



Editorial: Fifty Years *Journal for General Philosophy of Science*

Claus Beisbart¹ · Helmut Pulte² · Thomas Reydon³

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This is the first issue of the fiftieth volume of JGPS. Half a century is a fairly long time for a philosophical journal, so we'd like to take fifty volumes of JGPS as an occasion to look back on the past of the journal and on the field to which it contributes, to reflect upon the current state of the field and to discuss likely future challenges. Our intention is of course not to be exhaustive in any sense; instead, we'll offer a brief overview of the history of this journal and add some reflections on our editorial work.

1 Foundation and Formative Years

The first issue of JGPS was published in 1970 as „Band I Heft 1“ of *Zeitschrift für allgemeine Wissenschaftstheorie—Journal for General Philosophy of Science* with Franz Steiner Verlag (Wiesbaden). From the very beginning, the English subtitle (which is now the main title) indicated that the journal was meant to be international; in fact, manuscripts written in German, English and French were considered for publication. The journal was further intended to provide a forum for various intellectual traditions and sub-disciplines of the philosophy of science. It was of special importance to the founding editors to represent both the more analytical tradition of the philosophy of the natural sciences and the more hermeneutical tradition of the philosophy of the humanities. The founding editors wanted to foster fruitful exchange between both traditions and also take into account philosophical reflections on the social sciences. In the editorial of the first issue, this intention was expressed as follows:

As much as it is obvious that we need scholarship that orients itself after the natural sciences under the label of “philosophy of science” in the Anglosaxon world, the hermeneutic discussions of the last years in the German-speaking world must not be

✉ Helmut Pulte
helmut.pulte@rub.de; jgps@ruhr-uni-bochum.de

Claus Beisbart
claus.beisbart@philo.unibe.ch

Thomas Reydon
reydon@ww.uni-hannover.de

¹ Institut für Philosophie, Universität Bern, 3012 Bern, Switzerland

² Institut für Philosophie, Ruhr-Universität Bochum, 44801 Bochum, Germany

³ Institut für Philosophie, Leibniz Universität Hannover, 30167 Hannover, Germany

ignored. It may well be that the latter will lead to a philosophical [wissenschaftstheoretische] foundation of the humanities. [...]

In this situation, this newly founded journal aims to develop a general philosophy of science [Wissenschaftstheorie] capable of covering the humanities, the social sciences and the natural sciences alike.¹

The three editors standing behind this statement were as energetic as they were competent representatives of philosophy of science: Alwin Diemer (*1920, †1986), Gert König (*1936) and Lutz Geldsetzer (*1937). They were based at the newly founded Philosophical Institute of the University of Düsseldorf and developed the journal in teamwork: Although Diemer, the only full professor at that time, had a more prominent role in founding, and securing funding for, the journal, the others were equal co-editors from the very beginning. Diemer proposed a general concept of science (Wissenschaft) that was intended to form the conceptual basis of the journal to some extent, in a paper that appeared in the first volume (Diemer 1970). While Geldsetzer was primarily responsible for the hermeneutical tradition and the humanities in general, König mainly looked after the philosophy of the natural sciences. König had spent a year in Vienna during his studies and was very familiar with the Vienna Circle and its late members there.

It doesn't come as a surprise, then, that several papers in the first issues were written by representatives of this tradition, e.g., Béla Juhos, Victor Kraft or Gerhard Frey. In 1974, Kraft offered a manuscript to the journal, and wrote in the letter accompanying it: „But it would be very important to me that the publication appears very soon so that I can still witness it. Because of my age—95 years—I can't wait very long.“² He died two months later; Gerhard Frey wrote the obituary on him for JGPS. The journal has in fact a tradition to publish obituaries, starting with that of Rudolf Carnap in the second volume (1971). The philosophers honored by such articles may serve as an illustration of how much the three editors valued openness and plurality. The first ten volumes contain epitaphs on scholars such as Yehoshua Bar-Hillel, Paul Bernays, Rudolf Carnap, Ferdinand Gonseth, Aron Gurwitsch, Martin Heidegger, Werner Heisenberg, Béla Juhos, Victor Kraft, Imre Lakatos and Michael Polanyi (cf. Engels et al. 1983, 1). Honoring important scholars by detailed obituaries was one measure of the founding editors to represent important (though diverging) voices and currents of philosophy of science in the journal.

This variety, however, is not representative of the content of the volumes that have appeared part of this journal. As it happened, the hope to feature a balanced mix of articles about the various disciplines of the sciences and the humanities was already disappointed to some extent during the first two decades of the journal. For example, while the hermeneutic tradition was initially quite strong, the number of contributions stemming from this tradition declined more and more. From the late 1980s onwards, the philosophy of the natural sciences clearly dominated the journal (cf. Geldsetzer and König 1989, 1). Still, papers on, 'general' topics—aiming at comparisons, classifications, the concept of science itself and of, 'Wissenschaft' in its broader meaning—always were present, too. As the editors put it at that time, the aim of the journal was “to avoid empty speculations and a philosophically blind scientific specialization” (ibid., 1). When we browse through the publications of these years, it seems that philosophical schools lost their power and that a certain diversification

¹ Diemer et al. (1970, 1); our translation.

² Viktor Kraft to Gert König, Nov. 8, 1974 (JGPS-Archive, Bochum; our translation).

took place. This may have been a general trend of the time, but is probably also related to the editors' concern to promote young talents, regardless of their background. Many colleagues who hold chairs in philosophy and (or) history of science today began their careers with publications in JGPS.

Topics related to the history and the evolution of the sciences, e.g. theory change, scientific progress, incommensurability and relativism, became more prominent during this time. Beside the research papers themselves, which have always formed the ‚hard core‘ of the journal, reports on the development of the philosophy of science in various countries (Länderberichte), reviews of various problems or subfields of philosophy of science, discussion notes, book reviews and last but not least comprehensive bibliographies of articles from other journals turned JGPS into an important source of information for the philosophy of science community.

2 Later Developments, Renewals and Further Internationalization

When Gert König accepted a professorship at the Ruhr Universität Bochum in 1978, the editorial office of JGPS was moved from Düsseldorf to Bochum, where it still is located. This change had of course no impact on the journal's direction and aims, nor had Alwin Diemer's untimely death in 1986. What was more relevant to the further development of the journal, however, was the decision to end the cooperation with Steiner after 20 years and volumes (cf. Geldsetzer and König 1989) and to publish the journal from 1990 onwards with Kluwer Academic Publishers (Dordrecht). The expansion of the journal was made possible by what the editors called an „encouraging internationalization“ (Geldsetzer and König 1990, v). *Zeitschrift für allgemeine Wissenschaftstheorie—Journal for General Philosophy of Science* thus became *Journal for General Philosophy of Science—Zeitschrift für allgemeine Wissenschaftstheorie*. The reversal of title and subtitle was not a superficial matter, but a well-conceived symbol for openness to a broader and international readership—a development that was further supported by the takeover of Kluwer by Springer, where JGPS is published since 2005. Gradually, English became the dominant language of publication, and two years ago, the present editors informed the readers that „[f]rom now on, articles, discussions and reviews will be exclusively published in English, which also means that submissions in other languages are no longer accepted for the reviewing process. We hope that this decision helps to further improve the international significance of the journal“ (Beisbart et al. 2017, 2).

This path was, to a certain extent, prepared by the co-founders of the journal. Lutz Geldsetzer and Gert König continued their editorial work with enthusiasm and a clear vision until 2008. Today, their periods of services—all in all nearly four decades—are hardly imaginable, and everyone familiar with the business of editing journals will pay tribute to their continued commitment.

The last few years have seen more change in the team of editors. After Helmut Pulte had joined the two co-founders in 2005, Gregor Schiemann became his co-editor in chief in 2008, when Lutz Geldsetzer and Gert König stepped down (cf. Pulte and Schiemann 2009). In 2013, the increasing number of submissions motivated the editors to join forces with a third editor, Ulrich Krohs, who served the journal until the end of 2016. At the beginning of 2015, Claus Beisbart took over the position of Gregor Schiemann, and in 2017, Thomas Reydon replaced

Ulrich Krohs. Although the editorial office is still based at Bochum, the “homeland” of the journal has somehow been expanded to Hanover and Berne in Switzerland.

For the philosophy of science, a comparatively small sub-discipline of philosophy, not only its journals are important, but also related societies that represent its interests. The editors of the journal thus very much welcomed the foundation of the German Society for Philosophy of Science (GWP) in 2011, which has recently organized the third of its international conferences. JGPS and GWP soon entered a fruitful cooperation. Among other things, the journal publishes selected talks from the triannual GWP conferences (Büter et al. 2014; Feldbacher-Escamilla et al. 2017).

3 The Present State

The development of JGPS during the last few years reflects to some extent the increasing specialisation and diversification that took place in philosophy of science. In 2010, we introduced special sections (which form proper part of an issue) and special issues in order to give more space to collections of publications with a specific focus. Due to the growing number of submissions, we agreed with Springer to increase the annual number of pages from 400 to 600 and to publish four (instead of two) issues per year. This allows more flexibility with respect to the publication of special issues on particularly relevant topics. So far, special issues and sections were devoted to e.g. Dawinism and modern biology, to the philosophy of modern physics, to the philosophy of science in practice, to the Higgs mechanism in modern particle physics, to theory-ladenness, to philosophy and climate science, to Johannes von Kries and the concept of objective probability, to new perspectives on analytic and naturalised metaphysics of science and to Goethe and Newton on the theory of colours. These examples illustrate the variety of systematic topics and historical-systematic studies that find their place in JGPS, and there is more to come in the near future.

How then does JGPS present itself around its 50th birthday? Some figures may be interesting at this point: In 2016, JGPS for the first time received more than 100 submissions; in the last year (2018), the total number of submitted manuscripts was 145. On average, it takes us about 2 months to come to a decision on the first version of a manuscript. Obviously, this time span can vary greatly between the submissions, depending on how fast we and the reviewers are. We are striving for further improvements in this respect. Ultimately, about 20% of the submitted manuscripts are accepted for publication, some of them after several rounds of revisions. Most of the submissions in the last 3 years came from the US, followed by Germany, the United Kingdom, Spain and China. All in all, papers from 59 countries worldwide have been submitted to JGPS during these years. The online deals (contracts, downloads), which have become much more important than hardcopies, are increasing steadily. While Europe is still the biggest market for the journal, North America and Asia are catching up. To celebrate the 50th volume of this journal and its successful trajectory, the editors and the publisher have decided to publish two ‘virtual issues’ with prominent articles from JGPS with free access. More information on this will flow in email alerts from Springer and the newsletter from JGPS.

4 Likely Future Challenges

The past decades have seen interesting and important developments in the philosophy of science that have led to important innovations in the field as well as to changes in the way in which research in philosophy of science is done. While the long-term effects of these developments for the field still remain to be seen, they no doubt affect publication practices of journals in the field, such as the JGPS. We want to reflect on some such developments.

The first is the rise of what has come to be called the *philosophy of science in practice*. The central motivation driving the “practice turn” (Rouse 2003; Soler et al. 2012, 2014; Kendig 2016: 3ff.) is the fact that, for much of its existence, philosophy of science has been overly focused on the logical structure of science (that is, the abstract logic of scientific reasoning) and on the products of scientific research (such as theories and explanations), but has largely neglected the actual practice of science.³ As proponents of the “practice turn” take it, instead of looking at what scientists in the various fields of science actually do on a daily basis, philosophers of science have concentrated on an abstract and largely idealized picture of what science was supposed to be. Accordingly, in the past 10–15 years, philosophers of science *as philosophers* have begun to conduct empirical studies of actual scientific practice as part of their work. Such studies may take the form of observations of everyday work in a laboratory by philosophers who are “embedded” in the lab for a few weeks or months, or interviews that philosophers conduct with the members of a particular research community or research project. In these ways, philosophers hope to gain first-hand insights into the details of how science works leading to a better account of science. But in this way they are also changing how philosophy of science is done by adding a variety of empirical methods to the philosopher’s toolbox.

With respect to the practical aspects of journal publishing, practice-oriented philosophy of science raises a number of challenges for authors, reviewers and editors. Similar to *experimental philosophy* (which plays an increasingly prominent role in ethics, epistemology and studies of human reasoning, the question of free will, and so on; see e.g. Knobe and Nichols 2017), practice-oriented philosophy of science strongly relies on data to support philosophical claims and as such is confronted with questions regarding the proper handling of data that arise in all empirical areas of investigation. Such questions include: How are the data that have been collected best presented in manuscripts? How many quotes from interviews should be given, and how detailed should these be? How should notes from field observations (such as recorded observations of lab meetings) be presented in a philosophy paper? In what form (if at all) should raw data be made available to readers of a journal paper (for example, as supplementary material)? How (if at all) should a philosophy journal make data available to the reviewers who have been asked to evaluate a submission? While authors, reviewers and journal editors in the empirical sciences have much experience with such issues and have developed ways of addressing them that have proven successful over time, for philosophers of science these issues are new, and good practices still need to be developed. As a recent study focusing on experimental philosophy has shown, the philosophical community has so far not addressed these issues, and journals have still to develop guidelines for authors and reviewers regarding how non-traditional philosophy papers are to be handled (Polonioli 2017: 1030).

³ See also the Mission Statement of the *Society for Philosophy of Science in Practice* (<http://www.philosophy-science-practice.org/about/mission-statement>, accessed February 15, 2019).

Somehow similar issues are likely to arise if philosophers increasingly turn to models and computer simulations to study science, as some authors have done (see e.g. Zollman 2010). Currently, a special issue on formal models in philosophy of science is under construction for this journal, and we were indeed asked whether it would be possible to publish a more technical appendix that is available only online. This shows how research practices in philosophy of science impact on publication formats.

In a similar way as philosophy of science in practice and experimental philosophy, the movement for an *integrated history and philosophy of science* (that already has its roots in the 1960–1970s, but has recently gained much traction with the establishment of the *Committee on Integrated HPS* in 2006) is adding elements to the toolbox of philosophers of science (see, e.g., Schickore 2011; Mauskopf and Schmaltz 2012). While, in the past, philosophy of science was often closely connected to the history of science, so far philosophers mainly used the results of historical research as input for their own work. They did not *do* historical research themselves. A central idea in the integrated history and philosophy of science movement is that examining a particular area of science from a philosophical perspective often must involve examining the historical development of that area, as the history of concepts, theories, and so on, can tell us much about their epistemic content and the roles they play. Conversely, examining a particular aspect of the history of science often involves looking at the concepts, theories, and so on of the time, such that some philosophical work will be part of the historical research. As the Mission Statement of the *Committee on Integrated HPS* puts it: “Good history and philosophy of science is not just history of science into which some philosophy of science may enter, or philosophy of science into which some history of science may enter. It is work that is both historical and philosophical at the same time.”⁴ Integrated history and philosophy of science thus brings serious historical research into the fold of philosophy of science and accordingly confronts authors, reviewers and journal editors in the area of philosophy of science with the task of dealing with something that has not traditionally been part of the papers in their area. From an editorial perspective, for example, there is the issue of an increasing level of specialization and, accordingly, a decreasing number of available specialists. A paper that thoroughly integrates historical and philosophical scholarship on a particular topic needs reviewers that thoroughly integrate both kinds of scholarship and also are sufficiently specialized on the paper’s topic. As most journal editors will probably agree, reviewers are increasingly hard to find—everyone has less and less time, and usually reviewing does not count for anything at one’s home institution. The increased level of specialization that work in integrated history and philosophy of science embodies adds to this problem because the pool of potential reviewers that a journal editor can approach is smaller than for traditional work in the philosophy of science.

These are but some challenges that our journal is likely to face in the future. At this point, what we can do is only to assure our readers and potential authors that we are open to publish work that uses empirical data or models or that contributes to an integrated history and philosophy of science. We’ll strive for publication formats that support works of this kind.

At the same time, we are eager to help make sure that philosophy of science doesn’t get bogged down in specialized inquiries that do not connect to topics of broader relevance. We take it to be an important task to publish papers on “the big picture”, on problems of

⁴ Mission Statement of the *Committee on Integrated HPS* (<http://integratedhps.org/en/about/>, accessed February 15, 2019).

broader relevance in our journal in order to preserve the integrity and unity of philosophy of science. This is not to exclude any work in the philosophies of the special sciences—philosophy of physics, philosophy of biology, the social sciences, and the humanities. What we take the term “general” in the name of the journal to reflect is rather the commitment to be open to all approaches in the philosophy that strive for a better philosophical understanding of the various disciplines of the sciences and the humanities, their practices and their findings. In particular, we wish to be open to voices that diverge from “mainstream” and that introduce new perspectives.

5 Words of Thanks—and a Promise

Looking back on the past, we become aware how much we can build upon the shoulders of others. We are extremely grateful to the founding editors and proud to be able to continue their work. We very much hope that Lutz Geldsetzer and Gert König still enjoy the philosophical work that appears in JGPS. We would like to extend our thanks to the other previous editors, Gregor Schiemann and Ulrich Krohs, as well as to the former book review editor Michael Anacker and the present one, Jan Baedke. We are further grateful to the members of the international Editorial Board from all over the world for their valuable advice. Special thanks go to the secretaries in Bochum who have done a wonderful job in translating, proofreading etc. and to the Springer production team. Needless to say that our readers would not be able to see one single issue without their help.

Last, but not least, we’d like to thank you, our subscribers and readers! We are grateful for your enduring interest and loyalty. At the occasion of the 50th volume of our journal, we would like to invite you to send us your suggestions on how we can build the future of JGPS. We will give serious consideration to every piece of advice that is in the common interest of general philosophy of science. And we promise to continue our work for a thriving JGPS that publishes multifaceted, excellent work in all areas and traditions of philosophy of science.

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