What Determines Salt and Pepper Passage? A Brief Commentary on the Published Reports

Stuart J McKelvie*

Department of Psychology, Bishop's University, 2600 College, Sherbrooke, Québec J1M 1Z7, Canada

*Corresponding author: Stuart J McKelvie, Department of Psychology, Bishop’s University, 2600 College, Sherbrooke, Québec J1M 1Z7, Canada. Tel: +1 819-822-9600; E-mail: stuart.mckelvie@ubishops.ca

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Abstract

In the 1970s, two similar reviews of an interesting ostensible research literature were published. They claimed to show that a number of factors had been identified to explain how salt is passed on request. Recently, this matter has been taken up again with further reports of new factors suggested to influence the behavior. Moreover, the ideas have been extended to pepper passage. This paper comments critically on these writings.

Keywords: Salt passage; Pepper passage

Commentary

According to Deese, psychology involves both science and art, which places it in the humanities as well as in the natural sciences [1]. Around the same time, two papers appeared with parallel reviews of the ostensible literature explaining the process by which salt is passed upon request [2,3]. Reflecting the theme of Deese’s title, the authors observe that this has been a humanistic topic of philosophical debate but, based on formal psychological theories, they also made a compelling and interesting case that many scientific empirical studies had collectively identified factors affecting salt passage: in particular, the politeness of the request, the number of people present, and both attitudes and race of sender and receiver. In the tradition of the typical psychological study, the authors concluded by making suggestions for future research going forward.

These two satirical papers were widely read and enjoyed by the psychological community, which recognized the clever application of psychological theory and research methods to what on the surface seems like a rather trite topic. However, the issue lay dormant until very recently, when what almost seems like a spate (if three publications in rapid succession is a spate) of papers has appeared [4-6]. The purpose of the present note is to critically review these recent works.

Current Publications on Salt Passage

In the spirit of openness and transparency, my attention was drawn to these papers because research of [7] was cited. On looking up the source [6], I was led to the other two.

The first of the three recent works [4] is an investigation of the role that sex of requester and sex of sender might play in the behavior of passing the salt. In this proposal for a research study, Minér anticipated an opposite-sex effect, perhaps due to the factor of attraction. That is, salt passing would be faster when a male asks a female than when a male asks another male, and would also be faster when a female asks a male than when a female asks another female. This paper also generalized the discussion of the passage of salt to the passage of pepper, arguing that pepper would be passed more slowly than salt because it is less common to shake pepper over the chips and peanuts that would be present on the table in the experimental situation. It was speculated that pepper may be more likely to cause sneezing than salt, interfering with response time. This proposal was presented in some detail, with numbers backing up the predictions.

In the second publication, Minér et al. [6] propose generalizing the work in another way: to investigate the attraction hypothesis directly by experimentally manipulating the attractiveness of the requester. This would be accomplished by creating an extra-long nose for half of the conditions. That is, the request is made by a person with a long nose or a normal short nose. My work [7] was cited because of the finding that schematic faces with long noses were rated as less attractive than faces with short noses. In addition, like Minér [4], Minér et al. included pepper passage along with salt passage. It was speculated that the combination of a long nose and pepper is special because together they might encourage more sneezing, causing a marked slowing of response time over and above the two main effects. This implies a significant interaction between nose length and substance. Again, quantitative backup was provided for the predictions, with longer response times for longer noses and for pepper. However, in these numbers, the slowing effects of nose and pepper were actually independent and additive. Because the
data were said to be entered to reflect predictions, this inconsistency with the expected interaction is puzzling.

The third paper in this recent flurry of activity [6] presented a detailed expected report based on the suggestions offered by Minér et al. [6]. Consistent with predictions, it was stated that passing times were slower for pepper than for salt and, in line with attractiveness theory, also slower for the long-nosed requester than for the short (normal) nosed requester. As with, [6] the interaction of nose and substance was not significant, so the patterns in the entered data again did not match the prediction. However, there was also a second anomaly: for both main effects, the numerical data were opposite to the described results. In the mean scores reported in a table, passing times were faster for pepper than for salt and for the long nose than for the short nose.

Conclusion

Taken together, this series of papers report intriguing but anomalous results on what seems to be an esoteric topic. Everyone who read the two original papers [2,3] appreciated the work and acknowledged its subtleties. The recent papers seem to follow along the same line, extending it further.

Research anomalies are not unusual. For example, results may be statistically significant, leading people to conclude that they are important, when the effect size is actually small. Or a highly significant and even large effect may be reported, but is not replicated indeed; some error is always present in research. For example, sampling error may occur in choosing subjects and Type I error and Type 2 errors may occur in decision-making [8]. However, it is rare to see the internal contradictions like the two identified above. Could they be transcription slips that escaped attention?

Overall, the solution to error is greater vigilance by editors and reviewers, and of course by the data gatherers, data analyzers, and writers themselves. It is not possible to eliminate all errors in research, but they can surely be minimized. At the same time, the unconventional but careful use of anomaly may draw attention to weaknesses in the research process while simultaneously highlighting that a linguistic device (ironic errors) can be part of the critic’s toolkit [8] Consider Pencil’s [3] and Pacanowsky’s [2] subtitle following their main title: “Salt passage research: The State of the Art” (italics mine). Surely James Deese would approve [1].

References