Retaliation on a voodoo doll symbolizing an abusive supervisor restores justice

A model paper based on simulation data to explain the principle of academic writing

Damien Dupré

Abstract

The present paper draws from the paper entitled "Righting a wrong: Retaliation on a voodoo doll symbolizing an abusive supervisor restores justice" (Liang et al., 2018). This academic article was published in the journal "The Leadership Quarterly" and has been awarded with the prestigious IG Nobel Price (section Business Studies). The paper looked at how subordinate retaliation moderates the relationship between abusive supervision and subordinate injustice perception. More precisely, the authors asked their participants to imagine an abusive or non-abusive supervision context and they measured how much using a virtual voodoo doll, representing the supervisor, would restore people's sense of justice. By testing the hypotheses formulated by its authors on simulated data, the present paper will describe each step of the academic writing.

Introduction

Abusive supervision is a problem for the mental well-being of employees. In cases of behaviours charactering abusive supervision such as such as public ridicule, yelling, scapegoating, or other forms of supervisor mistreatment, employees will have to deploy coping-mechanisms in order to preserve enough motivation to work in this negative environment. The premise of the paper Righting a wrong: Retaliation on a voodoo doll symbolizing an abusive supervisor restores justice is that "a natural response for the subordinate is to directly retaliate against the abusive supervisor" (Liang et al., 2018, p. 443). This premise is probably what made the paper published by Liang et al. (2018) an excellent candidate for the IG Nobel. However, this paper has an excellent structure and a very robust method. For these reasons, it will be used as example of how to write an academic paper.

The first step of an academic paper is the Introduction section which is supposed 1) to present the problem that the paper is trying to understand and 2) to end with the author's research question. Here the research question of Liang et al. (2018) can be summarised as the following: How abusive supervision and subordinate retaliation influence the subordinate injustice perception?

Literature Review

The literature review is used to describe each concept included in the research question, independently, and in specific subsections. It aims to give a short and up-to-date presentation of the current state of the research involving these concepts with some example of results obtained in this research. Here, there are three concepts to investigate: abusive supervision, subordinate retaliation and subordinate injustice perception.

Abusive Supervision

The goal of the present paper is to describe the process of academic writing and not to investigate any kind of abusive supervision, subordinate retaliation or subordinate injustice perception. This subsection is only an example of structure.

Subordinate Retaliation

Sections in the literature review should present the state of the art of previous scientific research investigating these variables and their relationship. It is strongly recommended to use theories that have already been published and to describe how they are relevant to you. You can also use references from previous research to give some context to the evidence that has been found. This scientific evidence should support the formulation of your hypotheses.

Injustice Perception

The most important content of the literature review is the formulation of hypotheses. These hypotheses can be implicitly formulated in the body of the literature review but a common and efficient way to present the hypotheses is explicitly at the end of the literature review.

Hypothesis 1: *The average injustice perception in the condition of abusive supervision is higher than the average injustice perception in the condition of non-abusive supervision.*

Hypothesis 2: *The injustice perception decrease when the subordinate retaliation increase.*

Hypothesis 3: *The effect of subordinate retaliation on injustice perception in the condition of abusive supervision is higher than in the condition of non-abusive supervision*

Method

The method section usually describes the participants/observations, the material used to collect the data, the procedure followed by the authors and the analyses performed.

Participants/Observations

In general, the participant section indicates the average age with standard deviation, the number of male and female participants (and other answers) and their origin. This selection also states how they were recruited or selected. Here, 2000 participants are created randomly.

Material

To manipulate abusive supervision, Liang et al. (2018) have asked their participants to imagine themselves in a condition of abusive supervision or non-abusive supervision. Consequently, this variable is categorical with two categories: abusive (N = 1015) and non-abusive (N = 985).

The method that Liang et al. (2018) used to measure subordinate retaliation is original and novel. They asked some of their participants to use a virtual voodoo doll as if they were the subordinate imagining that the doll was the abusive supervisor. Liang et al. (2018) examined whether participants used or not the virtual voodoo doll. However, for the purposes of this paper, it is considered how long participants are using the virtual voodoo doll (measured in seconds). As a result the variable is continuous which explains how Hypothesis 2 is formulated.

Liang et al. (2018) used a word completion task to measure subordinate injustice perception. In this task, five words have missing letters, and have to be completed so that they become either a neutral word or a negative word. The ratio of negative words used among the five words is supposed to reveal the injustice perception still felt by the subordinate. The measurement of subordinate injustice perception is simulated to have the same shape as the data obtained from this task.

Procedure

As indicated previous, the data are simulated.

Data Analysis

Here comes the main part of the method section. The absence of a Data Analysis section in an academic paper reveals its poor quality. However, by including both the graphic representation of the model tested and its corresponding equation, authors can display the robustness of their analyses.

The model is represented Figure 1 where AS is abusive supervision, IP is injustice perception, and SR is subordinate retaliation. It shows a classic moderation model which is the alternative name for interaction effect. A note of caution; a default moderation model includes not only the interaction-effect hypothesis but also the main effect hypotheses of the two predictors which is not obvious from the model representation.
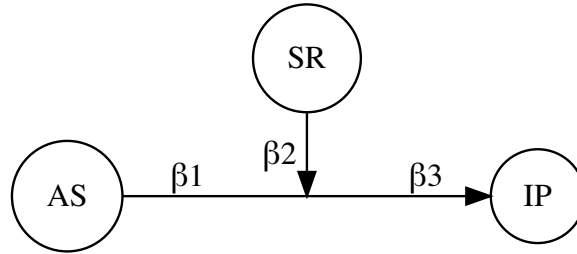

Figure 1: Representation of the model testing the three hypotheses (AS = abusive supervision; IP = injustice perception; SR = subordinate retaliation).

In a model each arrow is an hypothesis, also represented by the symbol β. The test of all hypotheses in the same model will be done by analysing the following equation:

$$IP = \beta_0 + \beta_1 AS + \beta_2 SR + \beta_3 AS * SR + \epsilon$$

In the slides presented earlier, the general linear regression model was presented as the unique solution to test any hypothesis with any kind of variable. The use of t-tests or ANOVA is correct but they are special cases of the linear regression models. This multiple linear regression could be tested in any statistical software but I would strongly recommend jamovi (The jamovi project, 2021).

Results

The results section does not have to be long; it only needs to include some information about the variables, mainly their mean and standard deviation. This information can also include validity or reliability measures if not presented in the method section. Here, the average time spent using the virtual voodoo doll was 100s (SD = 20s), the shortest time spent was 28s and the longest 167s. However, 100 values are missing from the subordinate retaliation variable (voluntarily removed). The average proportion of negative words (from the word completion task) is 49.9% (SD = 28%).

Next, is the inferential statistics information, which has two parts: description of the overall model accuracy and test of each hypothesis. First, the model including both main effects of abusive supervision and subordinate retaliation as well as their interaction effect explains a significant part of subordinate injustice perception ($R^2 = 0.498$, $F(3,1896) = 626$, $p < 0.001$). More precisely, the model explains 49.8% of the variance of injustice perception.

To interpret the statistics behind hypothesis testing, only the p-value is necessary. A p-value higher than indicates that the null hypothesis is true whereas a p-value lower than 0.05 indicates that the null hypothesis is rejected, and the alternative hypothesis considered as plausible. In the current simulated data, the results reveal a significant effect of abusive supervision on injustice perception (b = -0.09956, 95%CI[-0.19535,-0.00378], t(1896) = -2.039, p = 0.042). This means that being in a non-abusive supervision context decreases, on average, by 9.95% the amount of negative words in the completion task. They also reveal a significant effect of subordinate retaliation on injustice perception (b = -0.00858, 95%CI[-0.00925,-0.00790], t(1896) = -24.969, p < 0.001). More precisely, for every second spent with the virtual voodoo doll, the amount of negative words in the completion task decreases by 0.8%. Finally the results did not reveal a significant interaction effect (or moderation effect) between abusive supervision and subordinate retaliation on injustice perception (b = -0.000213, 95%CI[-0.00115,0.000724], t(1896) = -0.445, p = 0.656) as show in Figure 2.
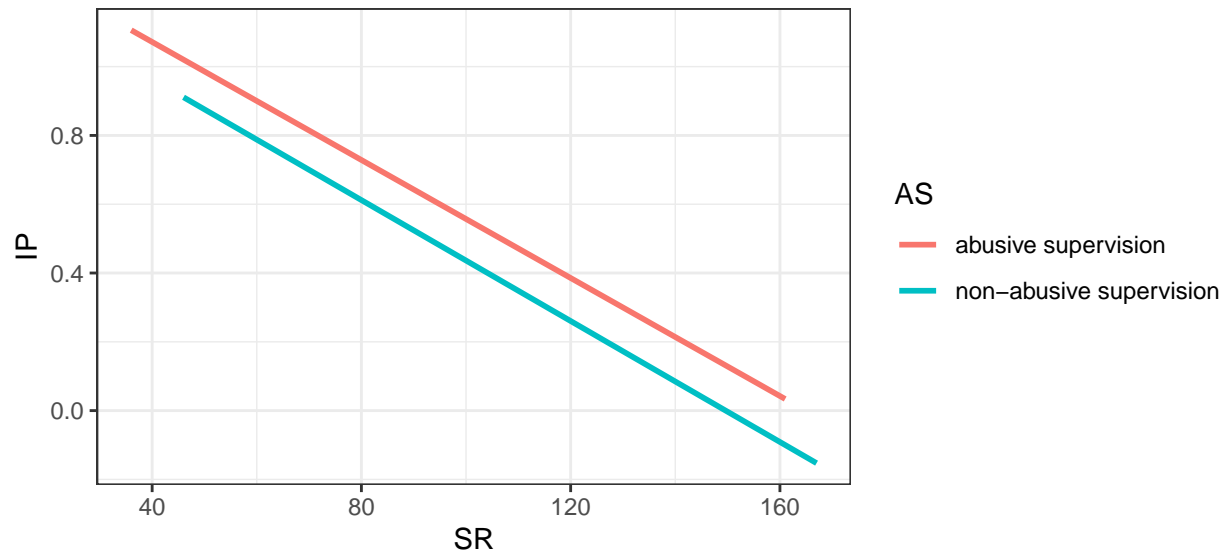

Figure 2: The slope of the relationship between subordinate retaliation and injustice perception is not different for abusive supervision and non-abusive supervision contexts (AS = abusive supervision; IP = injustice perception; SR = subordinate retaliation).

Discussion and Conclusion

The purpose of the current paper was to display the structure of a research paper rather than actually writing a paper. In this section, authors are presenting potential explanations for the effect/non-effect obtained. Limitations regarding the data collection and data analyses can also been added in these sections. Here, the data were randomly generated. Your task is to conduct your own discussion based on the results you obtain and the hypotheses which you formulate.

References

Liang, L. H., Brown, D. J., Lian, H., Hanig, S., Ferris, D. L., & Keeping, L. M. (2018). Righting a wrong: Retaliation on a voodoo doll symbolizing an abusive supervisor restores justice. The Leadership Quarterly, 29(4), 443-456.

The jamovi project (2021). jamovi (Version 1.6). Retrieved from https://www.jamovi.org.