What divides us and what unites us?

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Accepted: 4 November 2020
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There are so many things that divide us as a scholarly community. We come from different health professions and hold different views of how health professionals should be trained. We work in different research paradigms and promote different views on what education research should focus on. We are influenced by and have influence on the different participants in these working contexts. We work in different contexts (educational, healthcare, regional, and national) that are further delimited by the cultures, languages, resources, regulations, and values they encompass. This diversity can be challenging to accommodate, not least because of the perennial tensions between attending to specific contextual issues and building a common scientific discourse—the idiographic-nomothetic dialectic is always with us. In some ways this reflects some of the paradoxes of identity politics: we want to defend and even celebrate those things that make us different, and yet, without collective action and a commitment to scholarly collaboration and mutual respect we have nothing.

In this special anniversary issue of *Advances* we present a collection of commissioned and invited papers (alongside our usual fare) to mark the 25 years since Henk van Berkel, Henk Schmidt, and Geoff Norman founded the Journal. This collection of papers reflects a rich diversity of topics and approaches that characterize the broadening theoretical, methodological and thematic diversity in the health education sciences. Some of the papers provide a historic overview of the most important scientific disciplines that have been instrumental to shaping the HPE over the past 50 years, while other contributions take stock of how new technologies and theories may contribute to the development of HPE practice and science.

Looking back, Schmidt and Mamede (2020) reflect on the contributions of cognitive psychology to our understanding of knowledge acquisition and expertise development in medicine, and Schuwirth and van der Vleuten (2020) discuss how thinking in our field about what constitutes “good assessment” has changed over time. Looking forward, Tolsgaard et al. (2020) explore the potential for machine learning and data science to change the nature of the science we do, Rachul and Varpio (2020) make a compelling

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case for expanding the study of communication in healthcare to include gestures, images and sounds, while Steenhof et al. (2020) highlight the important theoretical contributions that have come from integrating understanding of cognitive mechanisms with research on the science of learning.

Critical theoretical issues are reflected in Paton et al.'s (2020) call for collective reflexivity in their exploration of the field's intersectional legacy of oppression and discrimination, Martimianakis et al.'s (2020) call for researchers to be more critically engaged with the knowledge structures and assumptions they work with, and Wondimagegn et al.'s (2020) challenge to northern hemispheric- and anglophone-dominated discourses in health professions education.

Systems-level concerns are reflected in Hays et al.'s (2020) review of how health systems are conceptualized in HPE science, anticipating the productive disruption of new technologies such as AI, while Cleland et al. (2020) argue that health professions education would be well served to draw from economic thinking. More individual perspectives are provided by Bleakley (2020) who reflects on calls for medical education to focus solely on technical expertise, and by Norman (2020) who reflects on the development of HPE science over the past 50 years.

A collection of scholarly work such as this might seem to paint an almost impossibly broad landscape. Some authors chose to introduce new perspectives, theories and methodologies from other fields to address specific contemporary issues in HPE research and practice. Some highlighted the research achievements of the field while others chose to challenge, critique and call into account foundational academic practices that contribute to discrimination and inequity. And while several of the papers in this volume contend with dimensions of expertise and how we should train for it, they have situated their work in different literatures and research traditions. Can we defensibly claim to be a field with a shared discourse? Or are we forming smaller but more coherent discourses each with a venue of its own? The future of broad-spectrum journals such as *AHSE* may be limited if there is a concerted move to more specialized journals with a focus on, say, simulation, cognition, or humanities in HPE.

Given this potential for fragmentation, what might justify our claim to be a single field and for this Journal to be a platform for a common discourse in the health education sciences? To what degree do the different scientific disciplines that are represented within HPE research need to build on each other's developments and theoretical advancements? Should we abandon the promise of interdisciplinarity and resign ourselves to silos of knowledge, theory, and practice?

No. The challenges of a rich and varied landscape such as ours are a strength, not a weakness. Let us instead consider how we can articulate an integrative vision of such diversity. One way of thinking about the priorities of our field is to map different approaches and topics according to different patterns of inquiry. One such approach, which we provide purely for the sake of illustration, is made up of four intersecting continua (see Fig. 1):

- Individual—collective: some scholars focus on the individual learner or even on particular attributes and qualities of individual learners (such as knowledge, skills, or attitudes), while others focus on whole classes, programs, institutions, or systems.
- Uniformity—diversity: some scholars seek generalizable solutions, while others explore the idiosyncrasies of particular contexts and settings.
- Resilience—resistance: some scholars are interested in exploring things as they are, while others seek to challenge and change things.

Fig. 1 Four intersecting dimensions of scholarly focus in the field of health professional education sciences forming a tesseract conceptual space for situating different contributions to the field

- Theory–practice: some scholars focus on advancing our conceptual or theoretical understanding of a particular topic or phenomenon, while others seek to solve practical problems or to produce or improve concrete educational interventions.

A pattern-based model such as this can help us to map out the common landscape of HPE scholarship so we might better situate divergent acts (studies, papers, theories) and, in so doing, compare and contrast them. This kind of integrative metascholarship affords a view of a field—with our agora-like debates over our differences, while maintaining a common underlying discourse. This is an ontological argument for a common discourse on the phenomena that make up the field, based on what things exist and what kinds of things they are.

A different perspective might be to consider the knowledge claims we make and how inquiry relates to these claims. For instance, each paper in this collection considers matters of bias and where we might look or be expected to look for, account for, and mitigate bias in our search for truth(s) and understanding(s). Is it possible to focus solely on technical performance if there is so much bias in the system as a whole that performance as a distinct construct is impossible to define objectively? Can we hope to advance collective educational agendas if the way we train reproduces or exacerbates learner advantage and disadvantage on a range of intersectional axes? We can argue therefore that there is common cause in, say, cognitive science and critical theory papers, in that they both address bias and objectivity, regularity and irregularity, albeit in very different ways. The basic concerns of science are still recognizable even if they are approached in very different ways. This is an epistemological argument for a common discourse based on how we articulate and critically engage with knowledge.

A third approach to exploring unity in a diverse field, might be to focus on ends rather than means. For instance, we might argue that, despite its undeniable methodological and paradigmatic diversity, our field is primarily concerned with improving the ways we go about preparing health professionals for practice. Not only is this our common purpose, it is what makes

professional education different from the rest of higher education. While much post-secondary education focuses on the personal and academic development of their students, in HPE the student is our subject but not our outcome. Our focus (albeit as if through a mirror darkly) is on patient outcomes and healthcare system sustainability. As much as we need advanced knowledge and skills, we also look for and seek to develop qualities such as a commitment to service, altruism, compassion, and courage. This is an axiological argument for a common discourse based on the values we hold in common and the qualities of the outcomes we wish to see.

A fourth dimension, that may speak to both the unity but also the division of the field, is the practice-theory continuum. Although we like to think that research from different traditions can inform each other and mutually help advance the field of HPE, some evidence points to the contrary. According to a recent study by Albert et al., there was no convincing data to support that HPE is an interdisciplinary field in terms of how we use each other's research findings (Albert et al. 2020). This is a potential problem for the science of HPE but not an argument against broad-spectrum journals such as this Journal. Although research findings display some level of compartmentalization, the on-going negotiation of what is important and why is particularly necessary in HPE research and practice. One of the continuing conflicts and debates that is often perceived as splitting the HPE research community in two is the theory–practice continuum. However, as reflected by numerous discussions in this Journal, both types of research are needed to drive the field forward. This is one of the strongest cases for broad-spectrum journals that can help to facilitate discussions between scientists from very different scientific traditions.

If, as we have briefly argued, we can make robust claims that, despite the diversity of material in our field, it shares important ontological, epistemological, and axiological connections then this crisis of confidence in a common discourse is resolved and we can confidently continue to be a journal that seeks to draw together this swirling body of science, bewildering as it may sometimes seem to be.

Of course, our challenges are not only conceptual and philosophical. We prepared this editorial in the Fall of 2020, a time when healthcare and health professions education were still trying to establish their 'new normal' in the face of resurging COVID infections, social unrest, and economic uncertainty around the world. Despite these many challenges, there has been a large increase in the number of submissions to *Advances* even as the capacity of our editors and reviewers has been reduced. This pattern, seen at other journals, has meant that our processing times have grown despite the stentorian efforts of the editorial team. We would like to thank the many contributors to this Journal for their commitment and forbearance during these trying times.

AHSE is a journal that has advocated for and emphasized approaches to the study of Health Professions Education based on theory and methods from a variety of social and behavioural science disciplines. In reflecting this and celebrating this milestone in our history, we present this collection of essays and papers from leading scholars in the field both as a marker and as a challenge to continue to build a common if divergent scientific discourse in and around the many sciences of health professional education. We invite the community to continue to explore these issues in the pages of this Journal.

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