



# TRADITION & DISCOVERY

The Polanyi Society Journal

Volume XLIX

Number 2

July 2023



## CONTENTS

|                                                                                                       |   |
|-------------------------------------------------------------------------------------------------------|---|
| <b>Preface and Notes on Contributors</b> .....                                                        | 3 |
| <b>Forum on <i>Guide to Personal Knowledge</i></b>                                                    |   |
| Comments on <i>Guide to Personal Knowledge</i> .....                                                  | 4 |
| <i>Jon Fennell</i>                                                                                    |   |
| Reflections on <i>Guide to Personal Knowledge</i> .....                                               |   |
| <i>David W. Agler</i>                                                                                 |   |
| A Philosophy for Our Time? A Comment on Paksi and Héder's<br><i>Guide to Personal Knowledge</i> ..... |   |
| <i>Alessio Tartaro</i>                                                                                |   |
| Further Thoughts on <i>Guide to Personal Knowledge</i> : Response to Our Reviewers.....               |   |
| <i>Daniel Paksi and Mihály Héder</i>                                                                  |   |
| <b>Book Reviews</b>                                                                                   |   |
| Péter Hartl and Adam Tamas Tuboly (eds). <i>Science, Freedom, Democracy</i> .....                     |   |
| <i>Chris Mulherin</i>                                                                                 |   |
| J. Bradford DeLong. <i>Slouching Towards Utopia</i> .....                                             |   |
| <i>Martin Turkis</i>                                                                                  |   |
| Matteo Bortolini, <i>A Joyfully Serious Man: The Life of Robert Bellah</i> .....                      |   |
| <i>Peter Blum</i>                                                                                     |   |
| <b>Journal Information</b>                                                                            |   |
| Editorial Board and Submissions Guide .....                                                           | 2 |

E-Reader Instructions, Society Resources, and Society Board Members are now posted on [www.polanyisociety.org](http://www.polanyisociety.org) under CURRENT ISSUE and/or in the *TAD* archives.

# Tradition & Discovery

## Book Review Editor

Martin Turkis  
Independent Scholar  
San Francisco, CA  
[mturkis@yahoo.com](mailto:mturkis@yahoo.com)

## Managing Editor

Paul Lewis  
Roberts Department of Religion  
Mercer University  
Macon, GA 31207  
[lewis\\_pa@mercer.edu](mailto:lewis_pa@mercer.edu)

## Editorial Board

Ellen Bernal  
Bioethicist, Retired  
Perrysburg, Ohio 43551  
[ellermob@gmail.com](mailto:ellermob@gmail.com)

Araminta Johnston  
Independent Scholar  
Charlotte, NC  
[asjohnclt@aol.com](mailto:asjohnclt@aol.com)

Charles Lowney  
Hollins University  
Roanoke, VA 24019  
[lowneycwl@gmail.com](mailto:lowneycwl@gmail.com)

Stan Scott  
Emeritus Professor, UMaine—Presque Isle  
Independent Scholar  
Portland, ME 04101  
[stan.scott@maine.edu](mailto:stan.scott@maine.edu)

## Editor Emeritus

Phil Mullins  
Missouri Western State University  
St. Joseph, MO 64507  
[mullins@missouriwestern.edu](mailto:mullins@missouriwestern.edu)

## Book Review Editor Emeritus

Walter Gulick  
Montana State University Billings  
Billings, MT 59101  
[wgulick@msubillings.edu](mailto:wgulick@msubillings.edu)

## Submission Guidelines

Submissions: All manuscripts should be submitted as a Microsoft Word file attached to an email message. Articles should be no more than 6000 words in length (inclusive of keywords, abstract, notes, and references) and sent to Paul Lewis at [lewis\\_pa@mercer.edu](mailto:lewis_pa@mercer.edu). All submissions will be sent out for blind peer review. Book reviews should be no more than 1000 words in length and sent to Jean Bocharova at [jbocharova@msjc.edu](mailto:jbocharova@msjc.edu).

Spelling: We recognize that the journal serves English-speaking writers around the world and so do not require anyone's "standard" English spelling. We do, however, require all writers to be consistent in whatever convention they follow.

Citations:

- Our preference is for Chicago's parenthetical/reference style in which citations are given in the text as (last name of author year, page number), combined with full bibliographical information at the end of the article. One exception is that Polanyi's major works may be cited parenthetically using the following abbreviations (with abbreviations italicized):

*CF* *Contempt of Freedom*

*KB* *Knowing and Being*

*LL* *Logic of Liberty*

*M* *Meaning*

*PK* *Personal Knowledge*

*SEP* *Society, Economics, and Philosophy*

*SFS* *Science, Faith, and Society*

*SM* *Study of Man*

*STSR* *Scientific Thought and Social Reality*

*TD* *Tacit Dimension*

For example: Polanyi argues that .... (*TD*, 56). Full bibliographical information should still be supplied in the references section since many of us may work with different editions of his works.

- Endnotes should be used sparingly and be placed before the reference section.
- We do recognize that Polanyi's work connects with scholars who work in diverse disciplines that use different style guides. To the extent that our software allows, we will accept other styles (e.g., APA or MLA) so long as the author is consistent and careful in following it. The main point, of course, is to give the reader enough information to locate and engage your sources. Manuscripts that are not careful and consistent in style will be returned so that the author can make corrections, which may delay publication.

For more information see <http://polanysociety.org/Aims-and-Scope-9-12-18.htm> and <http://polanysociety.org/TAD-Submissions&Review-9-12-18.htm>

*Tradition & Discovery* is prepared by Faithlab in Macon, GA.

*Tradition & Discovery* is indexed selectively in *The Philosopher's Index* and *Religious and Theological Abstracts* and is included in both the EBSCO online database of academic and research journals and the Directory of Open Access Journals. *Tradition & Discovery* is also available online at [www.polanysociety.org](http://www.polanysociety.org).



## PREFACE

We devote this issue of *Tradition and Discovery* to a forum on the *Guide to Personal Knowledge*, prepared by Daniel Paksi and Mihály Héder to help readers make sense of Polanyi's *Personal Knowledge*. We also have the usual complement of reviews on books that reflect the varied interests of Polanyi and our readership.

As always, keep up with the latest news about Zoom discussions, conferences, etc., at [www.polanyisociety.org](http://www.polanyisociety.org) and the discussion list.

Last, but not least, remember that the Polanyi Society (and *Tradition and Discovery*) need your support through dues and/or donations. You can donate to the Society at [www.polanyisociety.org](http://www.polanyisociety.org).

Paul Lewis  
Managing Editor

## NOTES ON CONTRIBUTORS

**David W. Agler** ([dwa132@psu.edu](mailto:dwa132@psu.edu)) is an Assistant Teaching Professor in Philosophy at The Pennsylvania State University. His research interests include Classical American Philosophy, Metaphysics, and the Philosophy of Language. He is the author of *Symbolic Logic: Syntax, Semantics, and Proof* (2012).

**Peter Blum** ([pblum@hillsdale.edu](mailto:pblum@hillsdale.edu)) is professor of philosophy and culture and director of the sociology and social thought program at Hillsdale College. His interests include 20th century Continental philosophy, pragmatism, psychoanalytic thought, history of sociology, and sociology and philosophy of religion.

**Jon Fennell** ([jfennell@hillsdale.edu](mailto:jfennell@hillsdale.edu)) is professor emeritus at Hillsdale College. He is the author of numerous studies on Polanyi.

**Mihály Héder** ([hedermisi@gmail.com](mailto:hedermisi@gmail.com)) teaches Research Methodology, Science and Technology Studies, Economics, and Philosophy of Technology at the Budapest University of Technology and Economics. He is involved in the creation and teaching of the Human-Centered AI Masters program.

**Chris Mulherin** ([ChrisMulherin@iscast.org](mailto:ChrisMulherin@iscast.org)) is an Anglican minister and CEO of ISCAST—Christians in Science and Technology in Australia. He is the author of *Science and Christianity: Understanding the Conflict Myth*, designed for use in schools and churches.

**Daniel Paksi** ([daniel.paksi@filozofia.bme.hu](mailto:daniel.paksi@filozofia.bme.hu)) is the author of *Personal Reality: The Emergentist Concept of Science, Evolution, and Culture* (Two Volumes, Pickwick Publications, 2019) and the co-author of *Guide to Personal Knowledge: The Philosophy of Michael Polanyi, Tacit Knowledge, Emergence and the Fiduciary Program* (Vernon Press, 2022).

**Alessio Tartaro** ([alessiotartaro@gmail.com](mailto:alessiotartaro@gmail.com)) is currently a PhD student at the University of Sassari, Italy. His areas of expertise and interest include the philosophy of AI, the multiple facets of datafication, and the thought of Michael Polanyi.

**Martin Turkis II** ([mturkis@yahoo.com](mailto:mturkis@yahoo.com)) is a teacher, musician, and philosopher residing in San Francisco. His book, *The Metaphysics of Michael Polanyi: Toward a Post-critical Platonism*, is forthcoming with Palgrave Macmillan.



## REVIEW ESSAYS ON

*Guide to Personal Knowledge: The Philosophy of Michael Polanyi*  
by Dániel Paksi and Mihály Héder. Wilmington, DE: Vernon  
Press, 2022. ISBN-13: 978-1648893131. \$74.00.

**Keywords:** Jon Fennell, David Agler, Alessio Tartaro, Daniel Paksi, Mihály Héder, Michael Polanyi, philosophy of science, philosophy of language, objectivity, subjectivity, personal knowledge, reviews of *Personal Knowledge*

### ABSTRACT

*These articles identify some of the difficulties in reading philosophical texts, the ways in which Paksi and Héder attempt to do so with regard to Polanyi's Personal Knowledge, and shortcomings in the attempt to make the principal themes and arguments of Polanyi's book clear to new readers.*



### Comments on *Guide to Personal Knowledge*

Jon Fennell

#### Introduction: On Writing in a Foreign Tongue

I can express myself in only one language other than my native English. I am reluctant to write even a letter in that language (French) and would not realistically consider employing it to compose a professional paper, not to mention a book. And yet the authors of this ambitious new volume have done precisely that: native speakers of the Hungarian language, they offer us a book written in English whose purpose is to serve as a “guide” to Polanyi’s *Personal Knowledge*, which is, of course, also written in English. One marvels at this courageous undertaking. But there is good reason for my reluctance *écrire en français*. *Guide to Personal Knowledge*, in its use of English, is troubled indeed.

This volume is certainly the fruit of noble intentions, and because I respect the authors, I have no wish to disparage the enterprise. But since I assert that the book suffers considerably for having been written in

the authors' second language, it is necessary to provide evidence for the claim. I will begin by doing so. In the closing section I turn to more substantive matters.

### Faulty Diction, Incorrect Grammar, and Insufficient Editorial Support

*Guide to Personal Knowledge*, due to the authors' lack of deep intimacy with English, suffers from persistent faulty diction. The result is that they routinely do not say what they mean and the reader encounters frequent solecism. Inevitably, this lack of precision produces ambiguity. These factors yield, for the reader, constant discomfort rooted in the fear of having misunderstood what has been written. As a consequence, especially if he or she is new to Polanyi, the reader remains uncertain that the book correctly interprets *Personal Knowledge*. Moreover, and especially problematic for an intended "guide" to a text, it is often impossible to distinguish between 1) a genuine issue in Polanyi's account (i.e., the authors' interpretation of it) and 2) a difficulty arising out of the labored and imprecise prose.

I will illustrate these problems, as briefly as possible, with several examples.

1. After quoting Polanyi to the effect that science is not morally neutral, the authors attempt to explain Polanyi's meaning, asserting that "Polanyi states that morality and science are not inseparable because, in both domains, we are led by personal tacit passions..." (72). Perhaps they mean to say that morality and science "are inseparable" or "are not separable." But maybe they do mean what they say. The statement is explicit, after all. Is this an error or not? Who can tell?
2. Later in the same paragraph is the following: "Consequently, owing to the fact that collective tacit foundations were present even in the early forms of evolution, scientific and moral truths are in accordance with each other thus, [sic] proper scientific ideas do not contradict proper moral commitments." I will assume, perhaps ill advisedly, that the authors have earlier made clear what they mean by the statement "collective tacit foundations were present even in the early forms of evolution."<sup>1</sup> But, even if this is true, what are readers to make of the implicit gap-filling logic here? It would seem that "early forms of evolution" (by which the authors must mean "earlier, less-evolved instances of life," or the like) are responsible for scientific and moral truths now being in accord. How is this the case? And, whatever that case may be, why and how does this lead to "proper scientific ideas" not being in contradiction with "proper moral commitments"? What are "proper" ideas and moral commitments? (That is, what do the authors really mean by use of this term?) What does "in accordance" mean? The phrase, which presumably goes to the heart of Polanyi's point, is vague. Complicating these issues, and making the authors' meaning even more difficult to discern, is the grammatical error in the sentence. The cogitation and confusion occasioned by this paragraph is, unfortunately, typical (see the problematic paragraphs that immediately follow), and that is why it takes a long time to read and make sense of a single page in this book.
3. The opening sentence of a new section in chapter 7 states that "[t]he development of knowledge in different sciences is granted by the tacit foundations, which sustain the operation of articulated systems of knowledge" (88). What does "granted by" mean here? Perhaps it is equivalent to "made possible by." But even this substitute is vague and imprecise. It is also possible that "granted by" was meant to say something like "provided authority by" or, very simply, "enabled." The reader is puzzled. Then, after a lengthy quotation from page 203 of *Personal Knowledge* (one in which a

small unintended dot of ink on that page is rendered by our authors as a hyphen or dash—an error that should have been caught through proofreading by a capable English-speaking editor), the text reads: “Articulated communication is made possible by commonly possessed tacit knowledge, which motivates and fills the acts of explicit communication with meaning. . . .” What is the purpose of the term “motivates” here? A dictionary defines the word as “to provide with an incentive” or “to impel.” What incentive is provided by tacit knowledge? (Is tacit knowledge even the sort of thing that *can* provide an incentive?) Where is the impulsion and what is its nature? Then, in the sentence that follows, the authors state, “This shared tacit knowledge, which we rely on when evaluating explicit manifestations, is the same in everyone.” What “evaluating explicit manifestations” means is unclear, but, more significantly, the reader is here plagued by an ambiguity: Does “is the same in everyone” mean a) that tacit knowledge is present in everyone or b) that the particular tacit contents are the same in everyone? Do note that the authors’ interpretation of Polanyi is not the immediate issue; I am simply pointing out how difficult it is to understand what they mean to say.

While I might cite many additional ambiguous and fundamentally confusing passages, it is also true that, on occasion, the reader of *Guide to Personal Knowledge* encounters clear paraphrases or summaries of Polanyi’s position. This short paragraph from chapter 7 is such a case: “Thus, a precondition of communication is the kind of conviviality in which authority and trust tacitly connect the participants in communication” (89). So too is this phrase from chapter 11: “*The essence of a person is that he follows his ideal to which he committed himself*” (154). (The authors should be saluted for italicizing this statement—one that captures an aspect of Polanyi that brings him into concert with C. S. Lewis in *The Abolition of Man*.) Moreover, as noted below, the authors in this same chapter clearly distinguish Polanyi’s position from the misunderstandings of both objectivism and relativism.

Considering the book as a whole, chapter 11, corresponding to Polanyi’s chapter 11 (“The Logic of Achievement”), is the one least plagued by English writing problems such as I have briefly surveyed above. I must confess, however, that the clearest language in *Guide to Personal Knowledge* appears in the numerous quotations from Polanyi himself. Ironically, it is more often the case that Polanyi serves as a guide to this text than that the text serves effectively as a guide to his work. Such Polanyian rescue of the commentary is apparent throughout.<sup>2</sup>

As has already been suggested, this book lacks proper proofreading. Unfortunately, this is evident from the outset. Examples include a reference in the preface to “a list of quotations” that does not exist in the published product, inaccurate citations (see pages 113 and 135), and inconsistent use of personal pronouns and grammatically problematic antecedent-pronoun agreement, including the use of “they” and “their” to refer to a singular antecedent (see page 22 and throughout).

All writers make errors. The question I wish to raise is this: Why were such problems not detected before publication? Proofreading by the publisher’s agent is indispensable for any publication. It is, of course, imperative when the authors are writing in a foreign tongue.

### Organization of the Book

We have no other choice but to work with the book that we have. Accordingly, in the section that follows I will examine, despite the abundant ambiguities and distractions, some important matters raised by *Guide to Personal Knowledge*. As a prelude, let us note how the book is organized. Following a foreword by



C. P. Goodman (rife with problems of its own), there is the preface, and after this the book mirrors the parts and chapters of *Personal Knowledge*. Both Polanyi's book and this guide to it therefore have thirteen chapters. Each of the chapters opens with "Goals of the chapter," the authors' heading for a summary of points that they will address in the pages ahead. Each chapter closes with a "Conclusion." Within the various chapters are intermissions consisting of subsidiary discussions of topics raised by the analysis of Polanyi but somewhat tangential to it. Each of these subsidiary discussions (with one erroneous exception) is enclosed within a numbered "box." As noted above, *Guide* contains abundant quotations, many of substantial length, from *Personal Knowledge*. There is at the end of the book a serviceable bibliography and a useful index.

### Matters of Greater Substance

There are at least a dozen substantive matters raised by this book that deserve closer inspection, but I can here examine only a small number of these. The first topic in our truncated list is somewhat technical. In chapter 9 ("The Critique of Doubt"), the authors state the following: "The most deeply rooted convictions of human nature are called implicit beliefs by Polanyi. These convictions are explained and determined by the conceptual frameworks of natural languages by which experiences are tacitly interpreted" (128). The question that arises here is whether, for Polanyi, experiences are "interpreted" by conceptual frameworks. Might it instead be the case that they are *constituted* by such frameworks? To say that an experience is interpreted entails that it in some fashion exists in advance of the interpretation. But what is an experience that is not interpreted (i.e., that is not itself an instance of interpretation or judgment)? It is true that in the section of *Personal Knowledge* titled "Dwelling In and Breaking Out," Polanyi speaks of "the mind...directly experiencing its content rather than controlling it by the use of any pre-established modes of interpretation" (*PK*, 196). For myself as reviewer, the notion of "direct experience" is incoherent. This assessment, moreover, is rooted in the persuasiveness of Polanyi's grand project of establishing the ubiquitous authoritative influence of the personal. In light of the role of conceptual frameworks, and considering the character of human epistemological formation, what sense can we make of experience independent of interpretation or judgment? What, after all, *is* experience? One response is that experience is an instance of thought, *marked by recognition* (of reality), consisting of a concrete whole that we are apt misleadingly to divide into "what is experienced" and "experiencing." If this is an accurate portrayal of the matter, rather than speak of direct experience, would it not be more consistent for Polanyi to speak, under the heading of "breaking out," of *alternative* experience—experience that is markedly in contrast to what is more commonly the case and that is attributable to the impact of a quite different, perhaps spontaneously occurring, alternative framework? Discussion of this matter would be most appropriate for a guide to *Personal Knowledge*. It would be interesting to know whether our authors agree that Polanyi is inconsistent and, if not, how they reconcile the apparent discrepancy.

The second topic warranting our attention is Polanyi's concepts of "ordering principles" and "operational principles," and the connection between them. In the preface to *Guide to Personal Knowledge*, after accurately observing that, on Polanyi's account, "operational principles can only work in the right physical-chemical conditions," the authors state that such principles "kick-started life" (xxii). This latter claim strikes me as odd. It is true, as the authors aver, that operational principles are "features of nature." But as a reader of *Personal Knowledge*, I have always understood operational principles (which characterize the proper functioning of living beings as well as machines) to be rules of rightness that have emerged in the course of evolution. In this sense, it is the operational principles that are "kick-started," and they themselves do not



kick-start anything. The kick-starting is instead provided by Polanyi's "ordering principles," which are themselves "released by random fluctuations" in the universe (*PK*, 384; Polanyi's emphasis). If this interpretation of Polanyi is correct, then it would seem that the authors have confounded the two sorts of principles and have attributed to operational principles that which belongs only to the even more fundamental ordering principles.<sup>3</sup> Further, while it thus is accurate to say that for Polanyi ordering principles "kick-start" processes (including life itself), this is true in a somewhat peculiar sense: ordering principles possess untold potential, but such potential produces a real effect only as the consequence of a random, and hence contingent (or, to use Polanyi's term, "accidental"), event. An additional consequence of this interpretation of Polanyi, if indeed it proves true, is that, as the authors state on the subsequent page, all that exists has roots in the material. But ordering principles must on this account also exist *in some non-material sense* from the beginning (in the form of potentiality). It is only because they already in this sense exist that they can, after all, be released by the "random fluctuations." Our authors, it appears, concur, for on page 186 they state that "the potential ordering principle of life," before the emergence of life, is "a possibility-condition [which later] initiated the emergence of life." But this initial semblance of clarity is compromised by something said just prior, namely, that "the potential ordering principle of life is nothing more in space-time than a *favorable order of material conditions*" (the authors' emphasis). The authors in this discussion introduce the distinction between the epistemological and the ontological, and they provide a sidebar labelled "Epistemological and ontological emergence." The distinction between the epistemological and the ontological appears important to the authors' account of ordering principles. But the associated discussion raises more issues than it resolves. We are thus left with the problems and questions noted above.

A third topic calling for our attention is Polanyi's commitment in *Personal Knowledge* to performative consistency (i.e., his successful avoidance of performative contradiction, a fatal flaw in reasoning in which the expression or affirmation of a position is inconsistent with its content). In *Guide to Personal Knowledge*, this matter, while never explicitly mentioned, is to a degree addressed under "the fiduciary program" (pages 116–118). While the authors are sensitive to what is arguably Polanyi's central contribution to the Western intellectual tradition, they do not fully appreciate its significance and, as a result, fail to assign it suitable emphasis.

Our hopes for a fuller development are stimulated when the authors in chapter 10 ("Commitment") insightfully declare that 1) Polanyi is opposed to relativism as well as objectivism, 2) he argues that any comprehensive position is necessarily circular, and 3) he is committed to honesty and consistency, and endeavors to proceed accordingly (pages 134–135). At this point the authors cite (without acknowledgement of the italics and quotation marks employed by Polanyi) one of the several explicit confessional statements that constitute the heart of *Personal Knowledge*: "I believe that in spite of the hazards involved, I am called upon to search for the truth and state my findings" (*PK*, 299).<sup>4</sup> Polanyi in this confessional statement is referring to his "calling," a matter that is discussed by him in some detail but that, peculiarly, is not listed in the index to the guide. The authors do, however, discuss "calling" at the close of chapter 10, and to their credit they understand the importance of what Polanyi articulates under this heading. In his view, every individual is the product of a contingent tradition by and through which one is called into being ("into our particular form of existence" [*PK*, 321]). Polanyi observes that

we are creatures of circumstance. Every mental process by which man surpasses the animals is rooted in the early apprenticeship by which the child acquires the idiom of its native

community and eventually absorbs the whole cultural heritage to which it succeeds. Great pioneers may modify this idiom by their own efforts, but even their outlook will remain predominantly determined by the time and place of their origin. Our believing is conditioned at its source by our belonging. And this reliance on the cultural machinery of our society continues through life. (*PK*, 322)

Now, where an epistemological relativist would at this point declare “Aha! All ‘values’ are therefore ‘relative’ and knowing can consist of nothing other than a multiplicity of equally authoritative perspectives,” Polanyi rejects that conclusion and instead passionately asserts that our contingent and intrinsically personal cultural circumstances are an opportunity (the sole opportunity) for seeking and arriving at the truth. Through the confessional statements that permeate *Personal Knowledge*, Polanyi is affirming his faith in these circumstances and the possibilities contained therein. And, as our authors appropriately note (page xviii), while Polanyi believes that in our claim to know it is always possible that we are wrong, in order to arrive at the truth, we must trust that we are not.

In allegiance to honesty and consistency (moral aspects of the cultural heritage to which he openly professes a commitment), Polanyi insists that the authority he claims for his account of the human condition and its possibilities is no greater than what that account itself allows. Not quoted on page 134 of *Guide to Personal Knowledge* is this essential remark by Polanyi: “Any inquiry into our ultimate beliefs can be consistent only if it presupposes its conclusions. It must be intentionally circular” (*PK*, 299). Polanyi then goes on to say,

The last statement is itself an instance of the kind of act which it licenses. For it stakes out the ground of my discourse by relying essentially on the very grounds thus staked out; my confident admission of circularity being justified only by my conviction, that in so far as I express my utmost understanding of my intellectual responsibilities as my own personal belief, I may rest assured of having fulfilled the ultimate requirements of self-criticism; that indeed I am obliged to form such personal beliefs and can hold them in a responsible manner, even though I recognize that such a claim can have no other justification than such as it derives from being declared in the very terms which it endorses. Logically, the whole of my argument is but an elaboration of this circle; it is a systematic course in teaching myself to hold my own beliefs. (*PK*, 299)

As he states in the preface to *Personal Knowledge* (and serving as the context within which the book as a whole is to be read), “All affirmations published in this book are my own personal commitments; they claim this, and no more than this, for themselves.” In short, Polanyi is committed to limiting the scope and claimed authority of his utterances to what is possible should those utterances in fact prove to be true. That is, he is *performatively consistent*. What this means, as Polanyi indicates throughout *Personal Knowledge*, is that what are traditionally known as “foundations” for claims to truth are an illusion, and there are instead only *grounds* for such claims—grounds that, while admittedly local and contingent (and necessarily mediated by the personal), are capable of illuminating truths that are universal and therefore binding on all persons at all times and in all places. No dimension of *Personal Knowledge* is more significant than this confession of, and response to, the necessarily self-reflexive character of justification. It deserves a more prominent role in Paksi and Héder’s guide.

The fourth and final topic is closely related to the third. If “[o]ur believing is conditioned at its source by our belonging” (*PK*, 322), and as a result any comprehensive position is necessarily circular, how are we to assess ways of thinking in conflict with our own? In what sense, and on what grounds, can we legitimately judge them to be erroneous? Our authors understand that there is a problem. They state, “A question arises: if [as explicitly maintained by Polanyi at *PK*, 316] there is only one truth, then what does a person have to think about the ‘truth’ of other conceptual systems, which is different than the truth in which the person believes according to his conceptual system and convictions?” Answering their own question, they go on to say that “Polanyi’s answer is simple: he has to reject it as false a belief [sic]” (142). Now, while the authors are certainly correct in stating that Polanyi is prepared to judge rival views as mistaken (consider, for example, his assessment in *Personal Knowledge* of the supernatural worldview of the Azande), there is nothing “simple” about the underlying reasoning. Rather, we encounter here what may be the most profound element of Polanyi’s thought.

The authors correctly note that for Polanyi a rival conceptual system may, while erroneous, still be “rational and competent” (143). (That of the Azande qualifies on this score.) The authors perceptively add that, in judging the rival to be flawed, Polanyi is necessarily drawing upon the authority afforded by his own personal background (i.e., by the particular contingent cultural heritage and related character formation that provides the occasion for his “calling” and whose exploration, qua a search for the truth, constitutes the work of that “calling”). What the authors thereby lead us to understand, but are seemingly reluctant to state explicitly, is that the grounds on which Polanyi rejects a rival view as incompetent are ultimately the same as those that permit him to regard his own as competent, and we already know that these are essentially circular. For Polanyi, the justification for the claim to know is, in the final analysis, belief in and commitment to the principles and ideals invoked and honored in thus coming to know. Polanyi, of course, is a fallibilist: he understands that it is always possible that he may be wrong. It is presumably due to this feature of Polanyi’s position that our authors assert that, in the face of the fact of multiple rival conceptual systems, Polanyi believes that we are obliged to be tolerant (143). This is probably saying too much. (After all, Polanyi passionately condemned Marxist debunking of principle, Soviet restrictions on freedom, Nazi mockery of the ideal, etc.) Can we imagine, for example, Polanyi tolerantly standing by in the presence of enforced suttee or of capital punishment on the basis of reading a dead fowl’s intestines? The larger and more significant point, however, is this: the grounds for the incumbency of fallibilism (as well as for whatever tolerance we feel obliged to exercise) are the same as for the honesty and consistency noted above. The appeal, in justification, to foundations is for Polanyi no longer viable. In *Personal Knowledge*, he is describing (and thereby, in the only way truly possible, arguing for) the sort of belief-based, faith-centered humanity he would have everyone embrace. He endeavors to expand the realization of that vision by persuading the reader, precisely through the beauty and nobility of such a life, to join him in it. In what will we believe? To what will we commit? Above all, in what will we have faith? The manner in which one responds to these questions constitutes the master game, and in that game, whose central purpose is preservation of that to which, through good fortune, we are heir, everything we cherish is at stake. This is the ultimate meaning of “grounds without foundations.” And even if in honoring our calling we pray for grace, Polanyi teaches that this possibility, too, depends on the readiness of the recipient.

#### ENDNOTES

<sup>1</sup>Peculiar unexpected references to evolution are common in the book.

<sup>2</sup>Interested readers with access to the guide might, for example, consult pages 58, 96–97, 130–131, and 188–189.

<sup>3</sup>See, too, page 195 of the guide. In an attempted paraphrase of what Polanyi has to say about the creation of a “center of self-interest,” the authors state, “Through using its operational principles, this will maintain its own integrity. In the case of living beings, this means ordering principles that are not determined by material conditions but by the logic of achievement.”

<sup>4</sup>*Guide to Personal Knowledge* italicizes and places within quotation marks all passages from Polanyi. Therefore, to capture Polanyi’s use of italics and quotation marks, the authors need to use non-italicized characters and a second set of quotation marks.

## REFERENCE

Polanyi, Michael. 1962. *Personal Knowledge: Towards a Post Critical Philosophy*. Chicago: The University of Chicago Press.



## Reflections on *Guide to Personal Knowledge*

David W. Agler

Paksi and Héder’s *Guide to Personal Knowledge* (hereafter *GPK* and *Guide*) is, as the title suggests, a guide of the most important and original ideas of Michael Polanyi’s book *Personal Knowledge: Towards a Post-Critical Philosophy* (1958, hereafter *PK*). Is a guide to *Personal Knowledge* needed? I think the answer is a resounding “yes” for many new readers. To see why, let’s briefly review two common complaints about *PK*.

First, consider that many of the core theses of *PK* are easy to state in a punchy way that makes readers initially enthusiastic about Polanyi’s *magnum opus*. But this enthusiasm is quickly extinguished by the text itself. Part of the difficulty of *PK* is due to the manifold topics Polanyi discusses. As Gulick puts it,

He [Polanyi] writes at one time or another about savings and investment, the anthropology of preliterate people, the role of authority in society, visionary poetry, science in contrast to technology, learning theory, patents, mythology, nihilism, evolutionary theory, the Hungarian revolution, metaphor, causal explanation, illusion in painting, totalitarianism, probability, the role of faith and passion in intellectual life, creativity and discovery—and the list could be extended on and on. (Gulick 2012, 4)

On the one hand, this diversity can be interpreted in terms of the richness, suggestibility, and scope of the work. On the other hand, it can cause some to lose their grip on the central theme(s) of *PK*.<sup>1</sup> For example, consider the complaint expressed by Oakeshott (1958, 77), who wrote that *PK* is a “jungle,” viz., “full of side-glances into other matters; it is disordered, repetitive, digressive.”<sup>2</sup> So why did Polanyi feel the need to elaborate on so many diverse subjects? For Paksi and Héder, it is because the faulty understanding of scientific practice and knowledge as a detached, purely objective, mechanistic procedure extends beyond the scientific community into everyday life (*GPK*, xvi). At its worst, this impersonal ideal of knowledge manifests itself as a type of moral skepticism, which gets coupled with an excessive moral sensitivity and then is codified in some form of totalitarianism. In short, Polanyi didn’t limit himself to a single topic, for doing so would ignore how pervasive the disease of detached objectivity had become.

A second challenging aspect of *PK* is that Polanyi's terminology is said to be idiosyncratic and equivocal, which produces the feeling of both profundity and obscurity. Oakshott noted this to be the case, remarking that Polanyi surrounds "his argument with an embroidery" that doesn't clarify or qualify his claims but instead simply elaborates on connected themes. More forcefully, Alan White noted that the key fault of *PK* was that it lacked "any critical examination of its key notions" (1960, 378), claiming that Polanyi wants, on the one hand, to say that scientific knowledge itself (rather than the activity of scientific practice) is *not objective* because it involves a personal element but, at the same time, is *not subjective*. White concludes his review of *Personal Knowledge* with frustration, remarking that *PK* contains hundreds of sentences that "remain unintelligible to me after repeated reading of them" (1960, 378).

If *Personal Knowledge* is a deep, meandering jungle with large pockets of darkness, then Paksi and Héder have hacked a straight and clear path through it. The *Guide* is shorter than *PK* (~209 pages to ~428 pages) and laser-focused on what they take to be the core themes, ideas, theses, and arguments of *PK*. In addition to its brevity and directness, Paksi and Héder are also sensitive to the work's obscurity, and so they work to provide clear definitions or clarifications of some of Polanyi's more contentious terms. Finally, they don't muddle clear waters themselves by trying to do too much: they don't try to solve interpretive debates, they don't engage with scholarship, and they don't critically engage Polanyi's book. In sum, this book is a chapter-by-chapter guide to *PK*.

In what remains, I wish to reflect on one feature of the *Guide*: its use of text boxes. Text boxes are amply placed throughout the *Guide* and provide supplemental information to the chapter-by-chapter explication of *PK*. I'll discuss how Paksi and Héder use these boxes to clarify and enhance one's reading of *PK*, but I'll also point out how they might have employed these boxes to greater effect.

First, these boxes explain Polanyi's key ideas in an alternative way that may be useful to new readers. For example, in the first few pages of chapter 1 ("Objectivity"), Polanyi recounts that the ousting of man from the center of the Ptolemaic system by Copernicus has been extrapolated to an ousting of the human perspective from any objective account of the world. If we want to know the way the world really is, we need to see things without human eyes. Polanyi quickly notes that this extrapolation is "absurd," that no scientist truly sees the world from a purely objective perspective, and that if they say they do it is mere "lip service" (*PK*, 3). There are at least two ways to interpret this passage. One is that it is humanly *impossible* to see the world from a purely objective point of view, while the other is that no one *does* ever see the world with such a perspective. Concerning the latter interpretation, Polanyi draws out two separate consequences. First, if one did view the world objectively, then no one moment in time would be of more interest than any other. Since the entire history of the human race is a near infinitesimal flash in the grand temporal order, objectively speaking, there is no reason why our intellectual attention should so often turn to items of human concern. Second, if one did view the world objectively, then no point or object in space would be of more interest than any other. As human beings occupy a near infinitesimal amount of space, there is little to no reason that our intellectual attention should be directed to ourselves. Polanyi vividly articulates this latter point:

if we decided to examine the universe objectively in the sense of paying equal attention to portions of equal mass, this would result in a lifelong preoccupation with interstellar dust, relieved only at brief intervals by a survey of incandescent masses of hydrogen—not in a thousand million lifetimes would the turn come to give man even a second's notice. (*PK*, 3)



Polanyi's claim and reasoning is *digestible*, but Paksi and Héder also try to make it *palatable*.<sup>3</sup> Rather than trying to conceptualize the “purely objective point of view” in terms of an entity equally indifferent to every time slice or atom in the universe, the authors invoke Laplace's demon. The purely objectivist way of looking at the world (one stripped of any human perspective) is embodied in a hypothetical super-intelligence that sees the world in an impassionate, mechanistic, and distinctively non-human way (*GPK*, 4). To further this end, the authors provide a page-long text box explaining who Laplace was, a passage from Laplace talking about the super-intellect (more commonly now “demon”), and what purpose Laplace's demon is supposed to play in discussing the concept of knowledge. In short, the authors take some of the sting out of *PK* by using text boxes to correlate Polanyi's ideas with those that are more familiar and vivid.<sup>4</sup>

A second use of these text boxes is to connect Polanyi's thoughts with those that run parallel to his own. This use is helpful for reading beyond the bounds of *PK* and putting *PK* in perspective. For example, on page 114, the authors connect Polanyi's argument denying that the human mind can be modeled as a logical inference machine to Searle's famous Chinese room argument. In addition, on page 110, the authors connect J. L. Austin's theory of speech acts to Polanyi's idea that every articulate assertion involves both a sentence and a tacit act.

Finally, text boxes are also employed to fill in gaps that may be present in a reader's knowledge or to clarify what Polanyi means by certain terms. For example, in chapter 9 (“The critique of doubt”), the authors provide a useful explanation of the meaning of “critical philosophy,” its relation to Kant and Descartes, and in what sense Polanyi uses the term. Given the criticism of Polanyi's language as being idiosyncratic, obscure, or equivocal, this is a helpful supplement for new readers.

While the text boxes are a useful addition to the *Guide*, there are three places where the authors' supplements might have gone further. First, one might have hoped that the authors would put some of Polanyi's ideas in more *contemporary* intellectual context. For example, rather than connecting Polanyi's views on language with J. L. Austin, it would be interesting to know what Polanyi would think about more contemporary debates between semantic minimalists and contextualists on literal meaning. Both sides of this debate acknowledge the importance of contextual factors when trying to determine *speaker meaning* (roughly, what a person means when they utter a sentence). They disagree about the type of contextual information required to obtain *literal meaning* (i.e., the meaning expressed by linguistic conventions). Minimalists contend that the contextual enrichment required to obtain literal meaning is driven by rule-governed ways (cf. Borg 2004; Cappelen and LePore 2005). In contrast, contextualists claim that literal meaning requires *free-enrichment* on the part of the language user, viz., a non-linguistically controlled process of drawing from the context to give the sentence meaning (Récanati 2004, 18). At first glance, given Polanyi's penchant for preserving the personal element to all knowledge, one would suspect he would side with contemporary contextualists.

To use a broader example, toward the end of chapter 1 of *PK*, Polanyi notes *how non-empirical values* (to use a modern term) play an important role in scientific discovery and theory choice. He remarks that those with an objectivist mindset cover up the importance of these values with terms that hide the personal element, e.g., rather than saying a theory is “beautiful” we call it “simple” (and “simplicity” is being used in a deviant way). This, and other aspects of chapter 1, call to mind discussions of Kuhn (1978, 321–322; 2012, 184–186), who notably outlined five characteristics of a good scientific theory (accuracy, consistency, generality, simplicity, fruitfulness). Given that both Polanyi and Kuhn would agree that there is no neutral algorithm for theory selection, the question becomes how do (or ought) we select a theory from its rivals?



Pointing to more contemporary literature (e.g., Okasha 2011; Stegenga 2015) might have been useful for helping readers understand how Polanyi's work bears on work done today in the philosophy of science.

Second, another unexplored use of text boxes is to contextualize *PK* relative to Polanyi's life and thought *outside of the pages of PK*. After reading either *PK* or the *Guide*, one is likely to wonder quite a bit about the author and the circumstances surrounding the work's production: what was Polanyi doing when he wrote it; who were the important people involved (e.g., Marjorie Grene, Oldham); who was the audience, what was the occasion, and what was the response to it; was it circulated among friends first or delivered as a series of lectures (viz., the Gifford Lectures); how and where was it written; and, finally, how did he feel about it before, during, and after. It would be a herculean task to answer all of these, but the authors might have added some of these biographical tidbits for at least two reasons.<sup>5</sup>

First, a reader will likely want to know what people thought of *PK* when it was published and what people think of it today. Knowing this information helps to give the reader a sense of what *spirit* they should adopt when reading *PK* today. I've already mentioned some criticisms of *PK* (its length and use of terminology), but what about the more general reaction to the text? A common feature of many of the reviews of Polanyi's work is amusing as expressed by Timmins: "[l]ooking back at the reviews of Polanyi's *Personal Knowledge*, there is very much a sense running through most of them that 'this is a good work, but...'" (2013, 307). One such example was expressed by Edward C. Moore (1959). Moore thought *PK* was not likely to win over hardened logical empiricists, but it might at least shake their convictions. Like other readers, he thought that the philosophical merit of the text was lacking, but Polanyi's knowledge of the details of science was reason not to ignore the book: "Polanyi is not as good a philosopher as Peirce and Whitehead [...] but he is a better scientist and has the advantage of a more thorough knowledge of contemporary science" (cf. Holton 1993, 24–26).<sup>6</sup> In short, an analytical spirit is perhaps not the best spirit to have when approaching Polanyi for the first time. More positively, Gulick notes that while *PK* is certainly challenging and Polanyi's language can be frustrating, if one wants to reap the rewards of text "the reader must accord him the benefit of doubt and find out what sort of world opens up if one thinks along with him. It is a world brimming with meaning" (2012, 4). Similarly, Reid remarked that *PK* "yields its fruits only through patient and intensive study" (1959, 71).

Second, these biographical details not only inform the reader about the spirit in which *PK* should be read but also add additional *foci* that can make the text more nuanced and intelligible. One can still feel lost even if a path is carved out. For example, a passing reading of chapter 1 would inform even the most casual reader that Polanyi's primary opponent is a view of science that is purely objective, impersonal, mechanistic, and algorithmic. Reviewers called this part of Polanyi's text "the negative thesis." This same cursory reading also suggests that Polanyi's goal is to show his readers that scientific knowledge involves an indispensable intellectual power to recognize the rationality that is found in nature and that the production of knowledge always involves some personal element on the part of the knower.<sup>7</sup> Some version of this claim was called his "positive thesis" by reviewers.

The claim that scientific practice is indelibly "personal" can be easily conflated with several different ideas, one of which is that science should serve some limited practical (human) end, e.g., human welfare. Polanyi, of course, fiercely opposed this view. To dissuade readers from this interpretation, it might have been helpful for Paksi and Héder to mention other opponents Polanyi had on his radar. One way of doing this is to draw on Polanyi's autobiographical account of what led him into philosophy. For example, in the preface to the 1964 Torchbook edition of *Personal Knowledge*, Polanyi notes that the origin of *PK* began in

1939 with a review of J. D. Bernal's *The Social Functions of Science* (Polanyi 1939; cf. 1940, ch. 1; cf. Nye 2011, ch. 6; Wiser 1977, 92; Polanyi 1966, 3). In the preface, he remarks that his investigation into grounds of science was motivated by trying to justify why scientific inquiry should be autonomous and dynamically organized rather than controlled and directed to practical ends by public authorities (cf. Wiser 1977, 92; Nye 2011, 207). This latter position, Polanyi thought, denied freedom to human beings, denied that they can be genuinely attracted to the body of ideas that compose science, and resulted in the “final self-destruction of the human mind” (Polanyi 1940, 10–11; *PK*, 240). It keeps the personal element in science but does so by making it an object of control. With this information at hand, we see another foe in Polanyi's sights: Polanyi rejects the *removal* of the personal element from science but also rejects its bastardization.<sup>8</sup> In general, these sorts of biographical and intellectual details give flesh to Polanyi's ideas, dissuade problematic interpretations, and help to better serve the purpose of making *PK* a less frustrating read.

## ENDNOTES

<sup>1</sup>For example, Macbeath notes that “it is very difficult to explain its [*PK*’s] main thesis, much less to examine it critically” (1960, 62).

<sup>2</sup>For further discussion of the difficulty and diversity of *PK*, see Mullins 2008 and essays in Langford and Poteat 1968.

<sup>3</sup>Timmins (2013, 313) notes that the palatability of *The Structure of Scientific Revolutions* was one of the central reasons that this book was so much more popular than *Personal Knowledge* (other reasons include length, snappiness, timing, use of the history of science, and the focus on the scientific community rather than individual scientists).

<sup>4</sup>It is also useful for the authors' own purposes since they use the Laplacian ideal of knowledge (usefully referring back to these text boxes) later in the text, e.g., *GPK*, 75.

<sup>5</sup>Scott and Moleski (2005, 221) report that while Polanyi's Gifford Lectures were well attended and well received, Polanyi “was disappointed in not having excited any substantial controversy. What he believed to be a fundamental and revolutionary contribution to the philosophy of knowledge had evidently not been recognized as such.” Further, he found parts of the lectures lacking. They point out that “he had treated the area of language far too briefly” and that more work would need to be done on the conception of human life, along with the concepts of focal and subsidiary awareness (2005, 221). Concerning the use of biographical information to understand Polanyi, Gulick writes that often the “best way to learn about someone's ideas is to learn about the experiences and hopes that shaped the person” (2012, 5).

<sup>6</sup>For a similar sentiment, see Whiteley 1959.

<sup>7</sup>A punchier way of putting this is expressed by Drusilla Scott (1987, 7), who writes that Polanyi “worked to free our minds from distorting assumptions about the impersonality and certainty of scientific knowledge.”

<sup>8</sup>The authors, of course, are certainly aware of these facts since they are alluded to in the preface, and they revisit these ideas when Polanyi does later in *PK* (Chapter 7).

## REFERENCES

- Borg, Emma. 2004. *Minimal Semantics*. Oxford: Oxford University Press.
- Cappelen, Herman, and Ernest LePore. 2005. *Insensitive Semantics: A Defense of Semantic Minimalism and Speech Act Pluralism*. Malden, MA: Blackwell Pub.
- Gulick, Walter, ed. 2012. *Recovering Truths: A Comprehensive Anthology of Michael Polanyi's Writings*. <http://polanyisociety.org/PolanyiReader/PolanyiReader-PrelimCmmt-10-15-20-WG.pdf>.
- Holton, Gerald. 1993. “Michael Polanyi and the History of Science.” *Tradition & Discovery: The Polanyi Society Periodical* 19 (1): 16–30.

- Kuhn, Thomas S. 1978. "Objectivity, Value Judgment, and Theory Choice." In *The Essential Tension: Selected Studies in Scientific Tradition and Change*, 320–339. Chicago: University of Chicago Press.
- . 2012. *The Structure of Scientific Revolutions*. Fourth edition. Chicago: The University of Chicago Press.
- Langford, Thomas A., and William H. Poteat, eds. 1968. *Intellect and Hope: Essays in the Thought of Michael Polanyi*. Durham: Duke University Press.
- Macbeath, A. 1960. "Reviewed Work(s): *Personal Knowledge: Towards a Post-Critical Philosophy*, by Michael Polanyi." *Man* 60: 62.
- Moore, Edward C. 1959. "Reviewed Work(s): Michael Polanyi. *Personal Knowledge: Towards a Post-Critical Philosophy*, Chicago: University of Chicago Press, 1958. Xiv + 428 Pp. \$6.75." Review in *Philosophy of Science* 26 (3): 270–272. <https://doi.org/10.1086/287680>.
- Mullins, Phil. 2008. "On Reading Polanyi and Reading about Polanyi's Philosophical Perspective: Notes on Secondary Sources." *Political Science Reviewer* 37: 158–240.
- Nye, Mary Jo. 2011. *Michael Polanyi and His Generation: Origins of the Social Construction of Science*. Chicago; London: The University of Chicago Press.
- Oakeshott, Michael. 1958. "The Human Coefficient." *Encounter* 11 (3): 77–80.
- Okasha, S. 2011. "Theory Choice and Social Choice: Kuhn versus Arrow." *Mind* 120 (477): 83–115. <https://doi.org/10.1093/mind/fzr010>.
- Paksi, Dániel, and Mihály Héder. 2022. *Guide to Personal Knowledge: The Philosophy of Michael Polanyi: Tacit Knowledge, Emergence and the Fiduciary Program*. Wilmington: Vernon Press.
- Polanyi, Michael. 1939. "Rights and Duties of Science." *Manchester School of Economic and Social Studies* 10: 175–93.
- . 1940. *The Contempt of Freedom*. London: Watts & Co.
- . 1962. *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago: The University of Chicago Press.
- . 1964. *Personal Knowledge: Towards a Post-Critical Philosophy*. New York and Evanston: Harper Torchbooks (with Torchbok Preface). 1958; Chicago: University of Chicago Press.
- . 1966. *The Tacit Dimension*. Chicago: The University of Chicago Press.
- Récanati, François. 2004. *Literal Meaning*. Cambridge; New York: Cambridge University Press.
- Reid, Louis Arnaud. 1959. "Reviewed Work(s): *Personal Knowledge: Towards a Post-Critical Philosophy* by M. Polanyi." *British Journal of Educational Studies* 8 (1): 66–71.
- Scott, Drusilla. 1987. *Everyman Revived: The Common Sense of Michael Polanyi*. Lewes, Sussex: Book Guild Ltd.
- Scott, William Taussig, and Martin X. Moleski. 2005. *Michael Polanyi: Scientist and Philosopher*. 1st ed. New York: Oxford University Press. <https://doi.org/10.1093/019517433X.003.0008>.
- Stegenga, J. 2015. "Theory Choice and Social Choice: Okasha versus Sen." *Mind* 124 (493): 263–277. <https://doi.org/10.1093/mind/fzu180>.
- Timmins, Adam. 2013. "Why Was Kuhn's *Structure* More Successful than Polanyi's *Personal Knowledge*?" *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 3 (2): 306–317. <https://doi.org/10.1086/671347>.
- White, Alan. 1960. "Reviewed Work(s): *Personal Knowledge* by M. Polanyi." *The Philosophical Quarterly* 10 (41): 377–78.
- Whiteley, C. H. 1959. "Reviewed Work(s): *Personal Knowledge*. By Michael Polanyi, Routledge & Kegan Paul. 1958. Pp. 14 + 405. 42s." *Mind* 68 (272): 556–59.
- Wiser, James L. 1977. "Knowledge and Order." *The Political Science Reviewer* 7: 91–110.



**A Philosophy for Our Time?**  
**A Comment on Paksi and Héder's *Guide to Personal Knowledge:***  
***The Philosophy of Michael Polanyi, Tacit Knowledge, Emergence and the***  
***Fiduciary Program***

**Alessio Tartaro**

**On Guides to Philosophical Texts**

The guide to the philosophical text is itself a philosophical genre. Commentaries on major philosophical texts already existed in ancient Greece (see, for example, Alexander of Aphrodisias's commentaries on Aristotle), and even today guides to major works in the history of philosophy are an essential tool in philosophy courses. But why write a guide to a philosophical text? What is the relationship between the text and the guide?

Philosophical guides are written for several reasons. First, philosophical texts are, more often than not, difficult to understand, even for people who specialize in philosophy. The reasons for these difficulties can be many. Philosophers often use technical terms or use words with meanings different from the commonly accepted ones, which can mislead readers. In addition, philosophical texts have a deep argumentative structure that runs across the entire text. This deep structure can be difficult to grasp for the reader, who ultimately fails to see how the unity of the work goes beyond the sum of its parts. Finally, more prosaically, the philosophical text is difficult because it deals with difficult subjects that are not easily handled by our cognitive, linguistic, and conceptual tools.

Another reason some philosophical works are difficult to fully understand is that the philosophical text invokes a broader philosophical context. Within a text, an author often establishes a continuous dialogue with contemporary and non-contemporary philosophical ideas and positions in order to criticize, support, and revise them. Philosophical texts are frequently filled with these more or less explicit references to the surrounding environment. The reader who is unfamiliar with this environment has difficulty grasping these references, the understanding of which is essential to better understand the philosophical text, and a guide can help promote this broader understanding.

A guide is thus, first and foremost, a remedy to the difficulty of some philosophical texts. Its basic purpose is to provide a more accessible way to follow in depth a text and make a difficult reading easier. A guide stands to the text as a map stands to a region. The map provides itineraries for moving within the same region. By consulting a map, we are able to go from point A to point B without having to wander over that region until we find our destination. This is possible because the map does not coincide with the region point for point and does not reproduce it completely accurately. Like the Map of the Empire in Borges's story *On Exactitude in Science*, a map on the same scale mile to a mile is completely useless, because finding the path on such a map is the same, and as equally complex, as finding it in the region itself.

The same happens in the case of a guide, which, for this reason, cannot fully retrace the original text because otherwise it loses its function. At the same time, the guide does not replace reading the text but

supports it, just as consulting a map does not replace the experience of going on the marked paths of the map. Rather, the map helps us move along those paths. Similarly, the guide should provide the reader with a tool to engage with the original text rather than indulge in elaborate discussions (pro or con) with points developed in the text. To succeed, the guide must present a good balance between fidelity to the original text and the need to say only the important things. On the one hand, a guide cannot overly approximate or mimic the text, because otherwise it will be no easier to understand than the text itself. On the other hand, a guide must not overly simplify either, because this will not truly facilitate understanding. A good guide, in short, must find the right scale.

Finding the right scale necessarily involves selecting relevant aspects and neglecting others. A mountain map, for example, should be able to tell us at what point we will have to take a certain path to reach the summit, but it does not need to tell us that such a path is in a pine forest. Obviously, the author of the map knows that the trail is in a pine forest but considers this information irrelevant to the user of the map. The same happens in the case of a philosophical guide. The author has a thorough knowledge of the text, knows all aspects of it, but must judge what is relevant and what is not in order to provide the reader with an understanding of the text. This process of selection and exclusion is the most difficult task in producing a philosophical guide.

The complexity of a philosophical text and the desire to make it more understandable are good reasons to write a guide. Yet they alone are not enough. In fact, the history of philosophy is full of texts that for various reasons are difficult to understand but for which no one has written guides. If there are guides to Aristotle's *Metaphysics*, Kant's *Critique of Pure Reason*, and Wittgenstein's *Tractatus*, it is not merely because these texts are difficult and therefore need to be supported by a guide in reading them. Rather, the guides exist because these texts are so important in the history of philosophy that it is necessary to provide pedagogical tools to support the reader in personally engaging with them. The creation of a guide to a philosophical text, therefore, is supported by the idea that the original text is of significant importance and deserves to be read, and, since reading it is difficult, the guide aims to facilitate the accessibility of the text by making it more understandable.

### On Guide to Personal Knowledge

*Guide to Personal Knowledge: The Philosophy of Michael Polanyi: Tacit Knowledge, Emergence and the Fiduciary Program* by Dániel Paksi and Mihály Héder (henceforth *GPK*) admirably corresponds to the above ideas about the function, motivations, structure, and limitations of a guide to a philosophical text. The authors offer a faithful and never simplistic or complex account of Polanyi's work, focusing as much on the particular topics as on the general purposes of the book, highlighting its main extratextual references, and thus providing an essential tool to support the reader in discovering the depths of this profound and complex work.

*Personal Knowledge* is, first and foremost, a difficult book in which Polanyi sets out his ideas on a wide range of topics. The book articulates ideas about metaphysics, philosophy and sociology of science, epistemology, philosophy of technology, philosophy of language, philosophy of mathematics, philosophy of probability, philosophy of mind, political theory, philosophy of biology, and even theology. As the authors of *GPK* rightly state, *Personal Knowledge* "presents a unique worldview" (xv). The vastness of the topics covered is the initial element of difficulty when trying to read *Personal Knowledge*. How do such disparate and diverse topics fit together? What is the common thread that binds them? This is a question that any



reader finds himself or herself asking at some point in reading the book. Paksi and Héder have presented an answer to this question at the beginning of their guide.

*Personal Knowledge* is “an enquiry into the nature and justification of scientific knowledge” (*PK*, I; NB: citations use 1998 e-book pagination), but it is not only this because, around the new conception of knowledge, Polanyi constructs “a system of correlative beliefs” (*PK*, II). Beginning with a critique of objectivist and positivist views of scientific knowledge, Polanyi constructs an alternative that also has profound consequences for a wide range of questions outside science, ranging from socio-political matters to the idea of evolution. As their answer to the common thread that binds Polanyi’s topics, Paksi and Héder summarize his general goal as follows:

Polanyi’s goal in writing *Personal Knowledge* was precisely to answer this twentieth-century trap by providing a concept of knowledge that enables modern persons to develop acceptable forms of relationship with older inherited traditions, and, at the level of the individual, self-acceptance, which includes a harmonic relationship to our human possibilities. Polanyi aims to help modern persons become at home in our universe.

Part of the effort of *Personal Knowledge* is to create and make acceptable a new idea of the human that is entirely consistent with the concept of evolution. (*GPK*, xvi)

Polanyi develops this goal by resorting to a number of new concepts that the authors carefully present in advance in their “Preface.” These innovative concepts that are treated in the preliminary analysis include “objectivity,” “trust” and “fiduciary program,” “tacit knowledge,” “intellectual passions,” “deceptive substitution,” “moral inversion,” “operational principles,” “logic of achievement,” and “emergence.”

“Objectivity” is crucial to understanding the *pars destruens* of Polanyi’s reflection, in which he criticizes the idea of detached, universal, infallible knowledge and the scientific, ethical, and political consequences of this idea. The term “fiduciary program,” on the other hand, represents the *pars construens* of the work and is fundamental to understanding Polanyi’s ideas about belief, the relationship between knowledge and belief, and the foundation of knowledge in man and society. Against the Objectivist ideal, Polanyi re-proposes St. Augustine’s “*nisi credideritis, non intelligitis*” and the need to rely on beliefs in order to gain knowledge and understanding.

“Tacit knowledge” is undoubtedly Polanyi’s most famous concept, and it has been widely adopted and reworked, even outside of philosophy. In *GPK*, the authors have the merit of clearly reconstructing Polanyi’s original concept, going beyond the famous tautological (and therefore not always useful for understanding) statement, “we can know more than we can tell.” Tacit knowledge describes a form of knowing akin to skill, which has an evolutionary origin, a fiduciary foundation, and broad socio-cultural consequences. Highlighting these dimensions of the concept is crucial to avoid misunderstanding and simplification. Correctly, the authors highlight that tacit knowledge and personal knowledge are not the same thing but that “tacit knowledge is part of personal knowledge” (*GPK*, xix). Another element present in all acts of personal knowing is “intellectual passions,” a sign of the subject’s personal participation in the act of knowing and a fundamental element in scientific practice.

The authors then introduce two concepts fundamental to understanding Polanyi’s socio-political reflection: “deceptive substitutions” and “moral inversion.” According to Polanyi, “deceptive substitutions” are false reasons for why some scientific theories are developed and accepted; these substitutions are meant to conceal the real motivation, namely the satisfaction of intellectual passions. Thus, for example, instead of



saying that one accepts a theory because it is “true,” one says that one accepts it because it is “simple,” thus denying that truth is one of the main intellectual passions and that the satisfaction of this passion, i.e., having true theories, is one of the goals of science. Related to the concept of “deceptive substitutions” is the process of “moral inversion,” which occurs when material purposes replace moral aims in human action due to a strictly mechanistic conception of man and society proper to modernity. According to Polanyi, moral inversion underlies the decline of liberalism and the rise of totalitarianism and fascism in the twentieth century.

Finally, the last two concepts refer to Polanyi’s reflections on machines, living beings, and evolution. The authors effectively summarize these two concepts (“Machines and living beings follow *operational principles* that are oriented toward *achieving goals*,” *GPK*, xxi), highlighting how they cannot be reduced to physico-chemical principles and are fundamental to explaining the functioning and success of these entities. Finally, the concept of “emergence” explains how “these entities come into existence” (*GPK*, xxii). More generally, as the authors explain, “the concept of emergence describes the processes by which higher levels come into existence from lower ones” (*GPK*, xxii), giving rise to a world with a layered structure.

As mentioned above, every guide needs to select and exclude, from the richness and abundance of the text, the elements most appropriate to facilitate understanding. In this regard, the choices of the authors could not have been better. The concepts presented preliminarily form the basis of Polanyi’s reflections and are fundamental to understanding everything else in the book. In fact, so many other concepts that have special resonance in *Personal Knowledge* (e.g., “commitment,” “indwelling,” “tradition,” “conviviality,” “anthropogenesis,” “ultrabiology,” etc.) cannot be explained without resorting to the concepts presented in the authors’ “Preface.” These and many other concepts are explored in depth in the respective chapters.

The book is divided into thirteen chapters that follow the structure of *Personal Knowledge*. Each chapter is introduced by a set of objectives that Polanyi sets out to achieve. The objectives summarize Polanyi’s theses, while the body of the chapter reconstructs the arguments Polanyi uses to support these theses. The arguments are presented in the same order as developed by Polanyi but are introduced by a paragraph title that helps to follow the scansion and development of these arguments. In addition, the text of *GPK* is interspersed with many direct quotations from *Personal Knowledge*. These quotations link the guide to the original text and help the reader become familiar with Polanyi’s terminology and language. The use of figures and tables helps illumine even the most complex concepts, such as tacit integration and the difference between random and ordered systems. In some cases, the authors make use of intra-textual links to connect different aspects of Polanyi’s thinking and show its unity. For example, Polanyi’s critique of neo-Darwinism, initially developed in chapter 3 on the basis that it incorrectly explains the comprehensive order of life with the concept of randomness, is reconnected to chapter 13, where neo-Darwinism is rejected in favor of an emergentist conception of evolution. Similarly, in chapter 6, “Intellectual Passions,” the authors link the concept of intellectual passions to the critique of the Laplacian ideal of objective knowledge (in chapter 1) and the discussion of moral passions (in chapter 7). Through these intra-textual connections, the authors outline pathways within the *PK* text to help readers understand specific aspects of Polanyi’s thought. In conclusion, in reconstructing the content of each chapter, the authors stick steadfastly to the *PK* text and resist the common pitfall of philosophical commentary: digressions that distract the reader from the thought of the author being commented on. In attending to Polanyi’s thoughts, the authors do not wander, nor do they merely paraphrase, but they manage to clearly explain Polanyi’s main ideas.

*GPK* is enriched by twenty-five boxes that provide information on ideas, authors, and concepts directly or indirectly referenced in Polanyi's discussions in the various chapters. These boxes are a valuable tool because they do justice to the open character of the philosophical text. Frequently, Polanyi refers to contemporary events and theories but without delving into them. For example, in his critique of the objectivist view of science, Polanyi dismisses the role of the Michelson-Morley experiments in Einstein's development of the theory of relativity. In *Personal Knowledge*, however, Polanyi does not extensively develop this argument, and he never explains these experiments in detail. The authors of *GPK* fill this gap with a box (Box 4, *GPK*, 11–12) in which the experiment and its significance are analyzed. In other cases, a box serves the function of developing a comparison between Polanyi and related philosophical figures, for example, Thomas Kuhn (Box 13) and Samuel Alexander (Box 23). By providing context and background for many of Polanyi's reflections, the boxes in *GPK* help a reader understand *Personal Knowledge* more fully and make this guide an even more valuable tool.

To help the *PK* reader develop a deeper appreciation of some of the themes of Polanyi's thinking, *GPK* authors could have provided more bibliographical references to both Polanyi's other works and other scholars' discussions of Polanyi's ideas. This is a recommendation to consider in a possible future revised edition. There is a rich secondary literature that analyzes specific aspects of Polanyi's philosophy. Although an extended treatment of this literature is beyond the scope of a guide, a somewhat richer bibliographical apparatus could certainly be helpful for the reader who wants to discover more about Polanyi.

There is a final issue to be considered: Was a *PK* guide needed? This question is intimately tied to another question: Is *Personal Knowledge* an important text that is worth reading? In the "Foreword" to *GPK*, C. P. Goodman claims that Polanyi's philosophy is "a philosophy for our time" (x). If this is true, then there is no doubt that the publication of *GPK* is an important contribution that brings readers and scholars closer to Polanyi's thought.

In the remainder of this commentary, I highlight a contemporary issue on which Polanyi's philosophy undoubtedly proves to be a philosophy of our time: the nature and limits of artificial intelligence.

Recently, a Google engineer, Blake Lemoine, claimed that the Large Language Model he was working on, based on artificial intelligence, was conscious. The news caused a stir in the media but also among academics and researchers. It provoked many reactions and rekindled a now-recurring debate about the nature of artificial intelligence and its limitations. Among the various contributions occasioned by the news, Jacob Browning and Yann LeCun wrote an article in which they downplay Blake Lemoine's claim and dismiss the idea of conscious artificial intelligence. In the article, titled "*AI And The Limits Of Language*," the authors go further by actually asserting that artificial intelligence, particularly LLMs, not only cannot be conscious but do not even approximate human understanding.

Taken alone, this view suggests that a Polanyian position is alive in the contemporary debate. Witnessing the emergence of intelligence as a field of research in the 1950s, in fact, Polanyi was a bold opponent of the computer-mind analogy, according to which "intelligent behavior is based on a machinery which, in organisms possessing a nervous system, operates on the principles of digital computers" (*PK*, 358). As Paksi and Héder explain, "according to Polanyi, the fundamental failure of the computer-mind analogy is that computers are merely logical inference machines. They do nothing other than transform the programmed, formally symbolized explicit sentences by strict formal rules. [...] in their cases, there is neither assertion nor meaning, only the logical transformation of explicit sentences which in themselves without personal commitments are meaningless" (*GPK*, 113).

Obviously, the kind of “logical inference machine” known to Polanyi was not equipped with the same level of autonomy, interactivity, and adaptivity as modern artificial intelligence systems. However, this does not change the substance of Polanyi’s argument. For example, Polanyi recognizes that adaptive and self-regulating capacities with respect to external situations are functions that can be explained according to a machine-like conception:

The machine-like conception of living beings can be extended to account in principle for their adaptive capacities. An automatically piloted airplane approximates the skills of an air pilot. Its mechanical selfregulation co-ordinates its activities in the service of a steady purpose, and it may even appear to show a measure of resourcefulness in responding to ever new, not exactly foreseeable situations. (*PK*, 353)

In a provocative passage, Polanyi even goes so far as to concede that “It might not be inconceivable that a machine of sufficient complexity would develop conscious thinking, without losing its machine-like character” (*PK*, 353).

However, this does not imply that even the activities of human intelligence can be explained according to this mechanical conception of all vital adaptive functions. Indeed, while it is true that an “organism sustains itself by functioning as a machine” (*PK*, 424), living beings are not reducible to these machine-like operational principles, let alone to their physical and chemical characteristics. Against this idea, Polanyi suggests the presence of an active center “operating unspecifiably in all animals” that is in addition to the machine-like functions characterized in terms of operational principles: “There are then two principles at work in animals: namely, (1) the use of machine-like contrivances and (2) the inventive powers of animal life” (*PK*, 354). This active center is not superimposed or parallel to machine-like functions but is superordinate to it: “while the animal’s machinery embodies fixed operational principles, this machinery would be impelled, guided and readapted by the animal’s unspecifiable inventive urge” (*PK*, 354). For this reason, Polanyi considers living beings as “instances of morphological types and of operational principles subordinated to a center of individuality” (*PK*, 405). Living beings are thus a combination of types, operational principles, and individuality. The active center is an expression of individuality and of a “personhood” present, at different levels, in all living beings (*PK*, 409). An expression of this inventiveness of active centers is, for example, equipotentiality, by which an organism offers a series of solutions for the same technical problems (e.g., mutilated rats able to activate different motor patterns to achieve the same goal) (*PK*, 355). Some aspects of embryonic development also respond to this principle (*PK*, 356). The very emergence of new operating principles in living things depends on the activity of an “orderly innovating principle” (*PK*, 418) whose actions are different “from the conditions which release and sustain its actions” (*PK*, 404). Evolution as a whole is “a process of fundamental innovations, tending to produce ever higher biotic achievements” (*PK*, 404).

It is the presence of this active center, an expression of individuality, creativity, and personality guiding and readjusting the machinery of living beings, that distinguishes them from machines. Should a machine develop conscious thinking, this would still make it different from a living being in that the machine’s “consciousness” could exert no influence on its own mechanical operations: “conscious thoughts would be the mere accompaniment of automatic operations” (*PK*, 353). This idea, representing a form of occasionalism, would be equivalent to saying that Shakespeare’s conscious thoughts have no influence on the writing of his plays, an act that in itself can be explained as the result of mechanical operations. Although this is

“not strictly inconceivable...nobody can believe in it in practice” (*PK*, 354). Shakespeare’s plays are not the product, nor are they explicable as the result of mechanical operations. They are, on the contrary, “a massive demonstration of a creativity which cannot be explained in terms of an automatic mechanism” (*PK*, 354).

The idea of living beings as a combination of (morphological) types, operational principles, and individuality allows us to distinguish living beings and machines, which are instead a combination of types and operational principles without an active principle. One can grant that machines themselves have an emergent structure and that machines may possess knowledge, even tacit knowledge, but this does not bridge the gap between a living being whose active center is a product of innovative evolution and a machine that ultimately relies on mechanical operations and is not animated by any active center. The way a modern AI system interacts with the environment and adapts does not reflect the presence of an active center. Again, it would be possible to attribute its functions to an active center, but although this is strictly conceivable, at present it seems difficult to accept.

One consequence of this reasoning of Polanyi’s is the following: since understanding is a biotic achievement (*PK*, 365), and biotic achievements are those of an active center (*PK*, 425), it follows that no entity without this active center can be capable of understanding. This brings us back to the article by Browning and LeCun and the idea that LLMs, although able to master language like humans, possess no understanding or have only a “shallow understanding.” Systems like GPT-3 are efficient in guessing which next word is most likely and in “coming up with a plausible sentence given the prior line.” In this way, these systems can achieve amazing results such as conducting human-like conversation, explaining difficult concepts, rephrasing, and retelling or summarizing stories. And yet, as the authors state, “the capacity to rattle off linguistic knowledge” is different from “skillful know-how for how to do things like being empathetic or handling a difficult issue sensitively.” While the former can be incorporated, the latter cannot. This is because the second type of skill is not linguistic and thus cannot be introduced into the system through training on words and sentences. Realizing how much of human knowledge is not linguistic is the key, according to the authors, to the claim that LLMs have only shallow understanding. These systems, in fact, are trained on language and thus acquire only the small part of human knowledge that is linguistic. The remaining part cannot be learned by the machine. As Browning and LeCun argue, “a system trained on language alone will never approximate human intelligence, even if trained from now until the heat death of the universe,” precisely because linguistic knowledge “is just the wrong kind of knowledge for developing awareness or being a person.” It is easy to see that the “everything else” the authors refer to is “tacit knowledge,” as conceived by Polanyi. And, indeed, the authors write that this is a kind of knowledge that human beings acquire “from exploring the world,” from “social customs and rituals,” and “in the form of precise movements passed on from skilled practitioner to apprentice.” The similarities with Polanyi’s reflections are striking. The authors also state that “the deep nonlinguistic understanding is the ground that makes language useful,” reaffirming the tacit foundation of the human ability to use language, as originally argued by Polanyi. Further, they state that the “broader, context-sensitive kind of learning and know-how is the more basic and ancient kind of knowledge, one which underlies the emergence of sentience in embodied critters and makes it possible to survive and flourish.” By experiencing the world, exploring it, experimenting in it, interacting with it, and, in the case of humans, interacting with culture and other people, living beings gain a “deep understanding” that goes beyond language. As the authors argue, again taking up a Polanyan theme,

Language may be a helpful component which extends our understanding of the world, but language doesn't exhaust intelligence, as is evident from many species, such as corvids, octopi and primates. [...] There is no way to approximate this deep understanding solely through language; it's just the wrong kind of thing. (Browning and LeCun)

And this shows "how little can be known from language alone," reiterating a conclusion already reached by Polanyi.

Faced with the choice of whether to regard the originality and individuality of animals and men as the product of "some ingenious automatic machinery" or as "an independent force operating through the body in combination with the existing machinery of the body" (*PK*, 352), Polanyi strongly advocates the latter. What makes us human, which binds us to all expressions of life but distinguishes us from machines, is the presence of this "independent force" that in other places Polanyi calls the "active center" and that is an expression of the individuality, originality, and personality of every human being. In this respect, Polanyi's philosophy is a philosophy for our time because it is a humanist philosophy, which recognizes that humankind has a special place in the world as a product of a teleologically and finalistically oriented process of emergence. The emergence of humans represents "the appearance of centers of thought and responsibility in the visible words" (*PK*, 428) and "the gradual rise of autonomous centres of decision" (*PK*, 425). In a world where automatic decision-making systems make decisions, replacing human will and the responsibility it implies, Polanyi's thought helps us reestablish the idea that no machine can ever take away from humans those capabilities (making decisions, being responsible, understanding the world) that are the product of millions of years of emergent evolution. Contributing to this understanding of these aspects of Polanyi's thinking is just another of the merits of Paksi and Héder's *Guide to Personal Knowledge*.

## REFERENCES

- Browning, J., and Y. LeCun. 2022. "AI And The Limits of Language." *NOÉMA*. August 23, 2022. <https://www.noemamag.com/ai-and-the-limits-of-language/>.
- Paksi, D., and M. Héder. 2022. *Guide to Personal Knowledge: The Philosophy of Michael Polanyi: Tacit Knowledge, Emergence and the Fiduciary Program*. Vernon Press.
- Polanyi, M. 1998 (1962). *Personal Knowledge. Towards a Post-Critical Philosophy*. Routledge, e-book edition.



## Further Thoughts on *Guide to Personal Knowledge*: Response to our Reviewers

Daniel Paksi and Mihály Héder<sup>1</sup>

**Keywords:** Michael Polanyi, *Guide to Personal Knowledge*, Jon Fennell, David Agler, Alessio Tartaro, evolution, tacit knowledge, English as lingua franca

### ABSTRACT

*The two Hungarian authors of Guide to Personal Knowledge are in general agreement with the assessments of their work offered by David Alker and Alessio Tartaro. However, they contend that Jon Fennell's criticism of their writing style, while sometimes accurate, nevertheless derives from an expected level of precision from non-native speakers of English that is unnecessary when the language is used as a lingua franca. Moreover, they suggest that underlying Fennell's complaints about language are differences in the interpretation of Polanyi's philosophy.*

We are grateful for the time and effort expended by our reviewers, who help us emphasize the importance of understanding Michel Polanyi's *Personal Knowledge* (*PK*). These reviews show that the task we attempt in our *Guide to Personal Knowledge* (*GPK*) is far from complete. Perhaps the most important goal of philosophy is to reveal people's hidden tacit convictions through a convivial contest of arguments. The three reviews certainly helped us in this task.

Two of the three reviews are positive, and one of them is rather negative. Thus, after some general remarks, we will focus our answer on the latter. We will argue in detail why we think that Jon Fennell's critique is not well established. Of course, it has several good points, but we think that there may be a deeper or broader problem than he acknowledges that made reading our *GPK* so frustrating for him.

\* \* \*

Let us start with some general remarks. David W. Agler highlights well how new readers can experience an immediate fascination and then a much slower but surer frustration with *PK*. As he puts it, "many of the core theses of *PK* are easy to state in a punchy way" (Agler, 11). Alessio Tartaro quotes one of these well-known "punchy" phrases: "we can know more than we can tell" (Tartaro, 19). Then, he immediately adds, "Tacit knowledge describes a form of knowing akin to skill, which has an evolutionary origin, a fiduciary foundation and broad socio-cultural consequences. Highlighting these dimensions of the concept is crucial to avoid misunderstanding and simplification" (19).

Agler argues that the readers' frustrations with *GPK* arise for two main reasons: first, the numerous and seemingly divergent topics Polanyi discusses, and second, his strange and equivocal terminology. He says that "Polanyi didn't limit himself to a single topic for doing so would ignore how pervasive the disease of



detached objectivity had become” (Agler, 11), which is an apt observation. Indeed, there is a positive or constructive side to this broad approach that we will revisit shortly.

After Agler emphasizes the paradigmatic differences between Polanyi and a couple of other scholars, he states that we have “hacked” a straight path through *PK* and Polanyi’s strange and equivocal terminology: “[Paksi and Héder] don’t muddle clear waters themselves by trying to do too much: they don’t try to solve interpretive debates, they don’t engage with scholarship, and they don’t critically engage Polanyi’s book” (Agler, 12). However, this is only true on the surface. Yes, we explicitly do not do these things, but motivating our omissions and angles of approach are some tacit convictions that we describe in this article—for the expression of which we are grateful to *Tradition and Discovery*.

Take, for example, the meaning of “an evolutionary origin”; to a great extent, we avoided the interpretive debate about this concept in *GPK*. There are many differing interpretations of evolution. Evolutionary origin, according to neo-Darwinism, is in its updated form the mainstream objectivist scientific theory. Is this equivalent to evolutionary origins according to the commonsense view? What of evolutionary origins according to the old vitalist view or evolutionary origins according to Pope John Paul II and other theist believers in God? These are all fundamentally different from Polanyi’s view. However, we don’t express *PK*’s truly unique position if we align ourselves with mainstream science or theist faith, which people attempt to do when yielding to pressures external and internal. Similarly, we articulate Polanyi’s understanding of the concepts of fiduciary foundation, sociocultural consequences, and moral inversion without attending to the diversity of understandings to which they may be subject.

Agler correctly detects important reasons for Polanyi’s fascinating uniqueness and strange vocabulary, but, as Tartaro articulates well (Tartaro, 19), the deepest reason is that Polanyi is a visionary. He dreams of a post-critical philosophy and takes the first unsteady steps towards it. He deals with many different topics using a vocabulary that is strange to philosophers because he wants to depict a new view of the universe and show the place and aim of humans and their philosophies in it. Our *GPK* does not dare to take any steps beyond what Polanyi explicitly states but rather tries to eliminate unsteady interpretations of Polanyi’s first steps.

Both Agler and Tartaro suggest that we should have used more bibliographical references to highlight and explain Polanyi’s personal struggles, the circumstances during the writing of *PK*, and the controversial reception of his work (Agler, 14; Tartaro, 21). In a sense, they are absolutely right. An explanation of important background issues would help readers of *PK*. However, this would have caused distracting detours for the readers, yielding historical information rather than the philosophical insights we wished to explain. So as a conscious but not articulated choice, we instead used the approach of “the death of the author” (i.e., focus on the text alone) for better immersion into Polanyi’s written explication. We are adamant in our view that understanding *PK* does not have to depend on understanding context. We believe that deemphasizing the circumstances influencing the writing and reception of Polanyi’s work and focusing on the message of the fiduciary programme itself is a viable and worthy approach. As the Polanyi archives reveal, he was in intensive correspondence with several prominent scientists and intellectuals for decades, and yet he always attempted to write self-inspired works with little dependence on other frameworks. Perhaps in a similar way, with our guiding map in their hands, we hope readers will more easily make their own unsteady steps towards Polanyi’s post-critical philosophy without having to familiarize themselves with his assigned place in the philosophy of science after the historical turn, with the unavoidable but superficial parallels with Kuhn and others.

Also, both Agler and Tartaro emphasize the value of text boxes in our *GPK* (Agler, 13; Tartaro, 21) and suggest the advantages of having even more. The reasoning behind using the text boxes is that they provide the necessary information at certain points without breaking the flow of the main text.

\* \* \*

Jon Fennell expresses serious doubts concerning the success of our efforts. He divides his criticism into two halves: one is about language or, as he puts it, our shaky skills at writing in a foreign tongue; the other is about matters of greater substance. However, it seems to us that the real, profound problem is similar in both cases: how to understand Polanyi. This is not to say that Fennell's critique is without merit, but we suspect that even behind the complaints regarding the correctness of language, deeper interpretative differences are lurking.

According to Fennell, the language of our *GPK* creates a great barrier to the readers' understanding of Polanyi's message. He states that he is "reluctant to write even a letter" in a foreign language (Fennell, 4) and that "*Guide to Personal Knowledge*, in its use of English, is troubled indeed" (4). He even claims that "it is more often the case that Polanyi serves as a guide to this text than that the text serves effectively as a guide to him," referring to the frequent and lengthy quotations from Polanyi in our *GPK* (Fennell, 6).

Clearly, the latter statement expresses well his frustrations with our text. We acknowledge the existence of several errors left in the text even after it was reviewed by two native English editors. Yet we still think that Fennell's main problem is not with precise usage of English but with tacit convictions underlying our explicit text. Accordingly, we do not think that Fennell was able to argue his points convincingly with his examples. Before turning to detailed analysis to show this, however, we offer a few general points about writing in a foreign language.

Fennell's statement about not routinely using second languages genuinely shocks us as international scholars. Contrary to Fennell, for us it is obligatory to write in a second language, even if we write with imperfections, if we wish to participate in cosmopolitan dialogue. Fennell will be delighted to learn that we first wrote *GPK* in Hungarian. It was published in 2020. It did not generate much feedback, which is not a surprise: the relevant audience able to read that text is as much as five hundred times smaller than for the English version. Our situation is not ideal. It requires a lot of effort and money to write in a second language, and as Fennell emphasizes, we sometimes have inadequate editorial support (even if we did have several good editors for *GPK*).

Obviously, English is not just a regional native language but rather is the *lingua franca* of international science. Polanyi was a native Hungarian speaker, and he wrote *Personal Knowledge* in English. According to Fennell's logic, he never should have written it in English.

English speakers naturally tend to forget that they are in a minority within the English-speaking academic world, and they are not truly able to see the scientific *lingua franca* as such. We can appreciate beautiful literary English—and we will never be able to write it ourselves—but for scientific understanding, it is not necessary to achieve the literary excellence of a gifted writer. On the contrary, for non-native speakers of English, it is usually frustrating to attempt to read or write complexly formulated English full of allusions, metaphors, and cultural nuances. To put it simply, it is often much easier to understand the scientific writings of non-native speakers of English who necessarily use it as science's fact-oriented international *lingua franca*.

However, to do justice to English, it is not merely hard and frustrating because it includes components like gender pronouns but is also at times very useful. From our Hungarian point of view, there is no basic degree of difference between English and French. These seem to be almost the same language, but Hungarian is indeed a fundamentally different language (as are Chinese and Arabic and such). The tacit roots of Hungarian understanding and Western culture are the same, but still there are trains of thoughts, perspectives, connections of ideas, etc., that can be expressed in English better than in Hungarian. This is why it is not unfair that in Europe, generally, no post-graduate degrees are awarded without awardees demonstrating reliable second-language skills.

Articulated systems create their own tacit fundamentals of understanding by relying on the common tacit roots that they share with other such systems. English is a good *lingua franca* (at least for Europeans and Americans), probably because it evolved from German, Celt, Latin, and French influences as a quasi *lingua franca*. Contrary to this, Hungarian would be a terrible *lingua franca*, making everybody upset because in contrast to English it is an ancient, unique, and non-straightforward language.

\* \* \*

Fennell uses five examples to support his argument criticizing our English. First, he quotes our *GPK*: “Polanyi states that morality and science are not inseparable because, in both domains, we are led by personal tacit passions...” (*GPK*, 72; Fennell, 5). Then, he asks, “Do not the authors here mean to say that morality and science ‘are inseparable’ or ‘are not separable’? But maybe they do mean what they say. The statement is explicit, after all. Is this an error, or not? Who can tell?” (Fennell, 5).

Everybody can tell that this is an obvious error on our part, which is clearly revealed by the context of our discussion. Despite Fennell’s clever questions, we believe that in general we demonstrated the ability to use negation in English.

Second, Fennell again quotes the *GPK*: “Consequently, owing to the fact that collective tacit foundations were present even in the early forms of evolution, scientific and moral truths are in accordance with each other thus, [sic] proper scientific ideas do not contradict proper moral commitments” (*GPK*, 72; Fennell, 5). Fennell then asks several questions to express his doubts concerning the adequacy of the conveyed message in this text. At the surface, it seems that the problem is with the language; however, his footnote to the meaning of “the early forms of evolution” is quite telling: “Peculiar unexpected references to evolution are common in the book.” Fennell follows by asking how is it that our evolutionary roots “are responsible for scientific and moral truths now being in accord” (Fennell, 5).

Fennell’s review is probably most valuable for us because it prods us to emphasize a few points. For a new reader of *PK* and *GPK*, these questions about the origins of tacit and personal knowledge would be great because they reveal that Polanyi’s view of humans is unique. From a Polanyi scholar’s point of view, they show a profoundly different interpretation of *PK* on these issues. More broadly, Fennell’s questions display a different interpretation of whether (or why) our personal commitments towards moral and scientific truth have the same origin and structure.

In our view, the basis of tacit and personal knowledge is our evolutionary origin. We believe Polanyi is clear (especially in chapter 13 of *PK*) that tacit and personal knowledge is present throughout the evolution of animals. Consequently, a high number of references to evolution should not be unexpected, as this is a central theme of *PK*.

However, we are aware that many scholars of Polanyi's thought do not see evolution as a prominent feature of *PK*. A more critical view of Polanyi's account of evolutionary emergence allows the ruling scientific consensus of neo-Darwinism to be reconciled with Polanyi's view. Furthermore, by ignoring Polanyi's account, the traditional theist faith in God can be reconciled with Polanyi's view. But we believe a faithful interpretation of *PK* is at odds with these approaches. Maybe Fennell's questions concerning the concordance of scientific and moral origins in early forms of evolution are not actually about language at all. Nevertheless, his comments are still helpful in pointing out comma-related and structural challenges.

*GPK* is not just a guide for new readers of *PK*. We believe that the proper, literal reading of *PK* challenges some of the established interpretations of Polanyi and scientific evidence. *GPK* tries to shift the views of Polanyi scholars and therefore could be seen as part of an interpretation debate.

Fennell's third quotation from *GPK* states that "[t]he development of knowledge in different sciences is granted by the tacit foundations, which sustain the operation of articulated systems of knowledge" (*GPK*, 88; Fennell, 5). According to him, "the reader is puzzled" (Fennell, 5) because the meaning of "granted by" is ambiguous. His proposed substitutions of "is made possible by" or "is enabled by" are adequate, or at least they could be suitable if his understanding of these explicit words corresponded to our meaning. It seems that this is also not a genuine case of misusing language. However, our understanding assumes that the tacit foundations *act* rather than provide something more *passive* as suggested by Fennell's terminology.

This suspicion of difference in understanding is strengthened by how Fennell responds to a fourth quotation from *GPK*: "Articulated communication is made possible by commonly possessed tacit knowledge, which motivates and fills the acts of explicit communication with meaning..." (*GPK*, 88; Fennell, 6). Fennell asks what is the meaning of "motivates" here, and he opens a dictionary, according to which the word means "to provide with an incentive" or "to impel." But his question about the agency of the tacit is revealed by his response: "Is tacit knowledge even the sort of thing that *can* provide an incentive?" (Fennell, 6).

The answer to this question is *yes*, it can. This is not a slip of the tongue or a grammatical error. For Polanyi, knowledge is not just a passive belief or skill evoked on request by a self that is somehow a different thing. If one accepts that the basis of tacit knowledge is to be found in our evolutionary origin, then this agency is not a surprise. On the contrary, all *motivations*, *incentives*, and *instinctual actions* of non-human animals are examples of tacit knowing (see also Héder and Paksi 2018). According to Polanyi, evolution started "when ultramicroscopic, virus-like specks of living matter gained standard shapes and sizes, presumably with a correspondingly integrated internal organization. The bacillus which thus emerged carried the stamp of individuality. Its self-controlled shape and structure, and the physiological functions serving its survival, set up a centre of self-interest against the world-wide drift of meaningless happenings" (*PK*, 387).

Fennell quotes this sentence from *GPK*: "This shared tacit knowledge, which we rely on when evaluating explicit manifestations, is the same in everyone." Then, he claims that "the reader is here plagued by an ambiguity" and asks, "Does 'is the same in everyone' mean a) that tacit knowledge is present in everyone, or b) the particular tacit contents are the same in everyone?" (Fennell, 6).

For a), the answer is obviously yes, since every living being possesses tacit knowledge.

However, for b), the answer is that we can share particular tacit elements of knowledge, but there are no two individuals with the same inventory of tacitly known items. For understanding each other, some common, shared, or identical tacit elements are needed, which is what we mean by *same* (and some ambiguity indeed lingers).

Fennell is right in that it is indeed difficult to understand what we mean to say in the former quotation, given our imperfect English. However, he is wrong to think our linguistic ambiguity is the important issue at stake. We believe some deeper disagreements are cloaked as frustrating linguistic issues.

\* \* \*

Now we will focus on Fennell's criticisms that are of greater substance. The general direction of his criticism is the same. He claims that there are "at least a dozen" such substantive issues, but he highlights only four (Fennell, 7). We will briefly discuss them.

First, he quotes us as follows: "The most deeply rooted convictions of human nature are called implicit beliefs by Polanyi. These convictions are explained and determined by the conceptual frameworks of natural languages by which experiences are tacitly interpreted" (*GPK*, 128; Fennell, 7). His problem concerns the interpretation of experiences. He suggests that "constituted" would be more accurate terminology than "interpreted." He then adds, "To say that an experience is interpreted entails that it in some fashion exists in advance of the interpretation. But what is an experience that is not interpreted (i.e., that is not itself an instance of interpretation or judgment)?" (Fennell, 7).

It is our turn now to open the Merriam-Webster dictionary, in which we find "experience: direct observation of or participation in events as a basis of knowledge." Here experience is noted as the basis for the subsequent interpretation that forms knowledge. It is exactly this knowledge formation process that is discussed here. Some experiences, which are not yet interpreted, may only be incoming impressions. However, the whole quoted text is about the relationship between the explicit linguistic framework and the tacit process of interpretation, which is unique in Polanyi. Perhaps a paradigmatic difference in understanding *PK* has created a wide abyss.

Second, concerning ordering and operational principles, Fennell observes that in the preface, although we rightly state that "operational principles can only work in the right physical-chemical conditions," they are "rules of rightness that have emerged in the course of evolution," and we still erroneously claim that such principles "kick-started life" (*GPK*, xxii; Fennell, 7). Then, he argues that "the kick-starting is instead provided by Polanyi's 'ordering principles' which are themselves 'released by random fluctuations' in the universe (*PK*, 384; Polanyi's emphasis). If this interpretation of Polanyi is correct, then it would seem that the authors have confounded the two sorts of principles and have attributed to operational principles that which belongs only to the even more fundamental ordering principles" (Fennell, 7–8).

Fennell is right about this particular passage. However, this is only a short preface, and these matters are all discussed in detail in subsequent chapters in ways that fit Fennell's interpretation and expectations. In the preface, the emphasis is on the fact that, according to Polanyi and in contrast to mainstream neo-Darwinian views, there exist such principles. Later we argue, along with Fennell, that for the first primitive prokaryote, a prior operational principle was needed, that is, that ordering principles initiated the operational principle, which then kick-started life. This would be a much more nuanced formulation than our brief statement in the preface because, in contrast to operational principles, the ordering principles of life and evolution are not real in the material sense, and only real operational principles can directly generate material kick-starts.

Whether the passage in the preface should include such details is a matter of stylistic taste. However, in general, we are in agreement with Fennell about the importance of the origins of emergence, the status of the ordering principles of life, and evolution.



Third, he claims that performative consistency “deserves a more prominent role in this guide” (Fennell, 8). Perhaps he is right. We hope that we practiced it through the whole book.

Finally, Fennell mentions the moral problems made clear by contemporary recognition of cultural pluralism. He writes, “Polanyi, of course, is a fallibilist: he understands that it is always possible that he may be wrong. It is presumably due to this feature of Polanyi’s position that our authors assert that, in the face of the fact of multiple rival conceptual systems, Polanyi believes that we are obliged to be tolerant (143). This is probably saying too much. (After all, Polanyi passionately condemned Marxist debunking of principle, Soviet restrictions on freedom, Nazi mockery of the ideal, etc.). Can we imagine, for example, Polanyi tolerantly standing by in the presence of enforced suttee or of capital punishment on the basis of reading a dead fowl’s intestines?” (Fennell, 10).

This is an unfortunate and completely misguided argument. The confounding of the tolerance of views and opinions with the tolerance of harmful actions is a dangerous mistake. What usually follows is that by pointing to terrible acts, some sort of reason is manufactured for controlling the expressions of opinion. But, according to the principle of performative consistency, Polanyi definitely contends that we should tolerate every opinion and belief in truth. Even the opinion of Marxists, National Socialists, and believers in magic should be publicly accessible as long as they are fiduciary acts. Otherwise, following Fennell’s proposed logic, the opinions of such classical liberals as Polanyi or the opinions of the believers in God, or anybody else, could be controlled. This, in turn, would weaken the arguments against Marxists and National Socialists, who 1) are serious about not tolerating opinions that diverge from their views and 2) thus prepare the way for taking overt political action in support of totalitarian rule. Tolerance of expression of opinions is the only way we can seek out and defend the truth, and it is not the same as tolerance of harmful actions.

We are grateful to all three reviewers for spending time evaluating *GPK*, and we hope that we have made some points clearer in our response. We certainly plan to improve the text in an upcoming revision that, we hope, will also be openly accessible.

## REFERENCES

- Agler, David W. 2023. “Reflections on Guide to Personal Knowledge.” *Tradition and Discovery* 49, no. 2: 11-16.
- Fennell, Jon. 2023. “Comments on Guide to Personal Knowledge.” *Tradition and Discovery* 49, no. 2: 4-11.
- Paksi, Dániel, and Mihály Héder. 2018. “Non-human Knowledge According to Michael Polanyi.” *Tradition and Discovery* 44, no. 1: 50–65.
- Polanyi, Michael. 1962. *Personal Knowledge*. London: Routledge and Kegan Paul.
- Tartaro, Alessio. 2023. “A Philosophy for Our Time? A Comment on Paksi and Héder’s Guide to Personal Knowledge: The Philosophy of Michael Polanyi, Tacit Knowledge, Emergence and the Fiduciary Program.” *Tradition and Discovery* 49, no. 2: 17-24.





## BOOK REVIEW

**Péter Hartl and Adam Tamas Tuboly (eds). *Science, Freedom, Democracy*. Routledge Studies in the Philosophy of Science. Routledge, 2021. 230p. Hardcover: USD152. ISBN 978-0-367-41817-5. E book: USD42. ISBN 978-0-367-82343-6.**

This interesting and wide-ranging book contains nine essays (plus an introduction by the editors), seven of which were presented at the *Science, Freedom, Democracy* conference in Budapest in July 2019. The book deals with the complex interplay of values implied by the trinitarian title: where do the values of the sciences, including the human sciences, and the (multiplicity of) values of a liberal democracy intersect, conflict, reinforce one another? And what are the essential foundations for a public reason that is not epistemically compromised?

I recommend the book for those interested in cross-disciplinary explorations that connect academic silos such as epistemology, philosophy of science, sociology, and political philosophy, along with contemporary populist and authoritarian politics.

In this brief review, I will offer a sketch of the book's contents especially remarking on the Polanyian aspects of the book, which appear in chapters 2 and 3 in the first of the work's three parts.

Following the Introduction, four authors (Phil Mullins, Péter Hartl, Heather Douglas, and Janet A. Kourany) focus on freedom and control of science in Part I. They deal with historical and theoretical discussion of the appropriate limits to academic freedom and the degree to which science/scientists are publicly accountable.

Mullins's essay (ch. 2) is an excellent overview of Michael Polanyi's political and social ideas as they relate to science. For Polanyi, the practice and assumptions of science (and the problem of scientism) are integrally connected to the political and social organization and thinking of a society. A misunderstanding about the nature of the scientific enterprise leads directly to what Polanyi calls "moral inversion": the problem of the modern mind in which an unanchored skepticism becomes nihilism, driven by moral passions that are no longer constrained by traditional commitments to truth and charity. Mullins's chapter highlights the genealogy of Polanyi's ideas, which are woven into an integrated whole wherein science and a free society are interdependent and completely reciprocal. The chapter includes elucidations of various aspects of Polanyi's thinking: his advocacy of a middle political position between extreme liberalism and totalitarianism; his insistence on the importance of "moral confidence" (as against skepticism); the importance of a widespread trust between social actors (and, of course, within "the republic of science"); his warnings against populism; the dangers of central planning—instead advocating a minimal supervisory role for government to encourage dispersed centers of intellectual and practical social activity and knowledge production; and finally his understanding of the importance of public liberty, which serves the purpose of the common good rather than merely an individual's personal ends. Mullins's chapter also includes inexplicit but not entirely opaque links between Polanyi's thought and global politics of the last decade or so; he refers to contemporary politicians who "do not recognize the importance of ideas about truth and its independent pursuit...

manipulate democratic principles...massively tweet and thrive on chaos" (25).

This chapter is an excellent overview of so much of the thinking of a polymath who never quite found a place in one of academia's silos but nevertheless has much to offer them all.

Hartl (ch. 3) probes the respective understandings of science of Robert Merton and Michael Polanyi and their defenses of scientific autonomy as being essential to a free society. In similar ways, both thinkers resist totalitarian control of science, and both argue that science and a free society are mutually dependent. While Merton's approach is sociological and Polanyi's is more philosophical, their approaches reinforce one another, centering on "the idea that the values and the ethos of science should be respected as fundamental values in any liberal and democratic society" (39). The collapse of a free society into one of centralized control is the alternative—a warning that, in not-so-obvious ways, is still relevant today in a context of populism and authoritarian politics, says Hartl. The essay also examines Polanyi's negativity about what he saw as Merton's value-free sociology of knowledge, which Hartl claims was a misunderstanding of Merton. Also challenged here are Polanyi's idealism about scientific freedom (actually, given unconstrained freedom scientists may go in unethical directions) and his rigid distinction between pure and applied science, which, according to Hartl, do not withstand historical scrutiny (actually, science can respond to social factors without science being judged on purely utilitarian principles).

Douglas (ch. 4) argues that scientists are increasingly aware of the public responsibility that goes with the freedom to pursue research, as opposed to previous views that feared scientific freedom would be limited by imposed constraints. (Douglas mentions those opposing J. D. Bernal and the 1940 Society for Freedom in Science, formed by Polanyi et al.) This essay has a useful historical background and divides the two attitudes as pre and post the

year 2000. Given this turn, Douglas looks at how institutional structures might be reformed to align with newer understandings of freedom and responsibility. While "we should shift the attention of scientists from compliance to full responsibility in their decision-making" (82), Douglas advocates for the integration of ethical thinking in science; rather than acting as isolated individuals, scientists should have access to advisors, akin to ethical bodies and consultants in healthcare settings.

Kourany (ch. 5) questions the Baconian promise that the results of science, unhindered by societal control, will inevitably contribute to the common good. Following case studies that make a lie of such optimism, she argues that we must infuse in science "the right social values" to hold scientific research accountable: "the ones that promote human flourishing" (106). This, she believes, is the task of the scientific community, which (on the analogy of a workers' union) could conceivably refuse to participate in certain forms of research.

In Part II, Hans Radder, Hugh Lacey, and Dustin Olson tackle "Democracy and Citizen Participation in Science." What democratic values should govern science policy and to what extent should science be democratized (as opposed to, perhaps, deferring to expert opinion)?

Radder's chapter (ch. 6), "Which Science, Which Democracy, and Which Freedom?" has accounts of each mentioned theme, starting with the nature and aims of science or, more properly, the sciences: a family where "the members...are both similar and distinct" (114). Then follows a discussion of the implications of Radder's account of democracy and freedom for science. He focuses on academic freedom and its justifiable limitations in a democracy: it should be practiced in the public interest.

Lacey's (ch. 7) begins with a list of eight acronyms used regularly in the text (e.g., VTM: values of technological progress) and includes lengthy sentences of 100 words. I believe the reading might have been made easier in this interesting discussion

of the relationship between, on the one hand, two conceptions of democracy (representative and participative) and, on the other hand, two conceptions of scientific research (decontextualizing and multi-strategic). Lacey criticizes commercially oriented technoscience, arguing that participatory democracy at the state level (as contrasted with representative democracy) bolsters multi-strategic research and vice versa; one result is the strengthening of the ideals of the scientific tradition (e.g., inclusivity, evenhandedness, and comprehensiveness).

Olsen (ch. 8), is concerned to mitigate the willfully propagated distorting influences on public opinion and their epistemically compromising effect on popular views. Such distortions amount to “social epistemic exploitation” (SEE) (161), where an actor asserts a view, P, but is indifferent to the truth-value of P while also maintaining that the assertion is made in good faith. Olsen cites as an example the propagandistic and influential denial of the scientific consensus about anthropogenic global warming seen around the US 2010 midterm elections. We are epistemically vulnerable to such exploitation for two reasons: first, we are epistemically interdependent in being forced to trust the testimony of others to arrive at our beliefs, and, second, we are egotistically inclined to prefer certain views over others. Olsen’s argument against SEE is a normative one: traditional liberal institutions (e.g., journalism) have obligations (epistemic, moral, political) to facilitate public reason and resist epistemically corrupting influences; otherwise, they undermine democratic legitimacy.

Part III closes the book with chapters by Jeroen Van Bouwel and Lidia Godek focusing on freedom and pluralism in the methodology and values of science.

Van Bouwel’s chapter title (ch. 9) asks whether transparency and representativeness of values are hampering scientific pluralism (and, in so asking, assumes that scientific pluralism is a good thing). Applauding Kevin Elliot’s 2017 *A Tapestry of Values*,

this chapter critiques two of Elliot’s three conditions for bringing appropriate values into science: transparency (about methods, models, data, assumptions etc.) and representativeness (science should conform to representative social value expectations/norms). Some understandings of transparency and representativeness of values, argues Van Bouwel, can hamper the epistemic productivity of science. His conclusion is that scientific pluralism and agonistic democratic pluralism (against Rawls’s or Habermas’s seeking rational consensus) are mutually enriching and necessary for science to flourish and serve society.

Godek (ch. 10) has a technical discussion of Max Weber’s conception of value judgments in science (which go beyond the methodological value judgements of practitioners) as well as his understanding of vocation. Following the analysis of Weber’s accounts of values, she closes by offering three accounts or models of policy making in science (regulative, protective, and integrating models) that arise from her discussion of the institutionalization of values.

This excellent and stimulating book ends with a paragraph bio of each contributor and an index. I heartily recommend it for those interested in pondering the connections between science, freedom, and democracy.

Chris Mulherin

[ChrisMulherin@iscast.org](mailto:ChrisMulherin@iscast.org)

**J. Bradford DeLong. *Slouching Towards Utopia*. New York, NY: Basic Books, 2022. ISBN 9780465019595. Hardcover \$35.**

J. Bradford DeLong is an economist at UC Berkeley who has exercised significant influence over the course of his career. In the early 1990s he co-wrote, with Lawrence Summers, two papers that provided the theoretical game plan for the Clinton Administration’s approach to neoclassical financial deregulation during Summers’s tenure as Secretary of

the Treasury. DeLong himself worked as a Treasury official during this same period. His own theoretical legacy from the Clinton era can be fairly described as left neoliberal. He was, in his own terms, a “[Rubin Democrat](#)” (a reference to the market- and finance-friendly Robert Rubin), espousing “largely neoliberal, market-oriented...tuning aimed at social democratic ends” while in political terms advocating “taking a step in the direction of appeasing conservative priorities” (quoted in Beauchamp 2019). He has since modified his position with regard to the company that market-oriented thinkers with social democratic aims ought to keep, claiming that Democrat party elites should embrace and partner with the resurgent social democratic left that emerged alongside the candidacy of Bernie Sanders.

DeLong himself has summed up the [central arguments](#) delivered in his long book:

1. Since 1870, we humans have done amazingly, astonishingly, uniquely, and unprecedentedly well at baking a sufficiently large economic pie.
2. But the problems of slicing and tasting the pie—of equitably distributing it, and then using our technological powers to live lives wisely and well—continue to flummox us.
3. The big reason we have been unable to build social institutions for equitably slicing and then properly tasting our now more-than-sufficiently-large economic pie is the sheer pace of economic transformation.
4. Since 1870 humanity’s technological competence has doubled every generation. Hence Schumpeterian creative destruction has taken hold.
5. Our immensely increasing wealth has come at the price of the repeated destruction of industries, occupations, livelihoods, and communities.
6. And we have been frantically trying to rewrite the sociological code running on top of our

rapidly changing forces-of-production hardware.

7. The attempts to cobble together a sorta-running sociological software code have been a scorched-earth war between two factions.
8. Faction 1: followers of Friedrich von Hayek, who say “the market giveth, the market taketh away: blessed be the name of the market.”
9. Faction 2: followers of Karl Polanyi, who say “the market was made for man; not man for the market.”
10. Let the market start destroying “society,” and society will react by trying to destroy the market order.
11. Thus the task of governance and politics is to try to manage and perhaps one day supersede this dilemma.

These arguments are communicated in the context of a grand narrative that traces the contours of what DeLong calls the “long twentieth century” (1870–2010), a coinage he presents in opposition to British-Marxist historian Eric Hobsbawm’s “short twentieth century” (1914–1991). The long twentieth century, in DeLong’s analysis, is marked by the “triple emergence of globalization, the industrial research lab, and the modern corporation” (1), a trio that allowed humanity at large to escape (to a significant extent) the sort of subsistence existence that had dominated our lot since the advent of agriculture. For DeLong, 2010, in the wake of the Great Recession, marks the end of the era in which economic growth allowed for a continuation of this trend whereby more and more of the world’s population escaped lives of mere subsistence.

He recognizes European-style social democracy and, to a lesser extent, the New Deal social democracy of the United States as the highest achievement of this long, high-growth century. He creatively describes this social democratic achievement as the “shotgun

marriage of Hayek and [Karl] Polanyi blessed by Keynes” (DeLong 2022, 6), by which he means to emphasize the incorporation of the decentralized power of market mechanisms into a societal structure that honors what he calls “Polanyian rights”—rights that would guarantee that “those who do not own valuable property should have the social power to be listened to, and that societies should take their needs and desires into account” (ibid., 5). Such a rapprochement between Hayek and Polanyi would be impossible, in DeLong’s view, without the judicious application of Keynesian insight. This sort of arrangement, if on a gradual track toward wider and wider inclusion, is the incremental, non-revolutionary utopia that, on DeLong’s account, we slouched towards through most of the long twentieth century.

The bulk of his narrative is concerned with the ways the triple emergence referenced above was harnessed and developed (or not) around the world in the context of ongoing ideological debates, political shifts, and revolutions hinging on the role of markets in society—that is to say, to the extent that Hayek’s views or Polanyi’s held sway. DeLong keeps this debate alive throughout by employing his two framing figures as a tragic chorus that provides commentary on the evolution of political economy. Together we visit Europe, the US, Meiji Japan, China, Africa, India, etc. The villains of the tale are totalitarians, whether fascist, Nazi (if we accept the distinction), or Bolshevik. Given the defeat in WWII of the reactionary totalitarians, the “really-existing-socialism” of the Leninist-Stalinist USSR serves as the longest-running foil to the social freedom achieved by embedding markets within social democracy.

The breadth of DeLong’s historical knowledge is impressive, and his prose is readable and lively. While Karl Polanyi’s thought is a central focus throughout the book, DeLong also mentions Michael Polanyi in a passage in which he glosses a number of figures he would have included in his history had time and space allowed. He singles out the younger Polanyi

as important due to his theorization of society’s need to transcend both the mercenary nature of the free market and attempts at comprehensive central planning by means of “decentralized fiduciary institutions focused on advancing knowledge about theory and practice...in which people follow rules that have been half-constructed and that half emerged to advance not just the private interests and liberties of the participants but the broader public interest and public liberties as well” (ibid., 168).

He intersperses his text where appropriate with self-reflective commentary on his own participation (as a relatively influential economist and high-level apparatchik under Clinton) in the neoliberal turn. This is very much to his credit, since it is most apparent when he regards his own involvement in the neoliberal turn, the “hubris” of which “truly brought forth nemesis” (ibid., 463). He is also open and clear that presenting a grand narrative, as he does, will necessitate overlooking certain details and nuances in the wide-ranging subject matter he treats. Fair enough. Nonetheless I will mention three themes that I would have liked to see figure more prominently:

- 1) DeLong might have considered our retrospective recognition that environmental destruction is endemic to industrialization. This is a pretty fair candidate to derail any possibility of long-term progress, slouching or otherwise. The impending consequences of industrial environmental degradation are addressed in the final chapter or so, but almost as an afterthought. In contrast to this, DeLong works commentary and analysis throughout the body of his text that recognize *other* problems that were festering throughout the long twentieth century but perhaps went unrecognized by those in control of societies until later. The exclusion of women and marginalized racial groups from full social participation, for instance, is addressed in parenthetical commentary interspersed throughout the book, whereas the future environmental costs



of industrialized globalization are not handled with such consistency.

2) DeLong might have considered the ways in which the really-existing-socialism of the Soviet sphere—as a live, counter-hegemonic alternative to Western liberalism—may have given progressive reformers like FDR, civil rights activists, or those who engineered European social democracy the leverage necessary to overcome forces of reaction that opposed such [Karl] Polanyian shifts. Would the social democratic achievements of the New Deal have happened, for example, if big business, etc. didn't feel that an American rerun of the Bolshevik Revolution were a real threat in the aftermath of the Great Depression? These questions, open to debate, seem relevant to his narrative but don't make much of an appearance.

3) I concur with DeLong's approval of social democracy as the highest political economic achievement of the long twentieth century. I would like to have heard more from him in the book about the specifics of how the successful social democracies function(ed) and the distinctions, if such there be in his view, between social democracy and democratic socialism.

Overall, *Slouching Towards Utopia* is a fascinating, readable, and worthwhile book that comes highly recommended, regardless of one's ideological commitments.

Martin Turkis  
[mturkis@yahoo.com](mailto:mturkis@yahoo.com)

**Matteo Bortolini, *A Joyfully Serious Man: The Life of Robert Bellah*. Princeton University Press, 2021. 528 pp. \$35.00 (cloth). ISBN 9780691204406; 9780691204390 (ebook).**

Robert N. Bellah (1927–2013) was among the most well-known and influential figures in the sociology of religion. Like many who began study in this area in the late 1970s, I first became familiar with his concept of “civil religion” (an institutionalized,

nonsectarian set of beliefs, symbols, and rituals that gives the political sphere in America a religious dimension) and then was drawn into the broader sweep of his work. By the time *Habits of the Heart* became a best-seller in the middle to late 1980s, it seemed clear (despite his close association with Talcott Parsons, whose functionalist theorizing had lost the dominance it enjoyed in American sociology mid-century) that Bellah was angling for the status of an enduring luminary. His late magnum opus, *Religion in Human Evolution* (2011), is still making some significant waves among scholars of religion.

I was thankful for the chance to review Matteo Bortolini's recent biography, as I had heard many rumblings about Bellah's career being extremely rocky despite his star status. This turned out to be a great read, of much greater value than even I had anticipated. Bortolini takes us back to the heady days of the 1950s and '60s, when the study of religion (among other areas of inquiry) was enjoying a post-war period of ferment, and then traces Bellah's amazing journey from Harvard to Berkeley (with several international stops on the way). But the more significant thing he has done is to bring both Robert Bellah and those he worked with fully to life. Bortolini has done his homework well (with the requisite access to documentation, and with cooperation from family and friends) and provides a much more complete picture than I had yet encountered of Bellah's genius, of his struggles and weaknesses, and of his complexity. In addition to a sensitive and poignant treatment of the loss of two of his four daughters (one to suicide and the other in a car accident), we get a deft treatment of Bellah's political trials, his bisexuality, and his open marriage (regarding the latter two, I personally had no more than vague hints before reading the book). Bortolini presents a compelling picture of how these aspects of Bellah's life are intertwined with his intellectual development, which he pursued with a passionate openness that was wider and warmer than is readily discernable in his publications.



I am struck by how the broad and deep perspective of this book on the life and times of Bellah is comparable to that of Ray Monk's award-winning biography, *Ludwig Wittgenstein: The Duty of Genius* (1990). As with Monk's longer book, a reader with interest in the time period covered will be drawn in and carried along by the wonder of the story. We see how Bellah's early flirtation with communism (creating some delicate situations in relation to employment) gives way to a trajectory of public flirtations with radical figures and causes. He was strongly attracted, for example, to the work of Norman O. Brown, a popular Marxist and Freudian writer who was good at unsettling those of a less radical bent. But underlying this fondness for transgression was a solid liberalism and progressive spirit that was apparently more restrained in private than it sometimes appeared in public. In this book, we find the progressive Bellah deeply appreciative and respectful of traditional belief and ritual, with this appreciation being fueled by a rootedness in Durkheim that I think is deeper than his formation by Parsons's functionalism, as well as by careful and sympathetic readings of such thinkers as Charles Taylor and Alasdair MacIntyre. Bortolini's account, though it reveals depths of Bellah's progressive inclinations of which I had not been aware, has also confirmed for me that he was not an enemy of tradition and genuine community.

What I find most inspiring in this intellectual biography is (as Bortolini's title suggests) the profound joy that was evident in Bellah's passion for understanding humanity through religion, for making sense of the startling diversity of religious expression (drawing deeply and fluently, for example, from both Japanese and American religion). Furthermore, his joy in serious inquiry was consistently placed in the service of articulating hope for humanity's future. Bortolini shows how these aspects of Bellah's persona were often misunderstood as simplistically countercultural or "Californian," just as the breadth of his theoretical reflection was

often misunderstood as never transcending a narrow Parsonian functionalism. Even some of Bellah's most enduring contributions to sociology of religion are often detached from the quest for hope and for renewal of community that was their original soil. Discussion of civil religion, for example, as Bertolini shows, took on a life of its own in various sociological discussions, often freed from its moorings in Bellah's search for a way to revive a sense of unity and common purpose in the politically turbulent sixties and seventies.

It may be that a mark of a great biography of a great person is that it brings one to a deep longing to know and converse with the person portrayed. I had read and been formed in my own thinking by some of Bellah's work, but reading this telling of his life, I find myself deeply sorry that I had not taken what opportunities I might have had to meet and interact with him. And I would like to be able to tell him that his troubles and his weaknesses have resonated with me as much as his brilliance and his many accomplishments. I think that he would have relished such a conversation.

I think that you will relish the encounter that is available here with Bob Bellah. We owe a debt of gratitude to Matteo Bortolini for his wonderful portrait of this joyfully serious man.

Peter Blum  
[pblum@hillsdale.edu](mailto:pblum@hillsdale.edu)