



Article

Accounting Meets Futures Studies in Interdisciplinary Research: Between a Rock and a Hard Place

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Abstract

An in-depth case study sought to explore a potential practice-base for a theory concerning democratizing corporate-community engagement. However, the study grappled with tensions between 'incompatible' fields. The purpose of the paper is an appreciation of collaborative, integrated interdisciplinary research - its benefits, and its challenges. An exploratory descriptive design punctuated with reflective writing is applied as method. Bridge-building strategies between fields are assessed by applying criteria relating to interdisciplinary research. Success is limited; one strategy being aligned with multidisciplinary research, the other weighted towards one of the fields. A more fully integrated research approach through dialogue and collaboration would increase the effectiveness of the study and the strength of the results. Although challenging, integration potentially strengthens the rewards of interdisciplinary research and facilitates true 'hybrid vigour' and valuable 'novel' insights. Rewards could include interventions that would move firms, and indeed civil society, closer to preferable social and environmental outcomes. The research findings are supportive of the need for epistemological pluralism requiring a reach across disciplinary boundaries.

Keywords

Integrated interdisciplinary research, Critical accounting, Social and environmental accounting, Critical futures studies, Causal layered analysis. (CLA)

Introduction

Preamble

Embarking on a case study with the aim to explore the application of a practice-base for a theory, I found myself caught up in an epistemological drama. Lacking awareness about the extent of present-day academic silos and the sticky web of 'what constitutes knowledge', the realization of the dilemma was slow to unfold. Consequently, much angst was experienced. This is my contribution in bringing the dilemma to light - for the sake of chipping away at the silos, if not for personal catharsis.

This paper argues that interdisciplinarity is on a continuum. At one end of the continuum is an impression of interdisciplinarity (O'Dwyer & Unerman, 2014). The other end is collaborative and integrated, and it can be transformative (Klaassen, 2018). The value of strategies taken in a case study to bridging the chasm between two very different fields, critical accounting, and critical futures studies, is examined. It enquires into the success of strategies and where along the continuum any successes are located. Shortcomings are identified and potential remedies explored.

The research approach applied to the critique of the case study has a descriptive design which is exploratory (Blaikie, 2004). Interdisciplinary research could be described as a categorical variable with categorical standards evident along a continuum from high level to low level interdisciplinarity. Interdisciplinary features of strategies

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are explored against these standards. At the practice level, strategies to bridge the chasm between fields were identified, and then examined alongside criteria relating to interdisciplinary research. Towards the end of the paper interdisciplinarity within accounting is also discussed.

In attempting to combine the two fields the study had the potential to make an original and new contribution to the knowledge of both fields. And, while the paper is particular to the case study its implications are relevant to interdisciplinary research in general. In essence the paper is about 'learning from the past and accounting for the future'.

The layout of the paper is as follows. The case study on which this critique is based is explained in the first section, including describing tensions arising during the case study research. The body of the paper begins with investigating the nature of interdisciplinarity and the bridge-building strategies applied during the case study. It ends with the findings in terms of assessing how the bridge-building strategies fared regards interdisciplinarity. Finally, in the discussion section, the case study's shortcomings are summed up, and suggestions for potential remedies identified. In this section the connection between the case study, accounting, and interdisciplinarity is brought together in a resounding call for collaborative, integrative interdisciplinarity.

This introduction then starts with summarized information about the case study. It introduces the key elements of the study's purpose and of the theories linked to that purpose. These were the theory of agonistic dialogic accounting and the theory and methodology, causal layered analysis. I am present as the writer and the writing is interspersed with reflective elements. The experience of researching the case was highly experiential due mainly to the mysteries and dilemmas along the way. It was truly an experience of being wedged 'between a rock and a hard place' and the journey deserves to be told.

The Case Study

The case study sought to provide a practice-base to democratize corporate-community engagement by bringing together agonistic dialogic accounting theory and critical futures theory and methodology, causal layered analysis (CLA). The latter was considered to provide a possible practice-base for the theory.

Agonistic dialogic accounting

An example of efforts to address the considerable shortcomings of social and environmental accounting (SEA) is through introducing the concept of agonistic democracy. Agonistic democracy is a democratic theory proposed by Chantal Mouffe that is underpinned by agonistic pluralism. It is introduced by Mouffe as a more effective means to democracy than deliberative democracy although in both the 'public sphere [is] given a central place in the democratic project' (1999, p. 745). The concept has been explored by a cohort of critical accountants and particularly Brown (2009) and Brown and Dillard (2013, 2013a, 2013b, 2014, 2015). From this concept of democracy, the theory of agonistic dialogic accounting was introduced by these scholars as a possible means to better theorize SEA and thereby address current weaknesses.

Agonistic dialogic engagement

This is a vital component of agonistic dialogic accounting. Agonistic dialogic engagement refers to engagement and decision-making practices that are not dominated by consensus decision making and feature dialogue between participants holding multiple, contested views. The theory also requires a practice-base as affirmed below by Brown, Dillard, and Hopper (2015, p. 641).

More empirical studies of how contested issues, for example notions of fairness, justice and accountability, are understood by different groups and generate competing discourses are needed.

The case contributed one such empirical study.

Causal layered analysis (CLA)

With a prior interest and rudimentary understanding of CLA I was drawn to exploring the possibility of CLA providing a practice-base for the theory. Moreover, early indications of the benefits of applying CLA as pertaining to this study include several alignments between CLA and agonistic dialogic approaches to engagement as discussed later in this section.

CLA is a critical futures theory and method developed by Sohail Inayatullah in 1991 that has been applied with diverse groups in various settings across the world, and has continued to evolve over time (2004, 2008, 2013, 2015, 2019). CLA has multiple applications such as: mapping the present/future which may lead to a transformed future; unpacking an issue; creating a preferred future; and deconstruction and reconstruction from an alternative worldview (Inayatullah, 2017, p. 7). CLA proposes that there are four layers of knowledge or ways of knowing.

CLA is based on the contention that there are four levels of knowledge each of which is individually represented by a layer of analysis; the litany; social or systemic causes; worldview/discourse; and myth/metaphor. (Kenny, 2013, p. 52).

The layers can also be described in shorthand fashion as data; meaning; episteme; and myth, and are illustrated by Figure 1 (below), with the iceberg analogy indicating differing levels of depth.

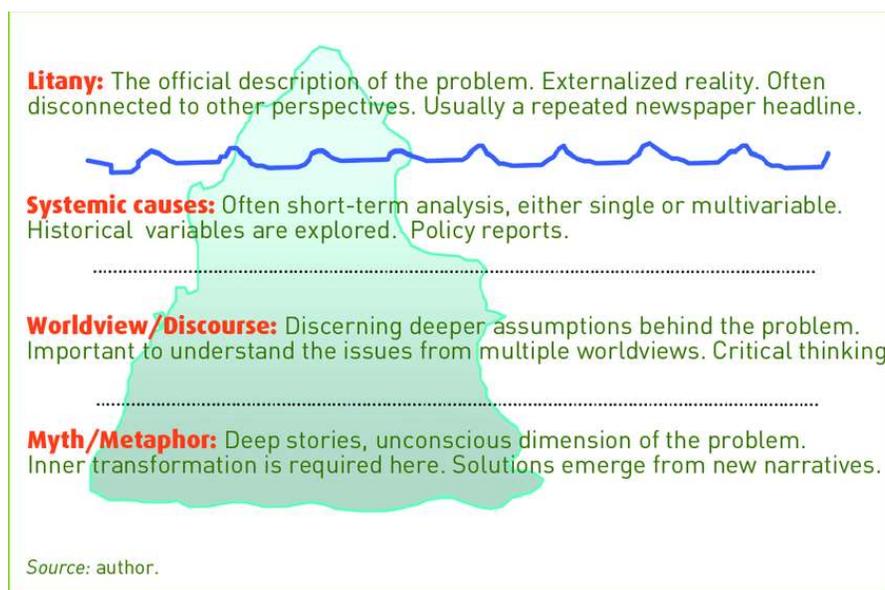


Fig. 1: CLA: The Iceberg Image with Layers, Inayatullah, S. (2019, p.5)

To better understand the application of CLA in a stakeholder engagement setting refer to Appendix 1. This is an actual example taken from the case study and has been composed in language suitable for a lay audience. The purpose of the activity was to map perspectives, unpack the issue, deepen understanding and to work towards the creation of a preferred future.

Alignments between agonistic dialogic approaches and CLA

Alignment Example

Brown identified eight critical dialogic principles ‘as the basis for a critical dialogic framework’ (2009, p. 324). Four of the eight principles identified by Brown in her 2009 article are considered by the author as having the most relevance to agonistic dialogic approaches to engagement. These are: 1/recognition of multiple ideological

orientations; 2/ensuring effective participatory processes; 3/attentive to power relations; and 4/recognition of the transformative potential of dialogic accounting. These four principles are aligned with certain CLA principles. It was this discovery that initially fueled curiosity as to whether CLA might provide a practice-base for dialogic engagement.

The alignments are set out in Table 1. In the left-hand column are the four critical dialogic principles that are most relevant to dialogic engagement, and in the right-hand column of the table are the corresponding CLA principles.

Table 1: Alignment between the principles of dialogic accounting and CLA (Holdaway 2018, p.89)

AGONISTIC DIALOGIC PRINCIPLES	CLA PRINCIPLES
Recognise multiple ideological orientations	Encompass multiple perspectives
Ensure effective participatory processes	Underpinned by action learning
Be attentive to power relations	Addresses power issues
Recognize the transformative potential of dialogic accounting	A transformative theory and practice

Although alignments between accounting with a critical orientation and critical futures studies are evident, combining these two fields led to certain ‘indicators of tension’. This led to investigating differences, and it was epistemic difficulties which proved the greatest challenge. Consequently, on seeking a clearer grasp on disciplinary matters, a web search led to discovering that I was in fact involved in interdisciplinary research. Furthermore, some consider interdisciplinary research to be ‘a monster’ (Mewburn, 2013)! Mewburn describes this work as ‘hybrids’, suggestive of ‘mythic figures like vampires, represent[ing] our fear of crossing boundaries, of being other than human’. On the upside however, crossbreeding does ‘stand for cooperation’, intellectual curiosity, and generosity’ (Brabazon, 2017). A description by Mewburn that rang especially true for me was the sensation of ‘going down over international waters’ and also of being ‘intellectually homeless’. I was not firmly grounded in either field.

Indicators of tension

Indicators of tension occurred early in the case study research and continued as the study proceeded through to completion. I begin by describing tension occurring early on. The initial indicator that futures studies could differ from the ‘traditional’ way of doing academic research occurred during my attendance at a futures presentation. This was at the very beginning of embarking on the study, and it was unlike any other academic presentations I had attended. The presenter went straight into exploring (in this case social change in sustainable communities) at the conclusion of which I left puzzled about this field called futures.

Curious, and seeing some parallel principles between CLA and agonistic dialogic accounting I decided to utilize the futures methodology and conducted interviews and a workshop applying the method. Manual coding of interviews was acceptable to this cohort. On presenting findings at an accounting colloquium there appeared to be an element of skepticism evident along with the suggestion that an analytical tool be applied in the interview analysis.

These two early experiences led to my investigating a possible mismatch of some kind. I soon discovered that I had embarked on an interdisciplinary study. The unsettling consequences continued as the study progressed. I wrote several papers and was successful in their publication in futures journals but, with a single exception, struggled with publishing in appropriate accounting journals. One of the papers accepted by a futures journal was nominated for the 2019 ‘Most Significant Futures Works’ in the category, ‘Advance the methodology and practice

of futures studies. Moreover, on completion of the research scholars from futures lauded the study. On circulation to colleagues from accounting, however, the study was mainly met with silence. This has led to a yet closer examination into the nature of interdisciplinary research, especially as it relates to accounting.

Interdisciplinarity and a Critique of Case Study Strategies

To assess the value of the bridge-building strategies applied in the case study the essentials of interdisciplinary research are discussed. There are innumerable books and articles written by scholars on the benefits, challenges, and considerable barriers to interdisciplinary research. Books and articles from a sample of these scholars are drawn on here. An overview of the key features of interdisciplinary research is provided, such as a definition and what constitutes interdisciplinary research, why it is important, and examples of approaches to interdisciplinary research relevant to this paper. This overview assists in understanding findings.

Interdisciplinary research explained

According to Brabazon (2017) what interdisciplinary research does is create ‘new tools, methods and assumptions...two or more disciplines combine in some form... to solve a problem’. A definition sourced through the work of various scholars by Klaassen reads:

Interdisciplinary research can be defined first and foremost as a team or an individual expert (scientist or otherwise), who integrates methods, knowledge and skills, theories, perspectives and different disciplinary knowledge bodies, to realize innovative solutions and knowledge advancement in uncharted problem areas.

Castán Broto, Gislason, & Ehlers 2009; Lam, Walker, & Hills 2014; Menken & Keestra 2016 in Klaassen 2018, p. 844

A feature to note in the definition is the reference to integration. Figure 2 below demonstrates the significance of differing levels of integration to interdisciplinarity. Figure 2 also assists with the understanding that interdisciplinary research is on a continuum.

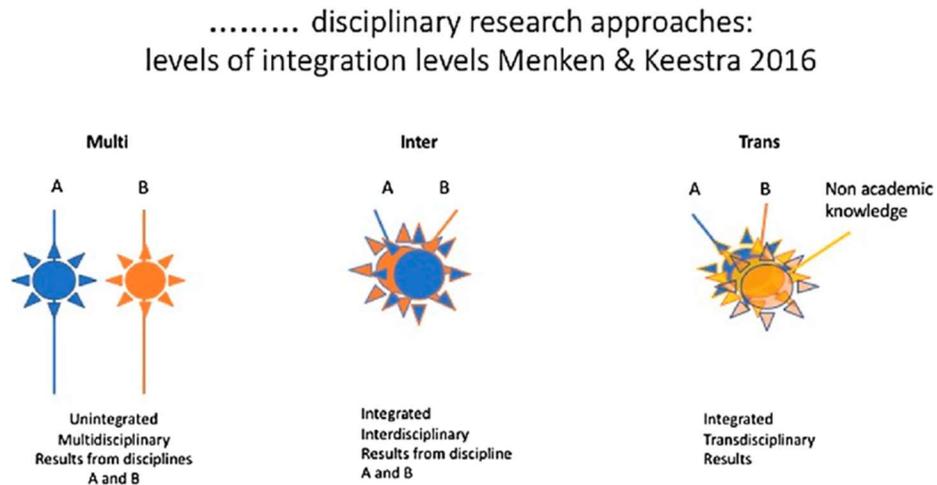


Fig. 2: Disciplinary research approaches: levels of integration levels, (Menken & Keestra , 2016, as cited in Klaassen 2018, p. 844).

The definition by the Amsterdam Institute for Interdisciplinary Research in Klaassen further confirms the significance of integration.

The Amsterdam Institute for Interdisciplinary Research defines a gradual scale in which multidisciplinary, interdisciplinary and transdisciplinary are defined as the degree of integration of different knowledge sources.

Collaboration and integration

Klaassen also stated (2018, p. 844) that connected to this definition is ‘the possible implicit collaboration engrained in this interdisciplinary activity’. Moreover, alongside a continuum of integration is a ‘continuum of collaboration’ (Aboelela et al., 2007, p. 338). Therefore, at one end of the continuum is the simple incorporation of ideas, at the other end mutual and extensive collaboration to integrate all research elements.

Why interdisciplinary research is necessary

While disciplinary research is necessary for problems requiring a specialized path, interdisciplinary research is necessary as a way forward in addressing the increasingly complex problems of today, and an awareness of the growing necessity for integrated interdisciplinary research.

There are numerous examples of uncharted problem areas. Four examples illustrate this point:

- broadening the scientific approach to climate change as featured in the Intergovernmental Panel on Climate Change (IPCC) by introducing ‘humanists to break down ...barriers and appreciate the human element of global climate change’ (Allison & Miller, 2019),
- the fostering of ‘interdisciplinary research between biologists and anthropologists...in devising conservation solutions in central Africa’ (Brister, 2016, p. 83),
- combining indigenous knowledge with western science. Two examples are 1/combating wildfires in Australia and 2/ bringing together microbiology and Māori knowledge in saving the kauri trees in New Zealand.

Approaches to interdisciplinary research

Integration and collaboration then are key features of interdisciplinarity with the purpose of interdisciplinary studies being ‘to produce an even better understanding of [a] problem by integrating the best elements of competing concepts, assumptions or theories’ (Repko & Szostak, 2021, p. 13). The following outlines some approaches to interdisciplinary research of relevance to the two types of bridge-building strategies applied in the case study as described earlier, and the subsequent findings.

Instrumental interdisciplinarity

This is ‘problem driven’. It is a pragmatic approach that focuses on research, borrowing from disciplines, and practical problem solving in response to the external demands of society. For instrumental interdisciplinarity it is indispensable to achieve as much integration as possible’ (Repko & Szostak, 2021, p. 10),

Perspective taking

According to Repko and Szostak (2021, p. 16), ‘perspective taking involves analyzing the problem from the standpoint or perspective of each interested discipline and identifying their commonalities and differences’.

Holistic thinking

Following on from ‘perspective taking’ holistic thinking requires the ability to take differing perspectives a step further by being able ‘to see the whole problem in terms of its constituent disciplinary parts’ (Repko & Szostak, 2021, p. 18).

Bridge-building strategies applied

Two types of bridge-building strategies emerged from the case study in an attempt to straddle both fields. The first during the analysis of the data, the second in bringing the fields together to conclude the study.

Building bridges

Strategy One

Initially a social constructivist version of grounded theory was applied, in which categories ‘are constructed by the researcher through interaction with the data’, Chamaz (in Kelly, 2006, p. 111). To do this, manual colour coding of words and sentences across the various CLA layers was applied. Later, equipped with critique from presenting at an accounting colloquium, along with reviewer feedback from accounting, additional tools for coding of data were considered necessary. One such software tool, Leximancer, was used to identify high level themes and concepts to validate the categories formulated earlier. Another tool, arising from a method developed by organizational studies scholars Shortt and Warren (2017), Grounded Visual Pattern Analysis (GVPA), was also loosely applied. The rationale for these strategies was that the additional analytical tools may provide a more acceptable method of analysis to the accounting cohort.

Strategy Two

To conclude the case study, a narrative was composed that offered connection and a bridge between the fields (refer to Appendix 2 to access the narrative). A significant article which helped in framing the dilemma of epistemological and disciplinary separation, is an article by Hendry (2010). Hendry argues that all inquiry, including science, can be reconceptualized as narrative. She proposes that it is narrative that we need to turn to in building ‘paths and bridges’ (p. 77) between the various epistemologies, ‘so as to be open to other ways of knowing and being in the world’ (p. 79). A bridge was thereby sought through reconceptualizing the epistemological differences as narrative, ‘extracting their common essence ...reuniting them to each other...within a metaphor’ (Proust as cited in Han, 2017, p. 47).

Findings

CLA methodology was introduced to operationalize the theory of agonistic dialogic accounting and thereby provide a link between theory and practice. In other words, the case is a ‘problem driven’ form of interdisciplinarity. To reiterate, with this form of interdisciplinarity integration is indispensable (Repko & Szostak, 2021).

The following reintroduces interdisciplinary approaches to identify where the two strategies applied sit in terms of the continuum of interdisciplinarity and whether they were adequate. You will recall that the first strategy occurred during the analysis of the data so that methods straddle both fields, the second strategy brought the fields together through narrative as a means of concluding the study.

Assessing the bridge-building strategies

Strategy One (applying analytical tools)

This strategy required ‘perspective taking’ and ‘involves analyzing the problem from the standpoint or perspective of each interested discipline’ (Repko & Szostak, 2021, p. 17) to meet both their requirements. These additional methods of analysis (Leximancer and GVPA) were acceptable to, but not necessarily required by futures studies. The application of Leximancer was however problematic for CLA-sourced data containing text at a myth and metaphor level.

Strategy Two (developing a narrative)

With the second strategy the fields were brought together by ‘identifying their commonalities’. The predominantly futures-oriented approach was to apply narrative to nurture meaning-making across disciplines. Futures studies is considerably more likely to welcome the application of narrative than is accounting. Paradoxically, in this case, it is *also* a partial example of ‘holistic thinking’ where the problem is viewed ‘inclusively in a larger context rather than under controlled or restrictive conditions favored by disciplinary specialists’ (Repko & Szostak, 2021, p. 18). In the narrative, differences, and similarities (common ground) between fields are integrated, welcoming new narratives that could lead to ‘hybrid vigor’.

Unlike Strategy One, this strategy applied a (limited) ‘common ground’ integrator allowing space for innovative solutions to arise. The strategy was however weighted towards futures as a response to the quandary of bringing two fields together. The strategy is therefore an example of what Brister calls, ‘disciplinary capture’, a term describing the situation where one of the contributing fields imposes a solution to an epistemic problem (2016, p. 92).

The strategies had varying levels of success in terms of satisfying both fields. The first strategy may have partially satisfied accounting, the second satisfied futures, and one can only presume it may not have satisfied accounting. While both strategies of bridge-building were somewhat effective, implications related to working in the interdisciplinary space are now discussed.

Discussion

The case study featured an instrumental component with agonistic dialogic engagement requiring a practice base, and CLA being introduced in efforts to supply one. The research can be described as problem-driven, instrumental interdisciplinary research exhibiting a degree of integration through the application of Strategy Two. The study could not draw on the full benefits of integrated interdisciplinary research as collaboration between those from the two fields was absent. It is therefore located at the lower end of the continuum in relation to the levels of interdisciplinarity and collaboration.

Integration then is a key feature of interdisciplinarity with the purpose of interdisciplinary studies being ‘to produce an even better understanding of [a] problem by integrating the best elements of competing concepts, assumptions or theories’ (Repko & Szostak, 2021, p. 20). As Figure 2 illustrated, creatively combining concepts results in new knowledge and the ultimate level of integration, transdisciplinarity. A more fully integrated approach to interdisciplinary research through dialogue and collaboration would have increased both acceptance and effectiveness of the study.

To sum up issues concerning the case study, a stronger integrative approach would have been preferable. This would have been achieved by bringing together scholars from both fields to collaborate on research objectives, questions, methodologies, and methods. Incorporating collaboration would more likely result in a new entity emerging, and one more likely to feature true ‘hybrid vigor’, or ‘novel insights’. This is not to deny the epistemological and disciplinary gulf between the two fields as is evident by field differences.

Field differences

As stated earlier the first futures presentation I attended left me confused. There were no parallels with my previous exposure to traditional research which resulted in cognitive barriers to understanding. Examples of differences from traditional research includes that CLA is an interdisciplinary methodology. As such, Hendry states interdisciplinary research accepts pluralism of methodologies and ‘multiple ways of knowing’ (2010, p. 72). Interdisciplinary research may also be comfortable with the branch of research that is ‘openly subjective, including accepting of the researcher’s subjective experiences’ (Brabazon, 2017). Moreover, CLA integrates ‘diverse and often even confrontational theoretical and research traditions’ (Milojevic, 2015, p. 537). However, as I came to better comprehend futures thinking I could appreciate its strengths and its value. Clarity around the differences between accounting and futures studies is expressed in the following.

The two fields differ in their epistemological underpinnings. While accounting is technically focused,

tight, exact, and truth seeking, futures studies [is often] exploratory and [can be] concerned with stimulating imagination and creativity, [and] deepening understanding... (Holdaway 2019, p. 162)

The dilemma lies with differences in what is considered to count as legitimate knowledge. While CLA requires rigor applied through ‘data...gleaned from multiple sources such as literature reviews, ... interviews, and workshops’ (Inayatullah, 2017, p. 14) differences arise pertaining to how rigor and validity is viewed when examined through the lens of some from the accounting field.

What is required is the creation of a “common ground integrator” by which conflicting assumptions, theories, concepts, values, or principles can be integrated” (Repko & Szostak, 2021, p. 19). There is a need for fields to reach across chasms and grasp a better understanding of the other. Ultimately, should the epistemological and disciplinary gulf be fully bridged, the case study’s findings, in combination with the research of other SEA scholars, could lead to an altogether more holistic way of being in the world. This could in turn give rise to moving firms, and indeed civil society, closer to reaching preferable social and environmental outcomes.

The next section examines the state of play of interdisciplinarity within accounting.

Accounting and interdisciplinarity

Undoubtedly some critical accounting scholars have ‘employed a plethora of informing theories, experimented with an increasing array of methodologies, and... addressed an expanding range of subject areas and issues of social, institutional, and environmental importance’ (Parker & Guthrie, 2014, p. 1220). Agonistic dialogic accounting is one such example where social and environmental accounting has been informed by political theory.

Although interdisciplinary methodologies are increasingly evident in accounting research, accounting does stem from “the hard’ epistemology of economics” (Dillard & Parker as cited by Davison & Warren, 2009, p. 848). Accounting places a high value on a particular way of knowing, not venturing too far from a positivistic approach about what constitutes rigor, validity, and reliability. For example, although a Byrch et al. article featured in the *Accounting, Auditing & Accountability Journal* (2015), employs a method commonly applied in psychology known as Q methodology, ‘used widely by social science researchers’ (p. 671), the application of factor analysis indicates that the methodology lies at the ‘harder end of social science’ (Brabazon, 2017).

Tellingly, accounting scholars Roslender & Dillard (2003, p. 326) state that:

As the demand for the analytical rigor of the physical sciences began to encroach upon economics, and therefore accounting, interdisciplinary undertakings that did not possess the requisite level of analytical or experimental rigor became relegated to a non-legitimate status, and thereby excluded from the major research publications.

Although the 2003 article is ‘dated’ an article written by O’Dwyer and Unerman in 2014, ‘Realizing the potential of Interdisciplinarity in Accounting Research’ indicates that there is still a distance to go. It is to that article which we now turn.

Accounting and interdisciplinary integration

Within accounting research O’Dwyer and Unerman (2014) identify a continuum of (study-level) interdisciplinarity. Although differing from Figure 2, their concept of interdisciplinary research being along a continuum contains some parallels. According to O’Dwyer and Unerman there is the largely *mono-disciplinary fields* in accounting research that apply a pervasive use of a particular theory. Then, at *mid-point*, there are studies that err from others in their field by utilizing a different theoretical framing. These fall short by not integrating the thinking from those other studies. Finally, there are the *studies that do integrate* informing theories and use them in a way ‘that helps provide novel insights...and permeates the entire research process’ (p. 1229). This is the far end of the continuum for O’Dwyer and Unerman and partway between interdisciplinary and transdisciplinary research referred to in Figure 2.

Impressions of interdisciplinarity dominate the early and mid-continuum and it is here that O’Dwyer and

Unerman consider that interdisciplinary work in accounting is located. While cautious about avoiding contrary philosophical positions (unlike CLA) O'Dwyer and Unerman stress the need for integration. Their assessment about the current state of play is as follows (p. 1229):

Within the existing field-level interdisciplinarity in accounting, we have observed a tendency for a relatively small number of theoretical or disciplinary areas to dominate, with researchers in each of these different mono-disciplinary areas not seeming to actively seek external challenge or change to their chosen theoretical perspective on the social/accounting world. Indeed, we have often observed a somewhat purist tendency where individual researchers seem rather intolerant to work that uses a different theory from their own preferred and reasonably well-established theoretical framing.

Although not an extensive investigation, it would appear then that there is a way to go for accounting and interdisciplinary integration, and for accounting to embrace the 'new and different'.

Moving beyond comfort zones and silos

Parker and Guthrie (2014, p. 1224) support the pressing need 'to explore outside of our comfort zones, [and] encourage accounting research ...to embrace the new and the different, to experiment with unfamiliar theories and methodologies, and to take risks with projects in search of commensurate rewards to our communities of knowledge and practice'. While acknowledging that futures thinking and CLA is unfamiliar territory, I would echo the sentiments of the need to take risks. This is, after all, partly what science is about.

Conclusion

While integration of commonalities had been achieved by applying narrative, integrating conflicting assumptions occurring with both fields awaits creation. Limitations aside, the case study resulted in 'novel interdisciplinary insight' [arising] 'from the application of novel informing theories in the analysis and interpretation of data' (O'Dwyer & Unerman, 2014, p. 1229).

Collaboration involving deep listening and understanding by scholars from both fields is key to success with integrative processes, and for positive outcomes. An outcome that could have included contributing to knowledge in the fields of both accounting and futures. The value of the research would have redoubled had there been a collaborative component. Together they would have worked through epistemological disputes such as 'disagreements about facts; evidentiary standards or 'rigor'; causes, and research goals' (Brister, 2016, p. 84) while acknowledging obstacles including cognitive barriers such as 'conflicting epistemic values, large conceptual and methodological divides, and unstructured task environments' (MacLeod, 2018, p. 697).

Through hindsight and reflection, I have argued that a stronger integration through collaboration is preferable to weaker methods of integration, such as disciplinary capture by one field. The effort of 'co-creation' required would be significant, not least of which is gaining a grasp of sometimes vastly 'foreign' fields to enable collaboration in a disciplinary, and time constrained world. That effort though, is required in accounting for the future, and in addressing the array of complex problems facing the world. Interdisciplinary research needs to be accepted and applied to enable new knowledge to emerge and create fresh opportunities to bring about much needed change. Tired approaches leading to 'business as usual' strategies, are just that, tired approaches! Disciplinary knowledge remains important while there is also a need for epistemological pluralism requiring a reach across disciplinary boundaries. There is, as noted in Brown and Dillard's (2013, p. 11) article, the need '...to foster more pluralistic institutions and spaces'.

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Appendix 1

Causal Layered Analysis (CLA): A practical example

The purpose of the study was to explore the application of futures methodology, CLA, in providing a practice-base for a theory. The study was empirical, although with CLA as method it was unconventionally so. This section explores the critical futures technique, CLA and is described in lay terms to engender understanding by a wider audience.

When we come together in facilitated meetings, citizens' assemblies or community engagement 'consultations', often only certain voices are heard; perhaps the loudest, the majority, the 'community leader', or the voices the facilitator favors. Other voices at the margins that may differ from the majority or have conflicting views, go unheard. However, including all views may well lead towards futures that are preferable to the narrower

ones many of us currently contemplate. Engagement and decision making needs to open out and include all voices.

In this era of increasingly polarized views, people who offer unpopular or alternative perspectives are often bullied, ‘trolled’ or ‘cancelled’. This has the effect of making people reluctant to be different and flows down through workplaces, local councils, community groups etc. Superficial discussion, simplistic arguments or passive agreements have become the norm. So, engagement activities need to dig deeper, way down to the beliefs and the stories underlying the situation.

Enriching possible futures through ‘opening out’

Instead of seeing them as problematic, we can welcome conflicting views and include the marginalized, the powerful, and all those in-between. By giving everyone a voice, we can ‘think outside the box’ and embrace richer perspectives. Such expansion is not possible where we all share similar views, follow ‘the leader’, feel pressure or be too shy to voice an alternative or unpopular view. This expansion is the starting point of opening out.

Certainly, working with conflicting viewpoints is not easy. The facilitator requires experience and expertise with applying the process. Tips include working toward developing expertise before including some participants who may be seen as adversaries. Also, enabling guidelines to be developed by the group sets the tone, and reminds people that this is a place for respectful dialogue.

Deepening discussions – reflecting on our worldviews and stories

Opening out is not enough by itself. There is also a need to dig deeper with our discussions. While we are quick to offer an opinion, analysis is often thin on the ground. Here’s a real-life example of exploring the process of opening out and digging deep. In a workshop setting, the discussion topic was the potential for unconventional gas exploration and extraction (the most well-known being ‘fracking’) in the Southwest Coast District, Victoria, Australia. Participants from the region held a range of views. The workshop began with small groups where everyone ‘tried on’ different views, discussing and becoming more familiar with the similarities and differences of their own views and values compared with others in the group.

Questions to further prompt reflection

Bringing the group together the facilitator asked a series of questions linked to each level, (see Figure 3) beginning with the present and leading to a future ‘dream situation’.

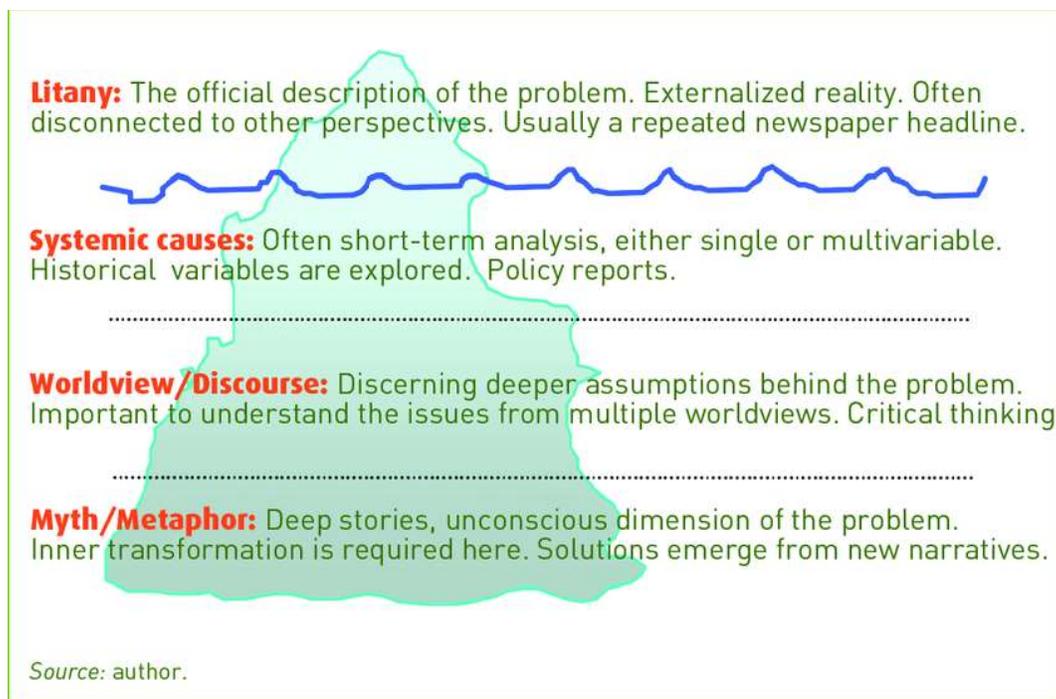


Fig. 3: CLA: The Iceberg Image with Layers, Inayatullah, 2019, p. 5.

Participants were asked:

1. 'What do you see, what is spoken about, what is published when you look at the energy situation?' This is the most superficial, visible level, such as statistical data and newspaper headlines.
2. 'What is the cause of this situation?' This is the factual level that includes systemic causes.
3. 'What beliefs are causing this to happen? (you may have to step out of your own beliefs here)'.
4. 'Is there a suitable metaphor or myth to help us understand why we behave the way we do in creating the situation we are in?' and 'what is a suitable metaphor or myth to describe a future 'dream' situation?' This level goes deeply into the underlying story. This level taps into participants' values as reflected at level 2, to identify worldviews. These may be dominated by economic, social and/or environmental concerns.

As the workshop advanced, moving to the 'dream situation' and identifying a new myth or metaphor is vital to creating a new story as a foundation for change. For example, the group identified the current metaphor as 'The Entitled Australian' and went on to develop a new and preferred metaphor.

The group then worked back up the levels. These processes can contribute to decision making by progressing to the identification of preferred future scenarios and strategies for their achievement. Where there are contested visions there are various ways forward, 'enabling new ways to integrate the visions' (Inayatullah, 2008, p. 19).

What about the facts? Facts are vital and are identified in level 2 as the systemic causes of an issue. Values also

play a crucial role in the way facts are received. Division about the facts of climate change is a case in point. Read more: <https://theconversation.com/not-everyone-cares-about-climate-change-but-reproach-wont-change-their-minds-118255>

Although successfully applied nationally and internationally, it is relatively early days in the development of this futures-oriented engagement practice called Causal Layered Analysis (CLA). The practice both progresses democratization and engages the imagination in identifying alternative possibilities and strategies. Today, applying innovative new methods and imaginings is key in transitioning towards a preferable future.

Appendix 2

Bridge-building strategy two – the narrative

The narrative composed is about two groups of people in two separate cars, journeying towards Shangri-la. Shangri-la is a hidden land, where it is believed the golden age will be ushered in and the dark forces vanquished.

The travellers - sharing spaces of meaning

The two groups departed from similar points but took alternative routes. The commonalities were that they were both ‘critically oriented’ and shared similar theories and views about ways to play a part in Shangri-la’s emancipated society. One of the two groups (we will name them the BMW group) was particularly concerned with current lack of business and industry accountability outside of Shangri-la. By the way, it was Brown and Dillard who shared the driving. They, and others from their group, had just begun testing practical ways to nurture a society where all had a voice, no matter their status and wealth. In the society they pictured, people with various ways of viewing issues came together and discussed their concerns from an insightful and sometimes passionate place. The group considered that when such a practice was more fully developed, business, industry, society and the environment might be much better protected from ‘dark forces’, and the practice would be of use to the forthcoming ‘golden age’.

The group travelling in the solar car (the Sion group) shared this same desire to make a practical contribution to societal transformation. However, they had been test driving their ideas using a fascinating tool for some time. Inayatullah took to the wheel of the Sion, and the tactic by this group, like their car, was innovative and less known. A newcomer to the group, the author, who was also familiar with the desires of the BMW group, decided there were plenty of good reasons to ‘try on’ the somewhat unconventional path of the Sion group. She identified a regional town peopled by residents who would probably not share the same views about an issue that could affect them: the accountability of a controversial industry. She decided to test drive the Sion group’s approach with them and was buoyed by what she found. The reader was invited to continue the story with this new narrative and imagine where it may lead. One preferred future is that it could well lead to ‘hybrid vigor’ through radical praxis. So, rather than continue to inbreed, we move to this new metaphor.