

Promotional language in Biomedical Grant Applications

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Grant awards are pivotal in fostering scientific advancements, yet our understanding of how scientists employ language, particularly promotional words, in grant applications remains limited. Building upon recent research, we analyze over 10,000 biomedical grant applications from leading foundations, Novo Nordisk Foundation (NNF) and National Institute of Health (NIH), uncovering a significant correlation between the use of promotional language [1] and funding success.

Our results indicate that a one standard deviation increase in promotional words corresponds to a 40% higher chance of obtaining funding, with factors like application length, requested funding amounts, and prior citation impact playing crucial roles. Moreover, we explored how each of the control variables contribute to the inclusion of more promotional words in a grant application by constructing a network, showed in Figure 1.

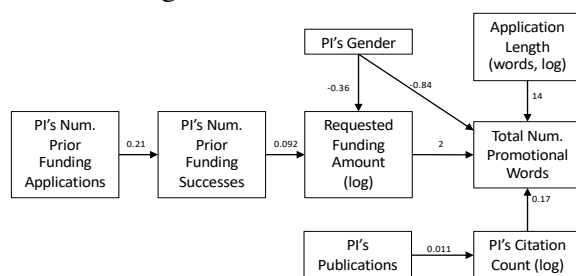


Figure 1 The structural model result for the NNF dataset. All paths in the figure are with statistical significance with p -value < 0.05 . Numbers on the arrows are the coefficients of the relationship between the two variables.

A grant applications' length, requested funding amounts, and its PI's prior citation count exhibit positive associations with heightened usage of promotional words. Furthermore, the number of prior applications and funding successes indirectly affects the utilization of promotional language through funding requests. Notably, male PIs employ greater amounts of promotional language compared to their female counterparts, a trend observed through both direct and indirect relationships with funding requests.

In conclusion, our study emphasizes the vital connection between language and funding success in biomedical science as well as the characteristics of applications with more promotional words. This research encourages further investigation into the dynamics of promotional language and its potential to shape the future of scientific innovation and funding practices.

Reference:

1. Millar, N., B. Batalo, and B. Budgell, *Trends in the use of promotional language (hype) in abstracts of successful national institutes of health grant applications, 1985-2020*. JAMA Network Open, 2022. **5**(8): p. e2228676-e2228676.