contrary, persons high on fear of failure and persons with a high need for affiliation should prefer the latter situation.
- > Male participants should prefer the condition with individual feedback since they are expected to be more achievement motivated and females more affiliation motivated.

Measures

Dispositional level:

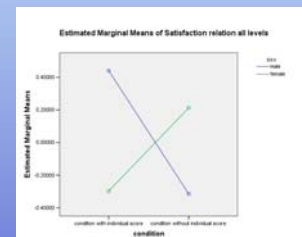
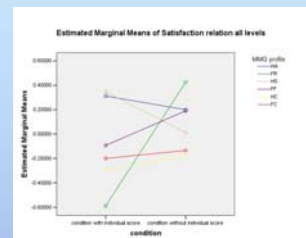
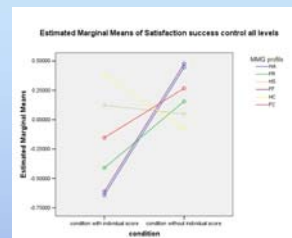
- > Multi-Motive-Grid (Sokolowski et al., 2000).

Situational level:

- > Current motivational state at the beginning and during the task.
- > Success- and failure-attributions, level of satisfaction, level of stress
- > Communication style (behavior coding).

Some exemplary results

- > In general, participants were more satisfied with their success and control in the condition without individual feedback, only participants scoring high on hope for control were less satisfied in this situation.
- > Participants scoring high on fear of rejection were rather dissatisfied with the relation to their partners in the condition with individual feedback, whereas participants scoring high on hope for success were more satisfied in this condition.
- > Females were more satisfied with their relation in the condition without feedback, whereas males were more satisfied with their relation in the condition with individual feedback ($F=6.38, p<.01$).



Conclusions

In general, the experimental manipulation influenced how satisfied participants were with their relation. Females were more satisfied in the condition without individual feedback and males more in the condition with individual feedback. However, this difference was not found for satisfaction with success and control. Here, both sexes were more satisfied in the condition without individual feedback ($F=3.97, p<.05$). This is also true for all motivational profiles ($F=4.10, p>.05$) except for participants high on hope for control.