

# The Presenter's Paradox: More Is Not Always Better

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*The presenter's paradox is a phenomenon wherein adding low-value information alongside high-value information reduces the overall effectiveness of communication. This is because receivers tend to evaluate messages using an averaging, rather than additive, approach. In the context of journal submissions, the presenter's paradox arises when authors undermine their papers' value by adding extra components that fail to maintain the high standard established in the core of the paper. These additions might take the form of excessive control variables, supplementary analyses, hypotheses, words, tables, figures, or citations. We argue that authors should construct journal submissions with the presenter's paradox in mind—because in many cases, less is more.*

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More is actually not better, if what you are adding is of lesser quality than the rest of your offerings. Highly favorable or positive things are diminished or diluted in the eye of the beholder when they are presented in the company of only moderately favorable or positive things.

(Grant, 2012)

You submitted your study to the *Journal of Management (JOM)* and received an invitation to revise and resubmit your work. Congratulations! With growing numbers of desk rejections and

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rejections after review, securing a revision opportunity is increasingly difficult. But tighten your seat belt because your work has just begun. Now you must respond to every one of the reviewer's concerns. Professors drill this into doctoral students' heads, espouse it at conferences, and expect it from the authors whose papers they vet. The logic is seductively simple: If the paper is good already, it can only be improved by addressing all the concerns noted by expert reviewers. The most common approach to responding to reviewers is to add something that addresses each comment or concern. The logic behind this approach is that more is better.

Additions can take the form of control variables, supplementary tests, hypotheses, descriptions, citations, tables, or even another study. These arise because reviewers inevitably provide an extensive list of concerns, ranging from major to minor, and sometimes varying from insightful to absurd. To address a major concern, adding a control variable or conducting a supplementary test might be sufficient. In other cases, you might need to incorporate an additional data set or conduct a new study. To address a minor concern, you may simply need to better embed your ideas in the literature or add some citations. If the reviewers have done work on the specific topic, they might direct you toward some of their own articles or others they feel are relevant for you to reference. Less daunting concerns may warrant the addition of a few sentences in the Discussion section, such as any limitations on your work and/or starting points for future studies. Whew—by the end, your once-elegant paper has grown into something different and perhaps unrecognizable! If—as a well-known aphorism contends—a camel is a horse designed by committee, then it may be equally true that a bison is a gazelle bloated by a review team.

While being responsive to reviewers' concerns is commendable, we suggest that overreliance on the respond-by-addition approach may, more often than not, make a study, in toto, worse rather than better. To understand why, it is important to understand how scholarly work is assessed. Academics are, to a certain extent, atavistic creatures. When presented with a trove of information in any given journal submission, our hardwired predispositions shape our assessments. When making judgments about bundled information, humans seldom consider all the information in an additive manner—we are more likely to average it. So, for example, if your study offers a weak contribution alongside three powerful contributions, you diminish the impact of the three powerful contributions in the reader's mind. This is a case of what could be dubbed “subtraction by addition.”

Psychologists have a name for this phenomenon: the presenter's paradox (Weaver, Garcia, & Schwarz, 2012). As reflected in our opening quote, when mildly favorable items are bundled with highly favorable items, less favorable evaluations arise than if only the highly favorable items are offered. As an example, the researchers who uncovered the paradox showed that, compared with undergraduates who (hypothetically) received a scholarship of \$1,750, their peers who received a scholarship of \$1,750 plus \$15 for textbooks were less happy, considered the scholarship to be less generous, and were less apt to work hard for the scholarship a second time. This seems paradoxical—the group that received \$1,765 is less pleased than the group that received \$1,750. In six further studies, however, the researchers found a persistent response indicating that more is not better because, as consumers, we devalue high-quality items when they are bundled with low-quality items.

Beyond scholarships and other tangible items, the presenter's paradox also clouds the judgment of consumers of information (Kang & Wooten, 2020). One implication for researchers is that the respond-by-addition approach can make a paper worse if new information of lower quality is incorporated. Much like a sneaky bartender watering down an alcoholic drink,

adding low-value information to a high-quality study can make the study, as a whole, less appealing. If you review for journals regularly, you likely have had occasions wherein the authors did everything you asked but, to your surprise, you liked their revision less than the original submission. You may have felt guilty about this—"Gee, they did everything I asked, but the paper has gotten worse rather than better." Your reaction parallels that of the experimental subjects who received \$1,765: You received a little more but, paradoxically, were less happy.

In this commentary, we draw attention to the way authors may be falling prey to the presenter's paradox in the papers they submit to leading management journals. We outline the implications for authors and gatekeepers (i.e., reviewers and editors). These implications center on the premise that more is not always better. In making some of our points, we refer to the evolution of *JOM* articles over the past 25 years in several dimensions—the number of control variables, hypotheses, words, tables and figures, and citations—and discuss the implications of each in the context of the presenter's paradox. Because the works we refer to are those that survived a rigorous review process, it is unclear whether the descriptive information they provide overstates or understates the size of the problem across all submissions. What they no doubt provide, however, is a glimpse of what authors need to do to earn an acceptance letter.

## **A Call for Simplification**

### *More Control Variables Are Not Always Better*

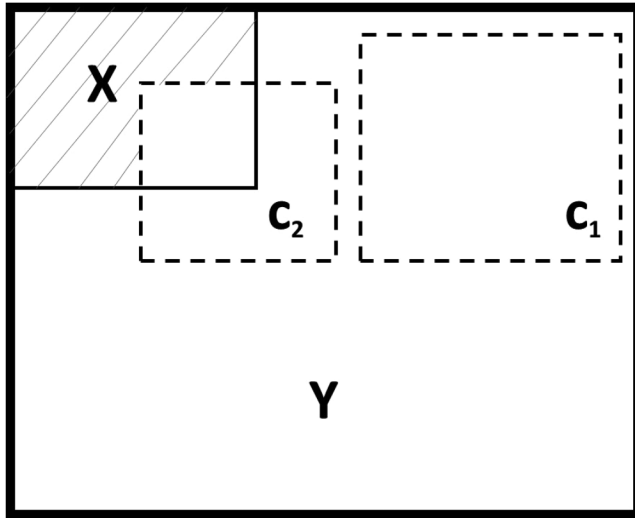
Consider any study you have conducted and imagine explaining it to a group of executives. Sometimes, the executives will mention a variable that better predicts your outcome. They will make comments such as "What about *X*?" or "Couldn't that just be because *Y*?" It is wonderful to be able to respond with "Oh, we accounted for that in our analysis," together with an erudite explanation of how the variable was a control.

Management scholars adopt a similar approach with reviewers, both preemptively and in response to their comments. Preemptively, as we write papers, we begin with the dependent variable and ask, "What are the obvious phenomena that might explain that outcome?" The answers are prime candidates to serve as control variables. Among strategic management researchers, for example, the list typically includes firm size, past performance, financial indicators, and a few selected demographic characteristics of the firm's leaders. In response to a wide range of reviewer comments, authors commonly write, "Thank you. That is a great point. We control for that alternative explanation in our revised analysis." Add a new, insignificant control variable into your model and—voilà!—problem solved. Anyone who has published in a leading journal is familiar with this script.

Not surprisingly, our analysis of *JOM* articles revealed a nearly threefold increase in the average number of control variables authors used in their primary models over the past 25 years. Juxtaposing this trend with the presenter's paradox leads to the suggestion that, all else being equal, authors should select control variables deliberately and economically. A model with one more control variable is not necessarily better than it was without the additional variable (Bernerth & Aguinis, 2016).

Some might object to this, noting that each time authors add a control variable, the coefficients of hypothesized predictors become more conservative estimates. A problem with this

**Figure 1**  
**Simplified Example of the Potential for Overspecification**



logic is that empirical models in published studies have become increasingly specified, to the point where authors may not be investigating what they think they are investigating. For a highly simplified illustration, consider the large, bold box of Figure 1, which represents all the variance of an outcome of interest ( $Y$ ). The small, solid-line box within that box represents the variance of  $Y$  that is explained by a given predictor ( $X$ ). If we introduce a control variable ( $C_1$ ) that explains a wholly different (i.e., nonoverlapping) portion of the variance of  $Y$ , then we can successfully portion out that variance to give us a cleaner look at how  $X$  affects  $Y$ .

However, some control variables take the form of  $C_2$ , which explains the variance in  $Y$  in some ways that are unique to  $C_2$  and in some ways that overlap with  $X$ . Including  $C_2$  in the model, therefore, changes  $X$ 's function in the model;  $X$  is no longer explaining the small, solid-line box but could, in fact, just be explaining the diagonally shaded area. As a result, the authors think they are looking at the influence of  $X$ , but including  $C_2$  means that they may be looking at the influence of some subset of  $X$ , which could be a different construct. In sum, as empirical models expand, they run the risk of becoming worse because, with each addition, the researcher potentially carves out a portion of the variance explained, which could obscure the primary relationships under investigation.

### *More Supplementary Tests Are Not Always Better*

Anthony Nyberg once explained to us that researchers should torture their data with the aim of demonstrating that what they are hypothesizing is not true and that only if they are unable to do this should they feel confident enough to publish their work. This makes sense to us, and it provides a clear counterpoint to the more common practice of examining

the data until something significant enough to publish is found. A great way to implement this—which we highly recommend and affectionately call the Nyberg approach—is to expose your data to a wide variety of supplementary analyses and robustness tests. Test your variables with alternative operationalizations, try multiple windows for a variable that extends over a period of days or months, or use an analytical technique that offers a different perspective on your model. These are all excellent ways to determine whether your data and analyses confirm, or disconfirm, your ideas.

Too often, though, authors are then reporting, in their submitted papers, many supplementary tests that add little value. For example, some authors might use a rigid form of matching for a matched-pair analysis (e.g., coarsened exact matching or synthetic control methods) and then offer a more popular, but less rigorous, propensity score matching in a supplementary analysis. Alternatively, researchers may use two operationalizations with only minor differences (e.g., using two stock-based measures of firm performance as opposed to one that is stock based and one accounting based). A third example involves researchers using different databases to obtain variables that record the same underlying phenomenon (e.g., corporate misconduct can be obtained from a variety of databases, but many capture the same events).

The Nyberg approach suggests that supplementary analyses and robustness tests are essential, but superimposing the presenter's paradox onto the Nyberg approach draws attention to the need to make careful decisions about which supplementary tests to include in a journal submission. Adding a test that does not add value makes a paper worse, not better. A minor tweak to an operationalization, or a different type of analysis that is likely to provide the same results, does not add value. Authors might think such additions can only buttress their findings, but they would be mistaken. Evaluators look at the average quality of all the tests that authors present, and an additional analysis with only a slight change to a variable or methodology will simply increase the denominator of that average without increasing the numerator.

Much of the blame for excessive testing lies at the feet of journal gatekeepers. Increasingly, reviewers are demanding supplemental tests, such as robustness checks and examinations of the potential for endogeneity problems. Indeed, if you have received peer reviews recently, you might wonder if the management field has cultivated a generation or two of reviewers obsessed with robustness and endogeneity. One result of this seeming obsession is the evolution of a pattern of moves and countermoves between authors and reviewers that would equally intrigue and appall game theorists.

Today's authors can be confident that a review team will request additional robustness tests, regardless of how many were included in the initial submission. This perversely incentivizes authors to hold back on providing tests that might be useful. The logic goes something like this: If we give the reviewers all six tests we performed up front, they will still ask for more tests, but if we give the reviewers four of the six tests, we can probably placate them at the revision stage by giving them the two we held back. At the same time, authors need to avoid providing so few robustness tests up front that their study is rejected based on lack of rigor. No sane person can view this search for a "Goldilocks solution"—not too hot, not too cold, but just right—as a healthy dynamic.

Dealing with endogeneity can be even more perilous (Semadeni, Withers, & Certo, 2014). Among other demands, today's reviewers seem to delight in asking authors to identify instrumental variables that can provide indirect evidence that endogeneity is not a problem in a

study design. In response, authors dutifully report that they identified an instrumental variable and—lo and behold!—it reduced their concerns about endogeneity. What a relief! What is not reported, however, is how many candidates were examined during the revision process. The author team might have tested 5, 10, or more variables (some of which may have had stronger correlations) before finding one that worked as an instrument, but this dirty little secret remains known only to them. Conceptually, this process has strong parallels with *p*-hacking—a widely denounced practice that has become prevalent. Again, no sane person can view this as a healthy dynamic.

### *More Hypotheses Are Not Always Better*

There seems to be an unwritten rule of thumb in empirical management research that says a study should have a primary relationship and two or three moderators. Few scholars will admit to this way of thinking, but, practically speaking, authors appear to be using this as a launching point to work outward from as they see results and respond to reviewers. One common response to reviewers is to investigate a second outcome. This leads to (a) and (b) hypotheses for all the relationships under investigation, doubling the number of hypotheses. Alternatively, as reviewers highlight issues that they feel are important, authors might add a significant moderator that, in retrospect, appears meaningful. The new moderator might not support the main story, but it may offer an intriguing perspective that could be framed as a contribution. Whether offering a new predictor, or testing ideas more thoroughly with a new dependent variable, the number and complexity of hypotheses tend to grow during the review process.

More and more-complex hypotheses can cause more harm than good. One of the most common reviewer comments we have seen is, “Why these moderators and not others?” By continuing to add hypotheses, and by using more-complex hypotheses, authors can find themselves trying to defend increasingly weak reasons for their inclusion. The best approach is to assemble a meaningful cadre of moderators and associated hypotheses that fit together under a unifying conceptual umbrella. Decisions about which and how many moderators to include in an empirical study should be driven by the conceptual logic. Thus, we would like to draw attention to a question that is less frequently heard: “Is the last hypothesis we added as strong as the one before it?” If the answer is no, it may be detracting from your paper.

Relatedly, we advocate for simplicity in hypotheses. We found that the number of hypotheses per article has declined over the past 25 years—which is encouraging—although, at the same time, the complexity of the hypotheses (measured as the number of words per hypothesis) has increased. One of the first things editors and reviewers look at to determine the quality of a paper is the hypotheses. If the hypotheses are cognitively burdensome, initial evaluation will be poor, which is difficult to overcome. Authors should describe an independent variable affecting a dependent variable. If you frame your hypotheses the other way around or, worse, in cognitively taxing terms (e.g., overly abstract or vague), the reader first must figure out what you are saying before they can evaluate the validity of your hypothesis. Hypotheses should be fully comprehensible in isolation. If you are using acronyms or jargon specific to a literature stream in your conceptual arguments, consider spelling them out and using plain language in the hypotheses. The reader should not have to hunt for the first instance of an acronym to be able to understand a hypothesis. As a simple illustration,

a prediction that “chief supply chain officer age is positively related to finished goods inventory” is easier for a broad spectrum of readers to grasp than “INV-FG is a positive function of the chronological displacement of a CSCO.”

### *More Studies Are Not Always Better*

There is a renewed emphasis in the management discipline on multimethod studies (Molina-Azorin, Bergh, Corley, & Ketchen, 2017). This is laudable. In principle, a multimethod approach can validate a researcher’s ideas in fundamentally different ways. For example, studies of archival data offer strengths and weaknesses that are precisely the opposite of the strengths and weaknesses of scenario-based policy-capturing studies. Scholars can use archival data to examine a vast number of companies or individuals, consider actual behavior in the marketplace and how it unfolds over time, and estimate effect sizes. Unfortunately, the variables involved might be only distal representations of their intended constructs, relationships can be obscured by confounding events, and history does not always keep perfect records. A policy-capturing study, on the other hand, offers precise measurement and complete information with no confounds but can suffer from small sample size, sampling biases, and a reliance on hypothetical behaviors. One type of study has strong external validity, whereas the other has strong internal validity. When both types of study provide similar results, they serve as powerful and highly trustworthy tests of ideas.

The presenter’s paradox suggests that any additional study should be at least as good as the study that precedes it. Too often, scholars will offer a high-quality primary study with a lower-quality secondary study tacked on as confirmation of the primary findings. After all, it can’t hurt to show that the ideas hold in a second study, right? Weaver et al. (2012) suggest it can. Consider, for example, a careful study of archival data combined with a poorly crafted policy-capturing study where the respondents are primed to answer in a certain way. The second study diminishes the first because it does not actually unpack the decision-making processes, as a well-designed scenario study would do. Alternatively, consider a well-constructed policy-capturing study with intriguing findings that is combined with an archival study with distal operationalizations and old, outdated data. While the primary study may have uncovered an interesting cognitive phenomenon, the second study dilutes its impact because it does not show the behavior occurring as a well-designed archival study would.

### *More Words Are Not Always Better*

Management studies are getting longer. Within *JOM*, they have jumped from an average of about 8,000 words 25 years ago to over 13,000 words today—around a 60% increase. Proportionately, the amount of space authors devote to each section has remained relatively constant for the Introduction (12%), Theory/Hypotheses (46%), Method/Results (19%), and Discussion/Conclusion (23%), but with each section having become longer over time. Comparing the gravity of a paper’s contribution to its length—sometimes called the “contribution-to-length” ratio—is a common way of assessing a paper’s merits. With this metric in mind, it is reasonable to suspect that the extension of management research article length over time is a potentially undesirable trend.

Some of the added length is necessary, with theories becoming more complex and methods more sophisticated, but increased wordiness can have adverse consequences. For example, abstracts have become more comprehensive but less comprehensible. Authors seem to believe that an abstract should hit upon every aspect of the paper, with little emphasis placed on the reader being able to quickly grasp the main thrust and outcomes of the study. Similarly, the Introduction section has evolved from containing intriguing overviews to being a mini version of the entire paper. We believe the Introduction section should be like a movie trailer that encourages the reader to participate in the full paper without giving everything away. At the other end of the paper, Discussion sections have become burdened with restatements of hypotheses and results. As an illustration, print a copy of the most recent Discussion section you have written and mark with a highlighter everything in it that has already been stated in the paper. You might be surprised to find nearly your entire Discussion section highlighted, except for the limitations part. Discussions need to add value, not redundancy.

The foundational notion of the contribution-to-length ratio seems to have become a diminished criterion for management research papers. Studies have become reflective of the adage, "Tell them what you are going to tell them, tell them, and tell them what you told them." That might be true for a motivational speaker, but it is less applicable to management scholars. The presenter's paradox suggests that authors should think of their words in an average, as opposed to additive, manner. Some reinforcement of ideas is needed, especially when the ideas are complex and novel. But the presenter's paradox suggests that each time authors tell readers something they have already been told, the overall value of the study is diminished.

### *More Tables and Figures Are Not Always Better*

Over the past 25 years, there has been a statistically significant increase in the use of tables and figures. While that trend is not inherently problematic, it is concerning that authors often appear to have no strategy behind their inclusion criteria for tables and figures. If there is an analysis in the paper, they will include a table in which they report the results. They do this even if they are presenting the results of an analysis that is simply a tweaked version of an analysis that was reported in a prior table. This could be a table with eight columns and 30 rows that shows all the same results but with a zero-inflated Poisson regression analysis instead of a standard Poisson regression analysis. Authors often adopt the same approach with figures, sometimes including 10 or 12 figures in a paper. Some believe this saturation bombing with complex figures lends the paper an element of legitimacy and sophistication. By this logic, a three-dimensional figure offers more and better information than a two-dimensional figure, and a combination of dots, lines, intervals, boxes, and shaded areas is preferred to a simple line graph. Having several such figures is believed to signal that the authors (a) have mastery of their data and (b) are being fully transparent.

In contrast to this prevailing attitude, we advocate for simplicity and purpose in table and figure selection. Each table and figure should have a clear, important, and distinct purpose. Think carefully about what each table or figure is accomplishing. If you cannot verbalize this succinctly, the table or figure is probably doing too much. If the purpose looks a lot



like the content, it is probably not doing enough. Tables and figures should add value and be easy to grasp. Figures do not need complete information. Instead, they should communicate a single message. Figures, by the way, should be perfect. Authors may not realize that figures will be published exactly as they are provided. Shoddy figures thus live on in eternity and, possibly, infamy.

The presenter's paradox extends to the end of a paper. Add a sloppy figure and readers will wonder if the authors were also sloppy with their data collection and analyses. Add a redundant table and readers will negatively evaluate the paper as a whole. Use tables and figures indiscriminately and readers will ascribe your poor decision-making about their inclusion to other decisions you made in the front end of your paper. Tables and figures should not be tacked on as though they can only help; their inclusion can subtly undermine evaluations of the paper. Tables and figures attract early and significant attention from readers, so authors should be judicious and approach their use with tremendous care.

### *More Citations Are Not Always Better*

Authors should have a citation strategy wherein they take a step back and think through their choice of citations from the beginning of the paper to the end. A proactive approach to citations is rare, but whenever we have recommended it to colleagues and coauthors, they have found it to be an enlightening exercise. Our survey of *JOM* articles revealed that citations per article have increased by about 60% over the past 25 years. Anecdotally, this may have arisen, in part, because authors in the digital age have become citation-lazy. They can search every article ever written, using some combination of keywords, such as "board of directors" and "cognitions" and "misconduct." This often reveals scores of relevant papers, the top two of which they cite for a sentence on that topic (quite possibly without reading those articles).

The presenter's paradox also applies to what appears in parentheses. Citations are an important mechanism for defending one's arguments, but it is possible to overcite (Patriotta, 2017). A healthy citation strategy lends legitimacy to a paper, but if having some citations is good, that does not mean that having more citations is better. Too many can detract from evaluations of the paper and ruin readability. Here, too, we advocate for simplicity. Most points can be supported with a single citation, and authors should consider three citations to be a ceiling for even the most citation-worthy sentences (e.g., "Empirical research shows that . . ."). Furthermore, authors do not need to provide citations to support obvious points. They should attempt to leverage works that convey multiple points. It is better to find a single citation that supports two or more ideas than to incorporate a new citation for just one idea. Authors should also cite in accordance with the section of the paper. For example, the Introduction needs citations that frame the work, the Discussion should be more speculative and lightly cited, and the Method section should offer defensive citations. In a direct application of the presenter's paradox, consider that the citation of working papers that have not been subject to a peer-review process can water down the intellectual heft of a reference section that otherwise consists of peer-reviewed articles and books vetted by publishers, regardless of the prestige of the universities associated with the working paper's authors.

## Conclusion

The presenter's paradox reveals a surprising truth: Adding more to your paper (e.g., more control variables, supplementary tests, hypotheses, studies, words, tables and figures, or citations) can worsen external evaluations of your research. This happens because additions are often not as high quality as the primary work, and evaluators (i.e., editors, reviewers, and readers) are likely to view information that is presented to them in an averaging, as opposed to additive, manner.

The research enterprise will benefit if authors devote more attention to presentation. Methodologies are undoubtedly becoming more sophisticated, and the bar for a theoretical contribution is only moving in one direction. We empathize, therefore, with the need for authors to devote steadily increasing levels of energy and attention to theories and methods. We believe, however, that even a marginal increase in simplification could yield considerable improvement to management research reporting.

Of course, as we all know, authors confront a major power imbalance in the review process. If authors take a stand for elegance and parsimony, the result might be a rejection. It is easy to see why many authors add to their papers in response to every comment, with capitulation being the most likely path to acceptance. But this is how papers become bloated. In many cases, editors should dismiss some reviewer comments as well intentioned, albeit counterproductive, and should guide authors toward adding value through each of their actions taken in response to the remaining concerns.

We have heard it said that the most clear-cut cases for promotion and tenure have the shortest application packets, and, memorably, Albert Einstein's thesis was only 24 pages long. These are good examples of keeping high-quality information simple so as to maximize its effect. As one astute writer put it, "If your expensive luxury hotel rooms offer ocean views, silk sheets, and a jacuzzi, don't mention the ironing board in the closet or the coffeepot" (Grant, 2012). In management research, too often Hypothesis 5 is an ironing board and Figure 6 is a coffeepot.

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