Let’s Be Honest: Evidence for Why Industrial–Organizational Psychology Research Is Trustworthy

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The implicit assumption in the focal article by Kepes and McDaniel (2013) is that the research in industrial–organizational (I–O) psychology may not be trustworthy. Although we acknowledge that the issues brought up by the authors might affect the representativeness of published I–O research, we do not believe they have presented any real evidence for a lack of trustworthiness in the extant published work. In fact, the authors never actually define what they mean by “trustworthiness.” As a result, in the following commentary we will first provide a definition for “trustworthy” research, followed by presenting some evidence that I–O research is, in fact, trustworthy.

What Is “Trustworthy” Research?

It is true that the field of psychology has come under fire in recent years because of a few specific instances of unethical behavior. For example, the Diedrick Stapel case has certainly brought unethical behavior to the forefront, both in the minds of psychologists and the media. Stapel admits, in his newly published book Ontspoorde (Derailed) that he would systematically manipulate his data files until the data would behave correctly and would sometimes even simply fabricate his data from scratch (Stapel, 2012). His unethical behavior resulted in the retraction of his past studies and shocked psychologists around the world. Stapel’s actions are clearly the antithesis of trustworthiness research, but what does it mean to say that a scientific literature is trustworthy?

A contemporary definition of the general term of trust—across disciplines—dictates that trust is a “psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395). This definition can easily be applied to research. Vulnerability may be best described in this context as believing that what has been reported in a manuscript is a truthful recounting of what occurred. The positive expectations of the intentions of the authors in this context are likely composed mostly of expectations for ethical behavior. Thus, trustworthiness reflects the degree to which the research making up a body of literature has been conducted in an ethical manner.

Given this definition, we will briefly examine three pieces of evidence that our literature is, indeed, trustworthy. First, we will discuss the issue of article retraction, followed by discussing the control (or lack thereof) that many I–O psychologists have over their research or data. Finally, we will discuss the importance of research to practice and how this can impact the trustworthiness of our research.
Retraction

Retraction of scientific articles occurs when a published study is no longer scientifically valid or trustworthy. Retraction could occur due to plagiarism, serious errors, or other unethical behavior on the part of the authors. Retractions—in scientific literature—are far from common but are certainly not unheard of. For instance, Fang, Steen, and Casadevall (2012) identified 2,047 retracted publications—across 30 years—indexed by PubMed, a repository for biomedical literature. The majority of these articles (78.7%) were retracted for unethical misconduct (with the remainder being retracted due to unfixable errors). Retractions might be thought as an indication that research, within a field, is untrustworthy.

Using retractions to examine how trustworthy I–O psychology literature is when compared to other areas of psychology, we examined retractions across the following areas of psychology: I–O, social, clinical, biological, developmental, educational, and experimental. Ten journals were chosen from each of these areas based on the following considerations: (a) impact of that journal (based on impact factor as identified by the Web of Science), (b) whether that journal was primarily empirical or review based (where review-based journals, such as Academy of Management Review, were excluded), and (c) on recommendations of colleagues within these areas. If a journal was indicated in multiple areas (e.g., Advances in Experimental Social Psychology is listed as social and experimental), then that journal would only be counted in one area. The PsycInfo database was utilized as our search engine, and each journal was examined for the terms “retract” and “retraction.”

The number of “retractions”—since 1977—in each area were as follows: I–O (0), social (30), clinical (5), biological (5), developmental (1), educational (0), and experimental (5). Social psychology, of course, had the highest number of “retractions” due to the Stapel incident, but nine of these “retractions” were not related to Stapel (it should be noted that many of his 49 “retractions”—at the time that we are writing—have not yet been officially published and may not have been included). Given the lack of “retractions” in the I–O area, a pessimistic view of these findings would be (a) that I–O psychologists are good at hiding their unethical behavior, or (b) I–O journals are unwilling to retract articles. Viewed in a more positive light (indeed, what we believe), the fact that I–O articles are infrequently retracted is one indicator that I–O research is, indeed, trustworthy.

Control Over Data

Researchers across disciplines have varying levels of control over both their research design and the resulting data, where control refers to exercising authoritative or dominating influence over something. Control over data, though often thought to be desirable, can be a curse in terms of ethical behavior. That is, classic research has consistently shown that mere opportunity is a significant predictor of unethical behavior (e.g., Zey-Ferrell & Ferrell, 1982). Stapel’s colleagues noted that he had entirely too much control over his data—few people would touch the data aside from him, which provided him with the opportunity for unethical, untrustworthy, behavior. Indeed, Stapel made this observation himself in Derailed. In I–O research, we often do not have this level of control over our data, which can help eliminate opportunities for unethical behavior. That is, a good portion of I–O research is conducted in collaboration with organizations, where researchers have to coordinate data collection, share data, and sometimes even compromise their initial research idea to fit with organizational needs.

1. Due to space restrictions, we will not include the names of all of the journals we evaluated. Please contact the authors if you would like to see the full list.
To illustrate this point, we examined the most recent issue\(^2\) in each of 10 top-tier I–O journals\(^3\) (based on impact factor). We examined the method section in empirical articles (excluded meta-analyses, reviews, etc.) and coded each article as whether the researchers had “high” or “low” control over the data. Researchers were considered to have high control over the data if the researchers were the primary stakeholders in the study, such as with student samples (survey or experimental studies) or other types of convenience samples (e.g., online survey panels, snowball samples). Low control referred to studies in which there were multiple stakeholders, such as partnerships with organizations, or when researchers used data from organizational, industry, or national survey panels (e.g., existing archival data).

A total of 67 empirical articles were procured from these journals. Sixty percent of the articles \((n=40)\) were categorized as low control, while 40% \((n=27)\) were categorized as high control. Some of the low-control studies (16%) also utilized objective, archival measures (e.g., performance, non-self-report) provided by organizations. This slice of data certainly is not meant to represent the research conducted across the entire field but does provide evidence for our assertion that I–O researchers frequently do not have an opportunity for unethical behavior due to their limited autonomy. That is, data originating from “low-control” studies is likely more trustworthy.

**Research to Practice**

I–O psychology is—at its heart—an applied field. Since its inception, an espoused goal of the field (embodied by the mission statement of SIOP) is to apply research to practice for improving the performance and well-being of employees. Therefore, I–O researchers on the whole are likely motivated to provide research that is usable (and replicable) by practitioners. As a result, we argue that the unique research-to-practice relationship in I–O psychology provides a sort of checks-and-balances system or feedback loop where practitioners can “double-check” the research. Many other areas in psychology (particularly the “under fire” field of social psychology) do not have this system in place.

There is ample evidence that the major theories—as tested and presented in empirical research—have been adapted, utilized, and replicated in the applied world. The most ready example is likely the widespread adoption of Locke and Latham’s (1990) goal setting theory into the workplace. Models of organizational change have often been developed and validated in organizational settings, and have reached popular media (e.g., *Harvard Business Review, HR Magazine*). Even findings and models from occupational health psychology have been adapted and incorporated into the workplace, such as the recent Civility, Respect, and Engagement in the Workforce (CREW) intervention, adopted by the Veterans Health Administration (Osatuke et al, 2009). Overall, it is likely that the majority of the most impactful findings in I–O psychology have been tested—in an applied setting—time and time again. It thus stands to reason that falsely produced or fabricated research findings would quickly be rooted out.

**Conclusions**

Although Kepes and McDaniel (2013) are correct in pointing out biases in the publication process, we do not feel their arguments do much to call the trustworthiness of I–O research into question. In this commentary, we defined what is meant by trustworthy research and provided some evidence, both collected for the purposes

\(^2\) We refer to the most recent issues that we had access to through our university library system.

of this commentary and gleaned from other research, that indicates that our research is likely to be trustworthy. Specifically, we found no article retractions in major I–O journals; I–O researchers have little opportunity for unethical behavior due to the multiple stakeholders involved in much I–O research, and the research–practitioner model provides a “checks and balances” model where falsified research is likely to be found out.

Undoubtedly, there are Stapels in all the fields of science, falsifying and manipulating data by cover of night. However, we argue that there is little evidence to suggest that a significant number of researchers in I–O are engaging in such behaviors. Indeed, the evidence we found seems to indicate that our field is trustworthy. Of course, we would encourage further research in the area of ethical behavior within our field, but we feel that the results would be mostly positive.

References