



# Standing on Giants' Shoulders: Posing Questions for Impactful Contributions and Minding “Scientific Littering”

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## Abstract

In this special issue titled “Veteran Reflections,” renowned social justice scholars assess the current state of justice research and provide valuable guidance to the younger generation of researchers. Their responses unveil a rich tapestry of diverse perspectives, with a recurring theme emphasizing the urgent need to apply scientific knowledge to real-world contexts and expand theoretical frameworks to address evolving societal challenges. These collective reflections hold immense value for justice scholars, offering indispensable guidance on making impactful contributions to the field. They emphasize the importance of embracing interdisciplinary approaches, engaging wider audiences, and fostering an authentic curiosity in research. As the field of social justice research evolves, these profound insights will undoubtedly play a pivotal role in shaping its trajectory and advancing the well-being of individuals and communities. Inspired by the veteran responses, we, as Editors-in-Chief of SJR, share our reflections on the vital aspect of scientific work—contribution. We introduce the concept of “scientific littering,” enumerating ten categories of non-contribution. Highlighting the pivotal role of research questions, we challenge the notion of novelty as the sole component of contribution. Ultimately, we assert that understanding and acknowledging contribution as the foundation of scientific progress, while honoring the legacy of giants in our field, foster impactful research and pave the way for groundbreaking discoveries in social justice research.

**Keywords** Science · Scientific contribution · Impact · Scientific impact · Publishing · Social justice · Interdisciplinary research · Societal impact · Scientific giants · Scientific littering

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## Introduction

This introduction, comprising two interconnected sections, presents our special issue titled “Veteran Reflections.” The first part offers concise overviews of the eight articles featured in this *SJR* special issue. These articles are responses from esteemed veteran justice scholars who answered our call to evaluate the current state of our field, provide assessments of necessary advancements, and offer advice to younger justice researchers.

In the second part of the introduction to this special issue, we, as Editors-in-Chief of *SJR*, delve into a fundamental aspect of scientific work: contribution. We aim to shed light on its significance, components, criteria, and different manifestations. In order to elucidate what truly constitutes a valuable contribution to a field, we introduce a novel term, “scientific littering,” to describe its opposite and enumerate ten categories of non-contribution. This discussion is imperative given the increasing number of journals emerging and the evolving publishing landscape, particularly over the past decade. Moreover, critically reflecting on the concept of contribution aligns perfectly with the theme of this special issue. The distinguished justice scholars featured herein are living embodiments of scientific contribution. Through their diverse approaches, they have significantly advanced the study of social justice, leaving an indelible mark with their published works. Their articles in this issue not only raise thought-provoking questions but also chart promising research directions that hold the potential for groundbreaking discoveries and novel insights.

## Social Justice Research Veterans Speak

Our major purpose with this special issue of *SJR* was to consult a number of veterans/pioneers of the social justice area (all of whom have been contributors to *SJR* from its inception in 1987) and ask them to take stock of the current state of justice research and voice their informed opinions about what they consider as needed/desired directions for future developments of the area. As their articles contain their personal thoughts and are different from the traditional research articles published in *SJR*, they were not circulated for peer reviews. We sent out the following invitation and received the eight responses which are published in this special issue.

*“Dear Esteemed Colleague,*

*The world is rapidly changing, and we’re forced to cope with a number of devastating challenges—climate changes, pandemics, energy crises, pollution, extinction of species, deforestation, right-wing populism, wars, inflation, cost of living, famines and water shortages, corruption, distrust of politicians and governments, terrorism, nuclear threats, renewed military armament, global and local inequalities, human rights violations, cybercrimes, deception, ‘alternative facts’, social media influence, etc. We’re in the midst of a perfect storm which seems likely to develop into something even worse. On the other hand, this dark description of the world should not overshadow the other side of the*

*coin. As our field has mainly focused on injustice, it may be a good idea to pay increased attention to the positive effects of justice.*

*Looking at the state-of-the-art of our current social justice area against the above-described background, one may wonder whether our present attention span is too narrow, neglecting crucial challenges, from local to global level, that easily can and should be approached from the perspective of justice and fairness. What do you think about the current state of social justice scholarship? Where do you think it is and should be heading? Is it going in the right direction? What advice would you give a young justice scholar? What would you like the current generation of young justice scholars to spend their time and talents on? What other thoughts might enter your mind in this context?*

*In your capacity as a respected veteran in the field, we would like to invite you to share your thoughts with the readers of Social Justice Research via an article of a different kind than the traditional research articles that are published in our journal. There is no page limit (upwards or downwards) for your possible contribution, and we will not send it out for traditional peer review feedback. Please let us know if you are interested in and your time constraints allow you to contribute to this special issue of SJR at this point in time.*

*Looking forward to receiving your positive response to our invitation!”*

In what follows we provide summaries of the eight responses we received from eminent veteran justice scholars—true pioneers who have left an indelible mark on the field with their groundbreaking contributions. Their invaluable insights were sparked by our invitation, and we are thrilled to present them in alphabetical order: Faye Crosby, Claudia Dalbert, Adrian Furnham, Guillermina Jasso, Mel Lerner, Allan Lind, Herman Steensma, and Tom Tyler.

**Faye Crosby** (“*Advice from one veteran*”) concludes that social justice researchers have made significant scientific advances over the past 50 years, producing knowledge, some of which has even spread to the general public and policymakers. At the same time, she calls for increased efforts to encourage policymakers to incorporate our knowledge into their decisions to counter biased and hate-mongering politicians. She looks back at her career against the background of the emergence of the justice field in the social sciences, acknowledging John Rawls’ pivotal influence. Crosby offers three pieces of advice to young researchers: matching their communications to the audience, expanding their intended audiences, and making a distinction between objectivity and neutrality. The first advice includes conceptual and terminological clarity and definitions, as well as awareness of the different levels of communication needed for presentations to experts and general audience. Her second piece of advice is to consider focusing on interdisciplinary and non-expert audiences, and her third advice is to avoid pretenses of neutrality while still striving toward objectivity.

**Claudia Dalbert** (“*Some comments on justice and democracy*”) discusses the intersection of the justice motive theory, and her experiences as a high-ranking politician in Germany. The article emphasizes the significance of justice in maintaining a healthy democracy and suggests practical measures for politicians to promote a sense of justice among citizens. It warns against the erosion of democracy and

advocates for transparent, inclusive decision-making processes, mutual understanding, and trust-building to strengthen democracy and address societal challenges effectively. In conclusion, this article demonstrates that psychological theories can and should be applied to real-world settings and that societal impact is a crucial aspect of research, as it ensures that scientific findings have relevance in addressing societal needs and advancing the well-being of individuals and communities. Thus, by fostering a connection between theory and practice, researchers and policymakers can collaboratively contribute to generating impactful societal change.

**Adrian Furnham** (*“Life is not fair: Get used to it! A personal perspective on contemporary social justice research”*) is not sure social justice scholarship has progressed much over the past decade. He recommends justice researchers to increasingly integrate themselves in the mainstream (as social justice touches many disciplines) and avoid considering their research as a personal quest which may result in disinterest to do good research. Justice issues need to be approached and understood in a wider context. Given the abundance of areas to which concepts of justice are relevant, one needs to guard against tendencies to allow issues of injustice to become too inclusive. At the same time, Furnham concludes that justice researchers have become a bit narrow and illustrates his claim via two neglected areas: Theodicy (the problem of evil) and Stoicism (indifference to injustice). The first is an area of interest because it focuses on how we deal with injustices in the world as allowed by God. The second neglected area, Stoicism as a coping style to handle injustice, has been overlooked by social justice researchers. Furnham provides several ideas for additional developments related to the notions of equity and justice sensitivity as well as the varieties of the Belief in a Just World and victim derogation.

**Guillermina Jasso** (*“Fifty years of justice research: Seven signposts past and future”*) looks back in time at the development of the justice area via a few signposts in the hope of teasing future research generations’ curiosity about justice-related issues. She considers seven avenues for further inquiry, research directions which seem ripe for new discoveries and fresh insights. The first four pertain to justice proper: (1) justice in the eye of the beholder; (2) universality of the sense of justice; (3) universality of the expression of the sense of justice; and (4) theoretical and empirical justice analysis. The last three start with justice but range to all socio-behavioral domains: (5) probability distributions as a tool for new knowledge; (6) the intersection of the sense of justice and ordinary language; and (7) other fundamental drivers of behavior, co-equal with justice. The paper relies heavily on the justice evaluation function, which emerged from empirical work, and moves seamlessly from its guise as postulate in deductive and non-deductive theories to measure of just rewards and impartiality to key link between inequality and justice. Jasso concludes her paper by emphasizing the crucial role of authenticity (doing what genuinely impassions you) and curiosity-driven research in driving scientific progress for justice scholars.

**Mel Lerner** (*“Confusing the expression of social norms and justice motivation”*) advises future investigators to pay attention to the subtle situational conditions that affect experimental subjects’ likelihood of getting fully embedded in the scenario created by the experimenter to enable an appropriate test of the hypotheses. He argues that simulations and role playing studies are ineffective in producing

experiences and consequences found in early experiments on the “Justice Motive” and “Belief in a Just World.” Lerner reminds us about the value of replications and the importance of being aware of the likelihood that two different contexts may generate different outcomes of replications, one of which is norm-based (slow) and the other automatic-intuitive (fast) cognitive systems. The former is common for a typical experimental situation (and other contexts involving problem-solving tasks and decision-making), while the latter will occur only when participants are embedded in a compelling meaningful scenario “mimicking” natural settings. Rather than considering a replication study to be a “failure,” the different outcomes may simply be due to the use of an inappropriate context (i.e., a failure to adhere to required scope conditions).

**Allan Lind** (“*Focusing on the ‘social’ in social justice research*”) reflects in his article on the progress made in the field of social psychology of justice over the past 50 years, highlighting the crucial role that fairness judgments play in engaging strong social processes and suggests conducting new research to explore the link between fair treatment perception and traditional group psychology phenomena such as conformity and obedience to authority. The article emphasizes the societal impact of fairness judgments, showcasing how concerns about fairness can lead individuals to respond in ways that may seem contrary to their self-interest. It delves into the research on procedural justice, demonstrating how fair procedures can make even unfavorable outcomes more acceptable and enhance trust and satisfaction with authority figures and decisions. The connection between fair treatment and social identity processes is explored, along with the implications of fair treatment for group inclusion and exclusion. Understanding these dynamics is crucial for addressing issues related to social justice, political decisions, organizational behavior, and even AI-based decision-making. The consideration of fairness in AI decision-making is an essential area of study, given the increasing role of algorithms and artificial intelligence in various domains. Ensuring that AI-based decisions are perceived as fair by humans is crucial for fostering trust and acceptance of these systems. Additionally, investigating the connections between fairness judgments and machine–human interactions can lead to ethical guidelines for the design and implementation of AI technologies. As a whole, the article highlights the potential for further advancements in the understanding of the social psychology of justice and its broader applications in various social contexts. It also highlights the importance of using empirical evidence to inform policies and practices that promote fairness in various social contexts.

**Herman Steensma** (“*On the road to justice: Some selected suggestions for the future of social justice research*”) is satisfied with the current status of the social justice field but encourages various improvements, with special focus on the interplay between the micro- and macro-levels of analysis. Unawareness of the reciprocal influences between the two levels may result in biases due to ecological and atomistic fallacies. Well-known unintended consequences of macrolevel policies (exemplified by affirmative action and environmental justice plans) may occur for issues on the microlevel (e.g., people’s justice attitudes), but research on the opposite direction of causality is scarcer, i.e., effects of microlevel phenomena (e.g., justice preferences) on macrolevel arrangements (e.g., group structure). Steensma also

advises to broaden our views and be more aware and enlightened when it comes to the important foundations of philosophical thinking about social justice. Initiatives for interdisciplinary projects may create opportunities for new theory construction and theory integration.

**Tom Tyler** (“*The organizational underpinnings of social justice theory development*”) voices his concern about the lack of new theoretical models—while at the same time, social issues and problems to which social justice research are relevant, as well as applications of justice theories abound. He attributes this to organizational problems facing the justice field: “The settings within which psychologists have the motivation and the opportunity to focus on theory development have diminished.” Tyler traces the evolution of the social psychology of justice from its classic period and concludes that theoretical advances have been hampered by the movement of major theorists into other areas with resulting shifts in focus to implications for those areas rather than developments of new or the underlying justice theories. The recent focus on cognition and neuroscience within psychology may increase the status of social justice, but it may also strip social justice of its traditional core focus on interpersonal and intergroup dynamics. Tyler reminds us all that “(...) we already know a considerable amount about justice, but less about how to bring people and institutions into alignment with the implications of justice theories and research.”

In sum, the responses showcase the diverse perspectives and areas of focus within social justice research. A recurring theme among the scholars is the importance of making scientific knowledge accessible and applicable to real-world contexts. Another is the importance of continuing to advance theoretical frameworks to address evolving societal challenges. The intersection between micro- and macro-levels of analysis also emerges as a significant theme. Overall, the scholars’ collective reflections provide a nuanced and multi-dimensional view of social justice research. Their advice and recommendations offer invaluable guidance to future generations of justice scholars, encouraging them to adopt interdisciplinary approaches, engage with wider audiences, and maintain a sense of curiosity and authenticity in their research endeavors. As the field continues to evolve, these insights will undoubtedly shape the trajectory of social justice research and its impact on society in the years to come.

## Editors-in-Chief Reflections

Over the years, the scope of justice issues addressed in SJR has broadened, taking on a more interdisciplinary orientation compared to its earlier focus on social psychological basic research, spearheaded by Mel Lerner in 1987. However, amidst this expansion, there appears to be a diminishing focus on the field’s historical core, with less emphasis on theoretical development. Instead, there seems to be a preference for limited empirical studies that often lack interesting theoretical foundations, merely testing relationships among variables without meaningful context.

One recurring concern is the declining quality of manuscript submissions, indicating a lack of fundamental skills in hypothesis formulation and derivation. These instances point to a broader challenge: recognizing, formulating, and effectively

communicating the contribution of one's scientific work. Therefore, we aim to reflect on this essential aspect of scientific progress—the notion of contribution and its related aspects. Our reflections intentionally adopt a general perspective rather than being tied solely to social justice research, as we believe that these insights hold relevance across diverse scientific domains.

Our objective is to foster a mindset where researchers can enhance the quality of their submissions to *SJR* and contribute meaningfully to the advancement of our field. By engaging in these discussions, we hope to encourage researchers to reevaluate their approach to research, placing greater emphasis on theoretical frameworks, interdisciplinary connections, and in particular reflecting upon the significance of their contributions. By embracing these considerations, the journal can continue to play a vital role in advancing justice research and its real-world impact.

### **Contribution is a Defining and Fundamental Aspect of Scientific Progress!**

As editors and researchers, we hold a collective responsibility within the scientific community to combat the growing issue of “scientific littering” in publishing, which has been undermining the integrity and usefulness of science, particularly in the past decade. With the proliferation of journals, some of which lack rigor and even operate as predatory platforms, it is crucial that each member of the scientific community, whether a researcher, reviewer, editor, or funder of research, comprehends the concept of scientific contribution and its fundamental components.

At its core, scientific work should aim to produce innovative insights that advance our existing body of knowledge. However, we have noticed that a significant number of submissions exhibit a lack of critical reflection on the notion of contribution and fail to grasp its pivotal role in the scientific process. Therefore, our primary objective here is to address this issue by sharing our personal reflections, primarily from our roles as Editors-in-Chief of *SJR*.

In doing so, we will outline the criteria and indicators that can be utilized to assess the quality and impact of scientific contributions. Our aim is to support authors and researchers in fully comprehending and effectively communicating the value and significance of their work. Such understanding requires recognizing that contributions may encompass a wide range of activities, including challenging existing theories, developing new theoretical frameworks, providing empirical evidence to support theories, and making meaningful impacts in media, policy, and society as a whole. Embracing this nuanced understanding will enhance the overall quality and impact of scientific publications and ensure that research genuinely contributes to the advancement of knowledge and human condition.

### **The Opposite of Scientific Contribution: “Scientific Littering”**

Understanding the characteristics of a non-scientific contribution becomes paramount in appreciating the necessity of promoting genuine scientific research. To address this issue, we introduce the term “scientific littering,” which encompasses publications of low-quality and insignificant research cluttering the scientific

literature and diluting the value of more substantial contributions. The proliferation of such literature hampers the identification of high-quality research and impedes the progress built upon prior studies. Policymakers and practitioners, too, face challenges in using research effectively for decision-making due to this clutter.

To avoid scientific littering, researchers must prioritize quality over quantity and focus on making meaningful and impactful contributions to their respective fields. Merely being overly fixated on technical details in conducting and reporting research may lead some researchers astray, mistakenly believing that correctness alone suffices. However, meaningful impact and advancing a field require more than procedural correctness.

By promoting a mindset that values substantial contributions and impactful findings, the scientific community can mitigate the effects of scientific littering and enhance the overall quality and relevance of research publications. Emphasizing the significance of meaningful work will ultimately lead to a more coherent and effective scientific literature, facilitating progress, and fostering informed decision-making in various domains.

Scientific littering is also fueled by the relentless pressure researchers face to “publish or perish” in their pursuit of career advancement, tenure, and funding. This intense pressure may lead researchers to prioritize quantity over quality, resulting in the publication of small, theory-less, and poorly designed studies. In some cases, studies with limited potential for yielding significant findings are published merely to bolster researchers’ publication records (Alvesson et al., 2017). The “publish or perish” culture discourages the thorough exploration of meaningful research questions and the pursuit of substantial contributions to the scientific community. Instead, it may promote a race to publish whatever research is readily available, regardless of its overall significance.

Another significant factor contributing to scientific littering is the prevalence of publication bias in scientific journals. Journals often prioritize positive results, those that yield statistically significant findings, over negative results, null findings that do not show significant effects. This bias can lead to an imbalanced representation of research in the published literature, favoring studies with positive outcomes and discouraging the publication of studies with null results. Consequently, researchers may be incentivized to conduct studies that are more likely to yield positive results, potentially leading to a distortion of the overall scientific evidence. Antonakis (2017) aptly refers to this prevailing emphasis on statistically significant results as “significosis,” which can drive the practice of HARKing (hypothesizing after results are known). This phenomenon highlights the importance of maintaining rigorous research practices and hypothesis testing to ensure the integrity and reliability of scientific findings. The well-known phrase coined by the renowned British economist Ronald Coase, “if you torture the data long enough, it will confess to anything,” further underscores the risk of data manipulation to achieve desired outcomes.

Additionally, inadequate peer review can also contribute to scientific littering. While peer review is a crucial aspect of the scientific process, when done hastily or superficially, it can allow flawed studies to be published and disseminated. Insufficiently rigorous peer-review processes may result in the dissemination of inaccurate



or unreliable information, potentially leading to misguided research and practical applications based on faulty findings.

To shed light on the diverse manifestations of scientific littering, we present ten categories that encompass cases where researchers publish studies that lack usefulness or fail to contribute significantly to the body of knowledge within a particular field. By identifying and understanding these categories, we aim to raise awareness of the challenges posed by scientific littering and encourage a renewed commitment to the pursuit of rigorous and impactful research. By collectively addressing these issues, the scientific community can foster a more robust and reliable body of knowledge that benefits society as a whole.

Enumerated below are the instances of scientific littering. Please note that this listing is by no means exhaustive.

- *Overreliance on statistical significance*: studies with too much focus on statistically significant results, even if the effect sizes are very small and/or the findings are not very meaningful.
- *Poorly designed studies*: studies with significant methodological flaws, e.g., small sample sizes, inadequate controls, and flawed measurement instruments.
- *Lack of replication/Non-replicability*: studies that fail to replicate previous or new findings.
- *Self-plagiarism*: studies that recycle material from previous publications without adding significant new information.
- *Publication bias*: publishing studies with only positive results while these studies are not representative of the full range of research on a topic resulting in a skewed and incomplete understanding of a topic. This leads to wasted resources and potential duplication of efforts by other researchers who may unwittingly pursue a dead end.
- *Predatory publishing*: publishing low-quality or even fraudulent research in exchange for publication fees.
- *Exaggerated claims and overgeneralization of findings*: studies with overly broad and exaggerated claims about research findings, potentially contributing to the dissemination of false and misleading information.
- *Misleading and inaccurate reporting*: studies using questionable practices such as hypothesizing after the results are known (HARKing), manipulating data, or misrepresenting findings to fit desired outcome, ultimately undermining the integrity of scientific research.
- *Renaming well-known concepts*: launching, knowingly (to gain “fame”) or unknowingly (due to lack of knowledge), what on the surface may seem to be a new notion or concept but upon closer inspection fails to deliver what it claims to do (e.g., providing a missing link in a theory, providing a basis for designing a new measure which may account for additional variance in relevant outcomes).
- *Redundant and repetitive research*: This is particularly true when high-profile journals publish studies that lack rigorous methodology, fail to produce meaningful results, or contain methodological flaws, it can create a false impression of significant advancements in the field. Such studies may receive undue attention from the scientific community and the public due to the prestige of the journal

in which they are published. As a result, other researchers may build upon these flawed findings, leading to a cascade effect of misleading research and potentially misguided policy decisions. This form of scientific littering not only undermines the credibility of the field but also hinders genuine progress by diverting attention and resources toward research with limited scientific value. Addressing this issue requires a collective effort from researchers, journals, and the scientific community at large. Other examples within this category include researchers splitting up their results into multiple papers to increase their publication count, or when they fail to properly cite and acknowledge their previous work.

Addressing these issues help minimizing scientific littering, ensuring that research is rigorous, accurate, and relevant, making novel and meaningful contributions to our understanding of the world.

### **Problematizing Novelty as a Component of Contribution**

Novelty refers to the degree to which a particular finding, idea, or approach is innovative in relation to existing body of knowledge and methods. However, editors, reviewers, funding agencies, etc., should not embrace an inordinate appreciation of novelty (what Antonakis (2017) calls neophilia). While novelty is often considered a commendable aspect of scientific contributions, it also brings forth certain challenges that warrant attention. In what follows, we briefly explore some of these challenges. One such challenge is the pressure to achieve novelty, which can at times lead researchers to prioritize novelty over the crucial element of rigor. In such instances, researchers may be tempted to resort to questionable practices, such as HARKing, data manipulation, or exaggerated claims, in their quest to appear more innovative. This pursuit of novelty may inadvertently divert focus from important research questions and areas that may not be in the limelight but are nonetheless vital to advancing scientific understanding.

Another potential challenge arises when an excessive emphasis on novelty fosters a “publish or perish” mentality among researchers. This mentality can lead to prioritizing quantity, such as discovering new minor angles, over the indispensable aspect of quality in research, aptly termed “disjunctivitis” by Antonakis (2017). Given these challenges, it becomes imperative for researchers to approach novelty with discernment and strive to strike a harmonious balance between innovation and rigor in their scientific contributions. This necessitates a thoughtful evaluation of the significance of their findings in relation to existing knowledge, coupled with a steadfast commitment to transparent and ethical research practices.

The fundamental essence of a contribution lies in its *valuable addition*, wherein new elements are introduced to theory and/or practice, ultimately advancing the existing state of knowledge. Therefore, we believe that a crucial core component of scientific contributions is the harmonious combination of novelty and value. The worth of a “new” approach, theory, method, or practice determines its superiority over its predecessors. However, an all-too-common mistake is equating contribution solely with originality or novelty, assuming that everything new is inherently good

and superior, while disregarding the essence of “value” and “meaningfulness” of the newfound discovery or theory.

Moreover, assessing novelty can be a challenge, as it often depends on subjective perspectives and contextual understanding. What one person perceives as a groundbreaking contribution, another might view as unremarkable. In essence, the novelty of a work is determined relative to what a specific reviewer or editor knows about a particular phenomenon. This underscores the immense responsibility entrusted to editors and reviewers in the evaluation of submitted manuscripts. While a manuscript may not introduce something entirely novel, it may delve into essential reminders or explore current acute societal issues, shedding light on them with the aid of existing insights and perspectives found in the literature, thereby making a necessary contribution.

As we navigate the realm of scientific contributions, it is crucial to recognize the intrinsic value of meaningful additions, regardless of absolute novelty. Emphasizing both novelty and value ensures that scientific contributions not only push the boundaries of knowledge but also enhance our understanding of the world. This balanced approach fosters a culture of substantive and impactful research, wherein the pursuit of meaningful contributions takes precedence over superficial novelty, ultimately serving the scientific community and society at large.

One final potential challenge is that an excessive focus on novelty may overshadow the critical role of replication and verification in ensuring scientific credibility. We acknowledge that the credibility of a finding is bolstered by successful replication attempts. This, however, presents an interesting contrast with our initial statement that “Contribution is a defining and fundamental aspect of scientific progress!” wherein novelty and innovation are highlighted. Our perspective on this matter is that while verification is essential for scientific advancement, contribution should not be limited to novelty alone. It extends to encompass the pursuit of replicability and replication, and the scientific community, including scientific journals, should actively support and facilitate these efforts. In essence, both novelty and verification are integral to scientific growth and understanding. Novelty fosters fresh perspectives and pushes the boundaries of knowledge, while verification ensures the reliability and robustness of scientific findings. Thus, scientific progress thrives at the intersection of verification and innovation (cf. Nosek & Lakens, 2013).

### **Contribution: Five Generic Types**

There are different types of scientific contributions, different ways a researcher may chip in to advance knowledge. Acknowledging this is important for both editors, editorial boards as well as reviewers to facilitate a fair decision. We discern five major categories of contribution:

1. *Theoretical contribution*: advancement of theoretical understanding. May involve the development of new concepts, frameworks, models, or the integration of existing theories to generate new insights or perspectives.

2. *Empirical contribution*: generation of new empirical evidence or data. May involve new or innovative methods for data collection or analysis, or the application of existing methods to a new context or population.
3. *Methodological contribution*: new or improved research methods or procedures. May involve the development of measurement tools, techniques for data analysis, or procedures for data collection.
4. *Practical contribution*: contributions that have a practical impact on society, industry, or policy. This type may involve the development of new technologies, interventions, or programs that address real-world problems with the ultimate aim of improving people's lives.
5. *Review*: a contribution that provides a comprehensive and/or critical review (e.g., systematic review and meta-analysis) of existing research within a particular field. It involves synthesizing existing findings, identifying gaps and limitations in the literature, as well as proposing new research directions.

A scientific paper may feature a single type of contribution or a combination of two or more types (e.g., theoretical as well as empirical or methodological as well as practical).

### **The Crucial Role of Research Questions for the Ultimate Value of Scientific Contributions**

The single most important precursor in the research cycle is the quality and character of the research question. On what basis do we formulate our research questions? Alvesson and Sandberg (2013) discuss two approaches to the construction of research questions in the social sciences. They point out that a significant portion of research is dedicated to addressing different voids within the research literature, e.g., areas of neglect, practical application, or theoretical confusion. This gap-spotting approach aims at expanding our knowledge base (i.e., knowledge accumulation). However, this approach often overlooks the critical examination of existing knowledge. In contrast, problematization involves going beyond the surface-level acceptance of prevailing assumptions, norms, or practices within a given field and instead actively questioning and critically examining them. An interesting application of the problematizing approach to generate directions for future inquiries in the field of retributive justice was published in *SJR* (Okimoto, 2014). Examples and suggestions for interesting and potentially impactful research questions and directions are also provided in the veteran articles published in the present special issue.

### **Common Criteria of Scientific Contribution**

In addition to originality and value (i.e., the extent to which the contribution addresses an important problem, phenomenon, or gap in the literature, and has the potential to advance knowledge in the field), as discussed above, there are at least three additional criteria that should be considered when evaluating the significance

of a contribution in a research paper. These criteria may vary depending on the disciplinary and contextual norms of a particular field of study.

*Impact:* This criterion assesses the measurable “footprint” of the contribution in the field after publication, including its influence on future research, policy-making, or practical applications in society. While a scientific contribution is a necessary condition for scientific impact, it alone is not sufficient. A contribution may be significant but have limited impact if it is not widely recognized, replicated, or applied by other researchers or stakeholders. Conversely, a contribution may have significant impact even if it appears relatively modest in terms of originality or scope, as long as it addresses a pressing societal problem or leads to practical solutions. It is also crucial to differentiate between “measures of scholarly influence” (impact) and “measures of popularity” and dissemination. Metrics such as social media mentions, shares, or website downloads may indicate dissemination but not necessarily true impact. A research study or publication can be said to have had impact if it has been seen, utilized, and demonstrated evidence of tangible benefits. Editors and reviewers are faced with the crucial task of making a qualified guess of the anticipated (pre-publication) impact of submissions.

*Generalizability:* This criterion gauges the extent to which the findings or insights of the contribution can be applied to different contexts, populations, or phenomena. A contribution that demonstrates high generalizability is more likely to have broad relevance and applicability, contributing to the advancement of knowledge beyond specific cases or settings.

*Replicability:* This criterion measures the extent to which the contribution’s methods, procedures, or findings can be successfully replicated and validated by other researchers. Replicability and reproducibility are regarded as crucial for scientific credibility. A high degree of replicability indicates the robustness of a contribution’s findings within a given field (Goodman et al., 2016).

In addition to the value of a contribution, its rigor (the degree of precision, accuracy, and thoroughness in the approach used) and clarity in communication are essential characteristics. A contribution must be communicated in a manner that ensures its unequivocal understanding by researchers, policymakers, students, and others who may utilize or build upon the findings. By considering these criteria, the evaluation of scientific contributions becomes more comprehensive, supporting the advancement of knowledge and the credibility of scientific work in various fields of study.

## Coda

Isaac Newton (1642–1727), the renowned English physicist and mathematician once wrote a letter to Robert Hooke, an English scientist, stating, “If I have seen further, it is by standing on the shoulders of giants.” This metaphor, which has been traced to the French philosopher Bernard of Chartres (to whom “discovering truth by building on previous discoveries” has been attributed), emphasizes that ideas do not emerge in isolation; rather, scholars build upon the work of their predecessors, especially those great figures who have made significant contributions to a specific scientific

field. This notion lies at the heart of our special issue, featuring articles from some of the “Giants” of social justice research, where we aim to highlight that impactful scientific breakthroughs are the product of collective learning and our innate inclination to preserve, share, learn, and build upon accumulated knowledge and insights over time.

In the contemporary research landscape, particularly for young and inexperienced researchers, there are numerous choices and directions to pursue. This abundance of options can sometimes lead to confusion, causing researchers to choose misguided approaches, get entangled in unimportant research questions, and even reach dead ends. While each researcher must find their unique path and be true to their own role, embracing the guidance and insights of the giants in the field, studying their works, and being receptive to their advice can undoubtedly propel intellectual and scientific progress. Moreover, it serves as a safeguard against falling into the trap of scientific littering, where low-quality and insignificant research clutters the scientific literature, hindering the advancement of knowledge.

In conclusion, the words of Newton and the metaphor of standing on the shoulders of giants remind us of the interconnectivity and continuity of scientific discovery. It underscores the importance of honoring and building upon the wisdom of those who came before us, leading us to new insights and meaningful contributions. As we present the articles of these esteemed scholars in this special issue, we hope to inspire young researchers to be open to learning from the giants and weaving their own unique threads into the rich tapestry of scientific progress.

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