Pushing the Boundaries of Knowledge: Educative Possibilities in (Trans)Disciplinary Inquiry

Response to ‘The Struggling Towards a Transdisciplinary Metaphysics’ (Gibbs 2021)

Peter Roberts

Published online: 16 March 2022
© The Author(s) 2022

Keywords Transdisciplinarity · Knowledge · Education · Openness · Tolerance · Attention

A Quiet Rebellion

Paul Gibbs’ (2021) commentary on transdisciplinary metaphysics lends itself well to multiple readings. Those seeking thoughtful engagement with an eclectic range of philosophers in addressing the theme of transdisciplinarity will find much of interest here. Gibbs draws on Heidegger’s view of technology, Aristotle’s account of potentiality and Duns Scotus’ position on causality in sketching the ontological and epistemological basis for transdisciplinary inquiry and pedagogy. References to other thinkers, including Deleuze, Spinoza and Kierkegaard, are woven into this philosophical narrative, each playing their part in allowing Gibbs to build a coherent and compelling argument. The commentary ‘works’, then, in conventional scholarly terms, meeting the requirements we have come to expect of written material published in peer-reviewed academic journals. In this sense, it adheres to the same logic—the same unwritten rules—as most other publications by academics. And yet, within the commentary, there is also a kind of quiet rebellion against the very structures of thought that render this acceptable and intelligible in academic terms.

Gibbs points out that if we are to ‘resist the epistemological hegemony of disciplines to be the sole arbitrator of the real’, we cannot ‘start from here’. If we are to seek ‘a new way of knowing and agency without understanding the metaphysics of the new reality’, traditional discipline-based investigation will not suffice. The

1 For a detailed discussion of transdisciplinary knowledge, see Gibbs and Beavis (2020).

Peter Roberts
peter.roberts@canterbury.ac.nz

1 University of Canterbury, Christchurch, New Zealand
disciplines as we have known them in the twentieth and twenty-first centuries cannot
take us to ‘the placeless place where the transcendental blends with the immanent
and the philosophical with spiritual’, a ‘space of imagination separate from reason
and the body’ where we seek to know ourselves but with a knowledge we do not
currently possess. This tension in the commentary, between the need to comply with
academic conventions shaped by decades of disciplinary inquiry and the desire to
break free from the restrictions imposed by such expectations, hints at other possible
readings.

**Disciplining and Enabling**

We might, for example, want to probe a little further in examining the nature and
extent of the influence exerted by the disciplines in shaping what comes to count
as worthwhile and legitimate knowledge. Gibbs’ (2021) account suggests that
this influence has been strong and sustained. This may be so in some senses but
the situation is arguably changing, and not always for the better. We have, as Gibbs
himself and others have shown over recent years, entered a ‘post-truth’ age, where
truth, for many, no longer seems to matter (Gibbs 2019; Harrison and Luckett 2019;
Horsthemke 2017). With the rise of social media platforms such as Facebook and
Twitter, misinformation, half-truths and lies can be circulated rapidly and widely.
We have seen the emergence of ‘fake news’ and ‘alternative facts’. Throughout
history, politicians have frequently avoided telling the truth, or the whole truth, but
over the last decade leaders of some of the most powerful countries on Earth have
taken this to a new level, regularly making statements and claims that can easily and
quickly be refuted by anyone willing to investigate and uncover the facts.

Traditional disciplinary inquiry, in the sciences, humanities and other domains
of study, has much to offer in countering these trends. The question of what counts
as truth has always been complex and contested, but at least within the disciplines,
there are well-established systems for enhancing rigour and reliability. Peer review
is an obvious example. Peer review is not without its weaknesses. It can be too con-
servative, inhibiting the development and circulation of work that rubs against the
grain of theoretical or methodological orthodoxy. It can, at times, be self-serving
and mean-spirited. It can, in cases where referees are slow to respond, contribute to
unacceptable delays in publication. There is no one approach to peer review, and it
remains a contested practice (see Jackson et al. 2018). Peer review is, nonetheless,
still preferable to situations where ‘anything goes’ or where assessments and deci-
sions are made on the basis of metrics and algorithms.

Peer review, if it is to work well, relies heavily on the judgement of editors in
selecting reviewers, responding to the reports received, and communicating effec-
tively with authors. A key factor in the appointment of many editors is their disci-
plinary knowledge and experience. Editors exercise considerable power in determin-
ing what comes to count as ‘truth’ in a discipline, but they can also lead the way
in supporting non-traditional approaches to scholarly work. They can, with authors
and reviewers, shape new agendas for inquiry and address old questions in new
ways. The problems posed by a post-truth world can benefit from transdisciplinary
examination but this can co-exist with contributions from individual disciplines; it need not be a case of either/or.

Disciplines discipline but they also enable. Disciplines develop, evolve and change over time. Areas of inquiry recognised as disciplines today did not exist a hundred years ago, and domains of disciplinary endeavour that seemed essential in the past may be deemed marginal or irrelevant now or in the future. Disciplines play a significant role in making researchers, teachers and students what they are. They can contort and constrain but they can also open up possibilities for contestation and creativity. Disciplines often exert a formative influence on those who end up critiquing them. The scholarly foundations laid through discipline-based education and inquiry can provide the intellectual tools, and the habits of mind and character, necessary to ask searching questions of the disciplines.

Disciplinary practices—ways of thinking, investigating and communicating—do not in themselves lead to transdisciplinarity, but they need not be incompatible with considering what such a leap might require of us. There may be a long shadow cast by the disciplines in the academy, but beyond universities and other research institutions, their influence is waning. And where the hegemony of disciplinary inquiry has been reinforced, the reasons for this have often been more political than epistemological. Getting to grips with the politics of disciplinary knowledge production involves, in part, understanding the regimes that have been put in place to assess the work of researchers. The move to so-called performance-based research funding systems, in particular, has had a significant bearing on how and why scholars in institutions of higher education undertake their work.²

Britain’s Research Excellence Framework (formerly Research Assessment Exercise) is perhaps the best known of these schemes, but other countries have adopted similar initiatives. In New Zealand, for example, the Performance-Based Research Fund (PBRF) has played an important role in shaping research priorities in the nation’s universities, cementing the language of ‘outputs’ in institutional discourse and fostering a more instrumentalist, self-interested, measurement-driven approach to intellectual life. The PBRF has reinforced the disciplines in some senses, whilst undermining them in other ways.

There is pressure on academics to produce research ‘outputs’ of the right kind (e.g. articles in Scopus journals), with ‘impact’, as judged by disciplinary panels. Multidisciplinary and interdisciplinary work can be rewarded, but transdisciplinary and anti-disciplinary approaches to inquiry are less likely to meet the measurement requirements imposed by regimes of this kind.³ Showing that one has the respect of one’s disciplinary peers is also important, but this too is not just any form of respect; it is what can be demonstrated by named, specific examples of ‘peer esteem’, such as research-related awards or invitations.

² See the special issue of *Postdigital Science and Education*, 3(1), 2021, on ‘Measuring Excellence’ in Higher Education, edited by Sarah Hayes. https://link.springer.com/journal/42438/volumes-and-issues/3-1. Accessed 3 February 2022.

³ The distinctions between these various approaches are considered in Jandrić and Knox (2021).
Such schemes also work against disciplinary norms in the sense that they turn knowledge into a commodity. What comes to count is not necessarily what one knows, but how one performs, within the narrowly circumscribed parameters of the PBRF. The idea of knowledge having intrinsic worth—a notion that might have been accepted by many working in the disciplines in the past—is supplanted by the logic of exchange. Knowledge counts only if it can be ‘sold’, i.e. traded for PBRF grades and the funding that follows them (Roberts and Peters 2008).

**Openness, Tolerance and Transdisciplinarity**

Another way to read Gibbs’ (2021) commentary is to see it as a statement not so much about knowledge, or inquiry, or even metaphysics, as an exploration of human ideals. An ontological reading is implicitly encouraged in the article, but there is more to it than this; there is a normative dimension to the discussion that invites further reflection. Gibbs highlights the importance of a certain way of being in the world, emphasising the value of openness and tolerance, underpinned by curiosity and a sense of wonder but also a commitment to addressing complex and difficult social problems. In this respect, he has much in common with the renowned Brazilian educationist, Paulo Freire.

Freire (1976) spoke of openness as an indispensable feature of democratic, progressive forms of life. He stressed the importance of being open to the new without dismissing the old just because it was old. Openness allows us to see what otherwise might be obscured by prejudice or ignorance. A posture of openness implies a willingness to ask questions, to search and inquire. It helps us to see that we are never alone but always part of a wider community. Openness is not without limits, some of which are necessary for epistemological reasons (e.g. to maintain coherence and cohesiveness), others of which may have an ethical or educational justification (e.g. in allowing all voices in a debate to be heard) (cf. Jandrić 2018; Peters and Roberts 2011).

Openness requires a quality that is evident in the first sentences in Gibbs’ commentary: humility. Gibbs asks ‘What is transdisciplinarity?’ and replies: ‘I don’t know’. Humility springs, in part, from a recognition that there will always be much that we do not know. We can confess to doubts without being indecisive. Decisions can still be made and action can still be taken, even where we are uncertain about how best to proceed (Freire 1994). Humility and openness are needed if we are to truly listen to what others have to say. And when we encounter views that are odds with our own, our posture should not be one of defensiveness as if we are under attack.

If we are to value our differences, tolerance is necessary. From a Freirean perspective—and this seems consistent with Gibbs’ (2021) position as well—tolerance does not mean simply ‘putting up’ with what others have to say or suppressing our own right to express a contrary view. Tolerance is an expression of our commitment to meaningful dialogue and the goal of building better, more socially just, worlds (Freire 1996, 1998; Roberts and Freeman-Moir 2013).

Transdisciplinarity can be conceived as a form of transcendence, where we seek to go beyond what we know, or think we know, now. But we can also see transdisciplinarity as a process of transformation. On this view, we are neither fully ‘here’ nor
fully ‘there’ (to use Gibbs’ terminology). When seeking to know, we recognise, as Freire would put it, that the object of our inquiry is ‘not yet’ because it is always in a process of becoming—and the same is true of us as knowers (Freire and Shor 1987).

**Attention, Education and Transformation**

Gibbs is at his most ‘poetic’ in the last part of his commentary, signalling what might be to come with transdisciplinarity but in a suggestive rather than prescriptive manner. This is keeping with his earlier point that we must be prepared to dwell in imaginative spaces where knowledge and experience are shaped in ways we cannot yet comprehend. Gibbs (2021) speaks of ‘wonder, awe, beauty and oneness’, of liberating ourselves from ‘the imprisonment of categorical lives’, and of understanding ‘anew who we are becoming’. The pathways that open up these possibilities are many and varied, as Gibbs recognises, but one that resonates with his reflections is the development of our capacity for attention—in the sense captured by the work of the French philosopher and teacher Simone Weil.

Weil argued that regardless of the subject area, the deeper purpose behind our studies is the cultivation of attention. The moral dimension that is a vital part of Gibbs’ account of transdisciplinarity is also pivotal for Weil. Attention enables us to better understand ourselves but it is also essential in addressing the suffering of others (Weil 2001). If we are to attend—to ourselves, to an object of study and to others—we need to learn how to watch and to wait, with patience, calmness and equanimity. Taking this advice seriously is not easy, for it runs counter to the rushed, distracted tendencies prevalent in so many contemporary activities.

Gibbs (2021) points out that a commitment to transdisciplinarity is ‘risky’, for it can reveal what is ‘unpleasant and regrettable’—as well as what is ‘praiseworthy’—about ourselves. This is consistent, however, with the idea, developed more fully elsewhere, that education is meant to be troubling, unsettling and uncomfortable (Gibbs 2015; Gibbs and Dean 2014; Jardine et al. 2014; Mintz 2013; Roberts 2016; Roberts and Saeverot 2018). Weil (1997) too speaks of potentially harrowing experiences as we undergo what she refers to as a process of ‘decreation’, seeking to overcome the effects of the moral ‘gravity’ that pulls us downwards.

For Weil, we must be prepared to face the ‘void’, a space that is not dissimilar to the ‘placeless place’ identified by Gibbs (2021). Entering the abyss that is the void can fill us with fear and trepidation, but it can also be profoundly transformative. We can come to understand ourselves, our relationships and commitments and the worlds we inhabit in ways we could not have imagined in the past. Gibbs, like Weil, provides just the encouragement we need to take this educative leap into the unknown.

**Funding** Open Access funding enabled and organized by CAUL and its Member Institutions.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line.
References

Freire, P. (1976). *Education: The practice of freedom*. London: Writers and Readers.
Freire, P. (1994). *Pedagogy of hope*. New York: Continuum.
Freire, P. (1996). *Letters to Cristina: Reflections on my life and work*. London: Routledge.
Freire, P. (1998). *Teachers as cultural workers: Letters to those who dare teach*. Boulder, CO: Westview Press.
Freire, P., & Shor, I. (1987). *A pedagogy for liberation*. London: MacMillan.
Gibbs, P. (2015). Happiness and education: Troubling students for their own contentment. *Time and Society*, 24(1), 54-70. https://doi.org/10.1177/0961463X14561780.
Gibbs, P. (2019). Why academics should have a duty of truth telling in an epoch of post-truth? *Higher Education*, 78(3), 501–510. https://link.springer.com/article/10.1007/s10734-018-0354-y.
Gibbs, P. (2021). The struggling towards a transdisciplinary metaphysics. *Postdigital Science and Education*. https://doi.org/10.1007/s42438-021-00278-w.
Gibbs, P., & Beavis, A. (2020). *Contemporary thinking on transdisciplinary knowledge*. Cham: Springer.
Gibbs, P., & Dean, A. (2014). Troubling the notion of satisfied students. *Higher Education Quarterly*, 68(4), 416-431. https://doi.org/10.1111/hequ.12039.
Harrison, N., & Luckett, K. (2019). Experts, knowledge and criticality in the age of alternative facts: Re-examining the contribution of higher education. *Teaching in Higher Education*, 24(3), 259-271. https://doi.org/10.1080/13562517.2019.1578577.
Horsthemke, K. (2017). FactsMustFall – Education in a post-truth, post-truthful world. *Ethics and Education*, 12(3), 273-288. https://doi.org/10.1080/17449642.2017.1343620.
Jackson, L., Peters, M. A., Benade, L., Devine, N., Arndt, S., Forster, D., Gibbons, A., Grierson, E., Jandrić, P., Lazaroiu, G., Locke, K., Mihaila, R., Stewart, G., Tesar, M., Roberts, P., & Ozoliņš, J. (2018). Is peer review in academic publishing still working? *Open Review of Educational Research*, 5(1), 95-112. https://doi.org/10.1080/23265507.2018.1479139.
Jandrić, P. (2018). Postdigital Openness. *Open Review of Educational Research*, 5(1), 179-181. https://doi.org/10.1080/23265507.2018.1547943.
Jandrić, P., & Knox, J. (2021). The Postdigital Turn: Philosophy, Education, Research. *Policy Futures in Education*. https://doi.org/10.1177/14782103211062713.
Jardine, D.W., McCaffrey, G., & Gilham, C. (2014). The pedagogy of suffering: Four fragments. *Paeidesis*, 2(2), 5-13. https://doi.org/10.7202/1071561ar.
Mintz, A. (2013). ‘Helping by hurting’: The paradox of suffering in social justice education. *Theory and Research in Education*, 11(3), 215-230. https://doi.org/10.1177/1477878513498179.
Peters, M. A., & Roberts, P. (2011). The virtues of openness: Education, science, and scholarship in the digital age. Boulder, CO: Paradigm Publishers.
Roberts, P. (2016). *Happiness, hope, and despair: Rethinking the role of education*. New York: Peter Lang.
Roberts, P., & Freeman-Moir, J. (2013). *Better worlds: Education, art, and utopia*. Lanham, MD: Lexington Books.
Roberts, P., & Peters, M. A. (2008). *Neoliberalism, higher education and research*. Rotterdam: Sense Publishers.
Roberts, P., & Saeverot, H. (2018). *Education and the limits of reason: Reading Dostoevsky, Tolstoy and Nabokov*. New York: Routledge.
Weil, S. (1997). *Gravity and grace*. Trans. A. Wills. Lincoln: Bison Books.
Weil, S. (2001). *Waiting for God*. Trans. E. Craufurd. New York: Perennial Classics.