Individual Differences in the Social Facilitation Effect: A Review
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ABSTRACT
How does the presence of others affect you? According to the social facilitation (SF) literature you are likely to be unimportant in answering this question. Individual differences are generally regarded in this literature as a complicating and disturbing factor. The present study wishes to challenge this approach. It shows the relative failure of the current paradigm in explaining the SF effect, and suggests a new paradigm that emphasizes the role of individual differences in moderating this effect. Qualitative review of the SF studies that have measured personality provides preliminary support to this approach. An individual differences perspective to the SF effect improves our ability to uncover the processes that mediate the effect, to integrate the different explanations for the effect under a single theoretical scheme, to broaden the scope of behavioral expressions investigated, and to overcome some of the persisting limitations of the field throughout the years.

Introduction
How does the presence of others affect behavior and performance? This question is explored by studies of social facilitation (SF). This literature has traditionally emphasized the characteristics of the task (simple or complex) that is being performed as a moderator of the effect (e.g., Zajonc, 1965). However, years of research revealed that this focus ignores most of the performance variance unaccounted for (Zuck & Teta, 1963). Indeed, supported by reports of early scholars of this effect (e.g., Allport, 1934), suggests that individual differences could account for some of the variability.

The purpose of this review is to explore the role of personality in moderating the SF effect. To that idea, a quantitative and qualitative analysis was conducted that measured personality was conducted, with a focus on three major traits: trait anxiety, self-esteem, and extraversion. Following that, the present review shows how studying the SF effect from a personality perspective can further advance our understanding of this effect.

META-ANALYSES

Self-Esteem

Seven social facilitation experiments (with 12 effect sizes) have measured individual differences in self-esteem. The studies were published between 1975-1987.

Table 1: Correlation between self-esteem and performance

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>M</th>
<th>SE</th>
<th>CI</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>172</td>
<td>9.3</td>
<td>1.08</td>
<td>7.05</td>
<td>0.16</td>
</tr>
<tr>
<td>High</td>
<td>146</td>
<td>10</td>
<td>0.74</td>
<td>6.74</td>
<td>0.19</td>
</tr>
</tbody>
</table>

Summary

- Low self-esteem individuals would have better performance under social presence.
- The performance of high self-esteem individuals improves, whereas the performance of low self-esteem individuals improves as the number of social presence increases.
- However, the number of studies is small and results are heterogeneous.

Extraversion

Three social facilitation experiments (with 12 effect sizes) have measured individual differences in extraversion. The studies were published between 1965-1981.

Table 2: Correlation between extraversion and performance

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>M</th>
<th>SE</th>
<th>CI</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>134</td>
<td>6.4</td>
<td>0.65</td>
<td>4.26</td>
<td>0.03</td>
</tr>
<tr>
<td>Low</td>
<td>140</td>
<td>4</td>
<td>0.73</td>
<td>5.22</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Summary

- Extraversion is positively correlated with performance under social presence.
- Extraverts' performance improves when observed compared to their performance in a control condition.
- However, the number of studies is small and results are heterogeneous.

Conclusions

Data support the hypothesis that personality moderates the social facilitation effect.

- When observed, some individuals (extraverts and high self-esteem) show performance improvement, whereas other individuals (high anxiety and low self-esteem) show performance impairment.
- However, the existing literature has several limitations:
  - Small overall number of studies
  - Small sample sizes
  - Absence of true within-condition control in most experiments

A New Perspective

The basic premises for a new perspective on the social facilitation effect are as follows:

- Social presence represents an exogenous yet significant input.
- Experiments are predisposed to react with increased positive activation.
- Novelty is predisposed to react with increased negative activation.
- The activated external and motivational processes promote a wide variety of cognitive and behavioral manifestations.

With a focus on individual differences we achieve:

- An ability to account for a larger variance in the reaction to social presence.
- Unification of the different theoretical explanations under a single theoretical account (positive-negative activation).
- A focus on the mediating process, in accordance with the theoretical arguments.
- A broadening in the scope of behaviors under investigation to all potential expressions of affective states.

Literature Search and Selection Criteria

- Studies were retrieved by searching online databases, reference lists of reviews on social facilitation, and references lists of all included studies.
- Inclusion criteria: The study reported on a measure of performance on a single task under two social settings. More than social presence. And the study had a measure of personality.

Method

Trail Anxiety

Six social facilitation experiments with 16 effect sizes have measured individual differences in trail anxiety. The studies were published between 1975-1985.

Table 3: Correlation between trail anxiety and performance

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>M</th>
<th>SE</th>
<th>CI</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>160</td>
<td>10</td>
<td>0.84</td>
<td>6.38</td>
<td>0.01</td>
</tr>
<tr>
<td>Low</td>
<td>118</td>
<td>9.4</td>
<td>1.14</td>
<td>7.05</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Summary

- Trail anxiety is negatively correlated with performance under social presence.
- High trail anxiety individuals react better to social presence.
- However, the effect sizes are small.

Conclusion

- A new model for social facilitation with an emphasis on personality moderator, affective mediation and broad behavioral expressions.