UTS UNIVERSITY OF TECHNOLOGY SYDNEY

Re-imagining the research article: Participation, dialogue and the radical potential of an 'ecology of knowledges'

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under the supervision of
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CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Margaret Malone, declare that this thesis is submitted in fulfilment of the requirements for the award of Doctor of Philosophy in the UTS Business School, Management Discipline Group, at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Preface

I am a professional editor. This is my trade, my craft. For many years now, I have worked on a wide range of publications, all of them written, all of them non-fiction, some highly illustrated. I am deeply interested in how genre texts work. As part of that work, for the past 14-odd years I have been the Managing Editor of an academic journal focused on community-based research and practice. It was in this role that I observed, a few years ago now, that community-based research partners did not often write their own research articles, despite the clearly vital contributions they were making to the research itself. I remember standing there in my study, thinking 'someone really should investigate this'. A few seconds later, I concluded that it might as well be me.

I recount this because it's relevant to this thesis that I undertook this research and not someone else. Charles Bazerman (1988, p. 24), whose work greatly influenced my thinking and writing of this thesis, argues that texts can be examined 'in relation to four contexts, as these contexts are referred to, invoked, or acted on in the texts'. For Bazerman, these contexts are 'the object under study, the literature of the field, the anticipated audience, and the author's own self'. Thus, as is true for any author, I do not come to this research empty-handed. Undoubtedly, I explored the question of authentic participation in the scholarly communication and dissemination of collaborative research with one foot firmly planted in the professional and institutional world of a Managing Editor of an academic journal. I can tell you the full text article downloads per year and how those numbers tracked over the past ten years or so. I know the journal's current citation rate per article and Altmetric 'attention' figures. I can confirm that the journal has readers in nearly every country in the world and an increasingly geographically diverse author-by-country profile. I have seen the positive impact on downloads from making articles available in HTML, alongside PDFs. I have worked with authors, reviewers, editorial colleagues and readers around the world. The journal, by many measures, is a success and I wish for that to continue.

This is the professional and practical knowledge and experience that I bring to my thesis, accumulated over the years. Yet, I still found myself a few years ago faced with the realisation that the journal was only partially fulfilling its goal of adding more chairs to the research table. Then the COVID-19 pandemic made another issue blindingly clear: peer review, as a system, was listing badly.

While I knew that technological changes, such as open access, made a big difference for readers and authors, they were very far from being the only or even the primary answer to unequal, unjust and unsustainable participation in scholarly communication and dissemination of important collaborative research. That much was clear. Hence, I decided to plant my other foot, deliberately and systematically, in the world of research. A critical companion of sorts, very much directed towards better recognising, harnessing and supporting the vital practical and political work of articulating and sharing research in the world today.

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Abstract

This thesis critically explores the peer-reviewed research article and its potential to contribute to lasting social and institutional transformation. This investigation is located within the global movement of collaborative and participatory community-university partnerships that has flourished over the past few decades. My focus is on the persistent absence of substantive contributions to the scholarly literature by diverse community-based experts. Addressing this matters deeply if social and institutional change is to be more than mere accommodation. The core research question of this thesis is to ask: how does the peer-reviewed research article enable or constrain full participation in the communication and dissemination of collaborative research? Posing the question in this way signals a particular conceptual and methodological stance. First, it is making an argument for epistemological diversity and cognitive justice, such as proposed by Boaventura de Sousa Santos. Second, it challenges the notion of the research article as immutable, neutral – that it just *is*. In order to interrogate the latter, and assert the former, I employ a social semiotic understanding of language use as being socially and historically situated. This framework underpins my analysis of co-authored articles and peer reviews from a journal in the field of community-based research, of which I am the Managing Editor.

A significant, original contribution of this thesis is to empirically demonstrate the ways in which the rhetorical conventions of the Western scientific research article permeate co-authored manuscripts and the peer review process. Fine-grained text-based analysis also demonstrates the ways in which authors are innovating, resisting and adapting these genre conventions. In the final chapters, drawing on a collaborative museum exhibition methodology co-developed with Australian First Nations communities, I propose an alternative dialogue-based framework for a re-imagined research article. While speculative, this is an important undertaking, offered as critical and practical encouragement for a form of scholarly communication in which social and cognitive justice is not just acknowledged, but is present.

Chapter 1: A persistent absence and the potential for change

Most of us, in all parts of our daily lives, rely on and utilise the genre conventions of texts. We use them to aid our reading of the newspaper or write a letter, to scan quickly through business reports, to choose between television shows or recent movie releases, to engage in political debate, or to participate in disciplinary-based research and learning. These communally approved conventions for different texts help ease the many choices involved in producing and using them. Yet genre conventions are neither neutral nor ahistorical. Rather, they are powerful semiotic resources that help shape meaningful communication and thereby influence 'the distribution of social goods' such as authority, credibility, legitimacy (Gee, 2014a, p. 10). Genre both enables and impedes participation in social discourse. For institutions, they are indispensable.

This research seeks to better understand institutional change by critically examining the texts co-produced and shared within these settings. Its specific focus is the emerging field of community-based research (CBR) and its scholarly publication in peer-reviewed academic journals. Engagement between universities and communities has been described by O'Meara et al. (2011, p. 84) as 'one of the major innovations within higher education over the last 20 years'. A more recent report prepared for the European Union writes that today community engagement 'encompasses all of the university's core activities, and potentially involves local, regional, national and international dimensions' (Farnell, 2020, p. 7). Yet, despite this growth in recognition, scale and scope over recent decades, the peer-reviewed literature on community-based research remains marked by a persistent lack of substantive contributions by community-based participants, particularly as either lead or sole author (Koekkoek et al., 2021; Sandmann, 2019). This whittling away of diversity and plurality at the point of the institutionalisation of knowledge is in stark contrast to the ideals and methodologies of community-based research, which include the democratisation of knowledge, authentic collaboration and social change (Israel et al., 1998; Janzen & Ochocka, 2020; Strand et al., 2003; UNESCO, 2022; Wallerstein & Duran, 2008). The absence of diverse voices suggests accommodation rather than transformation.

The ongoing diminution or invisibility of distinct contributions by diverse community-based partners even in the very literature focused on their work serves to highlight the enormous and complex challenges facing institutions of higher education, and their partners, as they strive to understand and address the complex and interconnected crises facing us all. There is an increasingly insistent call for institutions of all kinds to engage in democratic and transformative change, propelled by the conviction that sustainable and equitable change strategies must involve the most vulnerable (Oxfam, 2019; Piketty, 2020; Santos, 2018; Stiglitz et al., 2018). Indeed, UNESCO (2022, p. 13), while arguing that institutions of higher education are uniquely positioned 'to help solve some of the world's greatest problems', go on to state that this will require them to 'systematically rethink their role in society and their key missions and reflect on how they can serve as catalysts for a rapid, urgently needed and fair transition towards sustainability'. They identify three areas as being crucial to this change, all of which revolve around knowledge and participation: inter- and transdisciplinarity; dialogue between and integration of diverse ways of knowing; and proactive outreach and partnering with external others (UNESCO, 2022, p. 14).

There can be no doubt today that profound change is needed: social, political, economic, institutional, environmental. A recent report from Australia, where I live and work, co-authored by a team of 38 scientists from 29 universities and government agencies found evidence that 19 ecosystems stretching from northern tropical Australia to terrestrial Antarctica 'have collapsed or are collapsing'. The authors stressed the potential severity of the interconnected impacts on ecosystems, food and clean water provision, security and economies, 'if we choose not to act' (Bergstrom et al., 2021). At a global level, the latest Special Report by the Intergovernmental Panel on Climate Change (2022) confirmed 'a narrowing window' for efforts to do so if global warming is to be limited to 1.5°C. As Professor Jim Skea, Co-Chair of IPCC Working Group III, noted, 'such an outcome is possible within the laws of chemistry and physics but doing so would require unprecedented changes' (IPCC, 2018). Research today, any research, is shaped by these realities. We must choose how to act.

This research focuses on the peer-reviewed research article, looking specifically at how the genre conventions of written empirical research both impede and enable participation by diverse contributors to it. Atkinson (1999, p. 7) has commented on the capacity of genre conventions to 'look both ways', writing that they 'provide the means by which group solidarity and internal control are fostered … from the outsider's point of view, such conventions also provide barriers to group entrance'. Thus, I focus on genre conventions as *semiotic* resources, in order to explore crucial *social* questions of authority, hierarchy and exclusion – as well as the potential for change. This focus is of significant importance to community-based research, as both the topic and the analytical approach (genre analysis) have been little explored or used (O'Meara & Niehaus, 2009; O'Meara et al., 2011). I argue that the research article is a critical sociohistorical and multidimensional resource, currently underexamined and underutilised by community-based researchers.

By making the research article my focus, I am drawing into the centre of the frame what is arguably the cornerstone of academic life, both process and product. Genre analyst John Swales (2004, p. 217) has called the research article 'this prestigious genre, with its millions of exemplars a year'. By seeking to better understand how our scholarly texts are shaped by and shaping these larger social and intellectual discourses, we can better harness their potential as intentional drivers of institutional change. Consequently, this thesis has great relevance beyond this specific field, as research across the disciplines is increasingly collaborative, and increasingly being called to account by diverse stakeholders.

The following discussion presents an overview of community-based research, its primary goals and motivations, methodologies and challenges. I then provide a brief outline of my methodological journey, noting the conceptual lens, the theory of semiotics and the analytical approach I use, and key questions. First, however, I wish to briefly introduce myself. For the past 14 years I have been the Managing Editor of *Gateways: International Journal of Community Research and Engagement*. Much of the empirical material for this research comes from that journal. It was my observation a few years ago of how infrequently we received manuscripts by community-based

authors that started me on this path. There seemed to me to be a clear disparity between the vital activity of non-academic partners *within* research articles and their presence *without*, in the architecture of the article, as it were. As an editor of long-standing, steeped in the conventions of the genre and the processes of academic publication, I wanted to know why, how and what could be done about it.

Community-based research and knowledge democracy

Community-university engagement is fast establishing itself as an important part of a global push for institutions of higher education to better respond to the complex challenges of our age: vastly unequal access to material wellbeing and resources, profound ecological fragility and 'deficits in democracy' (Escrigas et al., 2014, p. xxxii). Engagement, writ large, is a broad movement, evolving from multiple and varied historical origins across the global North and South, and incorporating a diverse range of practices, goals and participants. It can include pedagogy, outreach, student-led initiatives, volunteering and research, with varying degrees of collaboration, critical inquiry and change orientation (Mitchell, 2008; Stanton, 2014; Strand et al., 2003). Weerts & Sandmann (2008, p. 73) argue that at its core 'engagement' signals a 'two-way' interaction by institutions with external partners, a shift away from unidirectional, top-down approaches.

The focus here is on engaged research. I use the term 'community-based research', though community-based participatory research (CBPR) and participatory action research (PAR), among others, are also common, with their methodologies largely aligning. I am guided by Janzen and Ochocka's (2020, p. 5) definition. They write that community-based research 'is emerging as a common descriptor of research that seeks both to challenge and provide an alternative to externally led and expert-driven research'. This definition charts a path for community-based research that is fundamentally distinct from that of traditional Western scientific research. In the context of clinical and public health, for example, Wallerstein and Duran (2008) argue that CBPR is an intentionally critical approach that seeks to engage with questions of knowledge, power, relationships and agency in order to effect positive social change.

Rather than comprise a set of specific research methods, they argue CBPR is an 'orientation … which equalizes power relationships' (Wallerstein & Duran, 2010, p. s42). As Saltmarsh et al. (2009, p. 7) elsewhere argue:

> Democratic engagement is not dismissive of expert knowledge – on the contrary, it is expertise in solving social problems that is sought by communities – but is critical of expertise that claims an exclusionary position relative to other forms of knowledge and other knowledge producers.

While there is undoubtedly a spectrum of partnerships, practices and projects, the literature reveals that the central tenets of participation, critical inquiry and research-for-change are widespread and have been sustained over some time (Israel et al., 1998; Koekkoek et al., 2021; Strand et al., 2003). Key characteristics include a commitment to jointly address a community-identified need and to use 'multiple sources of knowledge … and multiple methods of discovery and dissemination' (Farnell, 2020, p. 36). Collaborators are rightful and knowledgeable 'co-investigators, rather than merely "research subjects"', of university-based researchers (Godrie et al., 2020, p. 1). Strand et al. (2003, p. 5) suggest that CBR has the 'potential to unite the three traditional academic missions of teaching, research and service in innovative ways [making] it a potentially revolutionary strategy for achieving long-lasting and fundamental institutional change'. They conclude that CBR 'challenges some basic assumptions about knowledge itself: what constitutes valid knowledge, how it is best produced (and by whom), and who should control it' (Strand et al., 2003, p. 7).

These remarkable ambitions situate community-based research as part of and an important window into a much larger, evolving and long-standing struggle for recognition of the diversity of ways of knowing and being by the more powerful. At the global level there is growing momentum (Farnell, 2020; Hall & Tandon, 2021). For example, the Co-Chairs of the UNESCO Chair of Community Based Research and Social Responsibility in Higher Education, Budd Hall and Rajesh Tandon, clearly articulate the role community-based research can play in advancing knowledge democracy due to what they see as its recognition that the 'knowledge in the universities of our world

represents a very small proportion of the global treasury of knowledge' (Hall & Tandon, 2017, p. 17). They ask, 'how do we become a part of creating the new architecture of knowledge that allows co-construction of knowledge between intellectuals in academia and intellectuals located in community settings?' They outline four aspects of knowledge democracy: an acknowledgement of the existence of multiple epistemologies; the recognition of various forms of knowledge creation and representation (such as text, music, performance); an appreciation of knowledge as action; and open and free access to knowledge (Hall & Tandon, 2017, p. 13).

A number of significant reports, characterised by a proactive inclusivity of east, west, north, south, attest to the large-scale efforts underway. They include reports by UNESCO (2022), the GUNi Reports (a collectively authored *Higher Education in the World* series), and various comprehensive handbooks (such as those by Bradbury, 2015; Denzin & Lincoln, 2017). International, regional and national networks also exist, including, by way of example, the Talloires Network of Engaged Universities, which 'is a growing coalition' of 426 member institutions across 85 countries (Talloires Network, n.d.). Their 2005 Declaration envisages a new paradigm for universities as centres of civic and community engagement, part of a historical evolution from models of liberal education to places of professional formation and, more recently, research engines. They declare: 'Brick by brick around the world, the engaged university is replacing the ivory tower' (Watson et al., 2011, p. xx).

Evaluation frameworks are also emerging. Examples include the Carnegie Elective Classification for Community Engagement, the Times Higher Education Impact Rankings (focusing on the UN's SDGs, and assessing research, stewardship, outreach and teaching; THE Impact Rankings, 2022) and the recent model proposed by the University of Chicago, King's College London and the University of Melbourne. This latter group, for example, argues that 'engagement can be measured, and universities can be ranked on a global scale' (Douglas et al., 2020, p. 16). They argue that rankings, by 'recognising and incentivising engagement', are a powerful way to encourage universities around the world to 'create and demonstrate their societal value' (Douglas et al., 2020, p. 21).

There runs a fairly strong thread of disquiet throughout the literature regarding this increased institutionalisation. As Marginson and Smolentseva (2014, p. 31) have pointed out, 'these virtuous roles are not guaranteed'. In Australia, Winter et al. (2006, p. 222) speak for many when they say that community-university engagement may 'hold potential for an emergent public policy that resists neo-liberalism', but that equally the movement is at risk of being 'readily co-opted to a market driven agenda'. More recently, the authors of a survey of 'public engagement (PE) professional service staff' at universities in the UK came to very similar conclusions. They foresaw two possible 'imaginaries'. In the first, 'a plurality of diverse external engagements will recede and be cauterized by an urgency to expedite narrow predetermined impacts'. In the second, regulatory mechanisms will actually open up 'the potential for more diverse associations and applications of knowledge' (Watermeyer & Lewis, 2018, p. 1622). Koekkoek et al. (2021, p. 11) note that institutional interest may be at least partly spurred on by an increase in funding for these engaged initiatives.

The critical conversations and efforts that were kickstarted in earnest by the publication in 1990 of Ernest Boyer's *Scholarship reconsidered*, in the USA and elsewhere, are illustrative of the substantial interest in and challenges of creating lasting and profound institutional change. O'Meara (2016, p. 43) has written that part of the impact of Boyer's work was due to the new vocabulary it brought to what many already saw and felt, 'breaking a long silence regarding alternative views of how to define and assess quality scholarship'. Boyer (2016, p. 67) argued that 'we should remind ourselves just how recently the word "research" actually entered the vocabulary of higher education … scholarship in earlier times referred to a variety of creative work carried on in a variety of places, and its integrity was measured by the ability to think, communicate, and learn'. At the time, Donald Schön, a contemporary of Boyer, succinctly articulated the institutional challenge. 'The problem', he wrote,

> of changing the universities so as to incorporate the new scholarship must include, then, how to introduce action research as a legitimate and appropriately rigorous way of knowing and generating knowledge. If we are not prepared to take on this task, I don't understand what it is we are espousing

> when we espouse the new scholarship. If we are prepared to take it on, then we have to deal with what it means to introduce an epistemology of reflective practice into institutions of higher education dominated by technical rationality (Schön, 1995, p. 31).

More recently, in 2019, Boyer's colleague, Eugene Rice, reflected that Boyer had been 'right about the deterioration of the critical link between education and democracy'. He cited the Occupy movement, that 'motley group of protesters', who were doing more to highlight wealth inequality than nearly anyone else, including 'faculty in publicly engaged universities' (Rice, 2019, p. 27). He argued that 'the future of the scholarship of engagement, as I see it, moves toward the democratization of scholarship itself' (Rice, 2019, p. 29).

The above vignette illustrates a recurrent theme: the risk of co-option and integration into business-as-usual modes within higher education. At the same time, I do not mean to idealise community-based research and place it in easy opposition to 'wicked' institutions. It is certainly possible that non-critical passivity 'lurks in the shadows of community-based research', as Rowell and Hong (2016, p. 68) suggest. Care needs to be taken, too, not to portray the various movements seeking social and cognitive justice as any sort of unified whole. During research for this thesis, it became quickly apparent that there exist multiple and fragmented discourses, in which social activism, civic renewal, community-based research, action research and other participatory approaches, Indigenous and other traditional ways of knowing and being, as well as discipline-based science, are oftentimes little more than uneasy allies in the broader context of the neoliberal academic marketplace (Stoecker & Falcón, 2022; Post et al., 2016; Slaughter & Rhoades, 2004). Further, as Dimitriadis (2006, p. 360) notes, following Slaughter and Rhoades, 'academia has not been simply "duped" here, nor are they only "acted upon" by outside forces [but] are actively producing these corporate dispositions in new and unpredictable ways'.

Finally, 'community' is not necessarily a simple or straightforward term. For the purposes of this thesis, with its focus on the material and the historically situated, I

limited my analysis to community-based research collaborations which feature local, face-to-face and ongoing relationships among a range of people, and are 'explicitly formed to carry out important community work' (Onyx, 2008, p. 95; Stoecker & Falcón, 2022). For the same reason, I excluded geographically dispersed or online community collaborations. To a degree, I was guided by the empirical material itself. However, from this base, one of the key aims of this research was to shed light on this question: just who, outside of university-based academics, participates in the communication and dissemination of community-based research?

The complexity and plurality of community-based research brings us back to the central concern of this thesis, which is that, for countless collaborative partnerships on the ground, the primary means of participating in and helping to shape authoritative accounts of what we know, how and for what purposes remains the peer-reviewed research article. Yet, this powerful resource is highly conventionalised, commercialised and institutionalised. Many who are at the heart of collaborative research and practice have little substantive presence in this global process and archive of communication and assessment. Choudry (2010, p. 26) writes that 'some of the most cogent and systemic challenges to capitalist globalization have emerged from Indigenous Peoples' movements for self-determination, contextualized in longer histories of resistance to colonialism'. Yet, 'the dynamics, politics, and richness of knowledge production within social movements and activist contexts are often overlooked in scholarly literature, and sometimes even in the movements themselves' (Choudry & Kapoor, 2010, p. 1).

A methodological journey

This thesis does not follow a conventional trajectory. The genre conventions of the empirical research article are at its core, but not in any easy or technical sense. Rather, what unfolds across the chapters is both targeted and exploratory, a response to the realisation that to understand genre conventions demands an examination from more than one perspective: historical, institutional, technological, intellectual, metaphorical, semiotic. Further, I realised it meant developing a methodological framework that would allow me to move back and forth among these various elements in a careful and

interconnected but dynamic fashion. As suggested above, I was trying to understand, but now explicitly rather than intuitively, the reasons for the different 'weight' of different words-in-use: and in that hyphenated connection lay the clue. Two key methodological guard rails thus emerged: Santos' (2018) conceptual lens of an 'ecology of knowledges'; and a multimodal social semiotic theory of meaning making (Kress, 2010). Neither one without the other would have sufficed.

An ecology of knowledges

Across his comprehensive and decades-long efforts, Boaventura de Sousa Santos has argued that there can be no social justice without cognitive justice. Central to this is his analysis of the 'abyssal' nature of hegemonic Western thought that has rendered other ways of knowing and being invisible, erased, non-existent, and thus 'justifying the current state of affairs as the only possible one' (Santos, 2018, p. ix). As an alternative, he proposes an ecology of knowledges, which involves a dialogue between scientific and 'nonscientific' artisanal knowledges that does not seek to impose hierarchy. He explains: 'Ecologies of knowledges, intercultural translation and the artisanship of practices are based on the idea of a mutual encounter and reciprocal dialogue that supports cross-fertilization and reciprocal exchanges of knowledges, cultures, and practices fighting against oppression' (Santos, 2018, pp. 251-2).

Santos' work is highly relevant to community-based research and indeed contributes to strengthening the global conversation (Tandon et al., 2016). He articulates forcefully and thoroughly the complex of ideas, histories and practices that underpin key notions such as hegemony, epistemicide and knowledge democracy. As such, his work offered an appropriate and rich conceptual lens for my research context. It also contributes to those long-standing and diverse efforts that critically and creatively interrogate how we 'write up' research, or what Daston (1992, p. 608) calls 'communicative science'. Santos' concept of an ecologies of knowledges – involving intellect, emotions, the body, places, practices, memory – forms a key part of his argument for postabyssal methodologies, and a key part of his call for a shift from the university to the

pluriversity and subversity (Santos, 2018). But here, as we embark on these monumental efforts, Santos contributes in largely suggestive ways. He writes:

> The contexts in which the ecologies of knowledges occur create epistemic-political communities demanding other kinds of rhetorical argumentation: instead of technical language, vernacular language; instead of monological narrative, dialogical narrative; instead of explanation, translation; instead of methodological accuracy, intelligible results; instead of contributing to science, contributing to society; a balance between new replies and new questions; neither certainties nor immoderate doubts (Santos, 2018, p. 187).

Social semiotics and genre analysis

Fortified with the above, my research centres on the research article as a very specific case study of the semiotic forms the above proposals could take in an institutional setting – the academic journal – such that the result, an ecology of knowledges, would be recognised by others as scholarly *and* democratic, pluralistic *and* coherent. I recall Fear and Sandman (2019, p. 99), who recently declared the need for a 'second-wave movement', due to their concern over the engaged field's lack of substantive progress. They write, 'in this second-wave movement, we won't contend (as we did before) that *the academy is underengaged* because we will have recognised that the academy has always been engaged – sometimes overengaged and for private gain' (Fear & Sandmann, 2019, p. 108, italics in the original). Similarly, peer-reviewed research articles have always been engaged in the world, even when – especially when – viewed as 'purely a matter of accurate transcription … an apolitical practice of documentation (Rhodes, 2019, p. 26).

Social semiotics, and discourse analysis, provide a way to understand the how, why and what of meaning making in texts. As Kress & van Leeuwen (2021, p. xiii) argue, 'meanings are made in social action and interaction, using existing, socially made, semiotic resources that change ceaselessly in their use'. Importantly, 'semiotic change necessarily follows on from social change, so that the semiotic resources inevitably lag

behind' (Kress & van Leeuwen, 2021, p. xiii). Genre analysis offered me the tools to identify that 'lag', along with other moments of innovation, modification and adaptation, while social semiotics formed the theoretical bridge, connecting back and forth those rhetorical patterns made tangible on the page with the wider, ongoing concerns articulated by Santos and others.

The key questions for this thesis owe a debt to Norman Fairclough. He writes that four methodological 'stages' need to be considered when undertaking critical discourse analysis (Fairclough, 2010, p. 235). I used them as a starting point for the development of my own research questions, research design and methods of data collection, outlined below. Fairclough's suggested stages are:

Stage 1: Focus upon a social wrong, in its semiotic aspect
Stage 2: Identify obstacles to addressing the social wrong
Stage 3: Consider whether the social order 'needs' the social wrong
Stage 4: Identify possible ways past the obstacle.

My research focus and questions

1 A social wrong, proposed in its semiotic aspect: Dominant scientific genre conventions and journal processes limit the authoritative participation of non-academic expert contributors in the scholarly communication and dissemination of community-based research.
2 What role do scientific genre conventions play in community-based research?
    a. Who participates in the scholarly communication and dissemination of community-based research, how and why?
    b. How do journal processes of peer review limit or enable participation?
    c. Do published co-authored community-based research articles use scientific genre conventions, and if so, how?
3 What is the purpose of the research article?
    a. Why is the research article important for engaged scholarship?
4 What is the transformative solution?

a. What can be learnt from other examples of collaborative methodologies in communication and dissemination of research, such as museum practice?
b. What are the institutional implications and possibilities?

The following chapters deal with the above questions largely in order. Chapter 5 reports on a survey of published authors, establishing a baseline of information on participants in the scholarly dissemination of community-based research. The large Chapter 6 has three sections: one, a genre analysis of peer reviews of manuscripts later declined; two and three, a genre analysis of published co-authored research articles, examining the Introduction and their organisation. Chapter 7 explores a collaborative museum exhibition as a comparative case study. And in conclusion, Chapter 8 considers the institutional implications of, and possibilities for, a truly 'engaged' research article and journal. It also addresses the question that runs throughout this thesis: what is the purpose of the research article, for community-based research in particular? To start, however, I begin by exploring the evolution of the research article, followed by a detailed exploration of Santos' proposals and other related ideas concerning the articulation of plurality (Muecke, 2017a).

A final note, before we begin. My interest clearly resides with the research article. In 2016, nearly 2.2 million articles were published; representing a 56% increase over the past decade (American Journal Experts [AJE], 2016). By 2018, this had risen to over 3 million articles per year (STM, 2018). It is – *it could be* – the tool of the many, a potent means of effecting and sharing social and institutional change (Appadurai, 2006). However, as Gaventa and Bivens (2014, p. 69) argue, 'a linear relationship between democracy and knowledge cannot be assumed. The promises of both the democratic and knowledge society are mediated by power relationships that affect both who participates and whose knowledge counts.'

The communication and dissemination of community-based research is an ideal entry point for thinking through these questions. I am aware that it may be that a community-authored research article is something of an oxymoron. That where we

end up changes how we think of our beginnings. But it is impossible to start from scratch. In the words of Margaret Kovach (2009, p. 16), 'When the rubber hits the road, the practice of Indigenous methodologies will be felt in Western knowledge centres'. What follows are some tentative steps at *naming the conventions* for hitting the road, hopefully in ways that are recognised as legitimate, credible and useful by and for others who are also travelling this road.

Chapter 2: A brief history of the evolution of the research article

This chapter was prompted by a question: why do we write research articles as we do? I discovered, quite quickly, that I did not really know. I came to question even the artefact itself – staring too closely at so many research articles that what had seemed familiar before became decidedly strange. The simple-seeming question, 'What is this thing?', is not so simple to answer, much less the more complex, 'What is this thing we write?'. The research article is certainly a thing, an outcome, a powerful example of genre writing, but one that is so thoroughly enmeshed in other things – material, intellectual, economic, social and symbolic – that to call it a written documentation of research barely passes muster.

While the emergence of the research article occurred first in the natural sciences owing to the need to collectively and publicly 'witness' the new experimental methods, the research article is now a cornerstone of higher education. Throughout the twentieth century, in particular, adherence to the scientific method was deemed necessary by nearly all academic disciplines to attain equal standing in institutional and societal legitimacy and credibility. The broad scientification and market-based modernisation of life more generally extended from the school and workplace to environment and home. The research article has been the key communicative means by which modern universities have established their dominance as expert sources of 'new knowledge'. Community-based researchers communicate and disseminate their scholarly research through the peer-reviewed research article, too, just as every other field of research does, though there is substantial disciplinary variation. Thus, a primary aim of this chapter is to explore the research article as both process and outcome, from multiple, interconnected angles – semantic, social, institutional and technological. It does so through a historical overview of the evolution of the English-language research article over the past 350-odd years.

Alongside its ubiquity, the research article as a form of genre writing has an air of ahistorical purity: it just *is*. Bazerman (1988, p. 15) argues that 'this attests to the

success of scientific language as an accomplished system [in which] the apparent transparency of the system to the latercomers is something then imputed back to the firstcomers and makers of the system'. A major contribution over the past few decades by discourse analysts and other scholars has been to explore how the globally recognisable and reusable form of the conventional empirical research article belies its contested, creative, purposive evolution (Atkinson, 1999; Bazerman, 1988; Knorr-Cetina, 1981; Latour, 1987; Shapin & Schaffer, 2018). A central theme of much of this research has been to show how the development of Western science constitutes more than a grand background event disconnected from the gradual emergence and stabilization of the genre conventions of the research report. And equally, that the many changes in the rhetorical and linguistic characteristics of written research are not incidental to the larger unfolding story of the 'scientific form of life' (Atkinson, 1999, p. xvii).

This chapter draws on many sources and disciplines, most especially those of genre analysis, histories of science, and information science. Together, they comprise my necessary anchoring points in this unavoidably sweeping discussion: one, that the research article is a form of genre writing; two, it is socio-historically constituted; and three, as a consequence, it is subject to and part of change. Genre analyst John Swales (2004, p. 217) has aptly summed it up in his description of the research article as 'a dynamic textual institution undergoing, like nearly all genres, continuous if slow evolution'. The technological developments of the past few decades, for example, have produced enormous changes in both what gets published and how, with potential for much more to come. Yet how this technological potential might be harnessed, by whom, and for whose benefit, are issues which have characterised the entire history of the research article. The current push to expand free and open access to the published results of publicly funded research, for example, is not entirely dissimilar to seventeenth-century negotiations over whose Letter to the Editor should be published.

The chapter is organised around the following themes that are also largely chronological: the evolution of the research article as a privileged form of witnessing;

the impact of digitisation and online publishing; article standardisation; evaluation through peer review; innovations in the 'born-digital' era; and authorship guidelines. While necessarily selective, I highlight some of the active and persistent efforts by leading individuals and institutions to encourage (and even at times mandate) the adoption of specific genre conventions and practices for the proper communication and dissemination of scientific and academic research, as well as the multitude of gradual, incremental changes that have occurred over time. This chapter recognises in the evolution of the research article its very contested, situated, socially shaped development, as well as its socially-*shaping* potential. This understanding may rob it of some of its ahistorical purity but grants it greater possibility and us, greater agency.

The evolution of the research article as a privileged form of witnessing

This discussion begins with the founding in 1665 of the first and, for many decades, the most influential English language scientific journal, *The Philosophical Transactions of the Royal Society of London* (Marta, 2015). (The French *Journal des Sçavans*, established by Denis de Sallo, appeared just two months before, in January 1665. It is considered the first European academic journal.) *The Philosophical Transactions* was established by the Royal Society of London for Improving Natural Knowledge, itself founded only shortly before, in 1660. Within just a few years, the Royal Society had been granted a royal charter, giving it privileges held then by few other institutions outside of State and Church. Most crucially, the charter included permission to print without government censorship (Atkinson, 1999). The speed of this is testament to the privileged, well-connected membership of the Society. It is all the more remarkable given the major events at the time in England – in particular, the recent Restoration of the monarchy under Charles II in 1660, following the civil wars and Interregnum (1649–1660). State and Church were actively and punitively reasserting control, and the production of and access to knowledge was sharply curtailed.

Shapin (2018, p. 87) has described the careful manoeuvrings of these nascent scientists in this era as a 'finely focused' scepticism towards the universities, whose teachings were dominated by Aristotelian scholasticism. In contrast to their famously

disputatious methods, the Royal Society sought to establish itself as an inherently genteel space – one for men of independent mind and means, whose very character could vouch for the disinterested credibility of their activities and findings. Influenced by powerful figures such as Francis Bacon (1561–1626), the Society argued for the primacy of studying the natural world through new mechanical tools and experimental methods, as well as the communal and public nature of their research endeavour. *The Philosophical Transactions*, which began by publishing the proceedings of the Royal Society meetings, was an integral part of this delicate social and political balancing act. Shapin and Schaffer (2018, p. 336) have written that the 'public space insisted upon by experimental philosophers was a space for collective witnessing … what in fact resulted was, so to speak, a public space with restricted access … restricted to those who gave their assent to the legitimacy of the game being played within its confines'.

At the heart of the new science was the experimental use of mechanical instruments as a valid means for representing and investigating the world, producing empirical matters of fact that comprised the proper foundation for an objective and true account of the natural world. This new natural philosophy thus challenged traditional ideas of both what could be known and the proper means for attaining and sharing that knowledge. Nevertheless, its adherents were quick to assert that the new science was in no way incompatible with belief in a Christian God. As Shapin (2018, p. 78) explains, in the early modern period, 'it was widely said that God had written two books by which his existence, attributes, and intentions might be known'. One was Holy Scripture; the other was the Book of Nature.

A crucial figure in the journal's early success and development was Henry Oldenburg (1619–1677), one of the Society's first two secretaries. Fluent in European languages and Latin, he corresponded with a wide network of natural philosophers, instituting the mediated publication of their letters as well as the regular Society proceedings. Atkinson (1999, p. 19, italics in the original) writes that Oldenburg turned 'these seemingly mundane duties into an art; in so doing, he in some ways *invented* the scientific journal'. Over fifteen years, his copious correspondence – over 3000 letters – demonstrates the early importance of the letter form for genteel men of science and

the role of editor in skilfully removing potentially 'divisive or disruptive' elements from the public realm (Shapin, 1987, p. 420). By establishing boundaries between what could be shared and what should remain private, Oldenburg helped create the 'social characteristics and social boundaries' of natural philosophers in the seventeenth century (Shapin, 1987, p. 424).

If Oldenburg was finely attuned to the social and political context of his time, so too was his patron Robert Boyle (1627–1691). In particular, Boyle was alert to the importance of consistency in their writings, as a powerful means to establish the legitimacy and credibility of the new science. Boyle provided explicit instructions to fellow experimentalists on the ways in which facts should be made visible on the page in order to best demonstrate their independence from theory and supposition. For example, Boyle argued for a clear textual separation between the reporting of facts regarding natural phenomena and any speculative reflection on causes (which was more properly the realm of theology); modesty in tone and content (shown by the reporting of failures, for example); and an unadorned style of writing, indicative of the undistorted integrity of the experiment and experimenter. As Boyle argued, a 'florid' style was like painting 'the eye-glasses of a telescope' (quoted in Shapin & Schaffer, 2018, p. 66). He recommended the use of phrases such as *perhaps*, *it seems*, *it is not improbable* – now known as hedges. These were an effective linguistic element in Boyle's modesty strategy (and remain in use today). By separating facts from conjecture, these rhetorical strategies allowed the writer to 'reduce his or her commitment to the propositional content', thereby limiting the risk involved, but also promoting a hierarchy of knowledge claims (Hyland & Salager-Meyer, 2008, p. 32).

It can be hard now to think of the research article as needing to compete for space. But research into *The Philosophical Transactions* shows how experimental reports in the early volumes were included among a miscellanea of observations and narratives, from the practical to the fabulous. Even in those few reports that did focus on experiments, there was often only scant attention given to method or result. More space was often given over to recording the writer's status and noting the presence of witnesses, through the inclusion of their names or testimonials. It was keenly

understood that facts achieved authority and legitimacy only if collectively held by men of credibility (Shapin & Schaffer, 2018). Thus, while remarkable new instruments such as Boyle's air-pump were presented at the private salons of both Britain and Europe, it was quickly recognised this alone would be insufficient. It was virtual witnessing, via the published research report, that became indispensable as a more reliable and efficient means for securing both matters of fact and the growing, widespread community of experimentalists eager to replicate results.

As understandings of nature expanded and developed, so too did the experimental report. At the same time, the disciplinary and communal influence of the experimental report became more clearly evident. Gradually, experimental reports with a focus on discovery emerged, and some time more again, claims and proof began to be offered (Bazerman, 1988). Throughout the eighteenth century, an emphasis on problem-solving, testing (such as the reporting of controls in trials to allow for comparison) and thoroughgoing attention to method and results became more common in the published articles. Bazerman (1988, p. 130) argues that it was the inherently 'agonistic' nature of the journal forum that drove the increase in methodological detail, as writers were forced to anticipate and defend their claims from the counterclaims and interrogations of fellow correspondents. He writes that 'this is not to expose of the dirty social underbelly of science – this is the plan for science'.

Porter, among others, has traced the ways in which the use of language shifted over time towards a rhetoric of impersonal objectivity in research articles. The familial, geographically close community of seventeenth- and eighteenth-century experimentalists, with their genteel codes of conduct, increasingly needed to persuade across international networks of 'distance and distrust' (Porter, 2020, p. xxi). 'Already in the eighteenth century', as Daston (1992, p. 609) writes, 'scientists had begun to edit their facts in the name of scientific sociability; by the mid-nineteenth century, the contraction of nature to the communicable had become standard practice among scientists'. She elaborates:

> the net result was often a loss of valuable information that had previously been an integral part of the observation report – whether the observer was suffering from a head cold, whether the telescope was wobbly, whether the air was choppy – but information too particular to person and place to conform to the strictures of aperspectival objectivity.

During the eighteenth and nineteenth centuries, specialisation, professionalisation and institutionalisation grew apace. Imperialism, colonialism, global trade and the more recent industrial revolution saw the long-established interconnections between science, state bureaucracy, commerce and entrenched social and political hierarchies intensify and expand with far-reaching consequences. The development and use of technologies of quantification in this process was pivotal: standardized measurements allowed for an 'independence from local customs and local knowledge [and] were allied to the centralizing state and to large-scale economic institutions' (Porter, 2020, p. 22). Earlier arguments regarding the moral or Christian underpinnings of natural philosophy also 'increasingly required defense … [opposed by] the claim that systematic knowledge was best made by experts' (Poovey, 1998, p. xxiv).

Professional, political and commercial interests were forcing transformations in the social scientific order. A discipline-based, professional academy was increasingly located in the universities, rather than the private laboratory or residence, the redoubt of amateur generalists. New, modern universities were founded, in Germany and the USA in particular. In addition, numerous discipline-based societies and professional journals emerged, formalising standards and, in some cases, challenging the powerful centres of entrenched privilege. The general medical journal, the *Lancet*, for example, was founded in 1823 in London with the express purpose to cut out 'the abscess on the medical body politic' (Booth, 1982, p. 106). The scientific journal *Nature* was also founded in London in 1869, while *Science* was established in New York in 1880 (Marta, 2015). At the Royal Society, partly in response to external criticisms, both specific and general, measures were introduced in 1831 to allow for 'more direct recourse to outside referees' in the selection process for papers at *The Philosophical Transactions* (Atkinson, 1999, p. 39). Previously a bastion of an idealised unified science, papers

were for the first time divided into two distinct sections, 'one with mathematical and physical topics and the other with biological papers' (Marta, 2015, p. 569).

On the pages of individual research reports there is likewise a gradual evolution in form, emphasis and tone: a powerful, recognizable genre is emerging. The epistolary form of the early correspondence, with its lively and often idiosyncratic author-centred narrative, was gradually replaced by 'rule-governed accounts of what was done to produce or observe certain results' (Atkinson, 1999, p. 157). An object-centred and increasingly agentless and sparse style of writing emerged. An internal organisation with appropriate headings, indigenous to the research report (as opposed to the book or monograph), took shape, as authors tackled more complex social-scientific demands with tools fit for a 'recurring rhetorical situation' (Hyland & Salager-Meyer, 2008, p. 12). Experiments became more demanding and instruments more sophisticated. Graphs, tables and other often abstract visual features appeared more frequently and were more extensive; and references to subject-specific literature and bibliographies grew in importance. Among numerous subtle linguistic changes, nominalization, whereby verbs are converted into nouns and compound nouns, became more pervasive and thus consequential. This rhetorical technique changed dynamic processes (verbs) into abstract, static things (nouns), distanced from time, place or person. Gee (2014a, p. 68-69) offers a modern-day example: *Lung cancer death rates are clearly associated with an increase in smoking*. The complex nominalization, 'lung cancer death rates', writes Gee, contains 'a whole sentence's worth of information [but] just like the compacted trash in the trash compactor, you can't always tell exactly what's in it'.

Digitisation and online publishing

By the beginning of the twentieth century, a global system of scholarly communication and dissemination had taken shape: orderly, prestigious and elite, if time- and labour-intensive. More broadly, higher education itself was accessed by only a tiny percentage of the population (Piketty, 2020). Over the next fifty years, much would be radically transformed, as two world wars and a global depression drove nation states

to undertake massive investments in social, institutional and economic reconstruction efforts. Higher education moved from an elite to a mass to a universal system (Marginson, 2018). By mid-century, writes Piketty (2020, p. 534), 'the United States was the first country to have achieved nearly universal secondary education'. Japan and much of Western Europe soon followed. In Europe, for example, public spending on education rose from 'barely 1-2% of national income in 1870-1910 to 5-6% in the 1980s', where it has since remained (Piketty, 2020, p. 459).

In 1945 Vannevar Bush from MIT presented his report *Science: The Endless Frontier* to the President of the United States. He argued that 'without scientific progress no amount of achievement in other directions can ensure our health, prosperity, and security as a nation in the modern world' (Bush, quoted in Boyer, 2016, p. 63). Boyer (2016, p. 63) describes the consequences of this 'new reality' as 'a veritable army of freshly minted PhDs fanned out to campuses across the country … academic priorities that had for years been the inspiration of the few now became the imperative of the many'. The advent of modern computers and digitisation in the 1950s must have seemed like proof positive of the sciences' centrality, as their remarkable potential soon affected all areas of life. The significant increase in public funding after World War II for scientific research, particularly in the USA, led to a boom in the number of research reports being written and disseminated. This activity skyrocketed once again following the introduction of the internet in the 1990s.

A recent overview found that there were 'about 33,100 active scholarly peer-reviewed English-language journals in mid-2018 (plus a further 9,400 non-English-language journals), collectively publishing over 3 million articles a year' (STM, 2018, p. 5). This global publishing system is both competitive and interconnected. Marginson (2018, p. 5) notes that, apart from the US, in the digital age, 'most science-based innovations are sourced from global not national science'. Countries have needed to invest in their national research capacity in order to engage in this networked ecosystem. China is the standout example, growing 'R&D from $13 billion to $409 billion between 1995 and 2015, moving [it] close to the US' (Marginson, 2018, p. 6). Tallies of published

papers by country reveal that China has now overtaken the US, with India, Germany, the UK and Japan also significant 'producers' of published research (STM, 2018, p. 5).

As worldwide participation in research increased and moved online, the pre-existing system of publishing new research in peer-reviewed English-language journals intensified, sped up and expanded. Technological innovations have made possible a global exchange, to which individual scholars, faculties, universities, institutional libraries, funders, publishers and providers of bibliometric data are now connected via online publication, and have access to indexing, tracking, quantifying, retrieval and reuse of research and other digitised materials at a size, scale and speed not seen before. There is enormous potential for change inherent in these developments, particularly in improving the ability of people and organisations all over the world to quickly and easily find, access and share research and information that is relevant to them. In theory, digitisation and online publishing are thoroughly aligned with the public good goals of research and higher education: to contribute to and share in a collectively held, publicly available store of critical knowledge. At the same time, however, social, geopolitical and economic imperatives, which have always informed the communication and dissemination of research, have never been more on display.

For journal publishers, the changes over the last few decades have been substantial. The shift from hard copy to digital significantly cut the costs for printing, handling and shipping (though digital publishing is not without its own costs). These savings, atop a scholarly system in which much of the labour is provided free (writing, peer review, editing), coupled with mergers and acquisitions, have resulted in the creation of a large, lucrative market (Shu et al., 2018). The older, established system with a mix of guild, university, professional and commercially owned presses transitioned into one dominated by a handful of large multinationals over the course of a few decades. Larivière et al. (2015) undertook research involving analysis of nearly 45 million documents indexed in Web of Science from 1973 to 2013. Their findings revealed a sharp rise in the number of journals owned by the top four commercial publishers across broad disciplinary groupings since the 1990s. The social sciences experienced the greatest contraction. The 'top three commercial publishers alone – Reed-Elsevier,

Taylor & Francis and Wiley-Blackwell – represent almost 50% of all papers in 2013' (Larivière et al., 2015, p. 7). This shift was largely at the expense of smaller guild- and university-based presses (Abbott & Tiffen, 2019, p. 3). Roughly over the same time period, from 1986 to 2011, the 'size of the serial collections in academic libraries increased almost fivefold' (Shu et al., 2018, p. 785).

Certainly, from a commercial perspective, there has been no looking back. The fourth edition of *The STM Report 2015* (the cover of which states it is 'celebrating the 350th anniversary of journal publishing' and features a picture of Henry Oldenburg, *The Philosophical Transactions*' first, remarkable editor) writes that, collectively, 'the annual revenues generated from English-language STM [scientific, technical, medical] journal publishing is estimated at about $10 billion in 2013' (Ware & Mabe, 2015, p. 6). While costs for online publishing are variable and much detailed information remains protected by commercial agreements, there is little doubt of the industry's profitability. Tennant et al. (2016, p. 10) suggest that 'for some of the largest subscription-orientated publishers the annual net profit on investment reaches up to 40 percent'.

The sheer volume of articles has increased readers' reliance on journals to act as an indicator of quality, relevance and rigor. In this enormous, crowded and competitive landscape, the ranking of a journal carries significant weight. Shu et al. (2018, p. 786) write that 'scholarly journals can be considered as a special good': access to one doesn't diminish the need for access to another. The result is a demand for 'core' or high-impact journals, for which the price is inelastic. These conditions underpinned the development of the 'Big Deal' in the 1990s, where large publishers started offering libraries bundled collections of journal titles at an overall lower cost than if they had bought all the titles on an à la carte basis (Abbott & Tiffen, 2019). While enabling a welcome and substantial increase in library collections, each annual price rise led to severe pressure on library budgets. Worse still was the realisation that many of the journal titles in the bundle went largely unused. The merits of the Big Deal are now being openly debated and, in some cases, rejected. SPARC (n.d.), an international coalition of academic and research libraries founded in 1998, now compiles a 'Big Deal

Cancellation Tracker'. This document reveals how the worsening financial situation due to COVID-19 has been a further contributing factor in some recent cancellations.

The literature reveals significant and widespread dissatisfaction with the current terms of today's academic marketplace, both at local and global level. This unease highlights both the continuing belief in the Baconian conception of empirical research as something that should be collectively held and shared, and social and cognitive justice objections to the inherent inequities of the system. Tensions include: the use of reader paywalls and other restrictive 'toll-access' arrangements such as the 'Big Deal'; the 'user-pays' model for authors, involving the up-front payment of article processing costs (APCs), which can be exhorbitant; restrictive copyright laws; the high profit margins of large publishers (particularly when research is publicly funded); and the widespread reliance on quantitative indicators, such as article citation numbers and journal impact factors in evaluation and review. Of the latter, Abbott and Tiffen (2019, p. 9) note, 'publication in prestige journals – where prestige is measured by traditional citation metrics and well-established journal "brands" – has become entrenched as the standard by which academic output is valued'.

The combined impact of the above is unequally felt around the world. Despite the growing momentum for open access (in its most basic form, meaning free to read and free to reuse), recent figures suggest that approximately 50 percent of all published literature remains behind a subscription-only paywall (Piwowar et al., 2018, p. 4). Among new research published globally, 'roughly 85%' sits behind paywalls (EUA, 2022, p. 8). This poses significant hurdles for researchers and institutions in developing countries in terms of accessing research, let alone those without institutional support. Pay-to-publish options and predatory publishers are other serious barriers for those with fewer resources seeking to participate as contributors of research. In addition, the privileging of English remains, with gatekeeping roles such as reviewers and editors predominantly residing in English-language-speaking countries. A large Publons study (2018, p. 18) recorded that '96.1% of Publons editors [come] from established regions, while emerging regions account for just 3.9%'.

At the heart of all this is digitisation. As shown, the ability to turn print and objects into binary 1s and 0s has been profoundly transformative. Within higher education, there are two key developments in this evolution worth highlighting here. In 1962, information scientist Eugene Garfield created the Science Citation Index (SCI, now the Web of Science, owned by Clarivate); then, in 1975, Garfield launched the Journal Impact Factor in the *SCI Journal Citation Reports* (Wouters, 2019). The first tool enabled the automated quantitative analysis of citations across the scientific literature. This has become an important and indispensable means of tracking and retrieval. It has also shed valuable light on larger practices and trends in research. The use of citation data is now widespread across every level of academia. The UK 2014 Research Excellence Framework, for example, used citation data to 'inform their peer-review judgements on some panels' (Aksnes et al., 2019, p. 1).

The related metric, the Journal Impact Factor, is a measure of 'the frequency with which the "average article" in a journal has been cited in a particular period' and was initially intended as an aid to libraries when deciding which journals to subscribe to (STM, 2018, p. 65). The Journal Impact Factor has been long critiqued for its misuse and misapplication, accused of 'driving a cycle which entrenches the position of established journals' (Abbott & Tiffen, 2019, p. 9). Garfield himself later likened it to 'nuclear energy' (Wouters, 2017). Critics argue that the overemphasis on various, even competing numerical indicators risks 'damaging the system with the very tools designed to improve it' (Hicks et al., 2015, p. 1).

Specialists point out that citation data, their uses and interpretation are anything but simple or straightforward. The methodological complexity involved includes consideration of factors such as the time window allowed, the application of normalising measures and the uneven coverage afforded the different disciplines in the leading databases, such as Web of Science, Scopus and Google Scholar. The potential for distortion is of significant concern within the specialist literature (Callaham et al., 2002; Hicks et al., 2015; STM, 2018). Aksnes et al. (2019, p. 3) write that 'scientometric researchers' have been critically investigating the issues and assumptions behind their uses almost since their conception. As early as 1965,

historian of science Derek de Solla Price drew attention to the 'skewness' of citation distribution, resulting from the fact that the great bulk of papers are never or only rarely cited. Aksnes et al. (2019, p. 8) further argue that:

> from citation counts alone one cannot reveal why a specific paper is repeatedly cited by other researchers. A general methodological problem is that the multiple causes of references cannot be deduced by 'travelling back' from citations. The reason for this is that the way citation indexing has developed historically leads to the loss of information about the citing context in the citation databases.

Eugene Garfield (1964) himself was quite aware of the complexity and importance of 'context', listing 15 possible reasons for why authors cite other papers. However, as Hicks et al. (2015, p. 2) write, 'luminaries' such as Garfield are 'not in the room when evaluators report back to university administrators who are not expert in the relevant methodology'. The difficulty of inferring impact, much less quality (however defined), from citation counts is immense. Further, 'citing context' is mostly framed as concerning the scientific or societal. What is stepped over is the research article itself – that is, the *communicative* context and its evolution. Citations themselves constitute a point of entry for analysis. Thus, while citation counts mask, they can also reveal the continuing evolution of rhetorical skills of researchers at work in a social space, at once public and restricted.

Article standardisation

As with scholarly publishing more generally, by the mid-twentieth century, standardization of the research article was largely complete. Consistency was prized as it eased global replicability and intelligibility, the speed of assessment and efficiencies in communication. A key feature of this was the IMRD organisational structure (Introduction, Methods, Results, Discussion). A set template had first started to take shape in the nineteenth century, with the introduction of sections and subheadings. In 1978, at the inaugural meeting of biomedical editors (which was later to become the

influential International Committee of Medical Journal Editors (ICMJE)), in Vancouver, Canada, the IMRD structure was formally mandated for use in manuscripts for medical journals (Marta, 2015).

Research into the presence of the IMRD structure and headings in four leading medical journals shows that its use grew from 0% in 1935 to 100% of articles by 1985 (Sollaci & Pereira, 2004, p. 365). The organizational forms that were present in the journals' published articles in 1935 (a mix of continuous text, non-IMRD headings, partially IMRD and case report) were gone by the mid-80s. In their place, the IMRD structure had attained 'absolute leadership' (Sollaci & Pereira, 2004, p. 366). The IMRD structure is now an expected feature of empirical research articles across the natural and social science disciplines. However, research by applied linguistics, although not extensive, reveals that there is now more variation than the 'canonical' status of IMRD would suggest (Holmes, 1997; Lin & Evans, 2012). In a recent study of 780 journal articles across 39 disciplines, Lin and Evans (2012) discovered considerable variation, albeit on this one theme. This included extra sections such as the Literature Review and Conclusion, merged sections such as a combined Results and Discussion section, different section order such as placing Methods at the end, and deleted sections, most especially the Methods section. They concluded that IMRD was 'far from being the default option for organising contemporary empirical RAs'.

The picture that emerges is of a bottom-up, evolving, intensely social communicative act. Lin and Evans (2012, p. 158) argue that 'scholars' writing practices are far more complex than might be ascertained from the principles set out in many research writing manuals and style guides. There are also significant differences between the genre habits of the social sciences and those of the medical and natural sciences, and of the humanities even more so (Holmes, 1997). The reduction in size of the methods section in research articles in some 'hard' sciences, for example, may be a by-product of its very success at standardisation. Citation of key texts outlining a particular method is an efficient and accepted shortcut (Aksnes et al., 2019). The disappearing act of the methods section has led Swales (2004, p. 207) to describe the modern experimental research article as having an 'hourglass arrangement'. In addition to the

empirical paper, Swales has identified four other main types of research articles: theoretical papers, with a 'top-down' structure; the review; modern methods papers, which focus on how innovative research was conducted; and various shorter communications, such as Letters to the Editor. Of this last group, he argues that they represent a continuation of a 'lively tradition … [the] longstanding worldwide traditions of local contributions' (Swales, 2004, p. 217).

This top-level standardised complexity is also present in the rhetorical conventions found within the different sections. Swales' (1990) ground-breaking identification of recognizable genre 'moves' in Introductions is perhaps the most well-known example. Known as CARS, or the 'Create a Research Space' model, these three moves for the Introduction involve establishing a research territory, establishing a niche or gap and occupying the niche (Swales, 2004, p. 227). Interestingly, research into other academic cultures around the world has shown that the CARS model is not necessarily prevalent. Hyland & Salager-Meyer (2008, p. 30) argue that the 'influence of a market society … inevitably influences academic discourse, making it persuasive and self-promotional'. Swales (2004, p. 226) himself has written that CARS' 'strong metaphorical coloring – that of ecological competition for research space in a tightly contested territory … [p]rimarily reflects research in a big world, in big fields, in big languages, with big journals, big names, and big libraries'.

Evaluation through peer review

It has been many decades since Nobel Prize winner and biologist Peter Medawar (1964) declared that the standard organisation for research articles (Introduction, Method, Results, Discussion) was 'a totally mistaken conception, even a travesty' of the way in which experimental and exploratory science works. To make his point, he proposed that research articles should instead start with the Discussion section, as a more honest portrayal of the prior observations, assumptions and 'uncharted by-ways of thought' that give rise to hypotheses. He cited the views of William Whewell (1794–1866), polymath, historian of science, theologian and Master of Trinity College,

Cambridge, who wrote that 'an art of discovery is not possible. We can give no rules for the pursuit of truth which should be universally and peremptorily applicable'.
At first glance it seems curious, then, that it was Whewell who in 1831 proposed to the Royal Society of London a system for commissioning reports on all submitted papers. But, for Whewell, such reports were to be an opportunity to celebrate and raise the profile of the new science, not submit it to sharp critique. The reports were to be written by 'eminent scholars' and might, he suggested, 'often be more interesting than the memoirs themselves' and thus a great source of publicity (Csiszar, 2016, p. 307). The very first attempt, however, nearly ended in diplomatic disaster, as the two referees, one of whom was Whewell, could not agree on their assessment of the chosen paper. While Whewell's version was eventually published, within two years, 'reports became shrouded in secrecy … and no negative reports were ever published' (Csiszar, 2016, p. 308).

Of central concern to the Royal Society was the preservation of its reputation. As mentioned earlier, both *The Philosophical Transactions* and the *Journal des Sçavans* were founded in 1665 by their respective Royal Societies. These privileged institutions in England and France were granted the imprimatur of the state to print without government permission, making them their own regulators. Biagioli (2002, p. 14) stresses the significance of these origins for peer review: 'So, while peer review is now cast as a sign of the hard-won independence of science from socio-political interests, it actually developed as the result of royal privileges attributed to very few academies to become part and parcel of the book licensing and censorship systems'.

Perhaps not surprisingly, it would take some prodding before any sort of accountable, self-regulating system of review was instituted in these genteel societies and their journals. *The Philosophical Transactions* made early, tentative steps in 1752, with the establishment of an internal selection committee for submitted papers, though only after being forced to do so by 'sharp public criticism from without' (Atkinson, 1999, p. 26). However, Moxham and Fyfe (2018, p. 872) note that these changes 'masked the fact that the main filtering of papers had occurred silently and much earlier'. Papers could still only be presented if vouched for by a Society fellow. The next significant

step was the adoption of Whewell's proposals in 1831 (no sooner established than they were amended). However, over the rest of that century, the rapid pace of specialisation, growth in the number of papers, competing journals and learned societies, increasing financial incentives and innovations in communications raised the pressure on journals to develop more rigorous and accountable systems of review (Horbach & Halffman, 2018). By the end of the nineteenth century, for example, the *British Medical Journal* had introduced external reviewers, while at *The Philosophical Transactions* a system of internal referees had 'settled into its mature form' (Fyfe et al., 2019, p. 234).

This somewhat reluctant and geographically patchy development only became widespread and systematically applied after World War II, particularly in the UK and the USA. In the 1960s and 70s, refereeing emerged as 'a symbol of objective judgement and consensus in science … [a means to] preserve autonomy while holding on to the massive government funding' (Csiszar, 2016, p. 308). The term 'peer review' dates from this period. Along with manuscript assessment, peer review is now used in the evaluation of book submissions, institutional review and promotion processes, fellowship and grant applications, teaching and clinical competency evaluations, conference proposals, and membership applications to learned societies and academies (Lee et al., 2013, p. 2). Its central importance in academic life is such that Biagioli (2002, p. 11) queries, 'why do we tend to perceive peer review as either good or bad, helpful or obstructive, but not as one of the fundamental conditions of possibility of academic knowledge and the construction of its value?'. Swales has described it as a genre in its own right, albeit '"out of sight" to outsiders and apprentices (such as graduate students)'. He argues that these 'occluded and interstitial genres perform essential waystage roles in the administrative and evaluative functioning of the research world' (Swales, 2004, p. 18).

Given its powerful gatekeeping role, there now exists considerable research into contemporary peer review, much of it critical. This includes its apparent inefficiency, inconsistency, lack of accountability, tendency towards conservatism and self-interest, and entrenched bias (by nationality, gender, language, institutional affiliation, and

towards positive results) (Daniel, 1993; Denbo, 2020; Smith, 2006; Ware, 2009). Research has also demonstrated how the work (and decision-making power) in conducting peer review is spread unevenly, by geography, experience and gender (Publons, 2018; STM, 2018). A final damaging criticism levelled against peer review is that it is unreliable even as a means for detecting serious errors or fraud.

In addition, today, the hands-on work of peer review constitutes an inefficient, ever-growing and largely unremunerated burden on researchers, seen by many to be exploitative, particularly of early career researchers and those on insecure work contracts (AJE, 2016; Allen et al., 2022; Lee et al., 2013; Publons, 2018). A review of a large publicly available dataset found that 'the total time reviewers globally worked on peer reviews was over 100 million hours in 2020, equivalent to over 15 thousand years' (Aczel et al., 2021, p. 1). These authors calculated that the monetary value from US-based reviewers alone was 1.5 billion US dollars in 2020 (Aczel et al., 2021). As Larivière et al. (2015, p. 13) point out, 'this essential step of quality control is not a value added by the publishers but by the scientific community itself'.

Efforts to improve the system generally focus on technological options for making it more inclusive, reliable, open and transparent. Various online innovations are being trialled, such as open, pre- and post-publication reviewing, albeit with mixed success and as yet limited take-up (Denbo, 2020; Lee et al., 2013). Portable (or cascading) peer reviews, where reviews travel with a declined manuscript when submitted to another journal, are another, relatively simple online innovation (Horbach & Halffman, 2018, p. 9). At the same time, the proportion of published research that is peer reviewed is declining, replaced only in part by automated alternatives such as plagiarism-detecting software. However, Allen et al. (2022, p. 3) argue that scholars should be 'wary of the idea of automating themselves out of a difficult situation', which will do little to address underlying complexities and inequities.

Yet, despite all of the above, research consistently finds that authors, editors and reviewers continue to broadly view peer review of manuscripts as an important part of the publishing process (Denbo, 2020; STM, 2018; Ware, 2009). Indeed, there is

widespread support for the 'classic' understanding of peer review (a shared source of impartiality, integrity, collegiality, expertise), its goals (to assess originality, relevance, rigor, clarity) and its role in ensuring ethical research practices. Most agree that the learning and manuscript improvement that occurs as a result of thorough and thoughtful criticism is highly valuable. It is a key part of what motivates authors to take their turn as reviewer – to play one's part in the research community and reciprocate the efforts that others have expended on their own work.

Perhaps what is less well known is that the literature shows that systems of peer review are highly diverse and complex. No single system exists, or ever has. Approaches have differed by time, place and discipline, and instituted for myriad, sometimes competing, reasons. This historical lack of consensus on the purpose, processes or even necessity of peer review sits in contrast with today's largely monolithic scholarly publishing system. Somewhat curiously, the desire for a unified, uniform system of peer review is a constant thread running through the literature. Tennant et al. (2017) write that the ideal of peer review remains widely accepted as a 'social norm'. As a result, while not blind to the realities of the uneven, hierarchical and competitive global academic marketplace in which most peer reviewing exists, the consensus continues to lean towards improvement, not abandonment. As Richard Smith (2006, p. 178), editor for 13 years of the leading medical journal, *The BMJ*, has written of peer review, 'Famously, it is compared with democracy: a system full of problems but the least worst we have'.

Innovations in the 'born-digital' era

If digitisation combined with the internet has enabled a corporatised and commercialised 'Big Science', it has also provided the technical means for developing alternative approaches to academic research collaboration, communication and publication. Citizen science initiatives, in which the 'distinction between certified and non-certified expertise … loses some of its meaning', are a good example of the participatory potential now possible (Vohland et al., 2021). Just one example is Galaxy Zoo, a crowdsourced astronomy project whereby volunteers help professional

researchers ‘explore galaxies near and far’. At last count they had nearly 94,000 volunteers (Zooniverse, n.d.). Some broad, long-standing themes can be seen contributing to this recent growth of citizen science, made possible by technology. Central is a desire by researchers to have greater control over the sharing of and access to knowledge; for that collective, communicative space to be more truly self-regulating; and for there to be increased equity, transparency and fairness in the system. There are many innovations under way and some of them are likely to have significant impact. However, it remains to be seen whether and how these potentially compatible but distinct goals will be equally supported, and the degree to which technological innovation is able to propel deep and lasting institutional change.

The first major effort in shifting the dominant privatised publishing ecosystem came from the emergence of the open access (OA) movement (Abbott & Tiffen, 2019). The ground-breaking Budapest Open Access Initiative (BOAI) position paper, published in 2002, sought to assert ‘anew the central position of communication as the foundation of the scientific enterprise’ (Guédon, 2017). Its opening statement reads, ‘An old tradition and a new technology have converged to make possible an unprecedented public good’ (BOAI, 2002). Open access is defined in the BOAI paper as content that is free to read and free to reuse. Advocates point to its academic, social, ethical and economic potential (Abbott & Tiffen, 2019; Tennant et al., 2016). Support for it is backed by a growing number of major institutional funders and organisations for whom open access is now a mandatory condition of their grants. There is also growing evidence for the citation advantage of OA articles (Piwowar et al., 2018; Tennant et al., 2016). Publishers have rapidly added versions of open access to their business model, and new open access journals have also emerged, albeit with various levels of quality, integrity and alignment with the original OA intent (Piwowar et al., 2018). Overall, the research suggests that open access is rapidly becoming the norm, although this varies by discipline, and many researchers and institutions remain wary (MacGregor et al., 2014; Piwowar et al., 2018).

Building off the open access model, there now exist some large hybrid publishing, archival and distributing platforms introducing substantial macro-level infrastructure

changes to the traditional approach, as well as a flurry of activity at the process level, such as peer review. Leading examples include: the Public Library of Science (PLOS); BioMedCentral; the Open Humanities Press and Project MUSE Open; along with SciELO and Redalyc in Latin America; self-archiving institutional and subject-based repositories such as arXiv.org, academic social networks, in which articles are freely shared (sometimes illegally) among authors; and pirate sites such as Sci-Hub, which illegally publish paywalled articles. Collectively, they are growing in size and clout, albeit of mixed legitimacy, and are challenging the dominant, commercial scholarly publishing process (Abbott & Tiffen, 2019; Piwowar et al., 2018; STM, 2018).

The Cornell University owned ArXiv.org, for example, founded in 1991, calls itself a 'free distribution service and an open archive' (ArXiv.org, n.d.). Submissions undergo moderation but not formal peer review. Instead, using a fast-turnaround, open, post-publication review system, anyone can read and comment on manuscripts published on ArXiv, typically forgoing anonymity (Horbach & Halffman, 2018). Large platforms, such as *PLOS ONE, F1000 Research* and *ScienceOpen*, seek to demonstrate that open access is a sustainable alternative model, at scale. *PLOS ONE* gives a sense of the experimentation underway. It publishes across multiple subject areas, not just the medical sciences. It is open access, non-profit, relies on article processing charges and features article-level metrics rather than Journal Impact Factors, which it does not promote. This 'megajournal' model is proving to be attractive to researchers: in 2015 it published close to 30,000 articles (Tennant et al., 2016, p. 5). In order to encourage the submission of replication studies and of research with negative results, reviewers are instructed to assess submissions for their 'scientific validity, strong methodology, and high ethical standards – not perceived significance' (*PLOS ONE*, 2021). In addition, authors of accepted submissions are given the option to allow publication of the 'peer review history package' alongside their article, which includes the editorial decision letter, reviews and responses.

At its best, open access marks a potentially transformative development for individuals, organisations and institutions traditionally unable to participate in the global for-profit academic marketplace. Tennant et al. (2016, p. 1) argue that open

access acts by ‘levelling the playing field … through enabling unrestricted re-use, and long-term stability independent of financial constraints of traditional publishers that impede knowledge sharing’. Two significant changes have certainly been ushered in by open access. The first is to copyright practices. Usually, copyright is handed over to publishers by researchers. With most open access journals, however, authors retain copyright under one of the six Creative Commons licenses, such as the widely used CC-BY. This ‘most permissive’ type of CC licence allows re-users to ‘distribute, remix, adapt and build upon material’, including for commercial use (Creativecommons.org, n.d.; Piwowar et al., 2018). Significantly, access for both human and machine reading (text and data mining) is viewed in the ‘same, non-restrictive manner’ under a CC-BY license (Tennant et al., 2016, p. 10). These authors argue that text and data mining ‘is an emerging and rapidly advancing field’, with important implications for many, including community-based networks and advocates, and other civil society organisations.

The second key development is the creation and sharing of open-source software. The Open Journal Systems (OJS), a free open journal publication management system, developed by the Public Knowledge Project at Simon Fraser University (PKP, 2023) and made public in 2001, is the primary example (Alperin et al., 2018). Its development has brought together researchers, university libraries, funders and an international community of users. For libraries, this sort of active involvement marks an evolution of their role within scholarly publishing, away from a more passive one limited to ‘mediating access’ (Smith, 2007, p. 77). More than 30,000 journals worldwide, nearly half from developing countries, now use PKP’s software (MacGregor et al., 2014, p. 167; PKP, 2023). The great bulk are open access. This is a significant first step in the development of local journals, in local languages, building local capacity and expertise among local editors, authors and referees. For those in the Global South, largely excluded from the current ‘outmoded’ system, digital technologies put them ‘effectively in a position to “leapfrog” over much of the legacy system and take advantage of and help shape a new world of scholarly publishing’ (Allen & Marincola, 2020, p. 241).

Authorship guidelines

The arc of this chapter is not entirely accidental, but it is still a bit surprising to realise that it leads us (back) to what lies at the heart of the research article: authors. The simple-seeming act of putting one's name to a piece of research writing is perhaps the most ambiguous semantic resource at our disposal. Authorship is understood as the means by which credit and responsibility for an intellectual contribution is made public. It is an act of boundary setting of great social power and hierarchical order. This has been the case historically and remains so today.

During the seventeenth and eighteenth centuries, the mechanisms for asserting and assessing an author's claims and credibility were dependent upon, and guaranteed by, one's status as an independent, genteel man of science. The written report, as much as the oral presentation, placed the author at the centre, as the discoverer of nature's truths. With the gradual trend towards globalised and standardised conventions for research and academic writing, the individual author receded. The article byline increasingly came to bear alone the privilege and weight of a system in which 'scientific authorship is the primary currency in academia' (Larivière et al., 2021). Like peer review, this is proving intolerable for many.

The current complexity, size and scale of co-authored, multi- and trans-disciplinary articles, as well as multiple forms and modes of scholarly output such as manuscripts, images, data, code and software, raise mounting concerns over the suitability and transparency of authorship conventions. Where once most articles had only a few authors, this is now in the hundreds, even thousands, in certain disciplines (Patience et al., 2019, p. 3). In addition, financial interests and promotion systems embed the temptation to distort and corrupt. Common issues facing researchers, editors, funders and universities include undisclosed conflicts of interest by authors; ghost, honorary and guest authorship; author misconduct such as plagiarism, fraud or coercion; the opacity and hierarchy of name order; and the improper or incomplete acknowledgment of non-author contributors. Issues can arise pre- or post-publication (COPE, 2019).

Research into journals' criteria for authorship reveals considerable confusion and disagreement amongst authors. A recent study of nearly 6000 top cited authors from multiple disciplines found that researchers 'disregard [authorship] guidelines because they are too restrictive as they discount the minutiae of research and the *plurality of value and the messiness of scientific practice*' (Patience et al., 2019, p. 2, italics in the original). The authors found that respondents' opinions on authorship criteria diverged wildly: 'Even within the same discipline, same region, and same level of experience, responses extended from one extreme to the other' (Patience et al., 2019, p. 12).

Many journals have developed their own authorship criteria, perhaps reflecting, if not adding to the confusion. A recent discussion document produced by the Committee on Publishing Ethics (COPE, 2019, p. 3) is a good example of recent work attempting to establish some common, if narrow ground. Their recommendations involve, first, a reaffirmation of what they see as the core criteria of authorship: '[a]t a minimum, authors should guarantee that they have participated in creating the work as presented and that they have not violated any other author's legal rights (e.g. copyright) in the process'; and second, the inclusion of a statement of contributor roles by each signatory. This latter suggestion is gaining some currency, particularly within the powerful biomedical sciences, so deserves some scrutiny.

More than two decades ago, Rennie et al. (1997, p. 7) argued that the 'specializaton of jobs has made the original concept of authorship impractical, and the authorship system's vagueness about contribution makes it prone to abuse'. They proposed, instead, a 'job-centered approach' in which names are attached to descriptively precise and overlapping contributor roles, listed in order of relative importance, to be decided by the researchers themselves. The crucial difference, they argue, is that 'collaborators must disclose to the reader, and not merely the editor, the contributions and guarantors on which they have agreed' (Rennie et al., 1997, p. 9). Building on this, in 2015, Project CRediT made public a taxonomy of 14 precisely defined contributor roles that had been some years in development and input (Brand et al., 2015). Its developers argue that in the 'absence of standardization and coordination' what is needed is 'a controlled vocabulary of contributor roles and mechanisms for capturing

contribution tags within the scholarly metadata ecosystem' (Brand et al., 2015, p. 154). Their hope is for more accurate and reliable author-centric accreditation that distinguishes between authors and contributors, appropriately assigning accountability and credit. The language of this framing, however, is one of precise segmentation, and sits uneasily with the expressions above of the inherent plurality and messiness of contemporary research.

To give an example of the challenges, PLOS first adopted the CRediT taxonomy in 2016 (Larivière et al., 2021). By 2018, nearly 30,000 articles published by PLOS had used this taxonomy, which Larivière et al. investigated for division of labour by contributor role and gender. Their research points to the enormous difficulty of creating a fair and transparent system that can be universally applied to what is inherently complex, social and contextual. They found that, 'despite the steep increase in number of authors, the number of scientific leaders remains small … women are more likely to be associated with data curation, as well as other [supporting] technical work' (Larivière et al., 2021, p. 13). They point to the risk that ever-more fine-grained accreditation may lead to bias and bureaucratization, particularly for junior and female researchers. They caution that such approaches are 'symptomatic of a larger structural problem in the contemporary scientific community, which is the demand, by both policymakers and researchers themselves, for *procedural ways* of assessing excellence and scientific performance' (Larivière et al., 2021, p. 15, italics in the original).

Concluding thoughts

This broad overview has sought to do a number of things. First, to establish a cross-cutting dialogue between various fields that are equally, but differently interested in scholarly research and its communication and dissemination. There is force in the combined contributions of discourse and genre analysts, information scientists and historians of science, among many others. Second, by drawing on this wealth of perspective, this chapter provides substantial evidence for understanding the empirical research article as an evolving social, intellectual, commercial, semantic and technological process and outcome that is informed by, as well as contributes to, long-

standing socio-historical discourses. Third, such an understanding lends support to, but also cautions scrutiny of current calls for (largely technologically driven) innovation and change as unalloyed forces for good. The 'born digital' era may involve a radical break from the printed form that is potentially transformative, but within the wider social and rhetorical contexts of research writing and sharing, they are only the latest unfolding in a centuries' old process of negotiation, collaboration, competition, experimentation and adaptation.

This chapter started by asking 'What is this thing we write?' Reflecting on the above, the question, 'What is this thing we *do*?' might have been more appropriate. Writing is the central task that defines and propels the research article, but it is neither the start nor the end. Latour (2004, p. 246, italics in the original) has written of the need for a 'multifarious inquiry … to detect how many participants are gathered in a *thing* to make it exist and to maintain its existence'. The detail in this chapter helps reveal why the peer-reviewed research article, despite its many limitations, continues to confer significant academic capital. It is deeply implicated in the social, political, commercial and intellectual life of institutionalised knowledge-making. Particularly within the context of community-based research, which seeks to do research differently, for different purposes and outcomes, it is essential to be critically aware of this vitally important tool and not lose sight of the individual authors and author teams in this maelstrom, who are not without agency, skills and intention. This forms the focus of the next chapter.

Chapter 3: Articulating plurality: From commodity-based to community-based research

The previous chapter began with the suggestion that to describe the research article as a written documentation of research barely passes muster. But of course, in very significant ways, it does pass muster. That is what the research article does, that is what it is for: to communicate and share new knowledge generated through research. Within higher education and policy making in many areas of life, human and more-than-human, it remains the principal means for staking claim to expert knowledge. This chapter continues the exploration of what constitutes written expert knowledge. The previous chapter concentrated on the social, institutional, commercial and technological factors in the development of the research article, and their changing influences over time. This chapter offers an essential companion piece by now focusing on the evolving epistemological and methodological assumptions that give such force to the research article's purpose and legitimacy. I do so from the point of view of collaborative research approaches, such as community-based research, that are founded on notions of inclusivity, knowledge diversity, reciprocity and change-oriented sustainability. Fundamentally distinct to Western scientific positivism, and even much social science, these participatory approaches both problematise the assumptions underpinning the conventional research article and propose alternative social-semiotic articulations.

The chapter takes as its starting point the understanding that research is a meaningful, systematic and creative investigative practice, socially and historically situated. Equally, the intellectual effort of writing and sharing research is socially and historically situated. Which is to say, any effort that aspires to know the world and its inhabitants better, and to communicate the resultant 'new knowledge' through writing, is deeply and consequentially implicated in social relationships of power and its distribution. For many, the consequences of these dominant historical relationships have been profoundly damaging. As Linda Tuhiwai Smith (2012, p. 1) famously noted, 'The word itself, "research", is probably one of the dirtiest words in the indigenous world's

vocabulary'. Yet, part of her great contribution was her understanding that 'whilst we may reject or dismiss them [history, writing and theory], this does not make them go away, nor does the critique necessarily offer the alternatives'. She explains, 'At some points there is, there has to be, dialogue across the boundaries of oppositions … This means struggling to make sense of our own world while also attempting to transform what counts as important in the world of the powerful' (Smith, 2012, p. 40).

Smith succinctly and forcefully expressed a widespread critique of much Western research, and by implication, institutions of higher education, for their ongoing unequal and unjust regimes of knowledge production, application and dissemination. These critiques are many and longstanding, informed by vital contributions from feminist, Indigenous, human rights and healthcare scholars, activists and practitioners, among others. The current growing climate catastrophe in our already grossly misused world further highlights the urgency and gravity of these arguments. Dhillon (2018), for example, warns of the illegitimacy and risk posed by a 'vernacular of integration and inclusion that underlies the broader impetus for seeking Indigenous knowledge'. He writes: 'Indigenous knowledge is not a noun; it is not a commodity or product that can be drawn upon as a last-ditch effort to be integrated into a battalion of adaptive solutions to save us all. To acquire this knowledge means entirely shifting our current patterns of living in the everyday: it is cumulative and dynamic, adaptive and ancestral, and it is produced in a collective process that is fundamentally centered on the *way* one relates' (Dhillon, 2018, p. 2, italics in the original).

At the same time, overlapping with the above, is the large and significant body of work by historians, linguists and philosophers of science, across the disciplines, that has thoroughly unpicked the grander claims of 'capital S' Science. This work has demonstrated scientific research to be collaborative, contextualised, complex and messy – its contributions vital, but nevertheless incomplete and highly contingent. Steven Shapin (2018, p. 12) organised his excellent book on the scientific revolution into three chapters that 'deal sequentially with what was known about the natural world, how that knowledge was secured, and what purposes the knowledge served. What, how, and why'. Yet, this is no paean to certainty and his very first sentence is to

state, ‘There was no such thing as the Scientific Revolution, and this is a book about it’ (Shapin, 2018, p. 1). His use of these three simple words – what, how and why – were certainly referring to the evolution of the scientific method, but they also serve to alert the reader to a second concern at the heart of his sociology of knowledge: that it is also a sociology of social order. As he has explored in detail elsewhere, such were the ‘wants addressed’ across Restoration society by these emerging experimentalists, that ‘the experimental philosopher could be made to provide a model of the moral citizen, and the experimental community could be constituted as a model of the ideal polity’ (Shapin & Schaeffer, 2018, p. 341).

The communication and dissemination of community-based research thus does not stand alone. It is deeply informed by, as well as contributes to, much of the above. One of the aims of this chapter is to tease out complexity, not replace one false simplification with another. Flyvbjerg (2018, p. 49), for example, in his argument against what he sees as the ‘self-defeating’ terms of social science inquiry, writes that the task is ‘not [to] criticize rules, logic, signs, and rationality in themselves. We should criticize only the dominance of these phenomena to the exclusion of others in modern society and in social science’. He expands on the Aristotelian concept of *phronesis*, defined as prudence or practical wisdom, to argue for a social science that balances *techne* (technical know-how) and *episteme* (analytical scientific knowledge) with consideration of questions of judgment, interests and power (Flyvbjerg, 2018, p. 2). He proposes ‘four value-rational questions’ to guide social science research: Where are we going? Is this desirable? What should be done? and Who gains and who loses? (Flyvbjerg, 2018, p. 60).

Collectively, these myriad critical voices offer a powerful counter argument to what Tandon et al. (2016, p. 23) have described as the ‘discrimination [caused by] the perpetuation of instrumental rationality as the only epistemology’. A recent report by UNESCO (2022, p. 44) captures the scale and nature of the challenge well: if higher education is to move on from ‘bulldozer notions of modernity and ideas of saving the world’, it becomes necessary to consider ‘what knowledge and knowing are about in the first place’. The report argues that ‘mainstream’ ideas of knowledge, even when

'recognised as taking different forms', can often remain 'notionally static and measurable – as a "resource", or "asset", or form of "capital"' to be integrated 'in supposedly additive ways' (UNESCO, 2022, p. 46).

This chapter is interested in the epistemological and methodological assumptions involved in a shift away from *commodity*-based to *community*-based research, and the implications of this for the communication of that research. It is a large and open-ended topic, so the discussion is exploratory rather than explanatory, and the use of the literature is highly selective. To provide the discussion with some parameters, I focus primarily on the exemplary contributions of sociologist Boaventura de Sousa Santos, enriched by the scholarship of others similarly critically focused on epistemic and methodological diversity. As noted, Santos' proposal for an ecology of knowledges in which diverse ways of knowing and being engage in non-hierarchical and reciprocal dialogue for social and cognitive justice is particularly appropriate for community-based research, understood as critical, collaborative and change-oriented (Grabill, 2012; Stoecker & Falcón, 2022; Strand et al., 2003; Wallerstein & Duran, 2008; Wood et al., 2018). Australian ethnographer and linguist Stephen Muecke (2017a, italics in the original), has eloquently encapsulated the challenge as one of how to articulate plurality 'without the one cancelling the other out, without cheap relativism, and without that old-style scientific condescension that has "us" acknowledging "their" *beliefs*, while *we* really *know*'.

Following on from the above quote, I want to note that my focus in this chapter is not only on the conceptual notion of articulating plurality, but on its material articulation in the peer-reviewed research article. Research writing is flush with metaphor, which connect the conceptual with the concrete. Competing notions of objective, stable research territories, of contact zones, of inhabited, contested badlands run through this thesis, as they do the research article, albeit less explicitly. They form, for me, an emerging metaphor for thinking about the community-based research article as a potential alternative *terrain*, one in which the evolving, relational and experiential basis of knowing figures highly. It is not entirely surprising that my thoughts on this are partly shaped by a number of Australian intellectuals and writers who are deeply

invested in how Australia's post-colonial, diverse and threatened 'nervous landscapes' might be re-imagined and repaired (Byrne, 2003).

Where are we? Unsettling the research territory

Portuguese sociologist Boaventura de Sousa Santos would urge us be beside the abyss: metaphorically, epistemologically, pragmatically and experientially. For more than two decades, across prodigious contributions, Santos has engaged with a central defining belief: that there can be 'no global social justice without global cognitive justice' (Santos, 2018, p. 276). Faced with the horrors of the world's inequalities and injustices, and the concomitant emptiness of the 'games of dogmas and orthodoxies', Santos (2014, p. 7) developed an expansive and detailed framework for an alternative, radically inclusive and hopeful *buen vivir*. Arguing that 'the understanding of the world far exceeds the Western understanding of the world', Santos (2014, p. viii) places what he calls the epistemologies of the South at the heart of his counterhegemonic proposals. As Indian scholar Shiv Visvanathan (2005, p. 83) has elsewhere made plain, 'epistemology is not a remote, exotic term. It determines life chances. Science as development, plan, experiment, pedagogy determines the life chances of a variety of people. Here, epistemology is politics'.

Similarly, Santos is in no doubt about the purpose and implications of the task he is proposing: 'to create constellations of knowledges and practices strong enough to provide credible alternatives to neoliberal globalization, which is no less and no more than a new step of global capitalism toward subjecting the inexhaustible wealth of the world to mercantile logic' (Santos, 2004, p. 189). These alternative 'constellations' are the multiple and multiplying counter claims of the marginalised to their right to be present – not as commodities or cultural objects for the gaze of others, but as legitimate and credible 'considerers of the world' – and to be recognised as such by others (Freire, 2017, p. 64).

A central pillar of Santos' argument is that modern Western thinking is abyssal, rendering the subaltern not merely outside, but effectively non-existent (Santos,

2007). According to Santos, an abyssal, but visible, line divides Western science from philosophy and theology, granting the former 'the monopoly of the universal distinction between true and false' (Santos, 2007, p. 3). This social realm, while contested, is nonetheless grounded upon another, more fundamentally abyssal, invisible line. 'On the other side of the line' is the epistemological South, comprised of all that is discarded, irrelevant, non-existent: those 'knowledges rendered incommensurable and incomprehensible for meeting neither the scientific methods of truth nor their acknowledged contesters in the realm of philosophy and theology' (Santos, 2014, p. 120). Further, what was once geographically demarcated along colonial lines – such as the lines of amity agreed to by the warring Portuguese and Spanish at the end of the 15th century – is no longer so easily contained. Today, '[the] epistemological, nongeographical South [is] composed of many epistemological souths having in common the fact that they are all knowledges born in struggles against capitalism, colonialism, and patriarchy' (Santos, 2018, p. 1).

As regards the research article, the idea of the abyss offers a strong rebuke to the concept of an objective, disinterested research territory, a widely used rhetorical convention of research writing. The metaphor 'grounds' the research to be presented within a marked-out territory made stable through delineation by the extant literature, in turn enabling the identification of a gap, which is then occupied by the new research being presented. Thus, the archived store of expert knowledge incrementally grows.

The metaphor of the research territory provides, as genre convention, a communally accepted, efficient and recognizable response to the research writer's question, 'How to start?'. It does much more than that, of course: it is a remarkable, succinct semiotic realization of a particular way of understanding the world and the means by which we can know it. The metaphor's utility relies on acceptance of the notion that a common ground exists, one that is universally true, regardless of the particularities of time or place or inhabitants. As Grosfoguel (2013, p. 76) writes, such a world view is based on the Eurocentric 'myth' of knowledge production as 'monological, unsituated and asocial'. Further, it is one which privileges, is even dependent upon, writing for its great ability to isolate and fix in place new knowledge. This is in comparison to other

ways of knowing, most obviously oral, but also the performative, embodied and practical, whose knowledge processes are 'rarely clean, neat, linear or straight-forward, but are instead productively confusing' (Hunt, 2014, p. 31).

Like that of Grosfoguel, Santos' analysis points to the need for more than an interrogation of whether the notion of a research territory has outstayed its welcome or not, or whether it is invoked uncritically or not. Theirs is not an argument for substitution, for an alternative, subaltern 'general epistemology' to replace the current dominant Eurocentric world view. Crucially, the epistemologies of the South seek to draw attention to what is *obscured* by the universalizing research territory. Santos is seeking to radically reveal all the many 'sciences' that have been erased – within the global North just as much as the epistemological South – by focusing attention on its historical, social and conceptual assumptions. In this way, the epistemologies of the South invite science – as opposed to a reified, pure Science – into an engagement with other credible ways of knowing with their own sociopolitical histories.

Sociologist Martin Savransky offers an example of what this shift could mean for the social sciences. Reflecting on anthropology's 'reflexive turn' in recent decades, he writes that this development was nevertheless not able to '*provincialise* anthropology's truths without simultaneously *universalising* its own epistemological problem … it became a study of how cultures, peoples – including anthropologists, but also everyone else – *interpret* and *represent* the world' (Savransky, 2017, p. 18, italics in the original). Drawing on Santos' argument for the serious inclusion of diverse, historically situated social thinkers, Savransky suggests that a different, 'speculative' imagination is needed, one which 'seeks to take the thought of others – which is also to say, the reality of others – seriously … to think *with* the difference that thinking from the South itself makes' (Savransky, 2017, p. 19, italics in the original).

What are the implications for the research article if a crowded, contested terrain, rather than a mutely stable territory, is the ground upon which we gather? Muecke (2017b, p. 167), writes that it now 'seems axiomatic that no entity is on its own'. Consequently, one task of communicating research is to 'multiply and extend the

perspectives, such that the point of view is not always projected from the central, masterful position of the privileged human' (Muecke, 2017b, p. 168). Faced with the not-so-blank page, then, rather than asking 'How to start?', community-based researchers might ask instead, 'Where are we?'

For Santos (2004, p. 184), the 'where' of our engagement is a 'contact zone': 'social fields in which different normative life worlds, practices, and knowledges meet, clash, and interact'. Depicting the research territory as a contact zone is an epistemological and metaphorical undertaking, but also literal, tangible. It is Country, home, earth, the landscape: a new-old terrain, uneven and potentially unwelcoming, a badlands and far from settled. Santos writes that the most striking characteristic of the contact zone is the 'discrepancy between strong questions and weak answers' (Santos, 2009, p. 109). He explains: 'Strong questions address not only our options of individual and collective life but also and mainly the roots and foundations that have created the horizon of possibilities among which it is possible to choose … Weak answers are the ones that refuse to question the horizon of possibilities' (Santos, 2009, p. 109). We could compare 'How to start?' with 'Where are we?', the former being a weak, procedural avoidance of the latter's insistence upon a more complex recognition of and engagement with others on their own terms.

The contact zone calls attention to what is most obscured by a pro-forma familiarity with genre conventions: the political work they do. To start a research article by asking 'Where are we?' is to confront the supposedly neutral, ahistorical status of the research territory with its over-reliance on the literature. It unsettles the next steps, too, establishing a gap and occupying it, which are no longer so straightforward in an uncertain terrain. Metaphors reach out to the world and help shape it. Interrogating them is undoubtedly a political act. A courageous one even, given the institutional fragility of alternatives. Latour (2000, p. 118) expresses what's at stake when he writes that this 'strange dream of short-cutting politics' is to avoid the 'painstaking labour of composing this commonality through political means'.

How do we come together? Building dialogue across difference

The epistemologies of the South thus signal a comprehensive effort to 'build an expanded commons on the basis of otherness', based on a conviction that all knowledge is partial and situated (Santos, 2018, p. 30). Much flows from this radically inclusive starting point, but I want to highlight two notions in Santos' argument in particular: an ecology of knowledges and intercultural translation. (In Chapter 7, I explore in detail some of the methodological implications of Santos' work, including his proposals for a sociology of absences and a sociology of emergences upon which the expanded commons depends). Santos defines the ecology of knowledges as an experiential, pluralistic and pragmatic dialogue that incorporates scientific and what he calls 'artisanal' knowledges. He describes them as 'practical, empirical, popular knowledges, vernacular knowledges that are very diverse but have one feature in common: they were not produced separately, as knowledge-practices separated from other social practices' (Santos, 2018, p. 43). Further, meaningful dialogue among these diverse ways of knowing is achieved through intercultural translation, a process enabling 'intelligibility and transmissibility … by gradually converting clusters of differences and distance into clusters of similarities and proximity' (Santos, 2018, p. 79). In effect, an active solidarity.

An important feature of the ecological metaphor is that Santos uses it expansively to encompass what he describes as the 'five monocultures that have characterized modern Eurocentric knowledge: valid knowledge, linear time, social classification, the superiority of the universal and the global, and productivity' (Santos, 2018, pp. 25-6). These monocultures have rendered invisible, nonexistent all that falls outside: 'those ways of knowing and being considered ignorant, residual, irrelevant, backward, lazy' (Santos, 2018, p. 276). To contribute towards an expanded commons, as community-based research seeks to do, means acknowledging different temporalities, values, histories, cultures and practices. This entails a recognition that diverse ways of knowing and being are actively contemporaneous, not just simultaneous. For Santos (2018, p. 78), this demands dialogue across difference that is both horizontal and reciprocal:

> The ecologies of knowledges are collective cognitive constructions led by the principles of horizontality (different knowledges recognise the differences between themselves in a nonhierarchical way) and reciprocity (differently incomplete knowledges strengthen themselves by developing relations of complementarity among one another).

Horizontality and reciprocity are core concepts of community-based research. However, as Clifford (2017) argues, in practice, reciprocity between neoliberal universities and external communities is often little more than product exchange lacking in any substantive change effort. Silbert (2019, p. 1) stresses the point even further, by noting that the apolitical uses of these terms in the literature 'assume a shared understanding of their meaning … when used uncritically, these terms function to obscure inherent power differentials that exist between partnering institutions'. Reflecting on her involvement with universities, schools and communities in South Africa, she argues reciprocity would be better understood as asymmetrical, 'based on presumed differences between people, as opposed to assumed sameness and the reversibility of subject positions' (Silbert, 2019, p. 9).

Santos' ecology of knowledges and intercultural translation thus necessitate a different methodological stance for the communication and dissemination of community-based research, one based on exploratory, peripatetic dialogue rather than monological, linear explanation. The task is not one of erasure of explanation necessarily but of rigorous, comprehensive engagement between different ways of knowing and their communicative practices. As Santos (2009, p. 117) points out, the implications, possibilities and challenges of an ecology of knowledges only arise when 'the ways of knowing are faced with problems which, on their own, they would never pose'. This suggests rethinking the role of the research question, not in its specifics perhaps but in the opportunity it presents. Savransky (2018, p. 215), drawing on the work of Isabelle Stengers, offers the following: 'Problems, in other words, are not that which a certain mode of thinking encounters as an obstacle to be overcome, but that which sets thinking, knowing and feeling in motion'. Further, problems are 'open, and they do not say how they should be developed' (Savransky, 2018, p. 224).

So, while research questions may well be identifying and responding to an important gap in the literature, they can also set things in motion in ways that may be messy and ordered, circular and linear, transformative and elucidatory, relevant, but not relevant to all participants in the same way. Freire's idea of the 'cognizable object' is a possible imaginary: rather than comprising an endpoint, he argues that it 'intermediates the cognitive actors – teacher on the one hand and students on the other' (Freire, 2017, p. 52). In a similar way, research questions have their own sociopolitical history, which needs to be shared: details of their crafting by many hands. There is value in research questions *being handled*, and their eventual public formulation being as much artisanal as scientific.

Approaching the communication of community-based research as a dialogue across difference draws attention to another convention of the research article: the standard arrangement for presenting research – Introduction, Method, Results, Discussion (IMRD), often with a Literature Review after the Introduction. As an idealised, yet still powerful metaphor for the relationship between knowledge and social order, the IMRD structure favours that which is orderly, able to be compartmentalised, replicable and scalable. These subheadings are an efficient shorthand indicator of scientific credibility and legitimacy, what Epstein (1996, p. 16) has insightfully called 'fragile resources' that are maintained partly through adherence to convention. Yet, as Medawar (1964) pointed out, the conventional IMRD layout is a poor proxy for modern experimental science, to the point of being a 'travesty'. This is not to deny the capability or agency of individual authors to use this basic template in varying and innovative ways, nor the ability of readers to discern nuance and reflexivity, and to bring their own. However, it is reasonable to assert that the widespread use of this organisational arrangement in no small way corrals the writing of research, and that the ability of questions to unfold in myriad ways is blinkered from the outset. Regardless of individual efforts, IMRD remains the institutional default position for many journals, and no other standard form exists. It marks a site of community-based methodological practice that is yet to be thoroughly engaged with.

As we saw in the previous chapter, the increasing use and institutionalisation of the IMRD organisation occurred as part of a gradual standardisation of modern life: of taxonomies and measurements, of systematisation and administrative convenience. Porter (2020, p. xxi) has observed that 'reliance on numbers and quantitative manipulation minimizes the need for intimate knowledge and personal trust'. It can be easy to forget this social and political history in the ubiquity of genre conventions. Denis Byrne's (2003, 2019) exploration of the colonial cadastral grid in the Australian landscape offers an illuminating comparative study. He writes that 'England's cartographic language … could be applied with impartiality to previously unknown terrain, which is to say that it would take a landscape just as it found it, rolling over it as if it knew it in advance … it was an instrument for bringing the global to the local, for bringing regularity to perceived chaos' (Byrne, 2003, p. 172-3). However, despite the grid's pervasive and undoubtedly destructive use, Byrne shows how Aboriginal peoples found gaps and openings, fence-jumped and remained remarkably mobile, with their own 'unpublished and undrawn Aboriginal map of everyday practice … maintained and updated and passed on from generation to generation' (Bryne, 2003, p. 180). Consequently, the 'nervous' landscape he refers to is not due to 'the containment of Aboriginal people so much as the failure of containment' (Bryne, 2003, p. 188).

We can ask, then, what sort of semiotic stepping stones might enable the horizontal and reciprocal communication of research in which active, diverse, contemporaneous thinkers engage in dialogue, rather than containment, in the investigation of a shared concern? The standard conventions of the peer-reviewed research article *on their own* are ill-equipped, semiotically and socially speaking, to facilitate such emergent, critical movement. Article organisation itself becomes an open question, a spur to critical thought and action. It too can be crafted inventively rather than mechanically, with distance but also bridges, with creative fence-jumping and hybridisation, and without chaos necessarily ensuing.

With what resources? Communicating experimental and experiential knowledge

Santos' dialogue-based ecology of knowledges stresses that diverse expert collaborators in research can speak/write/perform for themselves, so that different claims to credibility, legitimacy and expertise can be assessed and compared, and solidarity built. Visvanathan's argument against participation alone is relevant here. He writes: 'the externalist idea of community involvement, participation and use of local materials is not enough. These are externalist measures. Even the subaltern emphasis on "voice" is a trifle sentimental'. What is required is '*presence* of two kinds, *participation* and *cognitive representation …* What one needs is the idea of cognitive justice: the constitutional right of different systems of knowledge to exist as part of dialogue and debate' (Visvanathan, 2005, pp. 91-2, italics in the original). For Santos (2018, p. 137), this suggests three basic questions 'concerning method':

1. How to produce scientific knowledge that may be used in social struggles in articulation with artisanal, practical and empirical knowledges;
2. How to bring artisanal, empirical and practical knowledge into dialogue with scientific, erudite knowledge; and
3. How to construct the ecologies of knowledges constituted by all these different knowledges.

How should we understand artisanal knowledge? For Santos, as stated earlier, the key point of differentiation between these diverse 'non-scientific' and 'scientific' ways of knowing is that the former ones are 'not produced separately, as knowledge-practices separated from other social practices' (Santos, 2018, p. 43). Here, he is referring explicitly to experiential knowledge: embodied, expert, empirical, intuitive, practised, lived. For community-based researchers, alongside disciplinary-based expertise, it is the expertise of youth regarding their school experience, of mothers who deeply understand child nutrition in ways a general practitioner may not, the elderly residents' felt awareness of how immigration and ageing overlap and compound. Flyvbjerg (2018, p. 57, italics in the original), for example, writes that *phronesis* 'is that intellectual activity most relevant to praxis. [It] requires an interaction between the

general and the concrete; it requires consideration, judgment, and choice. More than anything else, *phronesis* requires *experience*. Similarly, Savransky (2016, p. 16, italics in the original), following Alfred North Whitehead, argues that in order to 'restore relevance to the world' what is required is 'a radical empiricism which expands "experience" to include not just isolated facts or things but also the experienced relations between them; not just human or subjective experiences, but also other-than-human experiences; not only perceptive experience, but also the experience of thought, concepts and ideas; not just the experience of things as they are, but also of what they could be.'

Santos (2018, p. 165) writes that 'knowledge is not possible without experience, and experience is inconceivable without the senses and the feelings they arouse in us'. By what semiotic resources could artisanal, empirical and practical knowledges be communicated in a community-based research article, and by what conventions would non-hierarchical and reciprocal dialogue be protected? So far, I have been talking a lot about writing and the page. This is despite the fact that the research article, as discussed in the previous chapter, is now predominantly produced and disseminated online. These digital technologies of production and dissemination offer enormous potential. The inclusion of non-written ways of communicating – spoken word and song, still and moving images, for example – are technically very possible. Non-technical language, such as poetry, memories, stories, fables and proverbs, as well the vernacular, might too now join scholarly debate in their own right.

For many years Australian cultural and creative researcher Ross Gibson has been exploring what history might look like for those for whom writing is not their main historical practice, be it out of choice or necessity. The history he envisages is one that seeks to communicate not just knowing but understanding too, is experimental and experiential, technical and deeply felt. He explains: 'What if you encountered history that spurred you to mutter: I was just about to sense that! I was just about to get that feeling!' (Gibson, 2016, p. 76). As he puts it, what is needed is '*experiential* modes of history. Modes that put you inside and outside the phenomenon that you are seeking to understand' (Gibson, 2016, p. 82, italics in the original). History imagined this way

requires ‘non-textual – but designed and structured – patterns of propositions about the past’ that would appeal to all the senses (Gibson, 2016, p. 83). To balance knowing with understanding demands careful consideration as well as intimate contact. As Gibson (2016, p. 83, italics in the original) explains:

> All these questions challenge discourse with rhetoric; they disturb reason with affect; perspectival delineation with relational flux … they are questions concerned not only with detecting *how* vital a force might be but also with detecting how one might get a sense *in the vitals.*

The following chapters explore empirically and experimentally what this chapter has sought to do conceptually: consider how an ecology of knowledges might look in practice in an institutional setting.

Chapter 4: Orientation

> Writing is a complex activity, influencing the orientations and activities of minds located in historical, social, and physical worlds; through the creation, distribution, and reception of signs through various technologies and organizational systems; and as a consequence, establishing an archive of thought, action, and events for further social use (Bazerman, 2011, p. 8).

This chapter does two things: it gives an overview of the research approach I have taken; and it explores the theory of semiotics which underpins it. The two are inextricably linked. I have deliberately used the word orientation for this chapter to try and capture the ways in which the evolution of the research and my understanding of it has involved me in a series of re-appraisals in relation to my surroundings – theoretical, analytical, experimental and professional. Paradoxically, as my research skills have sharpened, so too has my appreciation for the intangibles of research – intuition, creativity and experimentation.

The preceding two chapters outlined, in order, the evolution of the research article and an emerging conceptual framework for articulating knowledge plurality. Their interconnection is complex and fraught, but ongoing and full of potential. Over the next four chapters I present my original research, which responds to these two fundamental foci. I begin with a relatively well-known method – an online questionnaire survey – then move slowly but surely (I contend) through the systematic genre analysis of various written texts before progressing on to the less well-trod pastures of a comparative case study of a non-linear, multivocal and multimodal museum exhibition. The concluding chapter offers some thoughts on the principles that might underpin a similarly conceived community-based research article. I am not saying this has been a movement from worse to better, or weak to strong – the opposite in fact. The coherence and persuasiveness of this thesis is very much dependent on its careful progression. With each step, the theoretical and analytical point of entry becomes progressively more precise and more in-depth. This chapter is

organised according to these research steps, which I use to introduce in some detail the theoretical and analytical framework for my research.

The questionnaire survey and authors of community-based research

For the past 14 years, I have been the Managing Editor of *Gateways: International Journal of Community Research and Engagement*. At some point a few years ago, I manually tallied up the different sorts of published authors from the previous decade, dividing them into the following broad categories. This is what I found:

- 25% of published articles are sole authored by university-based academics;
- 50% of published articles are co-authored by university-based academics, at one or more universities;
- 24% of published articles are co-authored by university-based academics and community-based partners, with academics as the lead authors;
- 1% of published articles are either sole authored by community-based partners or the lead author is community-based.

I took the above under-representation of alternative voices in the published literature to be evidence that the journal, myself included, was failing in a core way to fully demonstrate and disseminate community-based research. And so I set about trying to work out how and why, and what to do about it. This last part of my focus is important: I hope to contribute towards practical, real-world change, informed by the deep knowledge that can come from research. Thus, the first step was to find out more about the journal authors: who *does* write and publish community-based research, why, and by what other ways do they disseminate their research? Chapter 5 presents the results of this online Qualtrics questionnaire survey.

Genre analysis and scholarly texts

As I pondered the above bald statistics, it became evident that one avenue for investigating why so few community-based expert collaborators were present in the

literature was the text itself. Community-based research, as a field, is yet to substantially interrogate its own scholarly rhetorical practices. Charles Bazerman (1988, p. 6) has broadly defined rhetoric as 'the study of how people use language and other symbols to realize human goals and carry out human activities. Rhetoric is ultimately a practical study offering people greater control over their symbolic activity'. He goes on to make plain the connection between rhetorical strategies and genre writing: 'As these solutions become familiar, accepted, and molded through repeated use, they gain institutional force. Thus, though genre emerges out of contexts, it becomes part of the context for future work' (Bazerman, 1988, p. 8). *Gateways* journal holds an enormous wealth of empirical material, and journal editors are in a unique position to study it closely and share their insights. This is the objective of Chapter 6. Across three sections, this large chapter uses genre analysis to undertake a detailed study of the rhetorical strategies of diverse writers. It covers: one, external blind peer reviews of research manuscripts; two, the Introduction of published co-authored research articles; and three, the organisation of published co-authored research articles.

Using genre analysis to explore the ways in which the conventions of the research article impede or enable participation draws on relatively recent developments within the field of applied linguistics and rhetoric. Following the Swiss linguist Saussure, the study of language for much of the previous century was generally understood as the examination of 'fixed structured systems of meaning' (Bazerman, 1988, p. 5). Language as code could be isolated and analysed by the linguist, independently of any concern for sociohistorical context or intention, much less reception. Similarly, for many in the social sciences, language was seen as an uncomplicated 'mirror' of external realities, incidental to the 'real' object of study (Alvesson & Kärreman, 2000, p. 140; Rhodes, 2019). Regarding genre, van Leeuwen (2008, p. 4) argues that 'with very few exceptions' linguists during the waning decades of last century viewed genre uncritically, as 'empowering discourse "technologies"'. Indeed, Montgomery (1996, quoted in Giannoni, 2010, p. 41, italics in the original) described academic discourse as the 'grand master narrative of modernism, ideally suited to its content'. He wrote that

what ‘beat at its heart’ was faith in the ability of language to ‘be made a form of technology, a device able to contain and transfer *knowledge without touching it*’.

Much of the modernist project has now been comprehensively challenged, from numerous quarters. In terms of the study of language, deconstructionism and poststructuralism led a rejection of language as mere vessel, with the ‘essence’ of meaning elsewhere. Instead, in a ‘textual, narrative turn’, meaning was reframed as a construct of the text (Denzin & Lincoln, 2017). As I indicated in the opening two chapters, my interest lies elsewhere – in a theoretical and analytical exploration of the interconnectedness of language and socially-situated meaning. Within genre analysis, Miller’s (1984, p. 151) influential article is an early example of this shift. In it, she argues for a critical examination of ‘the connection between genre and recurrent situation and the way in which genre can be said to represent typified rhetorical action’. By bringing rhetoric into the discussion, genre was decisively moved into the realm of the social and the situated, described by Miller as ‘genre as social action’. Building on this, Bazerman (1988, p. 62) defined genre as ‘a socially recognised, repeated strategy for achieving similar goals in situations perceived as being similar … [genre] regularizes communication, interaction, and relations’. Genre is understood by Bazerman (1997, p. 19) in largely metaphorical terms, ‘as symbolic landscapes’. In his role as a teacher, he notes that ‘we constantly welcome strangers into the discursive landscapes we value … guideposts are only there when we construct them, are only useful if others know how to read them, and will only be used if they point toward destinations students see as worth going toward’.

There is now much research supporting an understanding of genre as socially and historically situated; generative and underspecified; and involving both competence and performance (Askehave & Swales, 2001; Atkinson, 1999; Devitt, 2015; Swales, 1990; Tardy & Swales, 2014). For Devitt, attention to actual performance is crucial. She writes, ‘much of the work in genre studies abstracts an idealized competence from actual performances … [by] seeing genres not just as idealized concepts but as collectively experienced in the world, genre theory has developed better understandings of how genres relate to power, ideology, and exclusion and inclusion

of community members' (Devitt, 2015, p. 48). Within academia, Giannoni (2010, p. 38) suggests that genres, such as the empirical research article, can be 'defined as the institutional site where scholars publicly engage with each other and their discipline in ways that approximate the norms and expectations enforced by academic gatekeepers'. Nevertheless, genres emerge, evolve, are challenged and discarded.

A major contribution to applied genre analysis comes from the contributions of John Swales, especially his 1990 work conducting genre analysis of English in academic and research settings, revised in 2004. His three-step model (CARS) for the analysis of the research article Introduction is widely used, as it is here, in Chapter 6. His detailed observations of 'the genre movement' over many years are instructive of the deepening theoretical appreciation of the connections between linguistics, rhetoric, and historical and social studies (Swales, 2004, p. 3). In the revised edition, Swales, commenting on his earlier 'bold definition', writes of now feeling 'less sanguine about the value and viability of such definitional depictions' (Swales, 2004, p. 61). Instead, citing the work of Bazerman, he writes that genre is better understood as 'an initial orientation, with no consequent guarantee that effective rhetorical action will actually be accomplished' (Swales, 2004, p. 61). Far from being blandly utilitarian or the free-floating product of semiotic systems, genre is a socially mediated and purpose-oriented activity, as alive to the outside world as it is alert to its internal features.

A note on critical discourse analysis As the above sentence makes clear, to conduct genre analysis properly and fully necessitates some sort of a theory of language, without which there can be no basis for comment on the relationship between language and meaning. While I utilise genre analysis, with an emphasis on whole-of-text rhetorical strategies, my theoretical framework is broadly informed by critical discourse analysis (CDA), in particular the work of Norman Fairclough and James Paul Gee. Their contributions provided important early ballast. Fairclough's explanation of his own work is illustrative: as a linguist, he follows the common understanding of discourse as referring 'primarily to spoken or written language use'; as an applied linguist, however, he is 'signalling a wish to investigate it in a social-theoretically informed way, as a form of social practice' (Fairclough, 1993, p. 134). In terms of

genre, Fairclough (2003, p. 69, italics in the original) has described it as constituting 'a *potential* which is variably drawn upon in *actual* texts and interactions'.

Fairclough's critical discourse analysis thoroughly articulates a framework for language as 'socially shaped, but it is also socially shaping, or *constitutive*' (Fairclough, 1993, p. 134, italics in the original). Semiosis (language) is understood as only one facet of social practice, dialectically related to other facets of the social (such as social relations, power, institutions, beliefs and cultural values). Fairclough argues that discursive semiotic practices have interconnected points of correspondence, contestation and competition within and across social practices. His pivotal insight was that these relationships between individual text, discursive practices and wider sociohistorical practices can be subject to systematic analysis and detailed critique. Accordingly, as he explains, critical discourse analysis aims to 'show the relationship between concrete occasional events and more durable social practices, to show innovation and change in texts, and it has a mediating role in allowing one to connect detailed linguistic and semiotic features of texts with processes of social change on a broader scale' (Fairclough, 2012, p. 457). Further, it articulates a strong theoretical and analytical commitment to research for change, and an openness to dialogue with other theories and methodologies.

Fairclough's analytical approach is highly particular, involving a three-pronged framework (text, discursive practice, social practice). One example, relevant to my work, revealed the significant insights that can flow from its analytic rigor. Dwight Atkinson (1999) used critical discourse analysis to examine the evolution of scientific discourse in the *Philosophical Transactions of the Royal Society of London*. He analysed nearly 80 articles published over 300 years, 1675-1975, in 50-year intervals. Atkinson's aim was to 'study science in the making [by examining] the developing symbolic means used by scientists to express themselves scientifically – or, more accurately, to examine *the evolution of these forms of meaning as an integral part of the changing scientific form of life* (Atkinson, 1999, p. xvii, italics in the original). He adopted Fairclough's approach, modifying it slightly for his context, examining: 1) language (using computer-based, large-scale, quantitative, multidimensional linguistics analysis);

2) rhetoric (manually coded, qualitative rhetorical analysis); and 3) social practice (sociohistorical practice of science). Most striking was Atkinson's (1999, p. 4) assertion that critical discourse analysis supports a 'decentering of language from a privileged position'. Drawing on the work of Gee, he argued that 'the study of discourse can – indeed must – be undertaken by studying social practices (including historical ones) that may have little to do with language per se' (Atkinson, 1999, p. 4).

For Gee, as it is with Fairclough, analysis of any text, spoken or written, is inevitably critical, whether this is acknowledged or not. He writes, 'when we use language, social goods and their distribution are always at stake [thus] language is always "political" in a deep sense' (Gee, 2014a, p. 8). Gee is similarly unapologetic about the importance he grants to applied discourse analysis, writing: 'any idea that applications and practice are less prestigious, less important, or less "pure" than theory has no place … *language has meaning only in and through social practices*, practices which often leave us morally complicit with harm and injustice unless we attempt to transform them' (Gee, 2014a, p. 12, italics in the original).

In contrast to Fairclough's three-pronged approach, Gee (2014b) developed a detailed heuristic 'toolkit' that attends to language structure as well as social, cultural and political aspects of meaningful recognition work. Gee (2014a, p. 8) defines discourse analysis as a way to look at 'meaning as an integration of ways of saying (informing), doing (action), and being (identity) and at grammar as a set of tools to bring about this integration'. Indeed, integration is at the heart of his well-known articulation of discourse/Discourse. In this formulation, 'little d' discourse refers to the analysis of language at the level of sentence, the connections among those sentences, and the detailed study of 'language-in-use' in specific contexts (Gee, 2014a, p. 19). 'Big D' Discourse situates language as part of a 'larger sociocognitive whole' (Atkinson, 1999, p. 3). That is, Discourse is language plus 'everything else at our disposal':

> The key to Discourses is recognition. If you put language, action, interaction, values, beliefs, symbols, objects, tools, and places together in such a way that others recognise you as a particular type of *who* (identity) engaged in a

> particular type of *what* (activity), here and now, then you have pulled off a Discourse (and thereby continued it through history, if only for a while longer). (Gee, 2014a, p. 52).

For Gee (2014b, p. 184), language is only one part of the 'dance' of 'big D' Discourses. This point was powerfully demonstrated by Atkinson in his study, in which the 'recognition work' involved texts just as much as it did gender, status, actions, values, tools and technologies.

The case study and collaborative museum practice

Chapter 7 features a case study of an exemplary, collaborative community-based museum exhibition. Yin (2012a, p. 4), gives the following succinct definition: a case study is 'an empirical inquiry about a contemporary phenomenon (e.g. a "case"), set within its real-world context – especially when the boundaries between phenomenon and context are not clearly evident'. Robert Yin's extensive knowledge is invaluable, and I followed his guidelines to establish an in-depth, descriptive and exploratory inquiry into a single-subject case, with attention paid to its contextual conditions. I call it a snapshot even though I take Yin's (2012b, p. 142, italics in the original) point that it is not a 'literal *snapshot* as if everything occurred at the same exact moment'). The case 'unit' is the museum exhibition. As regards the question, 'what is it a case of?', it is a case of how to articulate knowledge plurality in an institutional setting such that the 'text' can be recognised as complete, semiotically and socially (Kress, 2010, p. 147). This distinction between unit and purpose is vitally important because it demonstrates another of Yin's key assertions regarding the case study: by starting with a theoretical proposition, *analytic* generalizations to other comparable settings and situations can then follow in a two-step process. He explains:

> The first step involves a conceptual claim whereby investigators show how their study's findings have informed a particular set of concepts, theoretical constructs, or hypothesized sequence of events. The second step involves applying the same theoretical propositions to implicate other situations,

> outside of the completed case study, for which similar concepts might be relevant. (Yin, 2012b, p. 148)

Chapter 7 is concerned with the first, propositional step. Chapter 8 attends to the second by substituting the research article as the 'unit' in the hypothetical case study. Schwandt and Gates (2018, p. 354) offer a nice summary, writing that, 'collectively viewed, all case study research exists to address the dialectic that lies at the heart of understanding – an ongoing investigation of the empirical to refine the theoretical, and the theoretical to better understand and explain the empirical'. Furthermore, as Bent Flyvbjerg (2006, p. 221) argues, the case study is a valuable corrective to the privileging of universal rationality, exploring instead the 'context-dependent knowledge and experience [which] are at the very heart of expert activity'.

Multimodal social semiotics and community-based research In undertaking my own kind of recognition work, the detailed genre analysis of Chapter 6 led to further development of my theory of language, which in turn led to the exploratory case study of Chapter 7. I now find myself most at home with the theory and methods of social semiotics, a term first introduced by Michael Halliday (1978). An important and distinct feature of some social semiotics today is its interest in the *multimodality* of communication, in which language (spoken and written) is but one mode among many (Kress, 2010). This research stance, theoretical and analytical, offers me a framework that responds not only to where the scholarly communication and dissemination of community-based research is currently, but where it would like to go.

Theo van Leeuwen (2005, p. 3, italics in the original) posed the following question: 'what kind of *activity* is semiotics?' He outlined three: one, 'collect, document and systematically catalogue semiotic resources'; two, investigate their uses in 'specific historical, cultural and institutional contexts'; and three, 'contribute to the discovery and development of new semiotic resources and new uses of existing semiotic resources'. The detailed genre analysis of texts from *Gateways* journal in Chapter 6 is an example of the first two activities. Chapter 7 attends to the third, with a case study examination of a collaborative museum exhibition.

Multimodal social semioticians place genre within a larger and interconnected theoretical and analytical framework, framed as discourse, design, production and distribution (Höllerer et al., 2019). It is worth teasing these out briefly, although I acknowledge there are differences within the field. *Discourses* are 'social cognitions, socially specific ways of knowing social practices' (van Leeuwen, 2008, p. 6). Elsewhere, van Leeuwen (2005, p. 104, italics in the original) adds crucial emphasis: 'In short, I believe that all discourses are modelled on social practices and that our understandings always derive from our doings. But discourses *transform* these practices in ways which safeguard the interests at stake in a given social context'. As with Gee, discourses are understood to draw on all of the 'meaning-resources available in a society' (Kress, 2010, p. 110). *Design* (of meaning) includes aspects such as grammar and linguistics, but also introduces the key concept of mode, defined as 'abstract ways of organising meaning making which can realise ideational, interpersonal and textual meanings, and which can do so, in principle, in materially different media' (Holsting & van Leeuwen, 2016). Thus, language is a mode, able to be realised in the material form of speech or writing. Similarly, other semiotic resources, such as moving or still images, music, gesture and dance, are meaning-making modes, differently realised.

The notion of mode is critical to the case study in Chapter 7. One of the key arguments of a multimodal social semiotics is that language, be it spoken or written, is no longer viewed in privileged terms, and even less so as the only semiotic resource available. The work of Gunther Kress has been pivotal in demonstrating the importance of the full range of modes, or 'threads', which may comprise a text, such as '*gesture, speech, image* – still or moving – *writing, music*' (Kress, 2011, p. 207, italics in the original). Further, the material forms of modes, such as the written word, song, speech, 'not only executes already designed meanings, but also adds meaning of its own' (Höllerer et al., 2019, p. 38). Think of the way intonation, pace and volume of a speaker can dramatically alter the meaning (for the giver and the receiver) of a piece of text formerly only written and read. Finally, texts are also *produced* and *distributed*, which also has significance: consider publication in an open access online academic journal, compared with, say, a subscription-only printed journal.

By highlighting the inherently multimodal nature of communication (never more so in our digital era), Kress (2010, p. 15) stresses that there are domains where speech and writing do 'not extend … where semiotic-conceptual work has to be and is done by means of other modes'. This is much more than a technical point. Theoretically, as well as analytically, this shifts the focus to a consideration of motivated sign-*making*, rather than language use. It places the sign *maker* at its centre. Kress proposes social semiotics as a theory that deals with the ways in which signs are constantly 'newly made', emerging from the sign-maker's interests and rhetorical 'assessment of *environments of communication*' marked by differences in power and involving the full range of culturally available semiotic resources (Kress, 2011, p. 209, italics in the original). Similarly, Höllerer et al. (2019, p. 7) argue that a focus on one mode at the expense of others, or a focus that conflates distinct modes 'as if they worked in the same way', may result in missed or overlooked empirical material and analysis that 'misrepresents the actual life-worlds of actors in and around organisations'.

This returns us to the significance of genre. As Swales demonstrated analytically, within a multimodal social semiotics, genre is understood as a staged process, the sequence of which constitutes 'the structure of the telling of the story' (van Leeuwen, 2005, p. 126). According to Kress (2010, p. 146), these formal attributes of a text contribute to its cohesiveness; a text's coherence comes from integration with its environment. Together, cohesion and coherence are the features by which a text is recognised for its 'completeness'. *Semiotic* order and stability metaphorically convey *social* order and stability. Think: Introduction, Method, Results, Discussion. If I am to use my own metaphor, these staged sequences can be their own canary in the coal mine: questioning the former, brings attention to the latter. Rhetoric, 'the politics of communication', always there, now springs into view, as social relations are (more openly) contested, negotiated and remade (Kress, 2010, p. 45).

Chapter 8 draws on all the insights gleaned from across the chapters, from the survey to the genre analysis to the case study, underpinned by the dual methodological framwork of Santos' ecology of knowledges and a multimodal social semiotic theory of meaning-making. This back-and-forth framing is crucial. It offers me an approach for

thinking about genre as an orientation, a structure for the telling, that is much more than technical skill with words. As a last exploration, this concluding chapter proposes some tentative *social* principles for journals that could guide a more participatory *semiotic* realisation in our research articles.

Ethical considerations

The following original research is relatively straightforward, focusing largely on texts that are in the public domain. That does not mean that it is free of ethical implications. Each chapter that follows outlines the specific ethical considerations and steps taken to mitigate against both the likelihood and magnitude of any perceived risk for that stage. Some general points can be made, however. Each stage underwent and had approved its own ethics application by the University of Technology Sydney. The Advisory Board and Editorial Committee of *Gateways: International Journal of Community Research and Engagement* were informed prior to the research commencing and given the chance to discuss the research with myself and my supervisors. UTS ePress, the journal publisher, was similarly informed in advance. All data from the survey and peer reviews are anonymised.

The case study in Chapter 7 features the expert collaboration with Shona Coyne from the National Museum of Australia. Ethics approval for this stage was granted, as was informed participant consent. As this chapter evolved during the writing stage, however, what was originally the involvement of an expert collaborator interviewee developed into something more substantive. While unusual for a PhD thesis, perhaps, this chapter is now rightly ascribed as co-authored. Yet, I did not see this straight away: experience can be a powerful teacher. The process of co-creating Chapter 7 prompted reflection and learning for me regarding the differences between writing and authorship; between convention understood as a rule and a resource; and between a signed document and a living, evolving relationship. Most significantly, this chapter made me acknowledge the differences that can exist between 'expert collaborator' and 'co-author', and to pay *ongoing* attention to their application and to who gets to be the decision-maker. Australian Indigenous law academic Ambelin

Kwaymullina (2016, p. 445) puts it plainly when she writes that ‘among the primary issues to be considered in relation to research and Indigenous peoples are those of ownership and control’. She expands: ‘In my view, the more pertinent question to ask is, could the work have been produced without the contribution of the Indigenous person or peoples? If the answer is no”, then the work should be co-authored regardless of whether the Indigenous contributor has written any of the words’.

Given the focus of this thesis, this chapter threw into sharp focus for me the politics of recognition within institutional settings that community-based participants in research know all too well. Steven Epstein, in his great work on AIDS, activism and forms of knowledge, shows how activists were well aware of the potential disruptive power of claiming their bodies as authoritative. ‘“If AIDS activists ever leave any legacy other than their own bodies,” wrote Gregg Gonsalves and Mark Harrington in 1992, “it will be, among other things, a movement for national health care and the democratization of research”’ (Epstein, 1996, p. 353). It may be that others understood that too; hence, the struggle.

Chapter 5: Establishing a baseline: Who participates in the scholarly communication and dissemination of community-based research?

Introduction

As noted, a few years ago, in my role as Managing Editor of *Gateways* journal, I conducted a manual tally of the number of submissions received by the journal with a community-based partner as either the lead or sole author. They amounted to a very small proportion of total submissions. This prompted my initial question: Why aren't there more? Underpinning that key question was a belief that the communication and dissemination of community-based research in academic journals should itself be engaged. Collaborative practice should not just happen 'in the field' but also deep within institutions of higher education. What this might mean for peer-reviewed journals is, however, currently under-theorised and underexplored.

On thinking about why there aren't more contributions by non-academic experts, I have come to understand the critical need to approach this core question from more than one direction. This chapter marks the start of that exploratory journey by turning the question on its head. It asks instead, who *is* writing and sharing their community-based research in academic journals, how and why? By framing the question this way, this chapter adds to a growing body of research on participation in community-based research. The literature on participation is itself part of a larger body of literature covering conceptual, methodological and pedagogical best practices and principles of community-based research (Farnell, 2020; Israel et al., 1998; Strand et al., 2003; Wade & Demb, 2009; Wallerstein & Duran, 2008). However, much of the literature on participation focuses on the perspective of faculty, staff and students, exploring their motivations, challenges and experiences of partnership-based research (O'Meara et al., 2011; Sandy & Holland, 2006; Vuong et al., 2017; Winter et al., 2006). Futher, most of this research is situated in North America and community voices are often underrepresented (Koekkoek et al., 2021).

There is relatively little research exploring participation in and best practices for the scholarly communication and dissemination of community-based research. Where it does occur, the research article itself (and, by extension, the journal) is rarely the focus of critical attention. Other key issues, such as authorship, barriers (including lack of time and resources, competing priorities), inclusive writing processes and alternative means of dissemination predominate (Castleden et al., 2010; Flicker, 2014; Flicker & Nixon, 2018; Forchuk & Meier, 2014). A literature review by Chen et al. (2010, p. 375) argued that dissemination is 'intrinsically valuable', both as 'a core principle of CBPR, and for its role in developing bolster and maintaining relationships between academic and community partners'. Their survey examined the various ways study findings were shared; the level and type of community involvement in dissemination efforts; and the substantial challenges to 'the application of CBPR principles' to dissemination (Chen et al., 2010, p. 377). The authors stressed the importance of adequately and equitably resourcing efforts to share research via scholarly publication and beyond.

Some research seeks to make the processes and conventions of research writing less opaque to newcomers. Dolwick Grieb et al. (2015) offer a detailed overview of factors to consider when following the standard organisational form of the empirical research article, Introduction, Methods, Results, Discussion. Relatedly, Shah (2018) writes of the growing interest in incorporating community engagement within composition studies curricula. However, as has been found elsewhere, she notes that 'in the discussion of engagement in composition and rhetoric, important community partner voices are not represented' (Shah, 2018, p. 84).

This chapter adds to this somewhat patchy knowledge. It presents the results from an online questionnaire survey undertaken by co-authors of published articles in the field. The survey's primary purpose was to ask: Who participates in the communication and sharing of results and practice from community-based research projects? Further, how do they do so, and why? The survey findings present a broad-based picture of participation, motivation, shared understandings and points of dissent, at a particular moment in time. While an overview only, the results provide an empirical basis for thinking about the range of ways in which the research article and academic journal

might better support the participation of diverse contributors. By paying particular attention to community-based respondents' views, we can start to better understand – and respond to – their distinct motivations and purposes.

Establishing a baseline: An online questionnaire survey of published authors

An online questionnaire survey was developed in Qualtrics as a simple and efficient way to build a broad overview of who participates in community-based research, writing and dissemination, how and why. The target sample was all published authors in *Gateways: International Journal of Community Research and Engagement* from 2008 to 2019. The sample included 445 authors of research (peer-reviewed), practice-based and snapshot articles. Ethics approval was granted by the University of Technology Sydney, Australia, HREC Ref no. ETH19-3462. In addition, the purpose, methodology and aims of this online survey were shared in advance with the journal's Editorial Committee, Advisory Board and publisher, UTS ePress.

In early July 2020, an invitation to undertake the survey was sent out to all authors via email by the UTS Centre for Social Justice and Inclusion, the journal's host. A follow-up email was sent out two weeks later, with a final reminder at the end of July. The survey began with an initial question to all – 'In what capacity have you participated in university-community collaborations?' This divided respondents into two groups: academics and postgraduate students; and community-based professionals and community members. Questions for the two groups were largely the same, with just slight variation in wording. The survey was in English and online only. Respondents were asked 10 questions, a mixture of multiple choice, sliding and ranking. These were followed by two open-ended questions, with 10 demographic questions to finish. The survey took 10–15 minutes to complete.

Out of the initial emailed pool of 445 authors, there were 78 'undeliverable' emails, resulting in a sample population of 367. Data used for analysis came from 62 complete responses, providing a response rate of 17%. (For the demographic questions, one university-based respondent did not answer. For those questions, data came from 61

responses.) The aggregated data produced by Qualtrics was used in SSPS for the descriptive and statistical analysis. The tables in this chapter list the mean (average) scores for the two groups, ranked from highest to lowest according to the community-based respondents' results. An independent-samples t-test was used to determine whether or not a statistically significant difference existed between the mean scores for the two groups (where P value is equal to or less than 0.05) (Pallant, 2016). NVivo thematic analysis was used for the open-ended questions, as its manual approach to coding allows for a hands-on engagement with the data (Sotiriadou et al., 2014).

Findings

Who participates in collaborative research communication and dissemination?

The demographic profile of these authors presents a picture that is broadly compatible with that of contemporary, globalised researchers: multicultural, multilingual, mobile, educated and professional (Callender et al., 2020). At the same time, the fine-grained details highlight the distinctive features of collaborative research, including both its commitment to diversity and social justice and the precarity of an emerging, widely dispersed field.

Of the total 61 respondents, 42 were academics, 6 were postgraduate students, and 13 were community-engaged professionals and community members. Of this latter group, just one selected community member. (For a full statistical summary of the demographic results, see Appendix 5.1). The majority of survey respondents therefore were involved in collaborative research and its dissemination as professionals, whether in academia or the community. They were also highly educated: among the academic cohort, 83% were either Professors or Associate Professors. Among community-based respondents, 85% had either doctorate or master's degrees. In addition, the survey revealed that there was a sizable number of very active participants in academic writing and publishing – 48% of academics had published 31 or more articles, while 33% of the community partners had been involved in the development of more than 20 academic articles. However, it is also worth noting the percentages at the lowest

levels of publication: 19% of academics, 60% of community-based respondents and 86% of postgraduate students had published 10 or fewer articles.

In line with their high levels of research output and seniority attained, academic respondents were clustered in the higher age brackets – 69% of academics were 50 years or older. The bulk of community respondents were slightly younger, in the 40-59 age brackets (69%). More females than males participated in the survey. These figures appear to be in line with trends found in previous research that has primarily looked at the involvement of university-based academic faculty and professional staff in community-based research (O'Meara et al., 2011; Wade & Demb, 2009; Watermeyer & Lewis, 2018). For example, Wade and Demb (2009, p. 11) noted that 'personal characteristics' such as age, race/ethnicity and gender were important factors accounting for faculty participation, regardless of 'the presence or lack of supporting institutional norms and rewards' systems'. In more recent research, female respondents to an international study on faculty perspectives of community-engaged work comprised two-thirds of the total sample of 38 individuals (Vuong et al., 2017, p. 255).

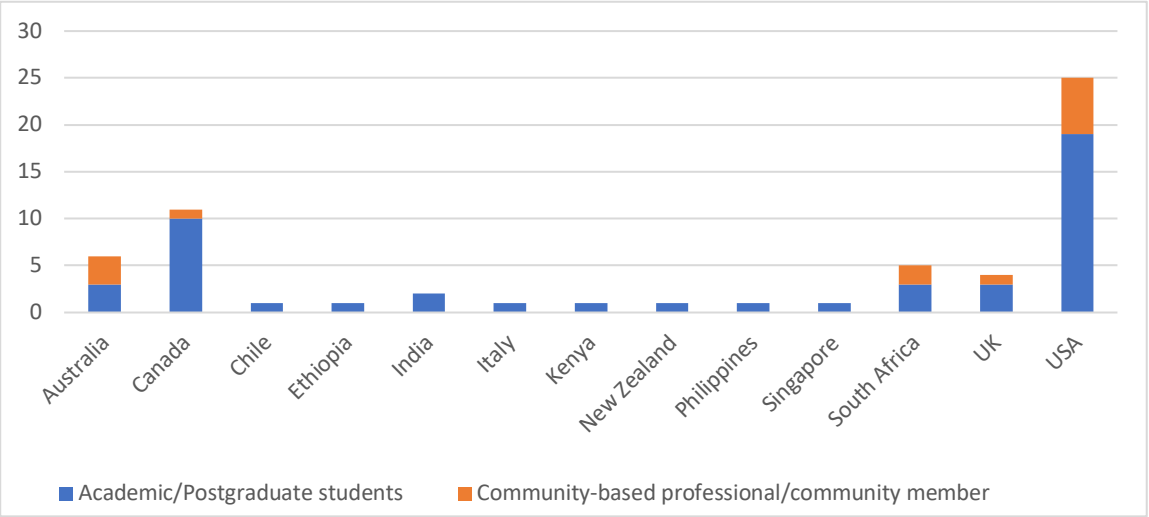
This survey adds some important detail to our relatively scant knowledge of community and postgraduate student participants. Among these survey respondents, there are a number of areas where their profiles differ markedly from those of academics. For example, 17% of postgraduate students identified as Indigenous or First Nation, in comparison to 10% for academics. Among community-based respondents, two details stand out: 23% identified as a person with a disability; and 39% indicated that their current country of residence was not their country of birth. These numbers indicate a significant presence of individuals traditionally under-represented as authors of research.

The disciplines/areas of focus of respondents reveal significant depth, rather than breadth (see Appendix 5.2). Again, these results are in line with the typical spectrum of engaged research foci, both historically and globally. Bar one, the disciplines are mostly in the applied and social sciences, education and community-focused public

health and medical professions. These disciplines undoubtedly represent a historical strength of community-based research, with their core emphasis on issues of everyday and significant concern to individuals, families and communities, often with a place-based focus. The appearance of environmental science is worth noting. Scientists have long collaborated with citizens and increasingly at scale, but, generally, not as co-researchers (Raddick et al., 2009). Its inclusion in this list potentially represents an expanding disciplinary base for research that seeks to substantively involve non-academic contributors for their distinct expertise.

Academics from 13 different countries participated in this survey (Figure 5.1). Higher education is highly globalised, and the engaged field is no exception (for example, with networks such as the Living Knowledge Network, the Pascal Global Observatory and the Talloires Network. For an overview, see Hall & Tandon, 2021). This geographic diversity is also reflective of scholarly publication today. For these scattered academics, many of whom have English as a second language (26%), publication in an online, open access, peer-reviewed English-language journal is essential.

Figure 5.1. Respondents by country



Reflecting on this geographic diversity, academics' first languages other than English included Cantonese, Hindi, Italian, Spanish, Swahili, Tagalog/Filipino and 'Other'. The selection of languages included in the survey was based on the top 20 global

languages, and also reflected the author-by-country composition of the journal, but, in hindsight, the question should have been offered as a text entry, rather than a predetermined drop-box. It is regrettable that some had to select 'Other'. In fact, though there were only two community-based respondents for whom English was not their first language, both had to select 'Other'. (Languages in the drop-down box included: Arabic, Cantonese, Dutch, French, German, Greek, Hindi, Italian, Japanese, Korean, Lebanese, Mandarin, Polish, Portuguese, Punjabi, Russian, Spanish, Swahili, Tagalog/Filipino, Xhosa, Zulu and Other.)

The overall picture that emerges suggests that there are some clear, shared characteristics across a range of indicators, such as gender, age, education and discipline, which marries with the findings from previous research. For these self-selecting respondents, a significant number of them appear to be long-term, dedicated and productive academic and community-based professional participants who are together driving sustained activity in collaborative research communication and dissemination. Most respondents characterised their participation as 'major' involvement in a small number of collaborations. This underscores both the relationship building that is at the heart of community-based research and the nature of the issues involved – complex, challenging and ongoing.

There is a final issue that these demographic data point to that deserves further investigation. That is, the changing and pressured institutional profile of students today, made worse during the pandemic. As it is only a small group (n=6), we can only infer so much. In many respects, the demographic profile of these postgraduate students is similar to that of the academics in this survey. They reside in Australia, Canada and the USA, although two of the group were born elsewhere. Their disciplinary areas of study are health, education and the environment. Their age range varied a little from that of most – with as many students in the 50-59 age bracket as there were in the 30-39 age bracket, which suggests diverse paths to and motivations for tertiary-level education. The greatest variance appears, however, in their academic rank and basis of employment. Postgraduate student respondents selected associate lecturer, senior lecturer, assistant professor, associate professor and postgraduate

student. Despite these myriad ranks and responsibilities, none were tenured or on tenure track, in contrast to 71% of academic respondents who were. Instead, employment included casual, fixed term, visiting and 'other' – indicative of the variety of often-times precarious employment practices now prevalent in higher education.

How do research collaborations externally share their research results?

Respondents were asked to indicate all the ways in which their partnership shared their research results externally, and to rank those selected activities by importance (Table 5.1). Community-based respondents indicated a clear preference for options that are geared towards inclusive dialogue, such as community forums, journals with a focus on engagement, and roundtables/workshops. This was largely mirrored by academics and students' responses, though it was revealing that their top two choices were for dissemination by publication in academic journals (with equal value given to discipline-specific and engaged journals). In comparison, publishing in a discipline-specific journal was well down the list of importance for community-based respondents.

Table 5.1. Dissemination activities

Use and importance of different dissemination activities							
1 = not important, 2 = somewhat important, 3 = quite important, 4 = very important							
	Community-based respondents			**University-based respondents**			**P value**
	N =	Mean	Std. Deviation	N =	Mean	Std. Deviation	Sig. (2-tailed)
Community forum	12	3.58	0.67	48	3.21	0.77	0.13
Academic article, engagement-focused journal	13	3.38	0.65	49	3.27	0.67	0.57
Roundtable/workshop	11	3.36	1.03	47	3.19	0.71	0.51
Grey literature (such as white paper, working paper, report)	11	3.09	0.83	45	2.89	0.80	0.46
Conference	13	3.00	0.82	48	3.06	0.73	0.79
Academic article, discipline-specific journal	13	2.92	0.76	49	3.27	0.81	0.18
Social media (such as blogs, Twitter, Facebook, LinkedIn)	12	2.75	1.14	43	2.47	1.01	0.40

Documentary material (such as video, podcast)	9	2.56	1.01	42	2.40	0.99	0.68
Mainstream media (such as newspapers, radio, television)	11	2.55	1.21	44	2.93	0.87	0.23
Exhibition and performance (photography, art, music)	9	2.33	1.23	40	2.48	0.99	0.71
Lecture	11	2.27	0.79	43	2.33	0.72	0.83

Overall, however, there seems to be little marked difference between the two groups in either ranking or variety of activities. All respondents are keenly aware of the value of utilising multiple avenues for knowledge sharing: the research article is important but far from sufficient. There are good partnership and strategic reasons for adopting such an approach. Inclusively reaching out to and leveraging influence with as wide an audience as possible is a key aspect of community-based research seeking to drive change. At the same time, it is also an effective way for scholars to demonstrate research impact and a commitment to the public good. Collectively, across the various activities indicated above, research is shared with policy- and other decision-makers, stakeholders, supporters, other researchers and the wider public. The varying 'n' count indicates that certain activities weren't used at all by some – this is most obviously the case for exhibition and performance, and documentary materials. It is perhaps a bit surprising that social media does not rate very highly among university-based respondents. This may be because it is not considered dissemination per se, but a means to promote research and direct readers' attention to relevant sites. Least important, for both groups, was dissemination by lecture, perhaps due to its one-directional form of knowledge sharing.

Why is it important to co-author research articles?

As shown above, all survey participants considered that publication in a variety of academic journal types was one of the most important options in a multi-pronged approach to dissemination. Subsequent questions probed further into the value of *co-authoring* academic manuscripts. University-based respondents strongly asserted that the core value of co-authorship was to validate community-based knowledge and

experience. Community-based respondents agreed, but placed equal-first emphasis on co-authorship as being a way to contribute to evidence-based change in policy or practice. For both groups, the third top reason was to contribute new knowledge and methodological approaches to the field. The choices by the two groups indicated a subtle difference in emphasis. Academics and postgraduate students placed greater importance on the ability of the co-authored research article to publicly document and share legitimacy: of community knowledge; of community-based individuals and organisations as partners in research; and of the evidence-based knowledge that results from these collaborations. For community-based respondents, an essential aspect of this visibility and legitimacy was to effect *change* – either by knowledge flowing back into the field, or by informing policy – and for them to be involved in that change. For them, publication is about more than knowledge for knowledge's sake.

Collectively, the responses demonstrate the considerable clout that the peer-reviewed research article carries and is understood to carry. In order to begin teasing out wherein lies the authority of written knowledge, the survey asked about two key aspects of the research article: authorship and the standard article structure for empirical research articles (Introduction, Literature review, Methods, Results, Discussion).

Respondents were asked their opinion of the following statement: 'Community partners are appropriately credited in collaboratively authored articles'. While 30% of academic and postgraduate student respondents disagreed or strongly disagreed, this rose to a stark 69% for community-based respondents. On a second, related question, respondents were asked to consider what comprises the key criteria of authorship, by rating the importance of each of seven different ways of contributing to the development of a manuscript (Table 5.2).

Table 5.2. Key criteria of authorship

What are the key criteria of authorship?							
0% = not important, 100% = essential							
	Community-based respondents			University-based respondents			P value
	N=	Mean	Std. deviation	N=	Mean	Std. deviation	Sig. (2-tailed)
Agree to be held accountable for the accuracy and integrity of the article	13	80.92	24.80	49	79.06	24.17	0.81
Participate in feedback and revisions	13	79.69	20.03	49	75.43	21.68	0.53
Participate in writing	13	76.85	24.54	49	70.39	23.88	0.39
Participate in article conceptualisation	13	69.92	27.15	48	65.81	25.55	0.61
Participate in developing research questions and project design	13	54.54	22.17	48	65.83	23.47	0.13
Participate in data collection and analysis	13	53.31	31.85	47	67.30	21.33	0.07
Participate in grant application process for funding	12	28.33	19.88	45	33.47	27.11	0.54

What's most striking about the above, is not so much the means (averages) themselves, but the wildly varying individual results, as shown by the high standard deviation scores. Standard deviation is a 'measure of the spread of values around the mean': the higher the result, the greater the spread (Veal & Darcy, 2014, p. 474). Interestingly, this high variability is true for both groups. This variability appears to be between respondents and the question itself, rather than indicate a divide between the two groups of survey participants. Postgraduate students were the most diffident of all, with low mean scores of 70 for accuracy and integrity; 73 for feedback and revisions; and 71 for writing. The gap between community and university groups was greatest in two areas: 'Participate in data collection and analysis' and 'Participate in developing research questions and project design' were noticeably less important as requirements of authorship for community-based respondents than they were for academics. However, apart from most nominating 'accountability to accuracy and

integrity', the above results point to the striking absence of a shared sense by all respondents over what is signified by the role 'author', according to standard journal definitions of authorship criteria (and which informed the seven options provided).

Respondents were also asked about the relative ease or difficulty of contributing to the standard sections of a research article (Table 5.3). As noted earlier, the use of these conventionalised sections rose to dominance during the second half of last century. This 'infrastructure' remains an expected, if not mandated, feature of research articles by many journals and disciplines. Given the complexity of writing, this question was understood as a gentle probe only, a first step into interrogating the significance of the different article sections.

Table 5.3. Article sections

Relative ease or difficulty of contributing to article sections							
1 = easy, 2, 3, 4 = difficult							
	Community-based respondents			**University-based respondents**			**P value**
	N=	Mean	Std. deviation	N=	Mean	Std. deviation	Sig. (2-tailed)
Introduction	13	2.00	0.82	49	1.76	0.75	0.31
Discussion & Concl.	13	2.31	0.86	49	2.33	0.99	0.95
Method	13	2.38	0.87	49	2.16	0.94	0.45
Results	13	2.62	0.96	49	2.08	0.79	**0.04**
Literature review	13	3.00	0.91	49	2.35	0.99	**0.04**

Overall, university-based respondents indicated greater ease than difficulty in participating across all of the different sections. Responses by community-based authors were more varied, with the two most specialised sections of a research article – the Literature Review and the Results – being their areas of greatest difficulty. The independent-samples t-test showed that their mean scores for both those sections were statistically significantly different to those of university-based respondents. In contrast, the greater ease with which community-based respondents felt they could contribute to the Introduction, Discussion and Method sections suggests they are confident in their ability to respond to (and thereby influence) many of the fundamental objectives of a research article. This includes persuasively articulating the

significance and specificity of a particular research focus, its relevance to external others, insights and lessons learnt, as well as the appropriateness and detail of the methodological approach adopted (Swales, 2004).

Postgraduate students, like academic respondents, rated contributing to the various sections, including the Literature Review, as sitting towards the easy end of the spectrum. Their greatest sticking point was the Discussion and Conclusion: two-thirds of postgraduate students rated this either 3 or 4 (with 4 = difficult). This may be indicative of the difficulty in fulfilling the scholarly goal of identifying 'new' knowledge resulting from research.

The final way by which this survey sought to understand the importance of the research article for community-based researchers was to ask about its significance for the reader. Respondents were asked two open-ended questions: one, what they hoped readers would gain from an academic article on community-based research; and, two, what they looked for as readers. The responses were manually coded in NVivo. Themes and sample quotes (in italics) are given. Figures in parentheses represent the number of entries in each theme.

1. <u>What community-based authors hope readers gain</u>:
    a. Greater understanding of why collaborate (9)

Excitement and interest in such collaborations and learning that community members have very valuable knowledge and experience and can contribute fully to reporting of research results.

    b. Greater understanding of how to collaborate (5)

Successful examples, with pitfalls of course, of how the 'ivory tower' can engage with the 'real world' to solve the most pressing problems facing our world today.

2. <u>What academics/postgraduate students hope readers gain</u>:
    a. Greater understanding of the role of community and their knowledges (11)

Respect for community-based knowledge, expertise, leadership and capacity for innovation.

Encouragement to incorporate community voice in their own practice and research.

b. Greater understanding of the value and validity of collaboration (18)

That it does not privilege academic knowledge over practice-based knowledge but highlights their complementarity.

Recognition of rigor and scholarship of university-community research.

c. Methodological insights (16)

The nuts and bolts, how-to; best practices and common pitfalls.

Lessons learned on how to create social change in collaboration with the community.

d. New knowledge and 'grounded' evidence (16)

A broader understanding on a topic than they would get without the presence of community partners.

Substantive knowledge.

The responses by the community-based respondents are clear and direct: research articles need to communicate the why and how of collaboration. Very little explicit mention of knowledge is made. Instead, the focus is almost exclusively on the partnerships: on their legitimacy, importance, novelty, challenges, insights and benefits. As seen earlier, knowledge is not assessed independently of other social practices.

The responses by the university-based respondents suggest a more complex dance. One aspect of their comments centres around communicating to readers the value and validity of community partners as legitimate participants in research, who bring distinct knowledge and expertise to the research question. The research article is understood as an opportunity to rhetorically make 'more space' for non-academic expertise alongside scientific expertise. At the same time, a second thread acknowledges the need of the research article to fulfil scholarly expectations – display methodological rigor, provide evidence, identify new knowledge – but does so by challenging and expanding conventional notions of what constitutes rigor, scholarship, evidence and epistemology. The relatively even number of examples in each theme

suggests the interconnectedness of these multiple intentions. To persuasively advance them all is a sophisticated, complex undertaking.

3. What community-based authors look for as readers:

    a. Authenticity of the partnership (6)

Whether the authors spend time describing the collaboration and extent of involvement of community members. I also look to see if they describe the ways in which the collaboration was mutually beneficial.

    b. Examples and insights from doing (7)

How the inevitable challenges between these two different paradigms can be resolved – or at least managed to a successful outcome. What are the learnings from these types of engagements?

    c. Insights from knowledge sharing (2)

I look for how important concepts and ideas are communicated, so I can learn hopefully more effective and creative ways to think, communicate and collaborate.
Perhaps we need to expand the intro, lit review etc. and add a section on 'Dissemination' where authors can tell us how they disseminated what they learnt and to whom.

4. What academics/postgraduate students look for as readers:

    a. Authenticity of the partnership (16)

That there is a genuine partnership between the two parties, not one that is just added to 'tick the box' on collaboration.
Co-authorship.

    b. Methodological insights (28)

How the team effectively worked together to accomplish outcomes.
Techniques for working transdisciplinary, case examples (success and failure).

    c. Results and impact (11)

Policy implications of the research work.
Ideas for what things are possible, new things that came out of the work, new directions and calls to action.

    d. The scholarship of the research article (6)

Engagement with community-engaged scholarship literature.
Various frameworks for thinking about, documenting and discussing university-community research collaborations.

It is striking how similar the two groups' responses are to this question on what they look for as readers. Both groups emphasise the importance of the authenticity of the partnership and the methodological insights that follow: once again, why and how. One leads on to the other. The large number of entries by researchers in the methodological theme shows the newness of collaborative research. How to do this work is far from settled. In addition, both groups understand the research article to be a crucial part of this work – they actively read the articles as writers and thinkers. The article is viewed as a site of knowledge creation and engagement, in which considered choices are made about what to communicate and how.

How can academic journals better support the publication of community-based research?

A final question inquired about the ways in which journals could better support the submission of collaboratively authored research manuscripts (Table 5.4, below). The clear top two suggestions by community-based respondents were 'Increase the variety of article types' and 'Increase diversity on editorial committees and among peer reviewers'. Both choices unequivocally point to community respondents' perception of structural bottlenecks to more diverse participation in academic communication and publication. In contrast, university-based respondents' equal first choice (along with 'Increase the variety of article types') was 'Provide expanded author guidelines and examples'. Notably, this is the one option that produced a statistically significant difference in the mean scores between the two groups (0.01). Once again, community-based respondents are quite strongly indicating that they are not looking for more guidance and guidelines – rather, they want those guidelines, or those determining the guidelines, to *change*.

Table 5.4. Journal support of co-authored research manuscripts

How can journals better support the submission of collaboratively authored research manuscripts?							
1 = the most important option, 6 = the least important option							
	Community-based respondents			**University-based respondents**			**P value**
	N=	Mean	Std. deviation	N=	Mean	Std. deviation	Sig. (2-tailed)
Increase the variety of article types (length, structure)	13	2.54	1.94	49	2.51	1.29	0.96
Increase diversity on editorial committees and among peer reviewers	13	2.62	1.56	49	2.76	1.42	0.76
Mentor authors	13	3.46	1.66	49	3.88	1.64	0.42
Provide expanded author guidelines and examples	13	3.69	1.18	49	2.51	1.53	**0.01**
Increase the use of non-written elements in articles (such as audio, images)	13	4.08	1.32	49	4.24	1.39	0.70
Increase publication in languages other than English	13	4.62	1.81	49	5.10	1.14	0.37

There is solid agreement at the other end of the scale, too. For example, respondents agree on the lesser importance of 'Increase publication in languages other than English' and 'Increase the use of non-written elements in articles'. These results reflect the global, English-language arena in which academic publishing occurs, and its power to reach a wide readership. Priorities around change appear focused on the local and the specific – what is this journal doing? What are its protocols and processes? – rather than global factors such as the dominance of English. Overall, these agreed-upon top priorities quite squarely direct the focus of attention onto journals, their editors and boards, to (collaboratively) develop a rigorous, evidence-based framework for journal practices, submission types and guidelines that is credible when examined against the definition and goals of community-based research as informed by both community and university partners.

Discussion of key findings

The primary purpose of this survey was to develop a more detailed understanding of participation in the communication and dissemination of collaborative research: a snapshot of activity, attitudes and goals. Of particular interest was to learn more from community-based partners, who are often underrepresented in the literature. We know already that community-based partners appear as co-authors in the literature in relatively low numbers, and almost not at all as sole or lead authors – it was this observation that first prompted this research. So, it is perhaps not surprising to see that the demographic profile of the community-based respondents – educated, professional, experienced in research writing, mostly English-language speakers – is not very dissimilar to that of university-based respondents. This may point to the limited ability of a survey to capture a diversity of responses, or it may suggest that not only is the incidence of community-based partners reaching publication as authors relatively low, but that diversity of representation is weak, too.

The survey results did demonstrate strong, shared commitment to the importance of community-based research, and to the value, legitimacy and ability of community-based partners to actively contribute to the communication and dissemination of that research. What came through very clearly, however, is that community-based partners participate in the scholarly communication and dissemination of collaborative research for substantively different reasons to those of their academic partners. Their very presence as authors was to drive change, most especially by connecting their expert participation and evidence-based results with reform in policy and practice (including their own). In contrast, university-based responses revealed the ways in which academics' commitment to community participation was interwoven with institutional and professional pressures. They placed greatest importance on disseminating collaborative research via academic journals and emphasised the joint scholarship of those articles as both the primary means for and purpose of disseminating community-based research. For both groups, publication in recognised academic journals is highly valued, but for different reasons.

These survey results also made apparent a significant area of tension among respondents. Nearly 70% of community-based respondents disagreed or strongly disagreed that they were appropriately credited on research articles, compared with only 30% of university-based respondents. A second question on what the key criteria of authorship are produced only partial clarity and agreement. This question framed authorship as something one does, as a distinct role or job one participates in (by writing or revising a manuscript, for example). As we saw, this question generated a wide range of scores across the survey participants. This lack of shared understanding of what is meant by the term 'author' points to the complexity of the issue – and the difficulty of pinning it down in an online survey question. Potentially, these responses signal an important distinction between standard institutional frameworks (ethical/legal/individualistic) for understanding the role of author, on the one hand, and diverse culturally situated understandings of *authority*, on the other, which may well be collectively or orally held. These are far from being one and the same, and 'author' would appear to be a fraught semiotic way to respond to this social and conceptual complexity.

Indigenous researchers have written critically and thoroughly on authorship definitions and protocols. Without delving deeply into that field, their key message resonates with these findings: the need for respectful, careful and open discussions in advance to highlight and mitigate the complex and often substantial differences in understanding. Kwaymullina (2016, p. 445) writes, 'Dealing with these matters has in part required a revision of traditional Western concepts of what constitutes authorship, so as to meaningfully acknowledge the substantial contributions of Indigenous peoples.' Similarly, Castleden et al. (2010, p. 30) argue that academics need to remember that 'every aspect of research, including dissemination, has been considered "unorthodox" until it becomes "the norm"'. Journal editors, too, could reflect on how a more exploratory or open stance towards authorship and acknowledgements could be reflected in journal guidelines.

It's also important to acknowledge what this survey did not examine. It did not inquire into the many concrete barriers to participation, such as scarcity of resources, funding,

time. These are real and significant issues but sit outside the focus of this research. Proficiency in English also underpins this research. It is interesting to see that publishing articles in languages other than English was not high on respondents' list of changes journals should investigate. However, all but two of the respondents who indicated that English was not their first language were university-based. This geographically diverse group of scholars has strong institutional and professional reasons for wishing (needing) to publish in English, as it is the global currency for academic dissemination. However, the more substantial challenges of academic writing in English may lie elsewhere: linguists have previously noted that junior English-speaking students require just as much support in research writing as non-native speakers (Swales, 2004). These survey findings add to that observation. In some important areas, such as indigeneity and employment patterns within higher education, this survey showed how the greatest differences are generational, rather than between university and community. Jacquez et al. (2016, p. 76) have likewise commented on this 'expanded demographic of scholars', arguing that '[co]mmunity-engaged scholars are no longer tenured or tenure-track faculty members but include practitioners, students, non-academic staff, and contingent faculty'.

Overall, an important cumulative picture emerges of community-based respondents' insistence upon their interest in and capacity to 'contribute fully to [the] reporting of research results', as one participant wrote. At the same time, they viewed their contributions as adding to, not replicating, traditional scholarly contributions. This finding has substantial implications for journals. One example of this can be seen in those few instances where a statistically significant difference between the mean (average) scores occurred. The independent-samples t-test is done to determine whether or not the difference between two averages 'is one which is unlikely to have happened by chance' (Veal & Darcy, 2014, p. 501). It is a reading of *statistical* significance, but the instances here point to the *social* nature of the conventions of the research article and journal publishing. For example, the results and literature review sections were considered by community-based respondents as the most difficult to contribute to. Yet, they were not particularly interested in further journal author guidelines and examples. Instead, in their open-ended answers, they expressed a clear

understanding of what a research article should seek to share with readers, and what they themselves looked for: the authenticity of the partnership, insights and examples from doing, and how to communicate this change-oriented work effectively.

Chapter 6: The role of scientific genre conventions in the communication and dissemination of community-based research

Introduction

I want to use one finding in particular from the questionnaire survey discussed in the previous chapter as my launch pad for this chapter. Table 5.4 presented the responses to the question: 'How can journals better support the submission of collaboratively authored research manuscripts?'. Respondents were asked to rank six different options from 1 to 6, from the most important option to the least. One option only resulted in a statistically significant difference between the two groups: 'Provide expanded author guidelines and examples'. Community-based respondents (n=13) recorded a mean of 3.69; university-based respondents (n=49) recorded a mean of 2.51. The more I reflected on what this difference in ranking might mean, the more I developed an appreciation for the skill of a well-thought-out survey question: this option was far too open-ended. A lot hung on the interpretation of the word 'expanded'.

Initially, for example, I interpreted the high importance placed on this option by university-based respondents as signalling what they perceived to be a need to build capacity among those new to scholarly writing, such as community-based partners and students. In that case, 'expanded' author guidelines meant a fuller explanation: essentially, more of the same, only in more detail, with examples. I think this was how community-based respondents viewed it too – and rejected it in favour of options more obviously indicating structural changes within the journal itself ('Increase the variety of article types', and 'Increase diversity on editorial committees and among peer reviewers'). However, perhaps there could be another way to think about the reasoning behind university-based respondents' higher ranking of this option. We know from the survey that many in this group have significant numbers of publications to their names. Presumably, they would be very familiar with journal author guidelines and the expectation of journals that they would be adhered to.

These guidelines are no small matter. For *Gateways* journal, for example, they include specific information on focus and scope, and the different article sections, length, referencing style, font, point size, line spacing and the use of multimedia, among other details. In most journals, these guidelines are quite consequential, yet authors generally have little opportunity to discuss or debate them. Perhaps these university-based respondents, familiar with author guidelines, were not thinking of newcomer writers at all. Perhaps, when they nominated 'expanded author guidelines' as the foremost way in which journals could better support co-authored research manuscripts, they were thinking very much about the pre-determined nature of participation. By this reading, 'expanded' means not just more but *different*.

Taking this as my lead, this chapter sets its sights on conventions. It is long, so I have split it into three sections. The empirical research article is the template under focus. This is the dominant form of the research article today, across scientific and social sciences disciplines, and certainly in terms of prestige and sheer number of examples. Each of the three sections examines the research article from a slightly different perspective. The first section seeks to determine whether the genre conventions of the research article play a role in co-authored community-based research manuscripts. It does so by analysing the peer reviews of manuscripts that were later declined by *Gateways* journal. The next two sections focus on two essential elements of the research article: the Introduction; and article organisation. This is done by examining published co-authored research articles, again from *Gateways* journal. The same method of analysis applies to all three sections: genre analysis, with particular emphasis on the foundational work of John Swales. I begin this chapter by providing a brief overview of genre analysis. The chapter ends with some final key considerations and thoughts on next steps.

Genre analysis of the research article

Over the past few decades, genre analysis has been used to thoroughly examine experimental and empirical articles, mostly in the sciences and social sciences, in English in the Global North, and to a lesser extent in other languages and regions. As

far as I am aware, however, this well-established method of analysis has not been applied to published co-authored community-based research articles. The analysis that follows draws principally on the work of John Swales (1990; 2004). His ground-breaking work on the generic features of the experimental research article revealed the substantial analytical value residing at the level of rhetorical unit or 'move'. Flowerdew (2015, p. 111) reflects that a key insight of Swales was that 'genres developed as a staged process, and that the various stages, or moves, carried with them typical associated phraseological patterns'. What Swales demonstrated, and others have since confirmed and built upon, was that through careful analysis, these conventionalised rhetorical 'moves' of a research article were discoverable. Discoverable also made them teachable, adaptable, contestable and mutable.

There are two key instances of 'moves' in the research article that have received much attention: the section-by-section IMRD structure (Introduction, Methods, Results, Discussion), and the CARS (Create a Research Space) model for the Introduction section of an article (Swales, 1990; 2004; Tardy & Swales, 2014). These are the focus here, too, along with an emphasis on important whole-of-text rhetorical features, such as in-text citations and sub-headings, more so than particular linguistic features (Biber & Conrad, 2009).

Samraj (2014, p. 390) writes that the IMRD structure can be understood as the larger units of organisation that comprise the 'constituent parts' of a research article. While some variability occurs (the inclusion of a Literature Review, a combined Results and Discussion section, for example), this basic structure is widely followed and expected in the social and health sciences, where most community-based research occurs. Examination of this basic organisational structure can be 'a way in' to understanding the interconnection between the social and the semiotic. Myers' (1985, p. 610) influential work, for example, showed how rhetorical elements such as 'length, organization and style are not just matters of taste; they, too, help define the status of the claim'. He argued that 'one of the ways in which claims are socially constructed [is] through the negotiation of the form of the article and thus the status of the claim' (Myers, 1985, p. 627). Therefore, examination of the frequencies of moves, their

sequential order, the amount of space allotted to each move, among other aspects, can tell us something about the *social* space that both influences and is being shaped by these manoeuvrings on the page.

Swales' 'Create a Research Space' (CARS) model for the three key moves of Introductions is significant and warrants detailed discussion here. The three moves involve the following: establishing a research territory, establishing a niche, occupying the niche (Swales, 1990). Each move has a specific purpose: the first, to demonstrate to the reader the 'centrality' or liveliness of the research territory, worthy of both the discipline and the reader's time; the second, to show that this important territory is nevertheless incomplete, faulty or in need of further justification; and the third, to outline how the author proposes to address that gap, understood as the 'research space that justifies the present article' (Swales, 1990, p. 159). Swales demonstrated how a specific gap, or niche, in the research territory may be established by an author cycling through the first two moves, sometimes multiple times over a number of paragraphs. Each run through, with reference to the relevant literature, more firmly establishes the research territory and more finely articulates the identified gap. Once established, the author then offers a 'kind of promissory statement' of what is to come in the rest of the article, effectively turning the gap into the author's research space that they will now attempt to claim (Swales, 1990, p. 159).

The CARS model has been refined and expanded upon since first being proposed, and it is now a defining feature of empirical research article Introductions. Below is Swales' revised CARS model (2004, pp. 230-232, adapted from his earlier 1990 version). It is included here in full, as it is a powerful resource, worth knowing well. I use the CARS model in my analysis as a comparative template – not to suggest what is right or best, but because this model has withstood and been further strengthened by multiple critical examinations over the past few decades. Within English-language research writing, this is the key template for Introductions. It is widely and quite consistently used, consciously or not. It is relied upon not just by genre analysts after the event, but by authors, colleagues, reviewers and editors, across the disciplines, as part of writing and revision.

Swales' Revised CARS model

Move 1 Establishing a research territory (citations required)

Via

- Topic generalisations of increasing specificity

Move 2 Establishing a niche (citations possible)

Via

- Step 1A: Indicating a gap or Step 1B Adding to what is known
- Step 2 (optional): Presenting positive justification

With possible recycling of Moves 1 and 2 of increasingly specific topics

Move 3 Presenting the present work (citations possible)

- Step 1 (obligatory) Announcing present research descriptively and/or purposively
- Step 2* (optional) Presenting research questions or hypotheses
- Step 3 (optional) Definitional clarifications
- Step 4 (optional) Summarizing methods
- Step 5 (PISF**) Announcing principal outcomes
- Step 6 (PISF) Stating the value of the present research
- Step 7 (PISF) Outlining the structure of the paper

* Steps 2-4 are not only optional but less fixed in their order of occurrence than the others

** PISF: Probable in some fields, but unlikely in others

None of the above is easily done – there is an implicit tension in the effort to present a gap-filling knowledge claim that is simultaneously new and recognisable. Bazerman (1988) has described such work as inherently agonistic. Certainly, research has shown that a research article's Introduction is often the most contested, revised and commented-upon section of an article (Knorr-Cetina, 1981; Latour, 1987). This dominant pattern can easily obscure fine-grained differences. Samraj (2002, p. 5) has shown how a research territory may be epistemic or phenomenal, depending on the

discipline. For the relatively young field of conservation biology, for example, she argues that 'it is not previous research with its inadequacies and gaps that is propelling new research. Rather, it is a need in the real world that is influencing the choice of area of research.'

The following analysis is interested in seeing what rhetorical choices co-authors make by comparing the standard CARS model and conventional article organisation against a sample of published articles and peer reviews from community-based research. (Another approach would be to analyse different drafts of the same article, to see changes over time.) Swales has made an interesting observation about one of the strengths of using a 'simple structural model', such as the CARS model or IMRD organisation, for analysis. He noted that, 'because of their simplicity, they have a propensity to fail to map directly on the chosen texts … A second advantage of simple models is that they highlight divergence' (Swales, 2004, p. 251). Articles, by failing to do as expected, remind us that conventions of genre are resources, not rules. We should expect to see modification and variation. Devitt (2015) notes that any individual article will inevitably involve both competence and unique performance. Different situations, different research partnerships, different research foci, different disciplinary backgrounds will result in differentiation at the point of writing. This does not mean that anything goes, however. As Gee and others have pointed out, the trick to the successful use of language is recognition.

Section I: 'Recommend Decline': How expectations of genre influence the peer review of community-based research submissions

In order to undertake a detailed study of the genre conventions of the scientific research article and the communication and dissemination of community-based research, the necessary first step is to determine whether genre conventions do play a role. This chapter takes that step. It critically examines the peer reviews of empirical research submissions to an online academic journal within the field of community-university engagement that were eventually declined by the journal. The focus of analysis is the reviews, not the declined manuscripts. Double-blind peer review is, as the name suggests, a private activity between editor, author, referee. The occurrence of a peer review is generated when an individual research submission is accepted by a journal for external assessment. Reviews are not normally read en masse, even by editors (at least, not this one). Yet they are, of course, part of the communal activity of consensus building within academia, just as any individual research article is, perhaps even more so. The analytic intention here is not to examine the peer reviews as good or bad, their recommendations valid or not. Rather, I ask: how do peer reviews do their work rhetorically? Turning this around, what work is thereby done? That is, what sort of consensus building is occurring? By knowing better what we are doing, and how, we can then critically consider why we are doing it, and for whose benefit.

The material: Peer reviews of research manuscripts

The peer reviews were drawn from *Gateways: International Journal of Community Research and Engagement*, an online, open-access, peer-reviewed journal in the field, established in 2008. I have been the Managing Editor of *Gateways* journal for most of that time. The purpose, methodology and aims of this study were shared in advance with the journal's Editorial Committee, Advisory Board and publisher, UTS ePress. Ethics approval was granted by the University of Technology Sydney, Australia (HREC REF No. ETH20-4985). To minimise the risk of conflict of interest, only reviews of submissions no longer active were included in the study. To further narrow the focus, only those peer reviews of research submissions that were later declined by the

journal's Editorial Committee (or were not revised and resubmitted by the authors) were included. The rationale behind this decision was two-fold: in addition to seeing whether genre conventions play a role in the evaluation of submissions that do not reach publication, as indicated, it is also often easier to see the impact of genre expectations when they are not met than when they are. These parameters resulted in 77 peer reviews relating to 38 research submissions from 2008 to 2019. Reviews were downloaded from the journal database, and collected into a single word document, with all identifying information removed. This included any names (sometimes included by the referee as part of 'For editor only' comments), submission title and submission ID number.

Of the 38 submissions, most were reporting the results of empirical research, for example, presenting the findings from a collaborative project or to examine the methodological approaches used in a project. A few were theoretical contributions. After analysis was underway, I realised that the two different types of submissions resulted in two different types of reviews, requiring different considerations (an early indication of the importance of genre). Consequently, I removed the small number of peer reviews that assessed theoretical and reflective submissions from the sample. The final analysis included 71 peer reviews of 35 submissions, amounting to 45,149 words in total. The foci of the submissions were wide-ranging, often centred around locally based case studies using a variety of mostly qualitative methodologies. Subject areas included health and wellbeing (immigrant mental health, allied health, health research priorities, nursing, homelessness), education, rural and other place-based research, international collaborations, art and culture as engaged methodology, and research with specific community groups (such as faith-based ones).

Authors were affiliated with institutions in the USA (11), Australia (9), South Africa (7), the UK (4), Canada (2), and one each from Bolivia and the Philippines. Of the 71 reviewers, all but two were university-based academics, at doctorate level or higher. The remaining two were community-based professionals. There were slightly more female (51%) than male reviewers. The bulk of the reviewers were based in the USA (40), with the remainder coming from Australia (16), the UK (6), Canada (4), Hong Kong

(3), South Africa (1) and India (1). If we compare the profile of reviewers and authors by country of origin, there is a disproportionate number of peer referees based in the USA (56% of reviewers) compared to authors (31% of the submitted manuscripts), and just one reviewer from South Africa, even though 20% of the manuscripts came from there. (This geographic imbalance has been noted elsewhere, such as in the large Publons study of 2018.)

Finally, all 35 submissions were double-blind peer reviewed, meaning that both author and reviewer names were masked. In nearly every case, each submission was reviewed twice: three submissions were reviewed three times, and a final two were reviewed just once each. No reviewer assessed more than one submission. Reviewers were provided with the journal's guidelines for peer reviews (see Appendix 6.1 for the journal guidelines). Most reviews were written as a narrative, though a few responded in bullet point fashion to each bulleted question in the guidelines. (Some did both.) Reviewers had to select a recommendation from four options provided by the journal. Recommendations from the 71 reviews included: Decline (25); Revise and resubmit for review (27); Revisions required (16); Accept (3). The average word length was 611 words, the shortest was 39 words, and the longest 2034. The recommended word length was 500-1000 words.

Findings: The whole and its parts

Genre analysis involves reading, and reading again, hoping that careful attention and gathering of threads will eventually reveal meaningful interpretations. 'Careful attention' doesn't quite describe the slow, layered process of making the familiar strange, then differently familiar once again. Initial readings of the whole collection of reviews did reveal a tendency to follow the standard rhetorical path laid out for them by the contemporary research article: Introduction, Literature, Method, Discussion, Conclusion, Bibliography. A simple search for the most frequently used content words produced the following, apparently confirmatory list:

Community – 379

Research – 335

Engagement/Engaged – 239

Clear (clearly/clearer/unclear/not clear) – 195

Literature – 130

Discussion – 123

Method/Methodology – 113

Focus – 112

Data – 109

While it would be inaccurate to say that this early hypothesis proved to be something of a red-herring, I did spend some time trying to shoehorn the reviews into the IMRD structure. Trouble began, as trouble will, with the Introduction section (the word itself only occurring 50 times). It proved to be unpredictable, eventually sending me back to the literature to look more closely at the research on genre analysis of Introductions. Following Swales' updated CARS model (2004, pp. 230-32) and his 'sample move-step analysis' (1990, p. 143), I manually marked up the reviews, sentence-by-sentence, identifying the steps they went through according to both the IMRD structure *and* the CARS model. The first beneficial outcome of this was that it demonstrated the presence of a shared conventional structure for the peer reviews. The second was that it helped distinguish between two types of Introductions: those belonging to the review and those belonging to the submission under review. Every review contained the first; only about 16 had specific comments on the latter as well. One consistent indication of which Introduction was which was their location in the text, marked by a clear statement of separation (underlined). For example:

> *This article addresses a very important problem in today's society: engaging K-12 students in STEM. As the title suggests, the article is specifically looking at one pathway for that engagement – through universities' engagement with schools; to 'use the cases as an argument for a model of engagement between universities and schools in the area of STEM education'. Unfortunately, while this issue is one that desperately needs research, this article does not greatly*

> *contribute to the field. Remarks below reflect this conclusion. In the introduction, too much space is given to describing the problem …* (no. 5a)

The reviewer's Introduction is by far the most hard-working and consequential part of the review. More than an overview, these Introductions are framed according to the three-part move of the CARS model: establish a research territory, establish a niche, occupy that niche. A distinguishing feature of the reviewer's Introduction is the way in which reviewers seek to reconstruct, not unpick, the submission's own three-part move. Heeding their own advice to show rather than say, reviewers model back to the authors their understanding of the authors' intentions. As shown in the following examples, this triage-like assessment was often accompanied by the reviewer's recommendation, both as forewarning (underlined) and directly given.

> *This paper provides attempts to provide an overview of how place-based approaches and future thinking have informed a university-community partnership in [City]. While it describes (perhaps a little too extensively) the context of the area and its Community Strategy – it fails to adequately frame the case study within the literature and ultimately, fails to make any real contribution. Consequently, I'm recommending the submission be declined.* (no. 1b)

> *This manuscript seeks to examine the process of CBPR in the context of education in [City]. The author(s) distinguish this piece from earlier writings on the same topic by focusing on the process as opposed to the content of these education programs. I recommend declining publication of this article for a number of reasons.* (no. 21a)

In most instances, the Introduction involved just a few tightly orchestrated sentences, in others it comprised the whole review, while the reviews that followed the journal guidelines offered something else again. In a few rare cases, the reviewer dismissed the reconstruction as unattainable, and went straight to the recommendation.

> *There can be only one recommendation for this manuscript: rejected. To start with, the English is not acceptable.* (no. 7a)

> *I don't want to reject this paper. I think there is analysis in the paper that needs to be aired.* (no. 34a)

Nearly a quarter of the reviews were devoted in their entirety to assessing the submission via the three-step rhetorical moves, first reconstructing, then interrogating and discussing the complications found as a result of their modelling. In effect, these reviews never exited the Introduction stage. (For an example, see Appendix 6.2.) While this certainly says something about individual submissions' struggles, it also shines a light on the priorities of the reviewers. It appeared that, if it was not possible to achieve a clear, coherent and compelling overview of the manuscript's aims, based approximately on the CARS model of establishing research territory, gap and gap-filling moves, then there was little point in going any further.

Central to the reconstruction of the submission's three-part moves was reference to the literature. In fact, the literature was more often included at this first stage of the reviews than as a section in its own right later on. Concerns were multiple: a lack of attention to the literature, a lack of being critically 'embedded' in the appropriate literature, an imprecise identification of both the current knowledge of the field and of the specific gap being addressed, poor alignment between the proposed focus and the literature drawn upon to support that focus, confusion over what constituted community-engaged research, and more. Undertaking collaborative research is one thing, but to share the process and results in written form in an academic journal *is* to participate in the literature.

> *While ambitious, the paper could benefit from greater specificity in a number of areas. Specifically, the paper could benefit from greater focus in identifying the gap in knowledge it seeks to address.* (no. 4b)

> *There is a mismatch between the level of abstraction in discussion of systems and the very applied, community-based setting of the study with little attempt to draw the two spheres together.* (no. 8b)

This tendency to evaluate via a reconstruction of the CARS model is one difference between these narrative-based reviews and the bulleted guidelines, whose first few questions lean towards unpacking the submission:

- *How significant is the contribution to the scholarship and/or practice in the area?*
- *Is the writer's research original/interesting?*
- *Has the writer placed his or her work within its scholarly context?*

Only nine reviewers used the journal guidelines as the explicit framework for their response, writing bullet point answers to the bulleted questions. And of those nine, five of them provided a narrative-based response as well. The clear preference was to respond to the submission in like form – as a coherent, persuasive piece of writing that could be read as a whole, rather than a collection of sequential answers.

This leads me to the next significant step taken by the reviewers immediately after their introduction: a whole-of-text assessment of the submission as an act of writing. Approximately 80% of reviewers commented at this stage of the review on the submission's merits as a written documentation of research, noting features such as clarity, coherence and persuasiveness. This was signalled by explicit comments on the writing as a whole, structure and/or organization, with requests for editing, tightening, restructuring. On a number of occasions, authors were urged to reconsider the appropriateness of the chosen form, and to consider another practice-based, reflective essay or smaller 'snapshot' article. Comments at the sentence and word level, such as typographical errors, did not qualify as evidence for this step. (Their location in the review was another giveaway, more often than not occurring as part of the reviewer's summing up.)

> *The author of this paper undertakes to examine a topic which is significant, namely engagements of rural communities by universities. I have read this article several times and confess I find it quite confusing. The article could be considerably shorter and lacks focus. The writing throughout the paper, from my perspective 'meanders', leaving this reader confused and unsure of what the point of the paper was. Simply stated, and in my opinion, it is poorly written. The introduction could be shortened by…* (no. 3b)

> *The manuscript, X, addresses an interesting topic and one worthy of academic consideration. The manuscript presents a focus on differentiating constructs that are often addressed casually and without much precision, leading to confusion in the literature. Despite the value of the topic, this manuscript is guilty of imprecision and casual language too, thus undermining the potential inherent in the topic and focus of the manuscript. I will provide a few examples where the manuscript is casual, unclear and imprecise: …* (no. 23b)

Only after these two steps did most reviewers undertake a section-by-section examination of the submission. Given the variety of issues in the submissions, there was also considerable variety in responses at this stage, and rarely was every section included (and sometimes not at all, as mentioned above). At the same time, however, approximately 10 reviewers commented on every section, including conclusion and bibliography. What was very apparent was the strong assumption that a conventional research article organisation was the appropriate one to follow, even when recognised as 'traditional' (see below: no. 17a). This assumption may be especially prevalent in these reviews – that a 'back-to-basics' approach is not considered obligatory but just the most appropriate strategy for use here, in the face of perceived difficulties. (A comparison of peer reviews of accepted submissions would be useful to test this.) However, the complete absence of advice regarding any other sort of organisation tells us something about the importance of the IMRD convention.

> *Major comments: The contents of the paper are interesting and represent a valuable addition to the field. However, the paper suffers from a few major*

> *problems. Perhaps the most important is that it is poorly structured. There is a lack of literature review, delineation of the paper's exact contribution, and clarity of thought. It will certainly help if the paper could be better structured and organized with at least some elements of a 'traditional' research paper—with an introduction, literature review, research questions, methodology, findings and discussion.* (no. 17a)

I will not go into great detail here regarding the reviewers' assessment of the sub-sections of the manuscript, as that is too large an undertaking, but I do wish to give a sense of the key concerns and priorities. A recurring concern related to the use and analysis of data. Common issues included a lack of or poor/unjustified use, reliance on generalities rather than specifics and lack of systematic presentation (poor/unclear tables). Relatedly, significant attention was paid to the connection between data and analysis and claim, with many authors found to be mistaking impressions and perceptions for evidence-based argument ('telling rather than showing'), presenting description for analysis, and making claims that overextended the data.

> *The article is lengthy and prone to offer anecdotal opinions and assertions as if they were valid premises for argument. For example, in the very first page, there is the assertion that X is a centre of one of the highest rates of growth in cultural industries growth over the past 15 years. This may be true and may indeed be self-evident to someone living or working in X. But to an outsider, a fundamental claim such as this needs to be established with some reliable and testable data.* (no. 24b)

> *The article as it stands does not contain persuasive enough data, or persuasive enough analysis of data, to support the central argument, and contains too many contradictions to be published.* (no. 35b)

It was apparent that reviewers understood each sub-section to serve a precise and distinct purpose that helped to sort and organise the content. Subheadings were read carefully by reviewers to understand both the individual section and the overall flow or

direction of the manuscript. Occasionally, this extended to the manuscript title, abstract and keywords.

> *Specific notes: Pg 2- [Ref] is old citation and uses a different date than in ref. page. Proof so do not say "needed a needs" Pg3 Build in wider community based lit., add current lit on models, cite first sentence of last paragraph Pg 4- top paragraph- some of this is methods stuff not lit. review, use page # for Vygotsky quotes Pg 5 move top paragraph stuff to method section Pg 6 cite 2nd sentence in 3rd paragraph Pg 7 add method section before case story?* (no. 19a)

> *Finally, I found the connection to 'community empowerment' exceedingly thin. The term is in the title, the abstract and the conclusion.* (no. 23b)

> *The conclusion is a bit of a give-away – it is very short and merely summarises some of the points made in each section. There is no real synthesis or strong statement of what the paper has demonstrated.* (no. 27a)

Many reviews paid close attention to method processes and practices, frequently offering specific instructions to authors in terms of how to address issues. There was often a methodological implication to these questions: where is the detail to show the reader that the research was ethical, community-based and participatory?

> *Indeed, engaged scholars, especially qualitative researchers, often face ethical dilemmas in navigating what time in the field counts as research (and thus needs REB approval) and what does not. Which experiences can be used as data and which are off limits? How is consent obtained with individuals who are both partners and participants?* (no. 26b)

> *2. p. 15/16: The technique described as photo narrative is introduced in a very brief format. Some more details would be useful, e.g. who was involved in the project; what did they do with the cameras; what happened to the*

photographs; were the photographs used for discussion; has this version of photovoice been used elsewhere? (no. 37b)

To finish, reviews concluded with a summing up of the key points and/or providing recommendations, along with, occasionally, words of encouragement. The optional 'For Editor only' performed a similar function.

To this end, I would recommend against publishing the essay in its current form, but would encourage the authors to consider revisiting the article as I think there is lots of potential here for a paper that could reflectively articulate the nuances of the X project for its complex relationship to questions of activism, entrepreneurship and scholarly practice. Recommendation: Resubmit for Review. (no. 25a)

Discussion of key findings

not new, not clear, not true, not warranted, not specific, not challenging, not addressed, not discussed, not well organised, not recognised, not a point of departure, not embedded, not justified, not believable, not applicable, not really, not especially, not simply, not fit, not just, not yet, not helpful, not co-creation, not engagement, not illuminating, not reported, not stipulated, not well-founded, not always, not especially, not unique, not actually research, not convinced

These are just some of the 305 instances of 'not …' that occurred across the 71 peer reviews. Reading them all together made me think of Tolstoy's famous observation about unhappy families: each one is unhappy in its own way. And, no doubt, that is how the individuals on the receiving end of these reviews felt: sorely isolated. Yet, holding all this variety together was one expression – and only one – in that long and vivid list that was repeated more than a few times: 'not clear'. As shown above, three key types of clarity emerged in the reviews: conceptual, communicative and

methodological. Further, these central concerns of reviewers found their own clear expression on the page through the following structure:

Introduction (three-step move, with (optional) recommendation)
Whole-of-text assessment
Section-by-section assessment (optional)
    Introduction
    Literature
    Method
    Results
    Discussion
    Conclusion
    Bibliography
Summing up and/or recommendation
'For Editor only' (optional)

The above structure firmly locates the scholarly communication of community-university research within the dominant scientific positivist tradition, with its emphasis on the establishment of a linear, segmented path forward, supported with reference to the literature. This is an important finding, one that points to the power of well-established and institutionalised conventions to convey legitimacy and credibility. Reviewers were aware of this, I would argue, evidenced by their careful balancing act which showed both attentiveness to the need for adherence to these conventions, while also seeking to make space *within* this framework so that a participatory and collaborative methodological stance could take shape. It needs to be said that reviewers overwhelmingly gave generously and constructively of their knowledge, oftentimes taking great care with their tone and attention to detail.

> *I believe it is important to distinguish clearly between what is community-university interaction and what is community-university engagement. These two seem to be conflated. I believe the key is to review what is meant by 'reciprocity'.* (no. 15b)

Interestingly (or, tellingly), the closer the submissions got to the present day, the more the reviews were able to easily follow the CARS and IMRD model. This may suggest that the field and journal, just as much as individual submissions, had been stabilising over the decade under review. It may point to increasing institutionalisation and professionalisation of community-based research. A decade seems to be sufficient time for this. Atkinson (1999, p. 68), who studied the 'scientific report corpus', has described how he first settled on a 'universe of texts', which in this case, ranged from 1650 to 1990. He then settled on a sampling interval of 50 years, starting from 1675, as 'it was the 10th year after the journal's establishment [in 1665], and thus represented a point at which the journal could be expected to have developed a more-or-less conventionalized form and content'.

As Atkinson indicates (as do many others), the development of a specialised discourse is part and parcel of language-use-in-the-world in specific contexts. The scholarly expectations for conceptual clarity, communicative coherence and cohesion, and methodological rigor absolutely apply to community-based research. Further, these do not just serve institutional interests. Stoecker (2007, p. 9) some time ago pointed out that 'bad data' is just as much 'a problem facing an activist researcher doing research for a social justice cause [as it] is for a medical researcher doing research on a new treatment for a dreaded disease'. Manuscripts must (and do) aspire to communicate and assess best practice, clearly, coherently and comprehensively. However, these broad principles apply equally to any evidence-based research article in almost any scientific discipline. The question here is how and by whom should the conventions of *community-based* research writing be determined and recognised?

A final example from the reviews to reflect on this above question. Berkenkotter et al. (1994, p. 193) write that 'graduate students are initiated into the research community through the reading and writing they do, through instruction in research methodology, and through interaction with faculty and with their peers. A major part of this initiation process is learning how to use appropriate written linguistic conventions for communicating through disciplinary forums.' Many reviewers made suggestions regarding further reading (Appendix 6.3). This list of recommended reading captures

well the key tenets of community-university engagement, with its emphasis on community voice, participatory and indigenous methodologies, reciprocity, and a critical examination of the role and impact of institutions. There is some geographic diversity among the texts, although it remains weighted towards writing originating from the USA. Of the 19 titles listed in the Appendix, 11 are books, 6 are articles, 1 PhD thesis and 1 white paper. The articles were mostly conceptual and/or focused on institutional issues. A few were evidence-based (and followed the basic IMRD structure). None offered a discussion of research writing as a contributory factor in the communication and understanding of community-based research.

The rub comes, then, from the persistent gap (and not just in these submissions) between the goals of engagement – authentic community participation, knowledge democracy, research for change – and their attainment by the foot soldiers of institutional communication and dissemination: the empirical research article and peer review. We find ourselves in a Sisyphean trap, where, despite the substantial conceptual, practical and methodological efforts and innovations of community-based research, each individual instance of the research article (and, even more so, each peer review) returns to the beginning by reaffirming the very thing it seeks to contest: a representation of knowledge conceived by Western science as extractable, linear, hierarchical and able to be legitimated and archived in the published literature as such.

It's probably true to an extent that to challenge and modify conventions, one first needs to gain proficiency in them. But it cannot stop there. The dominant genre conventions, widely relied upon in these peer reviews, are not sufficiently of engagement's own making, and can only ever partially achieve the specific goals of engagement. They may even impede their attainment. Undoubtedly, we need to know them better, not just individually or in author teams, but collectively, as a field. To examine this further, the next two sections look at published co-authored community-based research articles, to see how these diverse authors utilise genre conventions.

Section II: Genre analysis of peer-reviewed co-authored research articles: the Introduction

This section seeks to extend and deepen the findings of the previous section. While this section is not comparing like-for-like (moving from peer reviews to published articles), the focus remains on the use, or not, of genre conventions. The previous analysis revealed the widespread reliance on genre conventions as part of the peer review of research manuscripts submitted to an academic journal focusing on community-based research. Reviewers consistently utilised the CARS (Create a Research Space) model for Introductions as their starting point for summarising and assessing a manuscript's purpose, originality and contribution to the field, suggesting it was collectively held to be an effective analytical and instructional tool. Equally, the conventional IMRD (Introduction, Methods, Results, Discussion) structure was repeatedly offered as the most appropriate way to organise a manuscript (as it was used to organise the peer review). Given the importance of these two key conventions, this section and the next will focus on them: this section looks in detail at the Introduction of published co-authored research articles.

Selection criteria and overview of articles for analysis

All material is drawn from *Gateways: International Journal of Community Research and Engagement.* Articles for analysis needed to meet the following criteria: that they be peer-reviewed, empirical, co-authored, and were the result of a locally based community-university research partnership. I sought articles that had one foot in both camps: disciplinary-based and community-based. This meant the following types of articles were excluded:

- Non-peer-reviewed articles (practice-based and snapshot)
- Theoretical and reflection type discussion papers
- Evaluations, such as of perceptions and experiences of engagement by community organisations, university faculty and staff
- Sole-authored research articles

- Articles based on other sorts of partnerships or engagement, such as service-learning, volunteering and outreach, university-industry partnerships, and international and multijurisdictional partnerships.

This resulted in the following selection:

- 15 university-community co-authored empirical research articles
- 11 university-only co-authored empirical research articles.

The 26 articles featured here are thus a partial representation only of the full range of partnerships, undertakings, outcomes, and critical reflections and analyses present in the published literature of even just this one English-language online journal. This deliberately restrictive selection was adopted to facilitate comparison. First, it established a sufficient basis for comparison between this group of articles and the findings from the previous analysis of peer reviews of declined manuscripts. Those manuscripts were all empirical: either case studies of collaborative research projects or examinations of methodological processes, tools and approaches used in collaborative projects. Similarly, these articles have all been peer-reviewed and are all empirical case studies and investigations of methodology. The crucial distinction is that this latter group have been published. The second point of comparison is internal to these published articles: between those that are co-authored by both partners, and those that are co-authored by only the university-based research partner.

The group of 15 community-university co-authored research articles represents nearly all the peer-reviewed research articles with a community-based co-author published by this journal since its founding in 2008. There were no published peer-reviewed research articles, either empirical or theoretical, authored solely by a community-based research partner. There were, however, a small number of sole-authored articles by non-academic authors in the non-peer-reviewed sections of the journal. In addition, there were a further 18 practice-based and snapshot articles that had community-based co-authors; all of these were excluded from this analysis as they were not peer-reviewed. It is noteworthy that articles with community-based co-authors occur in slightly greater numbers in the non-peer-reviewed sections than in

the peer-reviewed section. These articles deserve attention to see how they compare rhetorically, in the absence of peer review.

Articles for analysis come from a limited number of countries. The bulk are from just three countries: Canada, the USA and Australia. Many of the community-university co-authored articles are also clumped by year. The journal volumes in 2011 and 2014 were both themed co-editions: the first volume partnered with a UK-based university, the second with a Canadian conference on engagement. This basis may have provided university-community author teams with a more supportive, communal environment than normal, facilitating their development. Table 6.1 gives an overview of the selected articles.

Table 6.1. Overview of selected articles

Community-university co-authored empirical research article						**University-only co-authored empirical research article**					
No.	**Year**	**Country**	**Case study**	**Metho dology**	**File views***	**No.**	**Year**	**Country**	**Case study**	**Metho dology**	**File views**
1	2010	Canada		X	2145	16	2012	USA		X	564
2	2010	Aust	X		843	17	2012	S. Africa		X	788
3	2011	USA	X		940	18	2013	Canada		X	1188
4	2011	USA	X		1455	19	2014	Canada		X	3852
5	2011	USA		X	872	20	2015	Aust	X		1451
6	2013	Canada	X		1034	21	2015	NZ	X		1055
7	2014	Canada	X		1875	22	2016	S. Africa		X	2506
8	2014	Canada	X		3449	23	2016	Aust	X		1607
9	2014	Canada	X		1374	24	2017	USA		X	978
10	2014	Canada		X	1416	25	2019	Canada		X	391
11	2015	Aust	X		3737	26	2020	USA	X		622
12	2015	Canada		X	4069						
13	2016	Canada	X		2257						
14	2018	USA		X	817						
15	2020	Canada		X	814**						
* Figures for File views refer to full text downloads (PDF and HTML), excluding Abstract views. ** Also published by the journal in French, with 876 full text downloads. Source: *Gateways*' OJS, UTS ePress, file view download figures correct as of 8 June 2022.											

The first thing to note from the above table is that these articles have been read. This is good news for the authors, the journal and the field more broadly, and for this research, too. The figures for file views provide clear evidence that research articles co-authored by community- and university-based research partners are just as likely (if not more so) to be accessed and downloaded as those authored solely by the university-based partner. File views in the table above include PDF and HTML downloads of the complete article only. They do not include Abstract views. While there are many factors influencing download figures, the ease of access afforded by free-to-read journals and good online discoverability in various search engines are crucial (Piwowar et al., 2018). This journal has always been free to read (and free to publish), but HTML accessibility was only introduced in 2014. This resulted in a noticeable increase in downloads, but it has not been applied retrospectively (thus, articles published before 2014 are available in PDF only). User data for *Gateways* journal, available through Google Analytics, shows that the top ten countries-by-reader are, in order (as a percentage of total users): USA, Australia, Canada, UK, China, South Africa, India, Kenya, Philippines and Malaysia. From 1 January 2011 – 6 June 2021, total users were 93,537. Readers came from nearly every country in the world. (Source: Google Analytics, supplied by UTS ePress, July 2021.)

Findings: Four variations on a theme

In my previous analysis of peer reviews of manuscripts later declined by the journal, referees consistently used the CARS model in shorthand form to communicate their sense of a manuscript's readiness for publication, expressing it in terms of purpose, clarity, rigor and importance to the field. Reviewers stuck closely to the three-move template: establish the research territory, identify a gap, occupy that gap. Difficulties doing so often proved decisive. My interest here is to see if *published* research articles also depend as heavily on the CARS model, and if so, how.

For each article, I examined the Introduction against the standard CARS model (included in full at the beginning of this chapter), looking in detail for evidence of the three steps, their adherence to the standard form, or any variations to it. The

challenge in genre analysis, as with much research, is the mass of detail available. To do genre analysis is to make choices. Thus, the findings and analysis are inevitably my own, and selectively so. Rather than include every inventive modification or instance of consistency, I have instead focused on outlining what I see as the main patterns. The rhetorical choices in these 26 Introductions have been made by author teams working independently of each other, at different times and places, on different research questions and producing different insights, yet patterns are apparent. I have included various examples from the texts, so readers can assess for themselves my decision-making as much as possible. On the other hand, to minimise repetition, I have restricted detailed discussion of each of the Moves to certain groups of texts, rather than examine every feature in every article. This is especially so with Move 3, 'Presenting the present work', which I discuss in detail with only one batch of the articles. But many of the characteristics found there – both what occurred and what did not – are true of all the articles. In-text citations are signalled with 'Ref'.

Out of the 26 Introductions analysed, an initial analysis confirmed that, at a fairly broad top level, each Introduction adhered to Swales' revised CARS model presented earlier. For this to be the case, the few features of the basic model specified as obligatory needed to be present. First, Move 1 notes that citations must be part of establishing a research territory. Not surprisingly, every Introduction included citations, and many Move 1 paragraphs were often very heavily referenced. Second, Move 3, Step 1, 'Announcing present research descriptively and/or purposively', is considered obligatory. Again, every article fulfilled this step, signalled by phrases such as 'The purpose of this article is to', 'In this article, we examine', 'This article explores/reports on/describes findings from/discusses ...' These generally succinct purpose-statements of one or two sentences closely resembled the style of summaries made by peer reviewers. For example:

> *This article explores an innovative case of community-university partnerships through participatory action research involving a coalition of environmental justice and health advocates, the X Project, and researchers affiliated with the University of X.* (no. 3)

> *This article is an examination of the suitability of appreciative inquiry (AI) as an approach to investigate rural wellbeing. It endeavours also to reveal attributes of AI that are conducive to bolstering community and university partnerships.* (no. 19)

Most Introductions were fairly concise, with 60% consisting of only three or four paragraphs. Outliers included one Introduction of just one paragraph, and two had seven. The Moves 1, 2, 3 were nearly always in that order. There was some cycling between Moves 1 and 2, although not much. However, more fine-grained analysis revealed substantial variation as authors used, adapted and modified the three steps. The ways in which authors enacted Move 3 – Announcing the present research – demonstrated the most variability, and indeed Swales' basic model anticipates that this may be the case, with many optional steps, in optional order. Moves 1 and 2 are more prescriptive, and thus modifications involve more deliberate choices by authors. The following analysis divides the articles' Introductions into four groups according to how these first two crucial moves are used by authors.

One: Adhering to the CARS model

This first group contains those Introductions that followed the basic template most closely, of which there were only four. Further, they all used the CARS model in the same way, establishing community-university collaboration as their research territory, as shown by these opening sentences:

> *Community-university partnerships have been shown to produce significant value for both sets of partners, providing reciprocal learning opportunities, (re)building of bonds of trust, and creating unique venues to formulate and apply research that responds to community interests and informs collaborative solutions to community problems (Refs).* (no. 3)

> *Healthy community-based organisations (CBOs) at the grassroots level are essential to civic engagement and the creation of social capital, and*

consequently are considered critical elements in building localised democracy (Refs). (no. 16)

Community-based participatory research (CBPR) is recognised by national funding organisations as the most appropriate, even the most desirable, approach to research involving marginalised communities (Ref), establishing an expectation that researchers will engage communities in meaningful ways and as equal partners throughout the research process (Refs). (no. 18)

The broad research territory presents a mix of hope and awareness of the challenges of community-university engagement in the 'real world'. As the CARS model outlines, the research territory can be established 'via topic generalisations of increasing specificity'. For example, the following paragraph leads the reader, sentence by sentence (underlined), from a territory that is non-specific in terms of time and place to a narrowly defined research focus. References are many and quite recent, from the last 20 years. In effect, the literature is doing the talking in this opening paragraph – described by Geertz as 'author-evacuated' (quoted by Swales, 2004, p. 87). All this, in turn, leads directly to a specific, identified gap in the literature (in blue).

Higher education institutions have traditionally largely ignored their role in addressing the challenges their communities face. However, it is increasingly recognised that higher education institutions can play a role in sustainable social change. Pedagogy in higher education is shifting focus from valuing standardisation and testing to valuing civic and community engagement and active learning (Refs). Partnerships between higher education institutions and community organisations can increase the knowledge base available in universities, improve students' learning experiences, support community-based organisations and build civic engagement (Refs). Such partnerships can be powerful tools for providing long-term, sustainable solutions to various issues faced by the community. One form that these partnerships can take is community-engaged scholarship (CES) – a community-engaged approach to teaching, learning and research, which focuses on a mutually beneficial

exchange of knowledge and human and material resources for the purpose of positive social change (Refs). CES aims to identify and address a challenge or need in the community using practices such as community-engaged learning, community-based research, environmental education and service learning, or place-based learning.

While CES has been shown to benefit students, professors and higher education institutions (Refs), there is a paucity of literature related to the impacts on community. (no. 9)

In this above example, a gap in the literature has been clearly identified. However, for the remaining three in this group, the gap or niche centres on the identification of the very substantial challenges of actually doing collaboration. This is indicative of Move 2, Step 1B 'Adding to what is known'. For example, we find: *'For such partnerships to be mutually empowering, certain design characteristics are necessary …'* (no. 3); *'Such a situation, however, presents opportunities …'* (no. 16); *'As a result, there is increased acknowledgement by scholars of the importance of engaging those who can bring their own perspective…'* (no. 18). By establishing, from the outset, a research territory characterised by collaboration, innovation, possibilities and challenges, subsequent 'moves' are able to operate in that carefully delineated space. For example, for the two community-university co-authored research articles in this group, their Move 3: 'Announcing the present research' explicitly includes co-authorship:

Produced through a collaborative writing process with university and community partners, this article critically addresses the complex and challenging interactions ... (no. 3)

This article presents an exploratory study … [it] is also designed to encourage others to capture the voices of community partners in CES projects (no. 9).

At this stage of the Introduction, the authors take the reins in Move 3, signalled through a shift to the use of 'we' and 'us', and references to the literature recede.

Two: Modifying Move 2

This next group of eight articles modified the CARS model but, once again, all in the same way. This consistency is surprising, given that they vary in so many of their particulars – by time, place, focus, participants, process. Yet, in both Move 1 and 2, all eight articles broadly deploy the same rhetorical strategies. The example below offers a good indication of the Move 1 characteristics of this group of articles. As we saw earlier, the establishment of the research territory is done by moving purposively from a wide lens to a tight focus on a specific population, each sentence building up a picture of a community marked by significant need (underlined) and, while very much 'in the real world', one that is thoroughly verified by comprehensive references to the literature.

> *The Chinese community in the United States is the oldest and largest Asian-American subgroup with an estimated population of 3.6 million (Refs). Compared to the general US population, the Chinese community is older in average age (Ref). With more than 80 per cent of Chinese older adults foreign born, the community is less acculturated than other immigrant groups. Older Chinese immigrants are experiencing the stress of ageing, which is compounded by pronounced migratory and psycho-social distress caused by vastly different cultural and linguistic barriers (Refs). Compared to their US counterparts, Chinese older adults report worse mental health outcomes (Ref); they have higher risks of depression and are more likely to report somatic psychiatric distress (Refs). There remains a significant need to eliminate the health disparities in the Chinese populations (Ref).* (no. 4)

As part of a research territory, these sub-populations or communities are generally framed negatively according to their otherness to the larger 'general' population, and it is this that makes them an object of interest for research:

> *As the Canadian population ages, and the baby boomer generation continues to retire in greater numbers, a new group of retirees – senior immigrants – is*

> *emerging as a population of interest to researchers and policymakers. Given the long-term influence of migration on an individual's life, and the over-representation of immigrant women amongst those facing underemployment, discrimination and social isolation, there is a growing consensus that their experiences of retirement may be different from those of Canadian-raised women and therefore merits further exploration (Refs).* (no. 25)

> *Recently the Australian government established a Drought Policy Review Expert Social Panel to examine the social impact of drought on rural communities (Ref).* (no. 2)

This deficit-based opening strategy appears at odds with the ethos of community-based research. However, its strategic purpose is revealed in the way in which these authors then go on to modify Move 2: Establishing a niche. Rather than indicating a gap *in* the research territory, all eight Introductions assert the gap is *of* the research territory. The conventional research territory of Move 1, established through reliance on top-down external expertise, is found to be fundamentally incomplete.

> *As a result, there is a lack of empirical data to document the health needs, health determinants and authentic voice of this marginalised community.* (no. 4)

> *Against this background, there is a need to identify and learn from successful models and best practice in nursing education, research and service* (no. 22)

> *Epistemologies which discount or marginalise community members' own ways of knowing how to support youth's success in school perpetuate knowledge hierarchies and lack knowledge equity and democracy (Refs).* (no. 26)

Moreover, it will remain incomplete, if communities remain mere objects of interest and without active involvement in the research that purports to know them. More

than once, it is the community itself that points out the partial nature of the dominant knowledge.

> *Further to this, 'A number of people informed the panel that, in their view, many of these groups [NGOs] may have lost sight of their client group'.* (no. 2)

> *It is within this context that housing providers in one Canadian city identified the need for a research plan …* (no. 12)

By introducing the community perspective, sidelined but authoritative, these Move 2 strategies call attention to the consequences – epistemic and phenomenal – of research territories that metaphorically evoke the disinterested establishment of 'matters of fact' but are actually highly restrictive in terms of whose knowledge and practices are valued and visible.

> *Under these circumstances, the risk of further stigmatisation and negative labelling of communities through the research process is all too real, and a problem-based approach can create a pathologising lens for researchers that obfuscates the strengths of communities.* (no. 14)

The establishment of the research territory, and then its identification as partial and deeply compromised by its exclusivity, paves the way for Move 3 to present in detail the current research response as *necessarily* inclusive and collaborative.

> *This article describes the local need that drove model development, key partner organisations and their roles, and the processes associated with the establishment of cross-sector collaborations.* (no. 11)

> *In this article, we examine the application of community-based research (CBR) principles and practices in the homeless sector and the implications for the production of knowledge and social change to address homelessness.* (no. 12).

> *This article discusses our efforts to deliberately work differently with retired immigrant women and to engage with them as partners in research and action planning.* (no. 25)

Three: Move 3 only

This next group is the largest, with 12 articles. The defining characteristic of this group is that they dispense entirely with Moves 1 and 2. I admit to being surprised by this discovery. Out of the total sample of 26 articles, 46% chose *not* to establish a research territory and gap for their research. While this study is not able to tell us anything about individual authors' motives, this high percentage of Introductions dispensing with Moves 1 and 2 suggests that there is something problematic about the concept of a 'research territory' for many involved in community-based research. As a descriptive metaphor, it's not straightforward or uncomplicated. Indeed, these authors are suggesting that it is a place that might be better avoided altogether.

These 12 Introductions therefore provide a good opportunity to look in detail at how authors present their research when they do not first seek to stake their relevance and legitimacy according to the extant literature or even to the 'real' world framed as a stable territory. What details are considered important, what are not? Nine out of 12 Introductions began with a sentence that typically represents Move 3: *'The purpose of this article is to …'; 'This article describes findings from …'; 'In this article, we explore …'*. The other three began with brief scene-setting illustrations, perhaps a nod to the traditional research territory, but here relating to either the partnership or the specific project under discussion.

> *Khadija, a three-year-old Somali girl, regards the artist quizzically – she is unsure how to respond to the suggestion that she 'use the materials to make something that describes family'.* (no. 5)

Following the fatal shooting of an individual with a mental illness in 2006, an inspector with Durham Regional Police Service (DRPS) contacted a nursing educator in the Faculty … (no. 7)

The Home Project was a three-year collaborative research project conducted in 2011-2013. It was established through a partnership … (no. 20)

Unlike more traditional Move 1 beginnings, which start wide and at a distance, with the authors absent, these Introductions are striking for their immediate use of details of first person, place and project. The authors (and/or the research team) are often present from the outset and generally remain so, while references to the literature are only sparsely included. One Introduction (no. 1), consisting of three paragraphs, includes 'we argue', 'we wish', 'we offer', 'we consider', 'we believe'. Some opening sentences, to illustrate:

This article reports on research initiated by the Rural Secretariat Regional Councils for the Corner Brook–Rocky Harbour and Stephenville–Port Aux Basques Regions (Figure 1), and undertaken in the Western Health Authority region of Newfoundland and Labrador (NL), where Corner Brook (pop. 19 886) is the only community of over 10 000 people (Ref). (no. 8)

In this article we explore how members of civil society organisations (CSOs) and academic researchers participate in a dialogical process of co-learning and co-research about the right to health. In particular, we are interested in knowledge that has previously been suppressed or undocumented. Our focus is … (no. 17)

This article reports on a school-university partnership that emerged gradually and respectfully as the partners came to know and understand each other. It was set in the context of a city coming to terms with a series of devastating earthquakes. The lead researcher had been a teacher and educator in the city and saw first-hand the way schools had risen to the occasion to support students and their families through this traumatic time. (no. 21)

These openings invite the reader to step straight into their project, their partnership, their felt concerns. It makes plain what the article seeks to do, without preamble. Rather than territory, what is conveyed is an intimate notion of terrain: the immediate, lived and living environment of the partnership rather than an abstracted disciplinary field. Another way of appreciating this is by looking also at what was not included. Various optional steps in the standard CARS model for Move 3, such as definitional clarifications, summarizing methods, stating the value of the present research and outlining the structure were rarely included. Of significance here is the infrequent use of references to the literature, even in those Introductions (just over half) that explicitly referred to a theoretical or methodological framework for their focus. It's a different sort of intellectual and methodological accountability that the authors seek to foreground, which they demonstrate through their rhetorical choices that prioritise fidelity to their partnership and its values. The literature does not play a leading role in these Introductions. Instead, it is lived and critical knowledge of the shared and evolving terrain that is used to establish the persuasiveness of the knowledge claims.

This is particularly apparent in what I've loosely grouped as: Move 3, Step 2 'Presenting the partnership'. This step (not always coming straight after Step 1 'Announcing present research') features markers of credibility and authenticity of a partnership and/or project. It included details such as the community role, authors' credentials, partnership arrangements and history, funding, size, scale, growth, longevity and future plans. This step occurred in every Introduction in this group, and in fact in nearly all 26 articles under analysis. The importance of this step is especially pronounced in this group due to the absence of Moves 1 and 2. Most times it comprised only a few sentences, but could extend to a whole paragraph:

> *The context for this CEnR project starts with the work of the community partner. The Guelph-Wellington Action Committee on Sexual Assault and Domestic Violence (the Action Committee) is chaired by a local violence against women agency and represents 29 organisations from various sectors (including law enforcement, victim services, child welfare, social services, religious community, addictions and mental health, health care and education) within*

the Guelph-Wellington community which provides services and support to women and children who have experienced sexual assault and/or domestic violence. The Action Committee has been meeting in different forms for approximately 20 years. It is one of about 48 Domestic Violence Community Coordinating Committees (also known as DV3Cs and Violence Against Women Coordinating Committees) in Ontario, Canada, and receives annual funding from the Ontario Ministry of Community and Social Services. Some of this funding has been used to create the position of an Action Committee Coordinator, who supports the work of the committee. The Action Committee Coordinator and a representative from Wellington Dufferin Guelph Public Health (one of the 26 agencies mentioned above) represent the community partners in this community-engaged evaluation research and are two of the authors of this paper. (no. 10).

A third consistently recurring feature of this group I've called Move 3, Step 3 'Announcing principal objectives'. This somewhat heterogeneous step may present the larger partnership and/or project goals as the focus for the article or it may identify a more specific subset of research questions it seeks to answer. It also often outlines methodological issues as its central focus. Again, the rhetorical emphasis remains on establishing credibility as community-based research. Now, however, by flagging a critical interrogation not only of what the collaboration did, but how. Such as:

To this end, we offer a discussion of our understanding of entry and the PAR values that inform it, as well as a critical evaluation of our own case study, examining strategies employed and challenges faced. (no. 1)

The BCT project and the collaborative partnership from which it was born are the focus of this article. (no. 5)

Key objectives of the partnership were strongly aligned with the university's core activities (research and teaching), but also included aims that appealed to its civic obligations. In particular, this involved creating local employment

> *opportunities and facilitating access to university infrastructure. These diverse objectives reflected incongruent, but not incompatible, aims for the partnership and some proved difficult to achieve.* (no. 23)

The final consistent feature was to conclude the Introduction by returning to the opening statement of intent, with the addition of key findings or themes to be discussed. Thus, the first and nearly every final paragraph of this group of 12 articles starts with 'In this article', or similar. Without a gap to fill, as it were, these Introductions achieve internal cohesion by reconnecting the opening statement (to discuss, explore, present, report, examine) with its primary research question and/or objective and insights gained. This strategy also helps establish the text's coherence with its environment by demonstrating the relevance and value of their research to others. This step is akin to the template's Move 3, Step 5 'Announcing principal outcomes', but has more of an overall drawing together function. Here are two examples of final-paragraph opening sentences:

> *This article presents our methodology for building co-learning spaces at the crossroads of university and community-based organisations and some of the challenges inherent in our research program, and also provides a self-assessment guide to epistemic injustices and participatory research that we collectively built during this process.* (no. 15)

> *In this article, we focus on the way in which the project's openness to emergent themes allowed us to target our objective of raising awareness of homelessness in the region through an investigation of the physical infrastructure of hospitality built into the Winsome Hotel.* (no. 20)

Four: Resisting the CARS model

This final group contains only two articles, which I offer primarily as speculative food for thought. Both articles involve community-based research with First Nations communities, in which Culture matters as much as do empirical facts. Their research

space is distinguished by being highly detailed and grounded in place, featuring myriad details such as the specific location, the weather, the time of day, animals, individuals and research partners present, emotions and direct speech. For the first and only time in the 26 articles under analysis, the 'objects' talk back – to borrow from Latour (2000). People speak, and others listen. What comes across is contextualised complexity: a terrain, not a territory, that is emergent, uncertain and populated (with humans and non-humans) and has a contested past. It is at times agitated. In addition, and crucially, there is no attempt, *at the outset*, to establish unity. There is no single source of authority, as we can see here:

> *One rainy spring evening our research team was preparing for a community report-back session… During the discussion, one man asked, 'Why are Aboriginal youth into hip hop, wearing baggy clothes and acting Black?' Many of the youth present were frustrated by the question.* (no. 13)

> *'Water is the life blood of our Mother Earth… Mother Earth gives us our medicine, her strength. If she is sick or weak, we will become sick and weak people.' Erin Johnston of the Keweenaw Bay Indian Community Natural Resources Department shared this story in her presentation to more than 50 research participants attending a Community and Partner Workshop (Ref).* (no. 24)

Here, where research itself has a history, science must cede – or share – ground. Neither of these Introductions deploy a familiar Move 2: Establishing a niche (which suggests that a gap depends for its existence upon a particular sort of research territory). Rather than a 'gap' to be filled, the critical justification required is by 'research' itself: what is its role here, what legitimacy does it have, how, and to whom? Perhaps this relationship between establishing an uncertain and complex terrain and a loosening of who can claim to know it (even partially) can be considered a kind of two-step move, as one implies the other.

> *This vignette also demonstrates how Indigenous identity expression has taken on political, historical, racial and nationalist signification and remains a site of much tension both within and outside Indigenous communities in Canada.* (no. 13)

> *Through this process, the question of 'when can we safely eat as much fish as we desire?' surfaced as a priority community concern. This seemingly straightforward question, which was not part of the original inquiry, helped to focus and integrate the work of atmospheric modellers, physical chemists, limnologists and governance-focused social scientists ...* (no. 24)

In both Introductions there was evidence of a familiar Move 3, Step 1, the obligatory 'Announcing present research'. This was signalled by 'In this article, we explore/argue …', along with specific statements of intent and references to the literature. Only at this point did one of the two Introductions identify a gap in the literature. Locating a gap in the literature as part of Move 3 deftly repositioned its relevance (socially and semiotically). Rather than a starting point, here it plays an important contributing role.

Discussion of key findings

One of the aims of this analysis was to compare the use of genre conventions by published authors with their use by peer reviewers. We saw before that the standard conventions for research articles played a central role in shaping reviewers' assessment of manuscripts and in the communication of their reasoning. These findings stand in contrast. While the CARS 'Create a research space' model for Introductions was widely and persistently used, this was primarily in order to subvert its traditional premise: the notion of a mute, uncontested, ahistorical research territory. Perhaps the most marked of these deviations came from the large number of Introductions in which authors opted to forgo the first two moves of establishing a research territory and establishing a gap. But all four groups experimented and adapted the basic template in some way (Figure 6.1). The text in blue in Figure 6.1 signifies the alterations to the basic template as I interpreted it.

Figure 6.1. The research article Introduction: Variations on a theme

Adhering to the CARS model

Move 1 Establishing a research territory *as collaborative* (citations required)

Via

- Topic generalisations of increasing specificity

Move 2 *Establishing a niche* (citations possible)

Via

- Step 1A: Indicating a gap or Step 1B Adding to what is known

With possible recycling of Moves 1 and 2 of increasingly specific topics

Move 3 Presenting the present work (citations possible)

Modifying Move 2

Move 1 Establishing a research territory (citations required)

Via

- Topic generalisations of increasing specificity

Move 2 *Establishing the territory as partial* (citations possible)

Via

- *Presenting its exclusionary nature and consequences*

With possible recycling of Moves 1 and 2 of increasingly specific topics

Move 3 Presenting the present work *as necessarily collaborative* (citations possible)

Move 3 only

Move 3 Presenting the present work (citations possible)

- Step 1 (obligatory) Announcing present research descriptively and/or purposively
- Step 2* *(obligatory) Presenting the partnership*
- Step 3 *(obligatory) Announcing principal objectives*
- Step 4** Summarizing methods
- Step 5 *(obligatory) Announcing principal outcomes*
- Step 6** Stating the value of the present research
- Step 7** Outlining the structure of the paper

* Steps 2-7: the order is not fixed; ** Steps 4, 6, 7 are optional

Resisting the CARS model

Move 1 *Establishing complexity* (citations possible)

Via

- *Presenting context without unity*

Move 2 *Establishing a role for research* (citations possible)

Via

- *Presenting agency of all those present*

Move 3 Presenting the present work (citations possible)

Part of the reason for the differences in use found between reviewers and authors has to do with the different reasons for using these conventions. Put simply, the difference between assessment of communal competence and that of unique performance (Devitt, 2015). I argued earlier that the reviews revealed three key concerns: conceptual, communicative and methodological clarity and rigor. These form the cornerstones of competence for the communication and dissemination of community-based research, which are fundamentally shaped by the Western scientific method and remain the primary evaluative yardstick of reviewers. For those wishing to participate in the scholarly publication of community-based research, these core expectations must be adequately met. Yet, there is no absolutely hard and fast rule as to what constitutes an adequate display of competence, as shown by these published articles. In fact, there is more variation occurring and allowed for than perhaps suspected. I write that as both researcher and editor. These published articles do more than simply use these key rhetorical resources: they adapt them, modify them and at times discard them.

In his early writings, Swales (1990, p. 164) notes that to begin an Introduction by going straight to Move 3, Step 1 'Announcing the present work', is certainly possible, but uncommon. He asks, 'Are they processed and composed differently? Can they be associated with less experienced writers, or with those who feel, for whatever reason, less need to establish a territory?' This observation was made over three decades ago, but its insight remains highly relevant nonetheless: motivation. I doubt the omission of Moves 1 and 2 by these authors was accidental, just as the other modifications and adaptations should not be considered irrelevant fancies. Why ascribe intentional agency to the conventional use of the CARS template but not to deviations from it? According to social semiotic theory, 'humans *make* signs in which form and meaning stand in a "motivated" relation' (Kress, 2010, pp. 9-10, italics in the original). There is a strong argument to make here that these authors' use of the resources of genre comprise deliberate and creative efforts to achieve specific purposes in specific settings. That is, to better reflect and further the theoretical, methodological and ethical stance of community-based research.

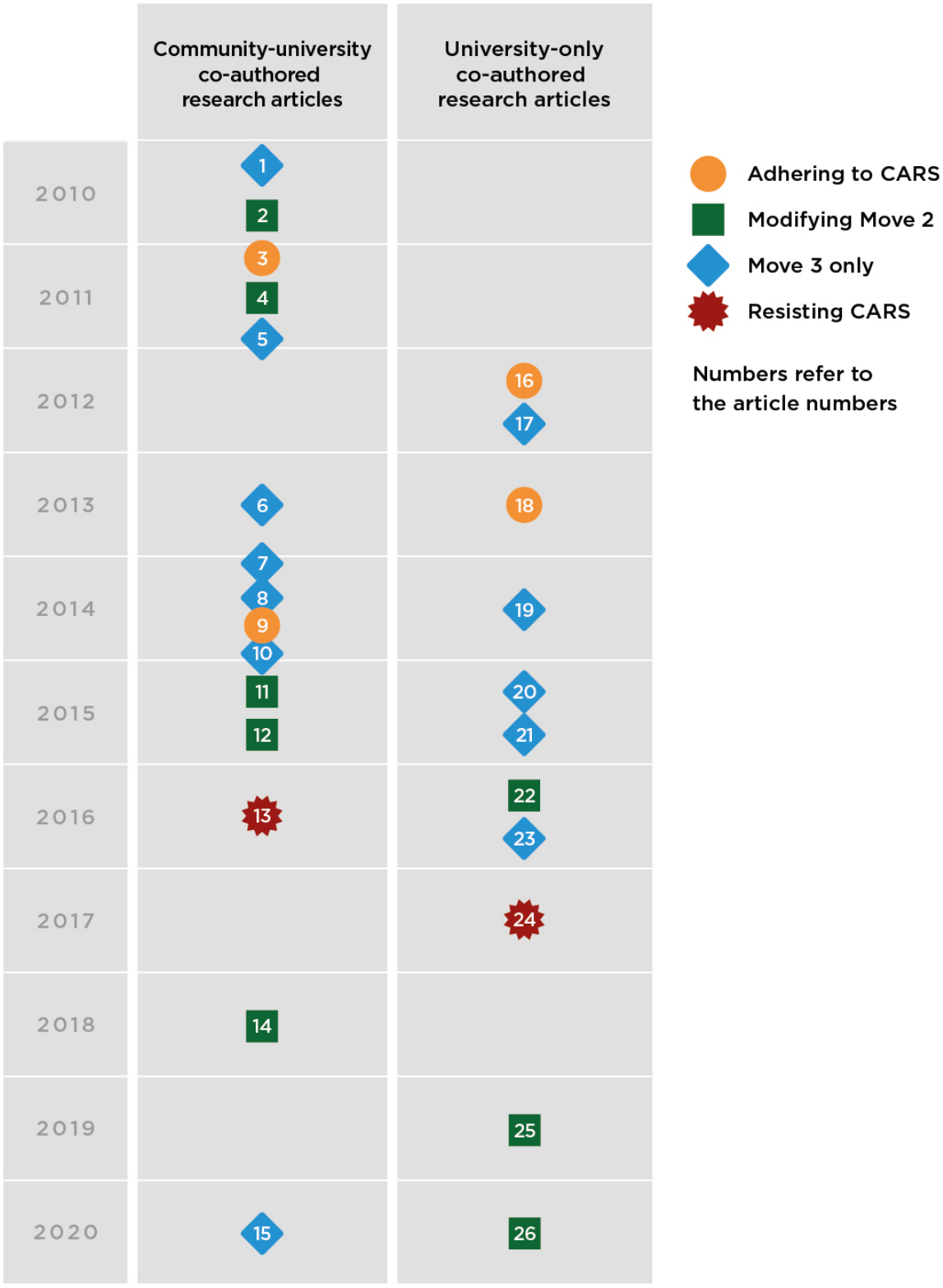
It remains the case, however, that these authors of peer-reviewed research articles must have first, or simultaneously, displayed competence. By this, I am not making an argument against the work or intentions of reviewers. I am explicitly not seeking to pit reviewer (or editor) against author. After all, these variations and adaptations were accepted by external reviewers, journal editors and readers. Rather, what interests me is how these various examples of motivated performance – now visible and shared – can help us think afresh about what institutional competence could look like. Doing things differently is not the same as doing things incorrectly. These findings demonstrate the ways in which genre conventions are resources, not inflexible rules. While the variations remain largely within the dominant model of recognition, as shown in Figure 6.1, the final example, 'Resisting the CARS model', most strikingly challenges the traditional template.

A second aim of this analysis was to see if there was any significant difference in the use of genre conventions between the two author groups. Figure 6.2 plots the four different uses of the CARS template over time by the two groups. We can see that both groups displayed a readiness to modify the basic 'Create a research space' model for Introductions, and that they did so in similar proportions (Table 6.2).

Table 6.2. Variation use, as a percentage by author group

	Community-university co-authored (n=15)	University-only co-authored (n=11)
Adhering to the CARS model	13%	18%
Modifying Move 2	33%	27%
Move 3 only	47%	46%
Resisting the CARS model	7%	9%

Figure 6.2. Use of CARS model and variations over time



As we saw earlier from the results of the online questionnaire survey of published authors from this journal, the greatest differences in demographics and experience lay not between community-based and university-based questionnaire respondents but between faculty and students, where differences in numbers of published articles, employment security and Indigeneity were most apparent. Rather than focus on differences between the two author groups, then, I would point to the difference between the use of 'Adhering to the CARS model', which occurs early in the timeline, and 'Resisting the CARS model', which comes towards the end, as indicative of the growing insistence upon including non-Western epistemologies within higher education and research. The two articles that used the 'Resisting the CARS model' both involved research with First Nation communities.

However, I am wary of over-extrapolating from these findings. The Introduction is only one place in which authors can signal in detail their intentions: social, political, historical and symbolic. Peer reviewers pay equal attention to the organisational structure of a research manuscript. The next section looks at how organisation is used by these authors.

SECTION III: Genre analysis of peer-reviewed co-authored research articles: the IMRD organisation

Introduction: Notes on the analysis

This third section of the genre analysis began as a relatively straightforward-seeming exercise to examine the organisation of the 26 research articles. The earlier analysis of 71 peer reviews of manuscripts revealed a consistent recommendation that authors adopt the conventional organisational model, Introduction, Method, Results, Discussion (IMRD), to improve clarity and 'strengthen' the article's core argument. This section's intention, therefore, was to determine whether published, peer-reviewed, co-authored research articles similarly relied upon this same organisational approach in their construction. After comparing and re-comparing lists of section and subsection headings, I can here confirm that, yes, IMRD is almost always used. However, what came more slowly to the surface was that isolating IMRD from all the other meaningful whole-of-text semiotic activity occurring on the page was neither very easily done nor particularly instructive. Indeed, after a careful iterative process of reading, analysing, sorting, revising, reading again, further sorting and analysing some more, it became clear that this initial 'simple' sorting stage, paving the way for the more profound analysis, proved *to be* the analysis.

I can't go back to the articles in their unsorted state and retrace my steps. So, as with the previous two sections, I present my findings and analysis here together, with the articles grouped into the three broad types that emerged: case studies; partnerships, processes and their projects; and critical methodology. The analysis shows clearly that these articles on community-based research are not all of a kind. In the journal in which they appear, peer-reviewed research articles are published as a single group. Thus, these different 'types' of research articles are not dictated by the journal. While some authors focus on sharing the findings of their empirical, collaborative research, most have other goals. Recognising this is a useful start, as it helps us investigate how authors' distinct purposes are realised through the use of different rhetorical resources, one of which is article organisation.

In the discussion that follows, I highlight the connections between *what* authors sought to do (their purpose and focus) and *how* they did it. Different rhetorical responses emerged in each group, shaped by and for different purposes. As before, I focus primarily on the whole-of-text (as opposed to sentence-level) conventions that readily and universally signal that a piece of writing is a research article, with organisational features such as section divisions and headings, the inclusion of Tables and Figures, and the citation of peer-reviewed literature. The findings and analysis that follow don't touch on every detail: deliberately so. My primary aim was to demonstrate that certain broad-based combinations do exist and are utilised for certain purposes.

Findings: Three types of research articles

One: The case study

Out of the 26 research articles under analysis, there were nine that self-identified as a case study. Somewhat surprisingly, eight were community-university co-authored; the last was co-authored by an Associate Professor and a graduate student. Thus, eight out of the 15 community-university co-authored research articles included in this study were empirical case studies: just over half. The community authors included individuals from non-government organisations, community activist coalitions, community-based professional umbrella organisations and networks, public hospitals and community health centres, and government agencies.

The fact that all these authors described their articles as case studies suggested a level of intentionality that made them a good place to start. Not only did they self-identify as case studies, but their explanation of what they were a case *of* was consistent across the group: how community-engaged research and collaboration can produce new, evidence-based knowledge in response to real world problems.

> *This article explores an innovative case of community-university partnerships through participatory action research involving a coalition of environmental*

justice and health advocates, the San Joaquin Valley Cumulative Health Impacts Project (SJV CHIP), and researchers affiliated with the University of California, Davis. (no. 3)

The objective of this research was to document healthcare access issues of individuals and groups less likely to participate in formal telephone surveys and focus groups … (no. 8)

This article presents an exploratory study, designed as an introduction to the topic of how CES [community engaged scholarship] can address food insecurity. It is also designed to encourage others to capture the voices of community partners in CES projects. (no. 9)

In this article, we discuss the A Crecer (To Grow) study, which examines SDH [social determinants of health] among Latino youth living in an agricultural community. (no. 14)

This article is an examination of the suitability of appreciative inquiry (AI) as an approach to investigate rural wellbeing. (no. 19)

In keeping with this very clear sense of purpose, seven out of the nine case studies featured specific research question/s. The inclusion of explicit research questions is one of the most distinguishing features of this group. Only three others from the remaining 17 articles also included specific research questions as the primary guiding focus of the article. The research questions in this group were most often included in the Introduction, thus comprising the central focus and a determining factor in the shaping of the article. Here are some sample foci:

In this article, we report on findings generated from community meetings held as part of the community resilience building approach used by the North East Riverina Rural Counselling Service (NERRCS) ... [T]his study uniquely focused on capturing community members' responses about what actions and goals they

would propose, in order to build and strengthen their communities for the future. (no. 2)

In this article, we draw primarily on focus group and interview data to address the following question: what are people's perspectives on ACT for Youth's organisational structure, goals, methods and early outcomes? (no. 6)

Specifically, this study examined three major research questions: 1) To what extent can simulations be used as a tool to educate police officers about mental illness and how to respond effectively in interactions with individuals living with mental illness?; 2) To what extent do simulations enhance police officers' confidence in their ability to interact effectively with individuals living with mental illness?; and 3) To what extent do police officers find simulations (a) easy to use, and (b) reflective of reality? (no. 7)

As with their shared sense of purpose, these articles are quite consistent rhetorically. In terms of organisation, they overwhelmingly follow the standard format for experimental research: Introduction, Method, Results, Discussion (IMRD). In some, these standard section titles are used almost without modification, except for the insertion of a 'Background' section:

(no. 7)
Introduction
Background
Method

- *Recruitment and participants*
- *Materials (with Figures x 2)*
- *Procedure*

Findings and discussion
Limitations and future research
Conclusion

(no. 13)

Introduction

Background

Methods (with Figure)

Limitations

Results

- *Aboriginal identity and cultural reclamation*
- *The complexity of culture (with Table)*

Discussion

Conclusion

(no. 19)

Introduction

Literature review

- *Reflection on the selection of AI*
- *AI themes aligning with wellbeing*
- *Critiques and limitations of AI*

Research case study design

Case study results

Discussion

- *Recommendations*

Conclusion

Even in articles with slightly more elaborate segmentation of sections and subsections, the core framework remains:

(no. 14)

Introduction

Methodological approaches to engaging marginalised populations in health research

Adolescent health, social determinants, and rural populations

Study purpose, setting and sample (with Figure & Table)

Conducting research with rural Latino youth: A Crecer approach

- *Community relationships and engagement: Development of the proposal*
- *Community relationships and engagement: School districts and community stakeholders*
- *Staffing the study: Community-engaged professional development*
- *Incorporating youth's perspectives (with Figure)*
- *Development of culturally appropriate research protocols*

Discussion

Conclusion

As can be seen from the above examples, the key addition to the standard template is one or two sections between the Introduction and Methods. While in some, a single section simply titled 'Background' is added, others provide a bit more specific information in the headings, such as 'The NERRCS approach' or 'Background: Health services in rural and remote regions'. The focus of these new additional sections is precise and consistent across the group: a section to establish community-based methodological validity; and another section to provide topic-specific context, usually in that order. While these 'Background' sections are only very rarely called 'Literature Review', they are overwhelmingly the place where the literature is cited, sometimes at great length. By and large, the literature is not returned to in the Discussion or Conclusion sections. (Interestingly, this proves to be the case with the great bulk of the 26 articles.) Even in the Introduction, the literature is barely cited at times.

As a resource, then, the scholarly literature is nearly always used in a very deliberate, circumscribed manner. It is an essential part of the evidence needed to assert the appropriateness and legitimacy of the chosen participatory methodology, as well as the importance of the research topic to both community and university. It needs to be noted, however, that the peer-reviewed literature is not the only source of legitimacy. These articles include details of the community partner/organisation's history, knowledge and experience, sometimes backed up with references to published articles on their work, as another source of evidence. These details are found in either the Introduction (four of these nine articles employed 'Move 3 only' Introductions, which were characterised by the presence of Step 2 'Presenting the partnership', as I've

called it) or in the newly created Background section covering the specific topic. Overall, these Background sections are concerned with contextualising complexity and do so by examining an issue at multiple scales (local, regional, national and global) as well as over time. For this task, the global written archive of knowledge is indispensable. But there it ends. For example:

(no. 2)

Section and subsection heading	**In-text citations**
Introduction	5
The NERRCS approach	17
Method - *Context* - *Participants* - *Ethics* - *Procedure* - *Data collection* - *Data analysis*	0
Results (with Tables x 4)	0
Discussion	8
Acknowledgements	0
Appendix 1	0

(no. 6)

Section and subsection heading	**In-text citations**
Introduction	1
The literature on community-university interactions - *Principles of productive community-academic collaborations* - *Graduate student involvement in community engaged scholarship* - *Youth participation in research* - *Evaluating or researching collaboration*	52

The project context – Assets coming together for youth research project	0
Methods and data	1
Findings - *Historical relations: Experience, expectation and ambivalence* - *Social and institutional relations: Academic grant-seeking, accountability and issues of voice* - *The centrality of learning*	9
Discussion	6
Conclusion	1
Acknowledgements	0

Swales (2004, p. 207) has noted that many modern experimental or data-driven reports have an 'hourglass arrangement': in the upper half, established knowledge is presented through reference to the literature. This is countered in the lower half by authors staking their own claim to new knowledge. The method, highly standardised, is of lesser importance in this competitive embrace, and needs do no more than hold the two steady. These articles here are the opposite, thick around the girth, from the Background sections to Methods and Results, and to a lesser extent the Discussion. The Introduction and Conclusion are concise, often no more than one page each. The three central sections marshal and interconnect a mass of context-dependent details, covering social, political, economic, geographic, environmental, historical, methodological, evidential, analytical and technical aspects. In every case, two or more different means of gathering data were used, including focus groups, public meetings, interviews, participatory mapping, art-based workshops, questionnaire surveys and kitchen table discussions. The rhetorical force of these sections lies in their sustained, multi-dimensional and detailed documentation of situated problem identification, investigation, findings and analysis.

As an example, and while approximate only, a page count reveals the Results section to be nearly always the largest, and this is also where Tables and Figures (including

graphs, maps, photos, drawings) are most often included. Quotes from participants are also present in seven out of the nine articles; they, too, are nearly always included in the Results section. More Figures and Tables were featured in the case studies than in the other two groups, and there were no abstract graphical representations, as occurred elsewhere. Their singular purpose is to provide thorough-going, real-world empirical evidence. For example, one article featured maps created using a Public Participation Geographic Information System, which displayed the spatial relationship between environmental hazards and social vulnerability indexes at the 'Census Block Group scale', along with a detailed explanation (no. 3). Given the hardworking nature of these sections, it is perhaps no wonder many authors use numerous subsections in the Results section to help guide readers through the findings. Following Swales again, these articles can be described as elaborate rather than clipped (Swales, 2004, p. 220). I include just one, standout example:

(no. 8)

Section and subsection heading	**No. of pages**
Introduction	*0.5*
Background: Health services in rural and remote regions (with map)	*2*
Methods and methodology: A CE approach - *Surveys* - *Kitchen table discussions*	*1.5*
Survey results - *Participant demographics (with Table)* - *Family doctor access (with Table & Figure)* - *Main health contacts (with Figure)* - *Access and barriers (with Figures x 2)* - *Physician shortages (with quotes)* - *Difficulty accessing specialist services (with quotes)* - *Difficulty accessing emergency services (with quotes)* - *Consistency of care (with quotes)* - *Difficulty with travel and cost of travel (with quotes)*	*5.5*

- *Wait times (with quotes)* - *Potential for nurse practitioners (with quotes)*	
Observations from kitchen table discussions - *Experiences accessing health services* - *Health services and professionals* - *Access issues* - *Solutions to improving access*	*1*
Discussion	*2*
Recommendations	*2*
Conclusion	*0.5*
Acknowledgements	*0.25*

Finally, the Discussion section warrants a few brief comments. Keeping my focus on their overarching rhetorical features, these pared-back Discussion sections are most noticeable for what is not there. In most of these case studies, this section is not long, roughly two pages, but often less. There are no subsections. There is no significant return to the literature, as mentioned already. It appears that the more crucial work has occurred in the preceding sections, Background, Methods and Results. Indeed, in three cases, the Discussion is part of the findings; in another instance, it is with the Conclusion. Limitations and Recommendations are occasionally treated as small sections in their own right.

Two: Partnerships, processes and projects

There are thirteen articles in this group, the biggest by far of the three. Six are community-university co-authored, the remaining seven are co-authored by university partners only. I want to start, as I did above, with their purpose, as stated by the authors.

> *The purpose of this article is to explore and clarify the importance of entry in community-based research on sensitive topics such as mental health and to*

suggest a framework for community research entry that uses the values of participatory action research (PAR) and specific engagement strategies. (no. 1)

The purpose of this article is to present the challenges faced in sustaining a community-university partnership when conducting a CBPR project with an elderly Chinese population in Chicago's Chinatown, and to detail strategies and lessons learned from meeting the challenge of cultural complexity in this Chinese community. (no. 4)

This article discusses and reflects on the community engagement that brought together our complex partnership to conceptualise, design, conduct and communicate evaluation research on one community's sexual assault and domestic violence (SADV) Protocol … Our goal is to offer [others] practical insights into community-engaged evaluation research while satisfying the principles of ethical conduct for community-engaged research. (no. 10)

In this article we discuss a CBPR project conducted in partnership with Buffalo Lake Métis Settlement (BLMS), an Aboriginal community in Alberta, Canada … [T]his article suggests that a needs and readiness assessment can be critical in reducing/responding to some of the above challenges, and it identifies a number of key ways in which this may occur. (no. 18)

This article discusses our efforts to deliberately work differently with retired immigrant women and to engage with them as partners in research and action planning … We identify promising practices for working within a collaborative and participatory framework based on the lessons learned from this project. (no. 25)

This group of 13 articles articulates a sense of purpose that is consistent within this group and is also clearly distinct to that of the case studies. That group was united by their argument that participatory methodologies can provide highly context-relevant and rigorous evidence-based answers to specific research questions of importance to

both community and university. This clarity of purpose was demonstrated through a high degree of consistency in the choice of rhetorical features in the written communication of that purpose. These articles here share a broader, more overarching purpose: to analyse and share lessons learnt regarding the processes, principles, characteristics, challenges and achievements of partnerships and their projects. It's worth pausing to note that this intention is implicitly posed as a *research* question. That is, just as with the context-specific case studies, these authors are arguing that project- and place-specific collaborations can be empirically and critically studied, and any subsequent insights can be used by others in different contexts, times and places.

As can be seen from the above purpose statements, these articles are focused on answering questions such as 'what did we do?', 'how did we do it?', 'what were the challenges?' Equally apparent is an understanding that rigorous, substantive answers will involve attention to values and principles. It is this exploration of partnerships – as a complex social act of outcomes-oriented research and reflexive scrutiny – that distinguishes this group of articles, and which influences its rhetorical choices.

The titles give the first indication of a careful, at times multidirectional, movement, featuring words such as 'supporting', 'sustaining', 'gently, gently', 'two steps forward, one step back', 'embracing complexity', 'shifting the evaluative gaze', 'you winsome, you lose some'. Also revealing are the way certain features strongly emphasised in the case studies are much less so here. For example, none of these articles explicitly foreground their research questions, though they could have: a small number note the research questions that underpinned their project or include references to their published articles presenting their topic-specific research findings elsewhere. But, unlike the case studies, those questions are contextual information only; they are not the focus here. Identified gaps in the literature can be understood in the same way. Just over half the articles expressly point to gaps (generally, in their Introduction). They are of two types: a gap in the literature that relates to evidence-based knowledge of partnerships – highly relevant here – and gaps that relate to their specific project – relevant only so far as they offer important contextual detail. Examples of the first type include:

> *Less attention is given to sustaining the partnership itself (Refs x 2), and investigating partnership sustainability through empirical evidence is also not granted the attention it deserves.* (no. 4).

> *Evidence of successful approaches to addressing allied health service inequity within remote locations was identified as a gap within the existing literature.* (no. 11)

> *While the literature on CUPs includes numerous case studies, many of which highlight successes, challenges and critical lessons learned, articles that compare and contrast successful and unsuccessful cases and clearly articulate why and how projects succeed or fail are less prevalent.* (no. 16)

Two examples of the latter type:

> *Traditional program evaluations often focus on the individual and evaluate program's success in changing individual behaviour (Ref). However, factors such as affordable housing availability and welfare reform play a significant role in the success of transitional shelter programs… Thus, we sought to shift the focus…* (no. 12)

> *Apart from inclusion in post-trauma psychological or medical studies, children and young people are often underrecognised or ignored in wider disaster research (Refs x 4).* (no. 21)

At a top-level, organisationally, the outline of IMRD undoubtedly remains, as does attention to first contextualising the partnership and its project. The emphasis, however, has shifted away from the tightly interwoven Background-Methods-Results arrangement of the case studies. Instead, the most prominent feature of these research articles is an expansive and descriptive Analysis/Discussion arrangement. A sort of sinking below the Plimsoll line, if you will. The presumptive certainties of the scientific method, able to be asserted with a single word such as 'Method', 'Results',

'Discussion', are frequently replaced with more suggestive and open-ended subheadings: 'Reflections on partnership sustainability', 'Analysis of the partnership', 'Christchurch schools tell their earthquake stories', 'Research priorities and goals'. Further, these Analysis/Discussion sections are the most involved. In many, these are the only sections to have subsections. They are also by far the biggest.

(no. 5)

Section and subsection heading	**No. of pages**
Introduction	*1*
The partners	*1.5*
The Building Castles Together project	*1.5*
Analysis of the partnership - *Mutuality/reciprocity* - *Interdisciplinarity/diversity* - *Community integration* - *Dynamic interaction* - *Asset enhancement*	*8.5*
Conclusion	*2*
Acknowledgements	*.25*

(no. 22)

Section and subsection heading	**No. of pages**
Introduction	*2*
Background to the program	*.75*
Establishing the communities of practice	*.75*
Research Design	*1*
Discussion - *What happened/changed? (with Figure)* - *Why did it happen?* - *What lessons were learned from our experiences?*	*5*
Recommendations for supporting communities of practice	*2.5*

- *Establish the identity of the group as a knowledge community* - *Institutionalise performance management of the community of practice* - *Use different platforms to explicate the value of communities of practice*	
Conclusion	*1*

(no. 23)

Section and subsection heading	**No. of pages**
Introduction	*.75*
Contemporary contexts for university-community partnerships	*2*
Contexts for the Carlton partnership	*1*
Promoting a community development model	*.75*
Method for the evaluation (with Figure)	*2*
Insights from the case studies - *Promoting social inclusion through sport – the Carlton sports carnival* - *Bridging the digital divide* - *Promoting employment and training opportunities for migrant-background men* - *Research and learning engagement in an educational setting*	*8*
Tensions and opportunities in university community partnerships	*2*
Concluding remarks	*.5*
Acknowledgements	*.25*

The exploratory nature of these top-level arrangements is also made clear by the amount of variation present. At one end, article no. 11 has 11 headings and 25 subheadings, while at the other, no. 20 has only 5 headings and 3 subheadings (as does no. 16). There are also three broadly distinguishable approaches to organising the

analysis. A small number of projects involved one university partner and various community partners, such as no. 23, above. In those cases, the analysis/discussion is divided by project. A second type is thematic: key characteristics of collaboration, such as no. 5, above. A second example:

(no. 18)

Introduction

Background to the research (with Figure)

Methodology of the project

- *Data collection*

Findings and discussion

- *The ambiguity of community*
- *The campus/community divide*
- *The demand for community participation*
- *Institutionalised practices*

Conclusion

The final four articles utilise phases, stages or levels in their section headings. Close reading, however, revealed that this conceptual framing ran through many of the articles in this group. The language used is relatively similar across them, such as: the pre-engagement stage, engagement stage, assessment, reflection and feedback stage, ongoing maintenance stage (no. 1); the initial stage, mid-term actions and long-term goals (no. 4); the nascent stage, action phase, and evaluation, assessment and scholarship phase (no. 5); the threshold dimension stage early in a partnership and 'ripple effect' if threshold dimensions are not met (no. 16); setting up, maintaining and sustaining, and concluding phase (no. 21); and yearly-based activities and results (no. 20 & no. 22). These chronological or calendar divisions offer substantial flexibility: they chart the narrative arc of establishment, progress achieved, activities undertaken, outcomes attained against concrete timeframe and funding deadlines. They are also loose enough that they can conceptually and semiotically make space for what one author team described as its 'unclear and divergent' path (no. 11); another, its 'sometimes convoluted and serendipitous path' (no. 21). For example:

(no. 20)

Introduction

Situating homelessness

Project description and discussion

- *2011: A place for everything (with images)*
- *2012: Winsome stories (with images)*
- *2013: You Winsome, you lose some (with images)*

Evaluation and conclusion

Acknowledgements

Stages, levels and phases thus track not only the passing of time, of time managed and measured, but of time spent together – even more, of time spent in each other's worlds. They articulate a notion of *along the way* that allows for the two features that emerged as the key concern of this group: to document outcomes-oriented research processes and partnerships in a way that is simultaneously and reflexively alive to the unanticipated. For example, in one five-paragraph overview of a project described as a 'perpetual work-in-progress', sentences begin:

- *Together this multicultural and multidisciplinary leadership team began the work…*
- *In its nascent stages through the spring of 2009…*
- *The project was a timely response to community need…*
- *However, as the project progressed, we came to understand…*
- *Thus, fairly early into the BCT timeline, our goal transformed…*
- *After almost a year of planning, the public artist joined our leadership team…*
- *We marked BCT at the inception and again at the conclusion…*
- *Although the BCT project has formally concluded, in that the designated funding has been exhausted, the project is really now in an evaluation, assessment and scholarship phase...* (no. 5)

Fewer Tables and Figures are used in these articles than in the case studies, but there is a greater variety of types, from abstract conceptual models to simple bar graphs to

photos of community celebrations. They are used purposefully and creatively, often signalling time spent together. In one case, for example, a timetable details graduate student activities over the course of a typical week, down to half-hourly slots (no. 11): this precision signals not just rigorous program design that can be transferred to another site, but a publicly accountable commitment by those university-based partners to be there, to be present in the children's classrooms from week to week. In another, the archival photos of a much-loved former Hotel connect with recent photos of art-based projects welcoming all, regardless – or because of – its contemporary use as a transitional shelter for homeless men.

In a similar way, the positioning of the literature in these articles is less constrained. Some Introductions draw on it extensively, but most do not; and while the Background sections remain the most heavily cited, several articles return to the literature in their later sections, including in relation to reflections, ethics, challenges and implications, tensions and opportunities. Correspondingly, the reference lists range a little more widely than occurred in the case studies, including works by authors such as Derrida, Flyvbjerg, Goffman, Latour, Putnam, Slaughter and Leslie.

Three: Critical methodology

This final group contains four articles, one of which is community-university co-authored. This small group took shape slowly during the analysis, with articles moving in and mostly out. With each round of revision and analysis, I pared the group back as a sharper focus took shape around a single particular question critical for the field of community-based research as a whole: does collaborative research address issues of social and cognitive injustice, and if so, how? While this group deliberately brings this focus to the fore, it is an implicit feature of this entire group of 26 sample articles. Here are the purpose statements of these four:

> *This article presents an innovative framework, based on the concept of epistemic injustices, for evaluating participatory research … We argue that participatory research can help provide a university-community co-constructed*

> *response to a certain type of social injustice – namely epistemic injustices – embedded within the processes of knowledge production.* (no. 15)
>
> *In this article we explore how members of civil society organisations (CSOs) and academic researchers participate in a dialogical process of co-learning and co-research about the right to health. In particular, we are interested in knowledge that has previously been suppressed or undocumented.* (no. 17)
>
> *In this article, we argue that interdisciplinary research addressing socio-ecological concerns and seeking community engagement can benefit from participatory forums in which power dynamics are intentionally flattened. Doing so allows for a diversity of voices to emerge and influence the project pathway.* (no. 24)
>
> *[T]his article builds on the notion of a 'knowledge democracy'. It does so in order to connect the 'values of justice, fairness and action' to the creation and use of knowledge (Ref) in relation to a particular low-income community. Our research shows a need to redefine educational 'knowers'.* (no. 26)

As there are only four articles in this group, my intention here is to highlight some shared features, rather than suggest definite patterns of rhetorical response. In some ways, these articles resemble the case studies more than the large group of articles on partnerships, processes and projects. Like that first group, this final group both articulates clear research questions and identifies gaps in the literature:

> *Our focus was on the following questions: To what extent do participatory research processes constitute laboratories for the production of knowledge in more egalitarian relationships? … Did the research project make it possible to hear voices or knowledge previously absent from the public space?* (no. 15)
> *[A] literature review led us to share [Ref's] statement that questions of epistemic injustice in relation to community engagement activities have rarely been interrogated.* (no. 15)

> *This article concentrates on two questions: How does a co-research process enable the surfacing of previously suppressed or undocumented knowledge? And how does this process of surfacing enable the dissemination of knowledge that would not otherwise be accessed?* (no. 17)

> *[T]his article addresses a gap in the literature covering research methods and critical discourse related to power dynamics and counter-narratives, particularly where research involves Indigenous communities.* (no. 24)

> *While articles on PAR research often emphasise process, this article centres our findings on community members' knowledge, with the direct intent of challenging abstract academic knowledge of low-income communities' lives, which often frames them in terms of deficit.* (no. 26)

Organisationally, as with all the articles, we can again see clear traces of the standard template: Introduction, Background/Context, Methods, Results, Discussion. Such as:

(no. 17)
Introduction
Surfacing knowledge
The Learning Network (with Tables)
Methods for researching co-learning and co-research
Findings and discussion

- *Process for surfacing suppressed knowledge (with Figure)*
- *Capturing and disseminating surfaced knowledge*

Conclusions
Acknowledgements
Appendix

However, almost immediately, this emerging community-based research template is modified to highlight the epistemological implications of community-based research. For example, a heading such as 'Surfacing knowledge', above, references the dominant

metaphor of the research territory, and challenges it in the same move, akin to the cadastral grid imposed over the landscape. This overtly political intent is found throughout the four articles to a degree that is not present in the others. For example, the three articles all pointedly complicate longstanding conceptions of expertise and how it is known, deliberately choosing to do so in the location and activity normally signalled unproblematically as the 'Literature review'. In its place, we have:

A research program on epistemic injustices and participatory research (no. 15)
Community engagement in research design and practice (no. 24)
Low-income communities, knowledge democracy, and youth success in high school (no. 26)

These articles very intentionally work towards making space for other forms of expertise, with the full awareness that to do so involves a redistribution of power. They are concerned with holding community-based research accountable to that core premise in very concrete ways: gone is the descriptive language of partnerships as generative, serendipitous and emergent, as we saw earlier. Their succinctness here is more akin to that of the case study. The sub-section headings explicitly include the community partner. For example:

(no. 24)
Introduction
Community engagement in research design and practice
Atmosphere-surface exchange pollutants
The ASEP Project

- *The case: The Global Transport of Toxic Compounds*
- *Opening up space for equitable exchanges*
- *'When can we eat the fish?' (with Figure)*

Conclusion

Each section leads purposively to the inclusion of the community's voice: 'When can we eat the fish?' Rather than including it as data or supporting quote, it is positioned

here as part of the architecture of the article, as a subheading, of equal weight to that of the scientific expertise. Another of these four articles also deliberately makes community voice visible in its headings and subheadings. In what would otherwise be its 'Results' section (no. 26) there are two subsections, 'Tree of community knowledge and engagement' and 'Canopy of ontological knowing'. Also featured is an image of a tree mural created by the community. The communities' contributions are not included as raw data but as conceptual models for their lived knowledge practices. The authors have signalled this on the page: these are the only two articles out of 26 to include community voice in their headings and subheadings.

Another final example is in the use of appendices by the authors of two of these four articles. (Only one other article in this sample of 26 included an appendix: an example of community action planning and goal setting arising out of a participatory forum approach (no. 2).) In this group, the two appendices include detailed interview questions and tools for investigating epistemic changes as a result of community-based research. One, 'Appendix: A self-assessment guide on epistemic injustices and participatory research', is now in its third version, informed by diverse users, and is freely available through a CC BY 4.0 licence for others to adapt and use, with appropriate acknowledgement (no. 15).

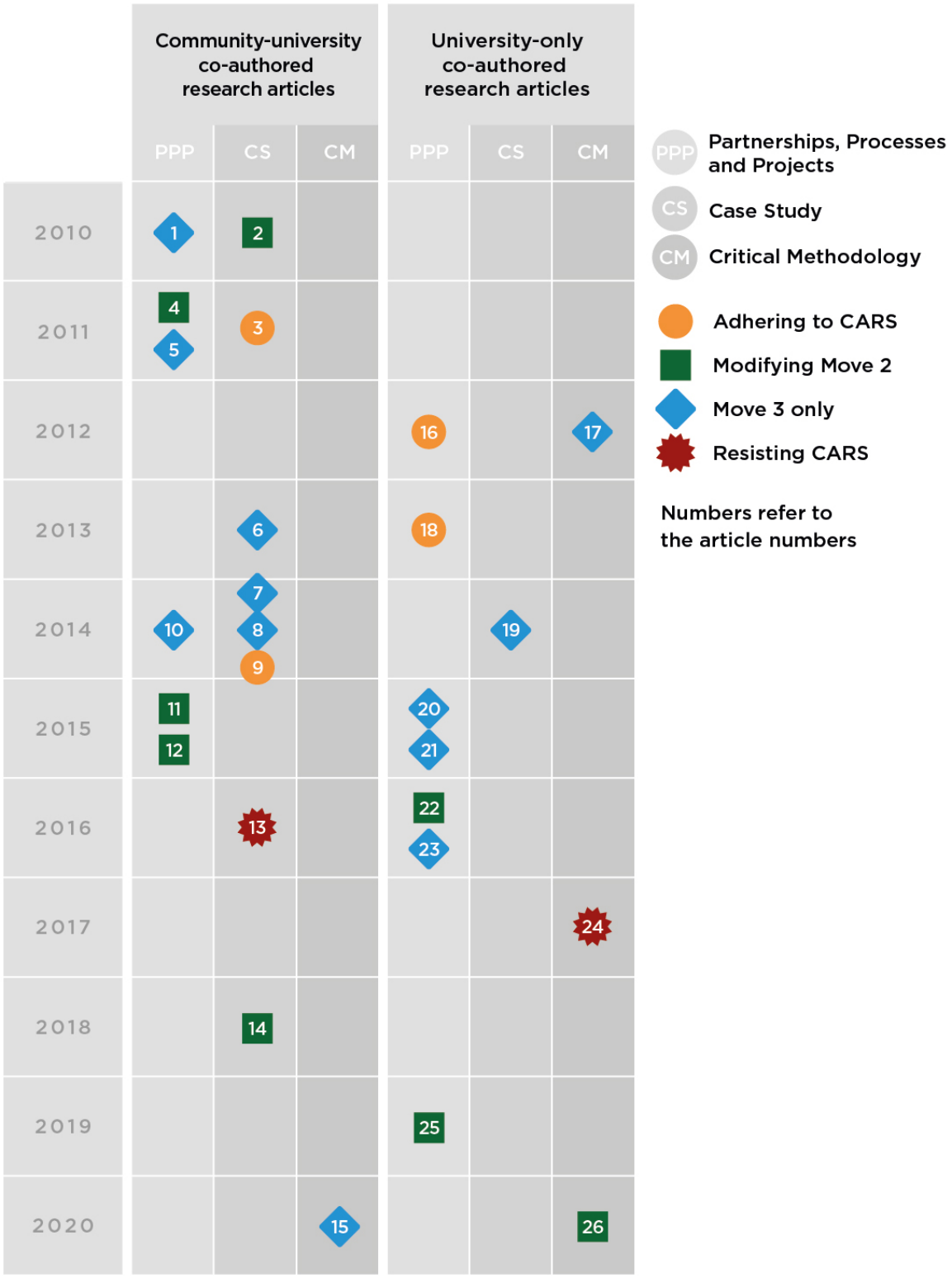
Discussion of key findings

There is one main exercise I wish to undertake here: to investigate if there is any relationship between the four Introduction variations identified and these three article types. The following Figure 6.3 overlays these three types on to the earlier Figure 6.2. It quickly became apparent that there isn't any overriding relationship between Introduction and article type: case studies feature all four Introduction variations, the other two article types each feature three of the four. It would have been surprising if there had been, for the question was conflating their distinct purposes. The Introduction, as we have seen repeatedly now, carries the conceptual load of the research article most explicitly. It is where authors assume – and are granted – the most rhetorical freedom in their approach to staking their knowledge claims.

Introductions are the most internally diverse, the most literary of all the sections, with occasional quotes, vignettes and images. By contrast, the standard organisational arrangement of Introduction-Method-Results-Discussion, even allowing for differences in length, emphasis, choice of evidence and additional subsections, does not substantially alter across the whole sample. Its persuasiveness comes in large part from its familiar and efficient orderliness: a particular sort of clarity. Peer reviewers consistently look for this arrangement. While only a supposition, these findings suggest that the opposite might struggle to be recognised: an article with a conventional Introduction but atypical organisation and non-conventional subheadings would not be accepted without revision.

Bazerman (1988, p. 119), discussing Newton's publication of his optical findings in 1672 in the *Philosophical Transactions of the Royal Society*, described Newton's ground-breaking 'rhetorical strategy of leading the readers very carefully down an intellectual and experiential path, controlling both the reasoning and experience of the reader' as 'the juggernaut as persuasion'. That might seem quite far back in history, but traces of that social-semiotic juggernaut undoubtedly remain.

Figure 6.3 Research article types with Introduction variations



Final considerations and next steps

Demonstrably, the standard genre conventions of the empirical research article influence and shape communication and dissemination of community-based research. They are the default position of peer reviewers, especially, but also of authors: the conventions are anticipated and relied upon, even as individual articles simultaneously adapt, modify or partially reject them. At one level, there is enormous practical value in bringing this to light. The findings comprise a detailed presentation of the 'architecture' of research articles, drawing attention to these under-scrutinised, yet significant institutional and communal practices. As far as I am aware, this genre-based analysis of co-authored empirical research articles and reviews is a first for the field of community-based research. Sharing these strategies – highlighting that there *are* strategies – may aid participation by non-academic partners and co-authorship teams in their writing.

This gives us a clue to the importance of genre conventions. Much more than words on a page, they are profoundly useful. Genre analysts explain that their central function is to help make recurring social acts of communication recognisable, acceptable, repeatable: meaningful. They help stabilise the inherent complexity of any individual instance of communication with its interconnected, ever-changing socio-historical worlds. We would be lost without them, exhausted.

Stability and usefulness, of course, are not neutral. They involve choices and preferences, and exclusions. Even the ability to integrate and accommodate variation is not necessarily benign. I commented earlier on the push-and-pull between competence and performance seen in the differences between the reviews and the article Introductions. Competence is a type of performance, and it is easy to forget today how the dominant genre conventions of the experimental and empirical research article, such as the three-step CARS template for the Introduction or the IMRD organisation, evolved over hundreds of years and with much deliberate effort. It is easy also to overlook that slow, fraught process and to miss the many attempts at deviation and resistance still occurring. This is another of the significant contributions

of this analysis: it makes clear the sustained effort towards stabilisation *and* contestation – often within the same article.

For example, clarity was a central concern of the reviews. This ideal was called upon in multiple ways: reviewers were looking for a clear sense of the authors' purpose, their understanding of community-based research and the importance of the research for the community and wider field; they wanted a thorough understanding of how the research was conducted, the evidence gathered and the method of its analysis; and they sought internal cohesion and outward-facing coherence across the many parts and purposes of the research article, particularly in the way it was organised. There were repeated requests for 'real evidence', not impressions or descriptions, for specifics not generalities, for appropriate understanding and application of the literature, a precise indication of original contribution, and a demonstration of relevance and need to both community and academe. In contrast – and at the same time – authors (and reviewers, too) noted myriad details of their research partnerships, were deliberate in the way they called upon the literature only when needed, imaginative in their use of images, drawings and quotes, reframed and resisted the notion of the research territory and utilised more than one conception of time and progress.

Stepping back from the thick detail, it is the contrast between convention and performance that becomes significant. By making plain that authors employ genre conventions in a range of ways – by organisation, balance, weight and tone, with subheadings and the addition of sections, and specifically placed references to the literature – the contrast ruffles the otherwise smooth surface of the standard genre conventions for the research article. It is this that points to the deeper importance of conventions: to what's at stake. More than just efficiencies of language, these different rhetorical choices are purposeful, they are in aid of something, and they are influenced by those somethings. Geertz, quoting Wittgenstein, has written of a 'whole cloud of philosophy condensed into a drop of grammar' (Geertz, 2001, p. xii). These genre conventions talk to us. In the specific context of co-authored community-based research interacting with the empirical research article, I suggest that this central

something is the legitimacy of alternative ways of knowing and of alternative expert knowers coming together in collaboration with scientific, discipline-based ways of knowing. The cumulative evidence presented here shows how co-authors of community-based research are actively navigating and asserting their participatory and collaborative claims to legitimacy within a hierarchical, established institutional space, such as an online academic journal. Reviewers, tasked with a differently weighted duty, emphasise the need for those same claims to demonstrate their credibility according to this hierarchically-established institutional space.

What are the implications of these findings? For authors, I hope I'm not speaking only for myself when I write that there is a rich resource here for others to use and build upon. More importantly, perhaps, there is a lot for journal editors to consider. There is a clear need to respond to what authors are making plain, and what respondents to the online survey also emphasised: the authenticity of the partnership is fundamental to the legitimacy and credibility of research that wishes to call itself engaged. This requires providing details of that authenticity, not as background data but as a fundamental starting point. It also demands different sorts of evidence and different methodological stances to concepts such as the research territory. Scientific rigor and expertise are a vital part of this, but not more than that. This needs to be reflected more clearly in the guidelines for authors and peer reviewers.

Ironically, given that I started this chapter by reflecting on the call for 'expanded author guidelines', a primary result of this research has been a greater understanding of the need for expanded *referee* guidelines. Appendix 6.4 presents an amended guideline, based on the findings from this chapter and from the survey findings. While ostensibly for reviewers, it is offered as a starting place for discussions with authors, reviewers, readers and journal editors. The guidelines may now better encourage and reflect what community-based researchers are already doing. As the material analysed was of empirical research articles, these guidelines best apply to those types of articles only. They would not be entirely appropriate, for example, for a philosophical or theoretical discussion of community-based research, or a more radical departure from convention. As a resource, therefore, they only partially light the way forward. Of all

the findings, this perhaps is the most significant: that any one way of knowing can only provide so much. Other paths are also needed.

Communicating multiple accountabilities

Emerging from this analysis is a detailed, greater appreciation for the ways in which the genre conventions of the research article, whether followed, modified or rejected, tell us about the social goods at stake: authority, legitimacy, credibility. Bazerman (drawing on the work of Ludwik Fleck) calls this the 'accountability' of texts, their 'fundamental commitment'. He writes, '[s]cientific discourse, therefore, is built on accountability to empirical fact … over all other possible accountabilities (such as to ancient texts, theory, social networks, grant-giving agencies), and must subordinate other forms of accountability … to the empirical accountability' (Bazerman, 1988, p. 62). The multiple and often shared strategies of authors to modify and challenge the traditional conventions of the research article occur within and as part of wider efforts to navigate and challenge this long-standing dominant form of accountability.

Nonetheless, there remains a curious 'lag' between the methodological stance of community-based research in practice and conceptually in the literature, and their semiotic realisation in its written communication and dissemination. This gap is most apparent in the long-standing persistent absence in the literature of substantive contributions by non-academic experts – those practitioners, professionals, activists and community members whose expertise at the point of scholarly communication and dissemination is too often rendered mute, absorbed, marginalised. This research shows empirically that it remains broadly true that a truly inclusive, multiperspectival, robust and repeatable semiotic path for the communication of community-based research is yet to fully emerge from among the myriad rhetorical choices available, including the dominant conventional ones.

The multiple and mounting crises confronting us make it necessary to insist upon the above. Scientific rationality, on its own, is insufficient to meet the demands of our age.

Visvanathan has written of the difference between participation, which he describes as an 'externalist measure', and presence, 'the constitutional right of different systems of knowledge to exist as part of dialogue and debate' (Visvanathan 2005, pp. 91-2). This thesis draws on the notion of an 'ecology of knowledges', proposed by Boaventura de Sousa Santos (2018), to imagine and pursue this more radical notion of presence. In contrast to the competitive ecosystem of globalized science, or the older (but still influential) privileged and elite community of gentlemen scholars, an ecology of knowledges argues for a dialogue of diverse ways of knowing and being that does not seek to dissolve difference.

As a field, community-based researchers need to continue expanding and developing its own rhetorical solutions to meet the transformative communicative goals of community-university engaged research. A scholarly article that presents non-discipline-based expertise in collaboration with scientific discipline-based expertise should look, feel, be different. Genre conventions are tools – they can be refashioned and used by different hands for new purposes, with different and multiple accountabilities. Bazerman (1997, p. 1) puts it perfectly when he writes that 'Genres are not just forms. Genres are forms of life, ways of being. They are frames for social action … Genres are the familiar places we go to create intelligible communicative action with each other and the guideposts we use to explore the unfamiliar'. The next chapter explores the potential for scholarly communication and dissemination of an ecology of knowledges.

Chapter 7: Exploring an alternative methodology for communicating and sharing collaborative research: A case study of the *Endeavour voyage* exhibition

Co-authored with Shona Coyne, National Museum of Australia

Introduction

This chapter explores how collaborative research can be communicated and shared *as* collaborative research. It does so by examining a museum exhibition that, I argue, manages to articulate plurality, 'without the one cancelling out the other' (Muecke, 2017a). This chapter, like the one before, is still very much interested in genre conventions as a semiotic resource, but the directional focus is now reversed. The previous chapter studied written texts to learn about the ways in which genre conventions organise and negotiate the competing social, historical and institutional accountabilities at stake in community-based research. This chapter foregrounds the social and cognitive urgencies of such change-oriented research to better understand their alternative semiotic realisation.

To consider the above broad objective, I have restricted the empirical focus. This chapter features a case study of an exemplary collaboration and its publicly shared text from a related institutional space, that of the museum. The exhibition, *Endeavour voyage: The untold stories of Cook and the First Australians*, was held at the National Museum of Australia (NMA), Canberra, to mark the 250th anniversary of Cook's HMB *Endeavour* sailing up Australia's east coast in 1770. The exhibition sought to include both views: those of the ship and the shore (Trinca, 2020). It involved the collaboration of eight Indigenous communities with the museum and included painting, song, sculpture, performance, video and spoken stories alongside Cook's diaries and other significant historical written documents, drawings and artifacts from the *Endeavour*. This case study is offered as a snapshot at a particular moment, rather than a study of change over time (social or semiotic). However, a key reason for focusing on this exhibition is that it belongs to a growing number of innovative Australian museum

exhibitions characterised by their commitment to First Nation contributors that they would 'tell their story, their way' (Ingrey et al., 2020, p. 16). This chapter has been written in collaboration with Shona Coyne, of the National Museum of Australia (NMA), the lead Indigenous curator of the exhibition. I am also grateful for the input of Dr Shannyn Palmer regarding the NMA's Cultural Connections Program.

In examining a collaborative museum exhibition – in order to imagine collaborative research articles – I utilise a broad definition of 'text'. Taylor & van Every (1993, cited in Phillips et al., 2004, p. 636) defined a text as being 'any kind of symbolic expression requiring a physical medium and permitting of permanent storage'. More recently, Kress (2010, p. 147) shifts away from a stress on permanency by noting that makers and users (readers/audiences) recognise a text 'by a sense of its "completeness" … that it "makes sense" by itself, in its appropriate social environment'. Further, there is important institutional overlap between museum and academic journal. Nugent (2020, p. 160) writes of 'the major transformations in museum practice which re-envision the museum as a social space that gives "voice" and "presence" to people and pasts that have long been excluded'. The evidence presented in the previous chapters suggests such a major transformation is yet to happen in co-authored community-based research writing, though change is certainly underway. This potential evolution makes this comparative case study illuminating for those in higher education, such as myself, an academic editor, who are similarly concerned with making institutional spaces more diverse and inclusive.

At the same time, there is clearly some distance between this museum-based case study and the potential application I am seeking. This can be an advantage. For one, it can help clarify the limits of the case study: this chapter is not a study of the evolution of museum exhibitions in Australia, nor is it a study of Australia's changing attitudes to its past and peoples. At the same time, a certain degree of strangeness can be a useful prompt, born of necessity, to make one's intentions, methodology and findings explicit. This chapter is both theoretically and analytically rooted in social semiotics and the contributions of genre and discourse analysts. As such, I am making a strong

argument for the significance of collaboratively authored texts and the social and institutional changes they can both reveal and effect (Phillips et al., 2004).

So far, my analysis has primarily focused on the written word. Following van Leeuwen's (2005, p. 3) guidelines regarding what semioticians *do*, the previous chapter responded to the first and second of the three main activities he outlined: one, 'collect, document and systematically catalogue semiotic resources'; and two, investigate their uses in 'specific historical, cultural and institutional contexts'. I demonstrated the context-rich insights that can come from fine-grained semiotic analysis of the peer review and the research article. In particular, I explored how genre conventions of the research article play an active role in 'wording' meaning in complex rhetorical situations, making them both powerful and versatile, and far from 'value-free' (van Leeuwen, 2005, p. 128).

My focus now is on the third of van Leeuwen's suggested activities: to 'contribute to the discovery and development of new semiotic resources and new uses of existing semiotic resources'. Put simply, this chapter is interested in change. It therefore seeks to foreground the conceptual work underpinning and driving the articulation of that change, as a means to aid the discovery of the diverse semiotic resources involved. In particular, I want to see how innovative social-semiotic work can also be cohesive and coherent, and *not* chaotic. The 'gap' we have seen between the participatory stance of community-based research and the standard genre conventions of the research article is due to more than a lack of skill with (the right) words. While we may still recognise internal, formal cohesion, there is a lack of coherence between the text and its environment. As Kress (2011, p. 207) explains, 'The [semiotic] principles of coherence are social in their origins and, being social, they "track" social changes – though social and semiotic pace may not necessarily be the same'.

In order to imagine how cohesion *and* coherence might be realised in the multivocal and multiperspectival communication and dissemination of community-based research, this chapter uses the conceptual lens offered by the work of Boaventura de Sousa Santos (2018) to consider the inclusive and participatory semiotic strategies of

the *Endeavour voyage* exhibition. The choice of Santos is highly relevant to institutionalised museum and journal practice. As discussed previously, at the heart of his work is a deeply held belief in the world's inexhaustible diversity of ways of knowing and being. This forms the core of his relentless critique of what he describes as the 'abyssal' nature of modern Western thinking, especially scientific and legal (Santos, 2007). It is the basis of his argument that there can be no social justice without cognitive justice. But it is also hopeful, as it holds onto the belief that a better world is possible. Through pluralistic, experiential and pragmatic dialogue, Santos argues that learning about other knowledges need not involve forgetting one's own, and that the current 'massive waste' of social experience and understanding can be retrieved and valorised (Santos, 2014, p. 238). Far from being excluded, Western science is a crucial participant in this dialogue, its contribution vital once understood as being neither disinterested nor universal.

In the following exploratory discussion, I present Santos' conceptual lens and the exhibition methodology as if in conversation with each other. In this way, I hope to do three things. One, gain a better understanding of Santos' complex epistemological and methodological framework by grounding it in actual practice. Two, guided by Santos' theoretical framework, trace an emerging alternative methodology – as made visible in the text – for the communication and public sharing of diverse ways of knowing and being in non-hierarchical discussion and debate within an institutional space. Three, this contrast and comparison responds to the challenge of semiotic analysis to balance the fine-grained discourse analysis with contextual 'zooming-out' so that the analyses could 'mean something to someone else' (Rogers, 2011, p. xviii). Analytically, the objective here is not to offer an alternative template, as judged against a pre-existing standard, but to take seriously the social and semiotic sense of 'completeness' being presented on its own terms – in all its diversity and multimodality.

Santos identifies three main objectives for an ecology of knowledges: 'the identification of knowledges; the procedures for relating them to each other; and the nature and assessment of real-world interventions made possible by them' (Santos, 2007, p. 25). In order, these form three of the following four organisational

subheadings for the analysis and findings: the sociologies of absences and emergences; intercultural translation; and an artisanship of practices. The fourth section, which comes first, is the wager. My interest is in their collective potential to reasonably form persuasive and coherent 'guideposts' for others in their communicative efforts, such as community-based researchers in higher education. First, however, the background context and exhibition itself are introduced.

The case study: Context and introduction

> *Actually, the museum has an old habit of thinking they were the one authorised voice. That's now no longer accepted or expected and so the exhibition has been applauded for highlighting First Nation perspectives and making sure they are up front and centre.* (Shona Coyne)

The *Endeavour voyage* exhibition was not a one-off. Over the past decade, Australian museums have showcased a number of highly innovative collaborative exhibitions featuring First Australians' ways of knowing and being alongside, and leading, those of Western scientific expertise. While the focus here is on *Endeavour voyage: The untold stories of Cook and the First Australians* (National Museum of Australia, 2 June 2020 – 26 April 2021), this discussion is informed by an emerging curatorial practice, as evidenced in other notable exhibitions, including:

- *Songlines: Tracking the Seven Sisters* (National Museum of Australia, 15 September 2017 – 25 February 2018, touring nationally and internationally)
- *We don't need a map: A Martu experience of the Western Desert* (Fremantle Arts Centre, 17 November 2012 – 20 January 2013, touring nationally)
- *Yiwarra Kuju: The Canning stock route* (National Museum of Australia, 30 July 2010 – 26 January 2011, also touring nationally).

This history is important. The curators of *Endeavour voyage* noted the significance for them of an earlier exhibition at the NMA, *Encounters: Revealing stories of Aboriginal and Torres Strait Islander objects from the British Museum* (27 November 2015 – 28

March 2016), which 'avoided glib oppositional statements that set one perspective against another' (Trinca, 2020, p. 8). Similarly, Lead Curator Margo Neale (2017, p. 17) wrote that *Songlines* 'shares its DNA with other exhibitions of recent years', including *Yiwarra Kuju* and *We don't need a map*. With each new iteration, a collaborative and participatory curatorial methodology took shape, enabling the serious examination of substantive questions from multiple perspectives using multiple modes. Common to these exhibitions was a commitment that Indigenous elders, leaders and their communities would tell their stories, their way. Also common to them was that they were hugely successful, as just one measure, audience attendance numbers, makes clear. This too is important.

Data comes from one-on-one semi-structured interviews with Shona Coyne, Menang woman, lead Indigenous curator on the *Endeavour voyage* exhibition and Manager Repatriation and Community Engagement, NMA. Two online interviews were conducted, each one lasting one hour, in November-December 2021. The interviews were transcribed and shared with the interviewee, as was this chapter (draft and revision). Secondary data comes from the peer-reviewed literature, including various museum publications accompanying the exhibitions. I also visited two of the four exhibitions. First, however, Shona Coyne gives an overview of the exhibition, and us, the reader, an expert guided tour.

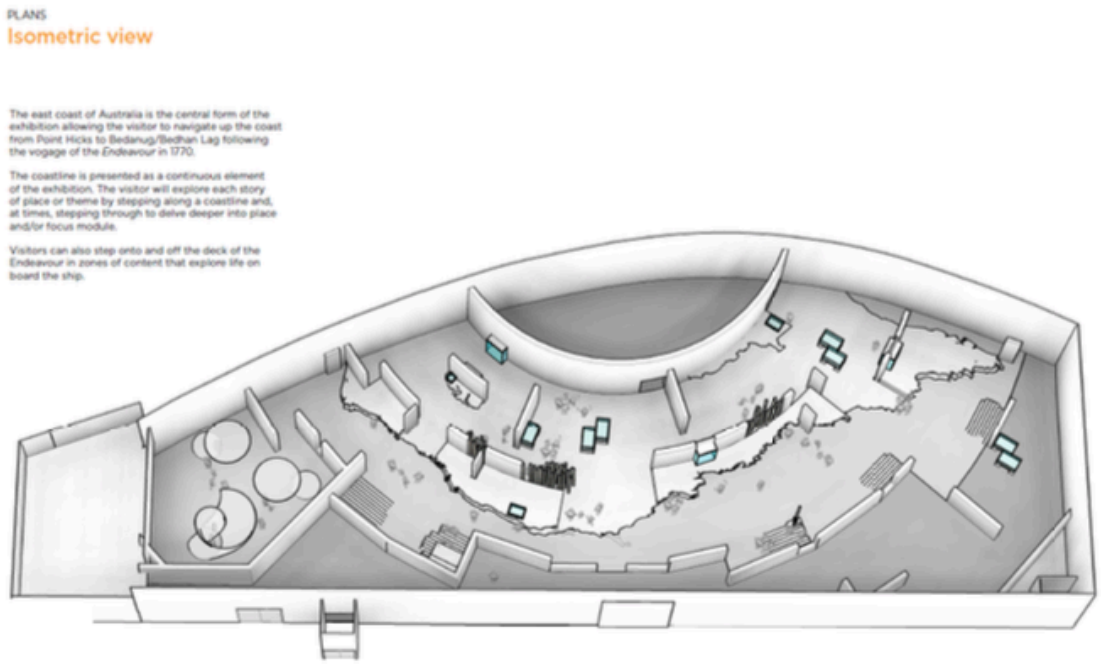
Introducing the* Endeavour voyage *exhibition

I'm Shona Coyne, I'm originally from Albany, Western Australia. I'm Menang/Nyungar, from the Nyungar Nation. I started as a curator at the National Museum of Australia as one of the lead curators of the Endeavour voyage exhibition, which was about two and a half years in the making. I was responsible for doing the community engagement on the ground with around nine different communities from Victoria, Australia, all the way up to Torres Strait. I'm still doing curation, but I am also now the Manager Repatriation and Community Engagement.

The Endeavour Voyage: The Untold Stories of Cook and the First Australians *exhibition was a government funded initiative, the anniversary of a defining moment in Australia's history. We definitely could have just done the Cook side; we certainly have plenty of material. However, audience testing with three different groups, all said, 'We already know the Cook story, what we're really interested in hearing is the Indigenous perspective'. So, it was very intentional that we wove together the two stories. We reached out to some key groups, particularly the ones in La Perouse, New South Wales, and the ones in Cook Town, Queensland. We worked with many others, but they are two very significant landing and interaction spots. We were really seeking to feature a balance between the Indigenous and non-Indigenous stories and perspectives and objects that related to this period or time.*

We covered beyond 250 years' worth of content, from what happened before to what happened at the moment Cook landed, to what does contemporary community life look like today, in 1000 m^2. We laid out the physical exhibition to follow the east coast of Australia. It takes people on a journey, they're following a timeline, which is a natural sensation and process by which people can understand the voyage (see Figure 7.1)*. Through that we've woven in all the Indigenous perspectives. You dip into country, you actually walk into Australia, and you get to hear these different stories, these different perspectives. So, for example, Cook and Banks are hearing these men on the shores shouting, 'Warra warra wai'. They think they're saying, 'Yeah come on in, come ashore, that's great'. But we've woven in the Indigenous perspective, and actually those words, 'Warra warra wai', mean you're all dead. So, they're saying, 'Go away, you're all dead, you're not supposed to be here'. We presented both of those perspectives. Not to be an argument with each other but just be sitting beside each other. You can make up your own mind about what really happened.*

Figure 7.1. Isometric view, *Endeavour voyage* exhibition layout (Source: National Museum of Australia).



With storytelling you can go with the flow of that conversation, and it isn't always linear. For instance, the exhibition started with the waterspouts. I imagined when we set it up, that people would go, 'What is this? Why am I seeing the waterspouts here, what is this all about?' I wanted that to happen because I wanted them to feel unsettled. We weren't looking to prescribe what visitors got out of it, we were just looking to present the different kind of stakeholders in the story. That is wicked storytelling when you can do that.

The exhibition methodology, the design and curation process, everything involved doing all the consultation first. We had several changes for iteration, feedback, and then we moved onto the design process. We had a style guide stipulating that on each of the introduction walls there would be a picture of Country, with a diary entry, whether it be Cook or Banks or Parkinson, and on the same wall there would be a community quote. We also wanted to communicate language, so we intentionally used all the language names for all the places. Wherever possible, dual naming. A conversation was happening in every space.

It is immersive, so people can put themselves in the shoes and in the positions of Cook and the crew – it must have been an awful experience to have been on the ship for that long – but also in the shoes of community at the time. There was quite a big investment in audio-visual elements. There were choirs and songs, there were videos from Indigenous astrophysicists talking about looking at the stars in comparison to how Cook was doing it. There was a massive video instalment by Alison Page that was 8 m tall and 10 m wide.

There are levels along that way which mean you only get the certain bits of knowledge that you need at the time. This happened to me when I was doing the consultation, I was picking up all these little bits, I was having all these experiences and things were falling into place for me. It wasn't just about the Cook story, it was about understanding community and culture and history, and I can't say it in words but how incredibly fulfilling it was to have that experience, when the pieces joined together. It was the best thing in the world to have that feeling, when stuff makes sense because you've been given bits of knowledge and now you can apply it and you can feel it.

Analysis and findings

The wager

In the 17th century, Blaise Pascal proposed that it was rational to believe in God, or at least to live one's life as if one believed in God, 'because it is the *best bet'* (Hájek, 2018, italics in the original). Santos utilizes Pascal's wager to propose that to bet on the possibility of a better world remains our 'only alternative', as, otherwise, 'the rejection of or nonconformity before injustice in our world make no sense' (Santos, 2009, p. 120). He goes on to ask, 'who is the wagerer in our time? … [T]he wagerer is the excluded, discriminated, in a word, oppressed social class or social group and its allies'. As with any wager, there is risk involved, borne unequally by the wagerers: those risks associated with the struggle against oppression; and the risk of discovering that 'another and better world is, after all, not possible' (Santos, 2009, p. 120). This exhibition can be considered the outcome of one such wager.

> *The exhibition was a government funded initiative marking the 250th anniversary of the Endeavour voyage to Australia in 1770 … In thinking about how we would tell this story in such an exhibition, we were keen to come up with a new way of talking about this story, one that addressed how, for the most part, the Indigenous perspective on this history had been completely missing.* (Shona Coyne)

The anniversary was framed as a research question: 'How should we acknowledge or mark this anniversary?' By understanding the occasion as one that warranted researching reflects and responds to what Santos (2009, p. 110) describes as the dominant characteristic of our age: 'the discrepancy between strong questions and weak answers'. Responding with a wager – that a better world/answer is possible – involves a rejection of both familiar 'weak answers' and the temptation to substitute one overarching theory with another. Shona Coyne notes how a '*fundamental starting point*' for the museum was to go to community groups first and ask: '*Are you happy for us to do this story? Do you want to be a part of its telling, do you want to support it?*' At its core, to counter hegemony, the wagerer argues for and from the 'principle of incompleteness of all knowledges' (Santos, 2014, p. 189). Here, in the full glare of sociohistorical and cognitive injustices, the museum proposed that an ecology of knowledges was the best bet.

Proposing the wager initiated a particular methodological response: a collaboration of all those with a stake in the wager, starting with the most excluded. As Santos argued, risk accompanies the wager. Thus, while an active collaboration with First Nations peoples was sought from the outset, the ongoing risk, clearly identified by Shona Coyne, had to do with voice: '*What voice are we using when we're telling this story?*' During the extensive consultations with First Nation communities, Shona noted how discussions were occasionally very challenging. Though a member of the Menang/Nyungar community, she was also an employee of the museum, and her welcome into communities wasn't necessarily straightforward. At one community consultation, a senior woman silenced the room with her warning to Shona that

'Cook's name is a swear word around here' (Coyne, 2020, p. 183). Similarly, within the museum, there were negotiations over who could say what.

There is another essential element to the wager: there must be witnesses. They, themselves, are diverse; they are part of the wager and part of the methodology. The museum conducted extensive audience testing and knew that the public was very interested in hearing from First Nation communities directly, without a museum filter. This public interest was shared with communities during consultation. As Shona noted, '*Part of my role was to highlight the opportunity to correct a wrong, to finally fix the bit of history that had been missing for so long*'. At the same time,

> *It was also an opportunity to give audiences, both here in Australia and international visitors, a chance to reflect on and reconsider the events of 1770 through providing these diverse perspectives within the exhibition. The concluding modules of the exhibition remained intentionally unresolved as we left it up to our audiences to make up their own minds on this incredible shared history.*

Most importantly, the presence of legitimate and credible witnesses as part of the exhibition both heralded and helped safeguard the wager. Once again, those normally not conceived of as witnesses, or at least not as particularly important or knowledgeable witnesses, were the ones that most needed to participate with some agency. In this instance, it was the general public and children. Indigenous-led storytelling and art-making workshops were held with children as part of the curatorial methodology, with 'around 70 children between the ages of nine and 12 at three schools' producing approximately 100 prints and paintings (Withycombe & Zouwer, 2020, p. 36). These were included as part of the exhibition. In addition, the exhibition included 'people pops', written or drawn responses by museum visitors to the question, 'How do you think we should mark the anniversary of the *Endeavour* voyage, now and into the future?' (Coates, 2020, p. 136). These witnesses, in their tens of thousands, contributed an 'insightful archive' of perspectives, built in real time (Coates, 2020, p. 136). In both cases, their contributions were included without

significant museum 'filter' (selection, yes, as only a representative sample was displayed). These three elements – the wager, acknowledgement of the risks of participation and witnesses – were explicitly and implicitly part of the exhibition.

The sociologies of absences and emergences

> *I have named it Point Hicks, because Leuit*^{t} *Hicks was the first who discover'd this land.* (James Cook, 19 April 1770)
>
> *Cook didn't discover Australia. Our peoples were already here. Cook had no rights or consent to give our coastline Anglo-Saxon names.* (Aileen Blackburn, Monero/Yuin)[1]

According to Santos (2014, p. 164), the 'most fundamental characteristic of the Western conception of rationality is that, on the one hand, it contracts the present and, on the other, it expands the future'. Contraction is due to a 'peculiar conception of totality'; expansion to 'the linear conception of time and the planning of history'. To counteract this, Santos proposes the sociology of absences and the sociology of emergences. The task of the former is to expand the present by 'adding to the existing reality what was subtracted from it', while the latter contracts the future by adding to the existing reality only those 'realistic possibilities and future expectations it contains' (Santos, 2014, p. 184).

As sociology, 'this model of inquiry' works through participatory, pragmatic, experiential and non-extractavist methodologies grounded in subject-subject relations (Santos, 2018). A sociology of absences interrogates the 'five monocultures' of Western modernity that exclude so much: 'valid knowledge; linear time; social classification; the superiority of the universal and the global; and productivity' (Santos, 2018, pp. 25-26). It does so by substituting ecologies for monocultures: of knowledges; of temporalities; of recognition; of trans-scale; and of productivities (Santos, 2014, pp.

[1] Side-by-side wall panels in the exhibition and reproduced in the exhibition catalogue, *Endeavour voyage: The untold stories of Cook and the First Australians* (Coates, 2020, p. 62).

179-180). Santos' great focus is on an ecology of knowledges, as it is for this exhibition, but it is hard to imagine one without the others, and traces of all five can be seen here.

The selection of locations and First Nation communities to include in the exhibition was carefully considered to make a central point: there would be no one, united response to this anniversary by First Nation peoples, or by non-Indigenous for that matter. Communities at eight locations along Australia's east coast were included, as was a ninth place, Georgian England, considered 'central to the narrative of the voyage' (Coates, 2020, p. 58). In addition, the exhibition included the experiences and opinions of all those on the ship, Cook *and* crew, exploring how they changed over time as they sailed up the coast.

In her discussion of the extensive community consultation and engagement undertaken, Shona Coyne describes how *'some of the communities we went to said, "We don't really know much about this history", or they weren't that interested in the retelling of Cook's story [and] that was just as valid. For others, this story represented the ongoing trauma of colonisation'*. No perspectives were rejected or dropped for not being valid or for a lack of means or readiness to contribute, as Shona notes. Instead, they were represented collectively through specially chosen art works, such as 'Captain James Crook' by Jason Wing, Biripi (2013), a bronze bust of Cook wearing a black balaclava. Objects seemingly unrelated to Cook's voyage were also included. As Shona observed, '*You know, actually, in some ways Cook's visit was so fleeting.*' A typewriter (used for a successful Land claim) deftly and with great sophistication conveyed not only what was of greatest importance to many – the reclaiming of land and language – but the seriousness of their involvement in this exhibition, and the seriousness of the questions raised (Coates, 2020, p. 69).

Apart from sculpture, painting and drawing, the exhibition featured song, performance, woven objects, still images, video, spoken word. Bringing all this into an institutional domain with integrity involved a significant methodological commitment. One good example of this effort was a series of well-resourced 'on-the-ground' art workshops conducted with three Indigenous art centres in north Queensland. Cook's

and Bank's journals, maps and drawings were read and shown to the artists, a first for many, and critically reflected upon as part of their artistic responses. The process produced 'creative breakthroughs in artistic practice' with great variety in material and form (Circuitt, 2020, p. 30). Shona explains the process as '*community participants giving their perspective of the story through beautiful artworks like the lightboxes created by the Gamba Gamba women of Hopevale in far north Queensland*'.

This community-led collaborative approach can be seen in all four exhibitions mentioned above. *Yiwarra Kuju: The Canning stock route* was described as, 'first and foremost, a collection of "first voices"' (Pickering, 2010, p. xiii). Similarly, to ensure that *We don't need a map* 'shared a true Martu experience of the desert', every Martu language group was included, along with land care workers and rangers (Coates et al., 2013, p. 13). Visitors to the *Songlines* exhibition were greeted upon entry by 'the main characters in the narrative: life-sized, three dimensional woven *tjanpi* (grass) figures of the Seven Sisters and Wati Nyiru seated on the ground' (Neale, 2017, p. 18). More life-sized projections of senior custodians occurred throughout the exhibition space, guiding and welcoming museum visitors to their journey through Country.

The sociology of absences is concerned with making manifest in collaborative exhibitions, such as this, all that has been discarded, deemed irrelevant: valorising what has been wasted. This 'expansion of the present', achieved above, may suggest a plethora of possible futures. However, Santos argues that it is the task of the sociology of emergences to focus attention only on those 'plural and concrete possibilities, utopian and realist at one and the same time [that are] constructed in the present by means of activities of care' (Santos, 2014, p. 183). Instead of an infinitely expanding future, the sociology of emergences highlights just those 'embryonic realities', the 'building blocks of the politics of hope' (Santos, 2018, p. 28).

It is in this sense that Shona explains the need for both perspectives, respectfully given, noting that, '*as the perspectives of First Nations peoples were sometimes created in response to the established historical account of Cook, they needed to be exhibited alongside each other. In tandem, these often-polarising perspectives helped*

in the creation of new inclusive narratives about Cook'. Alongside the substantive display of diverse First Nations' knowledges and perspectives on the 250th anniversary of the *Endeavour*'s voyage were presentations of significant Western scientific practices and perspectives: maps, journals, botanical specimens, drawings, instruments, precious spears taken by Cook in 1770, and a cast-iron cannon from the *Endeavour*, thrown overboard and later retrieved from Australia's Great Barrier Reef in 1969: historical and contemporary objects.

The final question, asked of visitors at the end of the exhibition, 'How do you think we should mark the anniversary of the *Endeavour* voyage, now and into the future?', indicated where we should focus our attention (Coates, 2020, p. 136). The exhibition, as a whole and in all its detail, led up to that final question, both hopeful and realistic about the future. The exhibition catalogue at times couched this hope in more critical tones. Reflecting on the title of the exhibition, Nugent (2020, p. 163) argues that 'these are not so much untold stories as "unheard" ones … the power of the word "untold" derives from its two other meanings: the idea of many (or uncountable) and the idea of brilliant or excellent'. Davis (2020, p. 178), in her discussion of a proper reconciliation process writes: 'What does truth and justice require of us as a nation? It requires us to speak about the truth unencumbered by the patrician proclivity for "both sides" [of] history.'

Intercultural translation

> *[T]here was quite a lot of discussion about how the story in the exhibition should start. Should it begin in Plymouth from where Cook left? But after poring through the ship's journals, we identified a significant moment where Cook and the crew first sight the eastern seaboard and, soon after, they encounter three waterspouts. For me, that was a powerful moment and metaphor to begin the story with. It was a moment which incorporated different understandings of Country, of having Country speak to you, to all our exhibition audiences, just as Country was speaking to the HMS Endeavour crew back in 1770.* (Shona Coyne)

In the first area of the exhibition, visitors were greeted by three floor-to-ceiling woven installations dramatically recreating the waterspouts seen from ship and shore in 1770. At once foreboding Ancestral spirits and curious natural phenomena, ways of knowing simultaneous and contemporaneous, this art piece perfectly encapsulates Santos' multiple ecologies.

Santos writes, 'In my opinion, the alternative to a general theory is the work of translation. Translation is the procedure that allows for mutual intelligibility among the experiences of the world, both the available and the possible ones, as revealed by the sociology of absences and the sociology of emergences' (Santos, 2004, p. 179). Intercultural translation involves collaboratively building 'enough solid consensus to allow for the sharing of struggles and risks' (Santos, 2018, p. 33). It requires an openness to engage with the world of others as it is for others. Reciprocal and respectful communication is central, which can involve speech, writing, the body, emotions, the senses, nature, objects. As such, this democratic work can be carried out by activist or academic, leader or participant, individual or group. In this case study, the work of intercultural translation can be seen through the collaborative and multimodal design of the exhibition.

Shona describes an innovative two-day community consultation workshop with elders, senior community leaders, curators and exhibition designers held at the museum to plan and imagine the exhibition. '*We mapped out the initial concept of the exhibition and explained both the ideas behind it and how we imagined it might look. We invited all participants to critically engage with these ideas, and suggest other options, identify things which were missing or things which didn't gel. The room was filled with pieces of paper, sketch maps of the 1000 m^2 exhibition space and a cacophony of thoughts, emotions and ideas. The content was recorded and was a crucial influence in developing the exhibition.'* This workshop is particularly noteworthy because community input did not end with their expert and artistic contribution but moved 'in house' and helped shape 'the structure of the telling of the story', as van Leeuwen (2005, p. 126) puts it. In terms of what was made manifest in the exhibition, we can think of intercultural translation as the work of the organisational layout. This

significant workshop led to the co-creation of a layout that coherently facilitated movement, through time, across space, between viewpoints, facilitating dialogue among the hundreds of objects, in various modes and mediums, with a large audience.

The guiding principle of the design was to use constant comparison to unsettle notions of standard/deviation or centre/margin. The waterspouts talking to us at the outset made this plain: while this installation did not seek to replace Western ways of knowing, it certainly sought to displace and decentre them. The exhibition was spatially arranged along the length of the gallery to represent Australia's east coast, from south–north, but it also worked east–west, as well as from ship and sea to shore, to land and sky. As Shone explains, '*It was about place.*' Place, not the ship, guides the journey. Crosscutting the vertical axis were paths into Country which, according to Shona, '*gave you the sense that you were stepping into Country yourself.*' This movement was deliberate, as this is precisely what Cook and his crew did not do. In this sense, movement through the exhibition became an act of translation. It invited scrutiny by the exhibition visitor from multiple perspectives. '*The exhibition raised questions all along the way and following along with the ship's journals, you can also see how Cook and the crew behaved differently in each of the locations.*'

This comparative approach was used extensively. Side-by-side wall panels with quotes from ship and shore were used throughout, such as those at Munda Bubul (Point Hicks), included above. Shona explains how '*We used the same format in each of the locations with a quote from the ship's journals accompanied by a community member quote. Sometimes the quotes were responding to the other. Others were in direct conflict or highlighting something quite different altogether about what was happening at the time or place.*' The exhibition intentionally included Indigenous language names wherever possible, but not in italics, as is often the case for 'non-standard' words. Also important is what was not included, in this case, curatorial and explanatory commentary on the quotes.

An artisanship of practices

If the work of intercultural translation is to support dialogue and reflection across difference, without loss of autonomy, the artisanship of practices is the political work of alliance-building among groups, activities and knowledges to support the substantial challenges of intercultural translation. These protocols and practices design, build and validate 'articulations between struggles', both within and among groups. Santos (2018, p. 35) argues that '[w]e are talking of an extremely specific job that keeps universalism at bay'. As such, these protocols themselves should be non-hierarchical and egalitarian; creative rather than mechanical; rely on repetition rather than one-offs; and be characterized by the solidarity of a coalition of counter-movements.

Much of the crucial relational work that underpins this exhibition, the work that strived to keep 'universalism at bay', is not directly visible to the public. The collaborative art and in-house design workshops are examples of this. In addition, a major undertaking by the museum was the Cultural Connections program, which Shona described as '*part of the give back*'. The program offered employment and professional development opportunities and built 'cultural-worker skills and capabilities in communities' intended to outlast any one exhibition or anniversary (Trinca, 2020, p. 8). The Cultural Connections program '*followed in [the] footprints*' of the exhibition. Shona explained that this work contributed greatly to the community relationships being built, and helped '*demonstrate that the National Museum of Australia was committed to supporting cultural practitioners and communities to develop and/or share their cultural knowledge, histories and stories in a way that was meaningful to them*'. Other exhibitions have offered similar programs, suggesting this was an integral part of the methodology.

There is a last aspect of this case study which warrants consideration as visible strategic alliance-building that contributed to the multifaceted legitimacy of the exhibition: the guided tours and the exhibition catalogue. Both displayed careful negotiation of authority and credibility and were another instance of witnessing. Shona conducted many tours for various individuals and the public, in which she

stressed that the project was a number of years in the making '*and the majority of that was community consultation*'. She describes how she used the art as prompts for the public to ask questions of themselves, without having to make it explicit:

> *We selected key pieces which intentionally led our audiences to ask themselves questions behind their meaning or interpretation. One of these artworks was Michael Cook's* Invasion (Giant lizards) [2017], *a tongue in cheek, photographic artwork which re-imagines Australia's colonial history with Australian animals invading London's city centre. On my tours, I used this artwork to talk about a myriad of contemporary topics. I can entice audiences into thinking how different our history might have been. I can also talk about the destruction of sites of significance, and I can create empathy for how First Nations people may have felt seeing Cook and his crew arrive.*

The exhibition catalogue is a permanent record of the substantial scholarly and community expertise that informed the exhibition. While it includes contributions by diverse authors, including First Nation contributors to the exhibition, as an example of 'the solidarity of a coalition of counter-movements', it is not without dissent. As indicated above, some hard questions were asked. As Davis (2020, p. 178) writes, 'there is a colossal difference between black-cladding white institutions or white exhibitions, and building, funding and sustaining black institutions and black exhibitions'. The contingent and contested nature of this exhibition is undeniable. Shona reflects that, *'if you want to tackle topics like this, you have to have the money, the time and the support to do this work properly; otherwise, you probably shouldn't do it'.* Arguably, contingency has always been the case in museums and in research articles; it is just that this collaborative methodology made it more visible.

Discussion

> *In our culture, things, you have experiences, like knowledge is shared through an experience, you translate that experience into knowledge. Do you know what I mean?* (Shona Coyne)

The primary aim of this case study was to examine the emerging collaborative curatorial methodology for a multivocal, multimodal and non-hierarchical museum exhibition. This was done through a back-and-forth engagement between Santos' concept of an 'ecology of knowledges' and an analysis of the exhibition as 'text', in which this collaborative and critical methodological stance was made visible to others. The rationale for this exploratory approach was a theoretical and analytical understanding of meaningful sign-making as being both socially shaped and socially shaping. What is present in collaborative texts reflects wider social change and also effects it, and analysis tells us something of the sociopolitical who, why and how of texts. A secondary goal, therefore, was to consider, in bottom-up fashion, what this collaborative exhibition suggests about the evolving social purpose and enactment of communication in an important institutional space. Relatedly, the final aim, with which I conclude this chapter, is to consider these findings as a possible guide for the multimodal and non-hierarchical presentation of co-authored community-based research in peer-reviewed academic journals.

I want to note first some of the challenges of this case study. Santos' enormous wealth of ideas posed two main risks: that of being able to pick and choose from among them to achieve a desired result; and, conversely, of a false simplification as a result of having to exclude so much. In response, I deliberately stuck close to the core ideas running through all of his thinking over the last two decades or so and tried to address those few key themes in some detail. These same risks applied to the exhibition – selective inclusion and misleading exclusion – but were mitigated by the critical collaboration of Shona Coyne. As my empirical focus was on the publicly shared text, there were some elements of the methodology that were not examined. Nevertheless, I was at times surprised by the close match between theory and concrete example.

A final issue, with which I wrestled, was an unavoidable segmentation of the exhibition's conventions into categories, as posed by the conceptual lens. The difficulty of this was most evident in the section on the artisanship of practices. Arguably, the entire exhibition, implicitly and explicitly, could have come under that heading. This realisation helped clarify for me Santos' thinking around this key proposal. What this collaborative exhibition demonstrated was a sustained and critical attention to *lived practice*, to what they actually did together. Their critical, sustained relationships are the artisanship of practices – an embodiment of the political work that must underpin community-based research if it is to be meaningful and change-oriented for all.

Innovative collaborative exhibitions, such as *Endeavour voyage: The untold stories of Cook and the First Australians*, and others like it are useful because they are demonstrably different. Different to what's gone before, different perhaps to what's expected. Their differences draw attention to their doing – in this case, the intentional, situated and relational knowledge-producing activities that resulted in an exhibition in which visitors could see, feel and hear those differences. The analytical and experiential clarity they afford, through their novelty, inevitably rebounds on other texts in similar situations. The question to consider here is how do we translate from this one example, one which is drawing from and adding to its own emerging practice for museum exhibitions, to other settings?

In considering this, I want to briefly highlight two key aspects of the earlier discussions of genre analysis and semiotics. The first is Gee's definition of discourse/Discourse, with its emphasis on language, be it spoken or written. In this formulation, 'little d' discourse refers to the analysis of language at the level of sentence, the connections among those sentences, and the detailed study of 'language-in-use' in specific contexts (Gee, 2014a, p. 19). 'Big D' Discourse meanwhile involves the analysis of language plus 'everything else at human disposal' (Gee, 2014a, p. 24). This separation/integration is highly productive: a close reading of a text internally is always and at the same time outward facing. This is particularly true for genre-dependent texts, such as an exhibition or research article, which are recognisable by their '*conventionalised associations of conventions*' (Atkinson, 1999, p. 8, italics in the original). We can

understand the conventions of these texts as being '*multifunctional* … although they are often directly represented in language and rhetoric, [they] serve larger social and cognitive functions as well' (Atkinson, 1999, p. 7, italics in the original). These 'larger' functions are true across similar institutional spaces.

The second key point follows from Kress's attention to multimodality in everything from a PowerPoint presentation and choral performance to webpages and print advertising. Adami and Kress (2014, p. 233) stress that 'the increasingly insistent presence of multimodal texts' highlights the importance of coherence and cohesion in texts, both socially and semiotically. Again, this is especially true for genre texts: without these qualities, the efficiencies gained (social and semiotic) from maintaining rhetorical stability are lost.

This exhibition was not only multimodal but dialogic; yet despite its polyphony of contributing voices, in multiple modes, it was not chaotic. Indeed, if we judge by visitor responses and attendance figures, it was meaningful. As a text, it communicated clearly and successfully to an audience it could only partly know in advance. It sustained relationships with diverse communities for over two and a half years. It's essential to note too, of course, that this exhibition was important institutionally. It drew on significant institutional support and, in turn, furthered the museum's commitment to and expertise in complex collaborations. What this case study also revealed, therefore, was the strength of the conceptual and social cohesion and clarity of the exhibition 'text'. Following Gee (2014a), these larger discourses are not a detached, abstract background, but a dynamic and evolving interconnected part of the motivated recognition work of those making and receiving texts, in which social goods – legitimacy, credibility, authority – are distributed, materially and rhetorically.

To start, the introduction. Shona Coyne described how the first module of the exhibition featured two panels: one introducing the Enlightenment view of Cook's historic voyage and the other giving a First Nations' perspective of colonisation and dispossession of Country. This was intentional. As she stated, '*Let's just say how it is from the very beginning*'. Following Santos' framework, these panels can be seen as

the textual expression of the wager, witnessed. That is the starting point, and the exhibition builds from there. By positioning participants as wagerers, the relationship is one of allies, bringing distinct but partial contributions to a shared concern marked by risk and uncertainty. As allies, rather than partners, the distinctiveness and agency of the wagerers, however fragile – *because* they are fragile – is at the heart of the wager. This epistemological and methodological stance shapes what is communicated, and how. Most radically, no contribution is an addendum to any other. As Santos (2018, p. 5) argues, the epistemologies of the South are not 'one more line of criticism'. *Endeavour voyage* is therefore not a conventional exhibition modified, but its own wager, its own ecological bet, in which diverse ways of knowing (including Western scientific and historical expertise) participate in dialogue and dissent around a question of importance to all: how should we mark this anniversary?

The subsequent conventions of a wager, then, are three-fold: to make visible all the relevant knowledges, in all their rich variety (through a sociology of absences and sociology of emergences); to develop procedures for substantive dialogue (intercultural translation); and to do so without loss of autonomy or the reimposition of hierarchy (the artisanship of practices). Given this complexity, the organisation is the next most important defining convention of this exhibition – which is significant, given the great importance organisation plays in the research article. The involvement of First Nations community members with the museum designers and other experts is extremely noteworthy. It resulted in a layout that was modular, rather than linear, encouraging diversity of perspective rather than unanimity. The spatial journey arrangement allowed visitors to branch off, to land, sky, ship and sea, privileging exploration rather than explanation.

In a reversal of the traditional author-led, top-down directive, it was the agency *of visitors* that the layout centrally acknowledged. Visitors were taken seriously as active learners, allies in the wager. The use of art, video, image, song and sound facilitated lively interactions, a kind of multimodal movement-as-thinking (Jewitt, 2012). This was true of the other exhibitions mentioned here. Palmer (2019, p. 151), in her review of the *Songlines* exhibition, wrote that its 'greatest strength' was the way in which 'the

embodied and experiential nature of the space powerfully communicated the complex of meanings that is the Dreaming'. Lead curator Margo Neale (2017, p. 17) called it a 'journey exhibition'.

The final key convention was the participation of witnesses, such as through the inclusion of visitors' 'people pops'. In this way, the political, alliance-building role of the artisanship of practices was made manifest in the visitors' texts – mostly written, but also drawn and spoken. In addition to visitors, witnesses included children, community members, external scholars, reviewers, funders and the institution. The value of these diverse, at times dissenting perspectives was cumulative: in their different ways, they reinforced the wager's core argument that all knowledges are partial knowledges, ignorant and knowing at the same time.

A few thoughts on what this complex text might say about the evolving social purpose of institutions from someone in academic publishing looking across the institutional aisle. Reflecting on this one case study, but aware of the movement well underway in museums globally, the role of the institution is less visibly central than in the past, but is in no way absent: its physical site, funding, resources, expertise and support are all essential factors shaping the communicative outcome. Yet the institution is clearly no longer the leading and certainly not the sole voice of expertise. The traditional 'transmission model of teaching', as befits a hegemonic and authoritative institution, appears solidly rejected (Freire, 2017; Kress & Selander, 2012, p. 7). Instead, the collaborative curatorial conventions work backwards and forwards, countering the singular point of view through a multimodal and dialogic presentation, encouraging a more experimental and experiential participatory engagement in critical debates. As Ross Gibson (2016, p. 76) encouraged us earlier, good history involves knowing *and* understanding. He writes that 'you need to step both outside and inside the mystery. Get soaked in it *and* get a vantage on it. Not one without the other.'

This raises not only epistemological and methodological questions, but also ontological ones. 'What is the museum, how and for whom?' are live, contested questions, which clearly resonate with institutions of higher education, too. However, as it was not my

intention to wade into current debates in museum studies, I will go no further than note the very tangible evidence that this and other similar collaborative exhibitions offer in support of the credibility of a dialogic approach, not least their hugely successful reception by audiences the world over.

Concluding thoughts: Re-imagining community-based research texts

> *… the work that I do in exhibitions [is] with storytelling, and I'm a storyteller, and I wonder where that kind of perspective comes in when you do the research paper.* (Shona Coyne)

Where I do want to wade in more deeply is in terms of what the above case study suggests for the presentation of peer-reviewed community-based research in academic journals. The above case study identified three emerging social-semiotic conventions: the establishment of the wager; a modular and multimodal exploratory movement guided and tethered by a common, central organising thread; and the material presence of diverse witnesses. Crucially, this exhibition is also doing everything traditionally expected of scholarly research. It has a clearly defined question and focus, it is grounded in the relevant literature, and it is methodologically rigorous and comprehensive. Yet, it is not a traditional exhibition, modified: rather, as an ecology of knowledges, it is a dialogue in which both Western scientific and 'artisanal' knowledges separately and together demonstrate their relevance and legitimacy to be part of the debate.

A community-based research presentation based on the above methodology is less distant than it might at first appear. Arvanitakis and Hodge (2012, p. 58) argue that engagement is etymologically rooted in the notion of a wager. They have traced the word 'engagement' to its pre-modern origins in the Old French word, *gage*, whose 'primary meaning was "a pledge", and hence a contract or a stake in a bet'. Variants from Old High German and Old English have a similar range of meanings, such as a wager or promise, 'made between two participants, in front of witnesses. The *gage* linked the present of the pledge to the uncertain future of the outcome' (Arvanitakis &

Hodge, 2012, p. 59). Though engagement is rarely framed in this way, the core tenets of participation, multivocality and social change outcomes in community-based research, suggest a strong affinity with the notion of a wager.

Second, witnessing is a fundamental part of sharing research, and always has been. What is radically different now is the potential for the democratisation of witnessing, made possible by digitisation. While highly uneven and not without issues, scholarly publishing is shifting to large-scale open access, with many institutions and funders, and some publishers, actively supporting the dissemination of open-source research and educational resources, creative commons licences enabling use and reuse, and a variety of ongoing and accessible processes for peer review, revisions, and author and reader commentary (Locke & Wright, 2021). Technically, the sorts of inclusive witnessing that occurred in the *Endeavour voyage* exhibition could occur too with the presentation of community-based research in online journals: reader commentary (written, spoken, drawn), author guided tours, hyperlinked associated texts. However, there is much more than technical capacity at issue, as shown by the ongoing debates around peer review, which is regularly described as being in crisis (Flaherty, 2022).

Similarly, technically, a multimodal and non-linear organisation of the text is also possible. As with open access, the technical barriers to integrating still and moving images, audio and complex graphs, for example, are swiftly lowering. Their use, however, remains exceedingly rare in the published literature on community-based research – as is the inclusion of community-based peer referees. The first step, which I needed to learn more than once in the course of this research, involves taking seriously – socially and semiotically – the notion of the wager, witnessed, in which any common ground is an *outcome*, not the starting point. With this understanding, the conventional research article does not 'get expanded' or modified: it is not the starting point. Instead, an inclusive, authentic co-authored peer-reviewed research presentation is a wager to be built together, attentive to the risks involved and their unequal distribution. In such a way, we might 'talk the walk' better, as Stoecker (2009) has described it.

Chapter 8: Reflections

A number of books made a deep impression on me during my research over the last few years. One of them, *Call of the reed warbler* (2017), was written in Australia by fifth-generation sheep and cattle farmer, scientist and advocate Charles Massy. After decades of following conventional, British-inherited farming practices, the land he farmed was nearly broken, as was he. The degradation was profound and widespread. His book charts his journey of discovery of old and new regenerative farming practices, which are now being increasingly adopted around the world. Like the exhibition in the previous chapter, *Call of the reed warbler* is thoroughly supported with references to current research. Yet its main source of evidence and insights are stories, told by the dozens of farmers he interviewed, who Massy describes as being 'at the forefront of an underground agricultural insurgency'. He writes that their emerging 'ecological literacy' is equal parts scientific, intuitive, humble, practical, wondrous and ancient: nothing less than a re-enchantment with the Earth. Massy (2017, p. 505) notes this is 'a literacy that is not taught to farmers, and certainly not in traditional courses at university or agricultural college'.

Reading this book, very early in my research journey, struck a chord. It spoke to so much that is facing the world and grimly apparent in Australia: severe and interconnected human and natural crises and suffering. Yet, as with Santos' work, it displays a deep belief in the possibility of a better world. Massy sees evidence of it daily in the biodiversity coming back to the land he now works with, rather than on. The recently returned reed warbler is just one example. Most significantly for me, it provided an example of the research writing I was searching for – a very careful combining of different sorts of knowledges and practices, engaged with in a spirit of need, curiosity, humility and love. But this book is 569 pages long. It is a long way from a 7000-word research article. Still, it was evidence of change, and my ensuing interest in how the research article might achieve something similar may well be prompted by a degree of selfishness on my part. I am only half joking when I say, as an editor, I would like to read empirical research manuscripts with reed warblers in them.

Over the course of this research, the metaphor of the reed warbler has only grown in importance. By its presence the world is transformed, and without it, never again the same. Not just ecologically and epistemologically, but wondrously: we know the world differently for its unique song. It cannot be spoken for by another without cost. *Call of the reed warbler* thus came to symbolize for me a key point of this thesis: to communicate is to both build the world and enact it (Höllerer et al., 2019, p. 45). It fundamentally matters who gets to participate in this world building, how and for whose benefit. The continued lack of substantive and diverse contributions in the community-based research literature prefigures a world bereft. John Gaventa (1982, p. 260), in his seminal study of power and powerlessness in an Appalachian valley, wrote that 'to ascribe national characteristics to the local community is to commit a serious ecological fallacy … it is "at the bottom" in a participatory, federalist system where democracy should be working if it is working at all'. What I was reading, hearing and seeing (more and more) from diverse contributors was an argument for the social and cognitive right of the least powerful to be active and acknowledged rightful participants in meaningful conversations on issues that are of concern to them.

This is the task of radical recognition facing higher education. My specific focus has been on the peer-reviewed empirical research article, along with its systems and processes of author guidelines, peer review and journal publication. This thesis began with the hypothesis that the dominant scientific genre conventions and journal processes limit, rather than enable, the substantive and authoritative participation of non-academic expert knowledges in the scholarly communication and dissemination of community-based research. I explored – and confirmed – this from multiple angles. My starting point was to put the research article back into history. By detailing its evolution over the past 350-odd years, I was able to highlight the many ways in which vested interests have always been part and parcel of its development and legitimacy. Far from an ahistorical, neutral artefact, the research article is a sociohistorical process and product of enormous consequence. However, while its importance remains undoubted, the lens through which it is currently framed is very narrow: a rarefied, corporatised and fragmented understanding of what constitutes valid research and knowledge, and for what purposes.

This historical framework underpins the entire thesis: theoretically, methodologically and analytically. It orients my understanding of the 'bigger picture' and sense of purpose for this research. It also gives me the tools, theoretical and analytical, with which to contribute a sociohistorical semiotic understanding of meaning making. As described earlier, social semioticians and discourse analysts, among others, have disputed the notion of the relationship between the signifier and the signified being arbitrary, as Saussure proposed, or purely a construct of the text (van Leeuwen, 2008). Instead, as Kress (2010, p. 65) explains, 'signs are motivated conjunctions of form and meaning … positing that relation between 'sign' and 'world' is crucial; it opens the possibility of a path to understanding what in the phenomenon or object to be represented was treated as criterial by the maker of the sign at the moment of representation'. Analysts can therefore approach a text as an example of motivated sign-making, created by social agents drawing on all the culturally available resources, in sociohistorical environments shaped by and constitutive of relations of power (Fairclough, 1993; Kress, 2011). Standardised features of the research article, such as the subheadings, Introduction, Methods, Results, Discussion, are not mere marks on a page. Rather, they are value-laden metaphorical and material signifiers, deeply implicated in and shaping of the ever-evolving institutional form of knowledge-order.

Gee (2014a, p. 25) argues that we need not be 'dupes of Discourse'. Yet, more than once during this research I was somewhat taken aback to discover just how prevalent is the use of the dominant genre conventions, trumping discipline, geography, methodology, people, purpose and focus. The genre analysis of a sample group of co-authored empirical research articles and peer reviews from community-based research clearly revealed the influence of these dominant Western scientific conventions. Communicating in meaningful and persuasive ways in institutional research settings is unquestionably hard work. Genre is powerful precisely because it shoulders some of the rhetorical load otherwise constantly borne anew by authors, reviewers, editors and readers. Bazerman (1997, p. 23) has pointed out that 'the pressure of genre is not of conformity so much as of response to complexity'. Thus, a successful genre is one which works by showing the way. As Atkinson (1999, p. 8) puts it, genres 'provide answers to the fundamental human question, "What is going on here?"'.

At the same time, authors were already adapting, modifying and, to a degree, avoiding those conventions. There were some moments of innovation and experimentation, embryonic perhaps, but nonetheless suggestive of other possibilities. Yet, overall, authors worked within the dominant conventions, as did, overwhelmingly, peer reviewers. Free and open access may be removing some of the technical barriers to participation for authors and readers, and this is a welcome and significant change. But the rules of the game, as represented by the genre conventions of the research article, remain weighted against authentic participation by diverse knowers. Community-based researchers are writing – and journals are assessing and publishing – research articles at cross-purposes to their own shared goals for critical, collaborative and change-oriented research. Various innovations and insights are accommodated, absorbed within larger, ongoing institutional systems – these big 'D' discourses, as Gee puts it – marked by hierarchy and exclusion.

One of the key findings of the survey was the importance community-based respondents put on *change*: they wished for greater variety of article types, improved diversity of peer reviewers and editorial committees, and appropriate authorship accreditation for their contributions. In order to understand what such change might look like, and to build on the findings from the genre analysis, I undertook a case study of a collaborative Australian exhibition at a national museum, using Santos' ecology of knowledges as a conceptual lens. This comparative study of an exemplary text examined how a participatory methodological approach utilising multimodal semiotic resources was able to produce a non-hierarchical, non-linear and multiperspectival exhibition. Despite its non-conventional approach within a major institution, it was nonetheless recognised by audiences as meaningful and important.

Combined, these various stages of the thesis, theoretical, conceptual and empirical, provide a powerful understanding of the *purposive and socially situated recognition work* of these texts, be they research article or exhibition, conventional or innovative. I use the following explanation from Kress (2011, p. 207, italics in the original) to outline what has been thoroughly demonstrated in the preceding chapters:

> *Texts* are material entities that exhibit conceptions of order of the group that shaped the principles and uses them as a resource for establishing cohesion and coherence. In texts, these social principles become material, manifest, visible, tangible.

This understanding of texts is of vital importance for community-based research – and nowhere more so than in the institutional setting of these texts, the academic journal. The definition above makes plain that any discussion or analysis of authors' (and reviewers') competence and performance occurs within larger, evolving rhetorical '*environments of communication*' marked by differences in power (Kress, 2011, p. 209, italics in the original). It draws the journal and its practices firmly into the frame. What is at stake, whether we are aware of it or not, are 'conceptions of order', socially and semiotically. Texts display (and thereby influence) their accountabilities, their 'fundamental commitment', to wider social, political, institutional and symbolic worlds through the rhetorical choices they make, and those they don't (Bazerman, 1988, p. 62). Far from wondering why community-based research partners don't write their own research submissions, I now understand that an equally urgent question is to consider the accountabilities of journals if they are to enable rather than impede the socially and cognitively just sharing of community-based research.

Tentative next steps

I want to finish by considering, as best I can, the necessary social principles of a journal such that its guidelines might better recognise community-based researchers seeking to articulate knowledge plurality that is neither chaotic nor reliant on hierarchy. This highly speculative effort responds to the last question of this thesis: what is the transformative solution? It is an attempt to bring together the many insights that have emerged so far, in a tentative but serious musing on the principles required as the necessary basis for an ecology of knowledges to be made material in the collective texts we co-create and share. Without a transformation in the *institutional* space, radically different research articles will not often be assessed as legitimate or credible. In proposing these guiding principles, I am benefiting from all the examples in this

thesis: I hope these suggestions contribute as a form of dialogue with their work, which indeed is how journals should operate. The following proposals seek to build on that work, not replace or displace it. This hypothetical is therefore for authors, editors, referees and readers alike interested in making institutional spaces more inclusive, democratic and accountable. While the final step here, it is hopefully also the next step in future collaborative research, mine and/or others.

To anchor this discussion, I draw on this editor's equivalent of the fish that got away. A few years ago, *Gateways* journal published a co-authored, non-peer-reviewed 'snapshot' article, 'Political economics, collective action and wicked socio-ecological problems: A practice story from the field', by Adams et al. (2019). The article discusses the work of the Victorian Rabbit Action Network (VRAN), first established in 2014 in Victoria, Australia, who developed a unique response to the management of destructive feral European rabbits. At the heart of VRAN's work is a 'systems-based, participatory, democratic approach to strengthening the social systems for tackling problems caused by rabbits' (Reid et al., 2021, p. 352). Their approach has been recognised internationally, winning a 2019 UN Public Service Award in the category of 'Delivering inclusive and equitable services to leave no one behind'. I focus on the research they undertook at that time (their work has continued to develop, see VRAN 2022), starting with a simple description, based on their article (Adams et al., 2019):

> *The European rabbit was introduced to Australia in the 1850s for hunting. Within a decade, the rapidly growing wild rabbit population was raising alarm. Today, it threatens over 300 vulnerable native species and costs agribusinesses more than AUD$200 million per year. In response to this wicked socio-ecological problem, a publicly funded research project was established to support community-led action in rabbit management. Those most affected by rabbits – public and private land managers, scientists, government officers, First Nations communities and others – engaged in a participatory planning process. A first-person narrative of interview extracts informed a subsequent workshop, which identified their common passions and concerns, the sheer complexity of the problem, the location-specific nature of solutions and the critical role of*

coordination to help ensure long-term change. These ideas were further developed using rich picture maps and complex systems thinking. This process led to the creation of VRAN and a skills-based steering group.

VRAN offers an excellent example of community-based research that critically combines local and discipline-based knowledges and practices to achieve inclusive and sustainable change. Outcomes have been many and ongoing. Today, the VRAN website makes available the latest information and tools that underpin their approach: details on cultural awareness workshops for delivering rabbit control in sensitive Indigenous landscapes, leadership in rabbit management bootcamps, various field-based courses, including mentor-led training and consultation (online and in person) and free resources (including written reports, videos, webinars, fact sheets, apps, case studies and individual stories). 'Leaps & Bounds', first established in 2015, is an ongoing, volunteer-run learning network of trainees and mentors. Detailed empirical reports of their approach and impact have been published in discipline-specific peer-reviewed journals, as well as reflections and 'practitioner profiles' in book chapters (see, for example, Howard et al., 2018; Muth et al., 2019; Reid et al., 2021; Woolnough et al., 2020). Finally, as an example of their focus on strengthening social systems, the Bellarine Landcare Group, who work with VRAN, listed the following activities over the course of a year: hold public meetings; establish a multiparty working group; conduct surveys with landholders; run bait programs; provide technical advice and identification of hot-spot areas; undertake activities with residents; distribute fact sheets; promote events via various media (Bellarine Landcare Group, n.d.). Much of this work is done by volunteers.

This example therefore stands in for the work of so many others. When the manuscript was first submitted, I wondered if it could be worked into a research article – it certainly had the necessary scholarship to warrant it – but the authors were making a point by deliberately not submitting it to the research section. To do so would have undermined the very thing they had worked so hard to establish: a small 'p' political approach grounded in 'the experience of people at the frontline of rabbit management, with scientific and government expertise regarded as "on tap not on

top" (Boyte, 2016); Adams et al., 2019, p. 6). Perhaps now, instead, the journal can be 'worked into' an appropriate home for their work.

Some guiding principles for a community-based, peer-reviewed research article

Overall purpose

Everything flows from this. Manuscript submissions seek to respond to a methodological call for articles which have a social-semiotic acountability to social and cognitive justice at their core. Broadly, submissions seek to articulate in the text the diversity of ways of knowing and being present in their research partnership, and to do so in ways that do not result in the imposition of hierarchy or unanimity. At heart, submissions are seeking to make material their commitment to reciprocity and horizontality. Texts are encouraged to communicate diversity not as a variation on a (universal) theme, but as its own wager on the possibility of a better world. Multimodal experimentation is encouraged.

Specific purpose and partnership authenticity

Author teams are strongly encouraged to articulate a very clear central purpose or thread for their submission. This may take the form of a research question, or it may relate to an aspect of the partnership, processes, pedagogy or methodology, for example. Justification for the validity and significance of this focus can draw on a range of sources, which do not have to be written only. In addition to references to the relevant literature, articulation of the lived experience and reason for engaging in the research is necessary. Consider all the things that could be included in an expanded reference list – lineage, heritage, culture? Substantive theoretical and practical justification is anticipated: what in participants' diverse sociohistorical contexts does this specific research respond to?

Documentation of the partnership is expected. This can include reasons for establishment, duration, funding, location, focus, agreements, roles and involvement

of partners, including community, faculty, staff, students and other agencies or organisations. It may also include details of disciplinary, professional and community-based expertise, institutional and lived: open the black box of expertise. By providing some concrete particulars of person, place and thing, of expertise 'grounded in culture and experience rather than [only] academic expertise', the basis upon which authority rests is shared and made more apparent (Frisch, 1990, p. xxii). These 'markers of credibility' are an important part of establishing the authenticity of the partnership and are understood as such by readers.

The research terrain

The conventional research article Introduction follows three key moves: establishing the research territory, establishing the niche (gap), occupying the niche (by presenting the present research). These social-semiotic moves are widely accepted and used. However, they are not neutral: they are there to serve a purpose. The research territory, for example, established by reference to the literature, forms the stable basis for staking new claims to knowledge, what's been described as 'incremental gap-spotting' (Alvesson & Sandberg, 2013, p. 129). Neither of the first two moves may align with a participatory and change-oriented research stance. Consequently, while there may well be an important identified gap in the literature, it may not be the first or even the principal justification for the research. It also may be more than a gap. The third move may also involve something other than the standard 'presenting the present research'. In uncertain and complex research terrains, it may be more appropriate to consider instead introducing the problem, understood as dynamic and evolving and that 'which sets thinking, knowing and feeling in motion' (Savransky, 2018, p. 215). For a dialogue-based, non-hierarchical and multiperspectival research article, the Introduction *could* involve the following moves:

Move 1: Establishing complexity by presenting context without unity
Move 2: Establishing the wager by introducing those with most at stake
Move 3: Presenting the problem in motion

For example: Lisa Adams has written elsewhere that she started by asking, '"How does rabbit management in Victoria work?" No one could give me an answer' (Howard et al., 2018, p. 47). Following this crucial insight, the original research team purposively sought out stakeholders with diverse interests, experiences, expertise and concerns. As a group, they then developed the following wager: 'the hypothesis that sustainable strategies are those created by the people most affected' (Adams et al., 2019, p. 3).

The structure of the telling of the story

The conventional organisation of a research article is the Introduction, Methods, Results and Discussion template, with variations. This may or may not be appropriate, or it may be useful for just one strand of the submission. As with the Introduction 'Moves', authors are encouraged to be aware that these are resources that should be *intentionally* used, which can include modifying, challenging and replacing them. Their importance comes from what they signal: the organizational subheadings of a text are significant metaphors for the larger discourses that the research seeks to be part of and is shaped by. Thus, while they internally foster cohesion, balance, direction and pace, they also externally reach out to 'big D' discourses, as Gee (2014a) puts it.

One way to consider the structure of the telling is to think of the overall structure as one of movement. This is always the case, but not always noticed. The conventional arrangement is linear, segmented and unidirectional. Decades ago, Nobel Prize winner and biologist Peter Medawar (1964) proposed that research articles should start with the Discussion section to foreground the 'uncharted by-ways of thought' that give rise to hypotheses. Consider the terminology being used: other words besides 'Results, Method, Discussion' can signpost for the reader how planned phases and stages may jostle with serendipity, challenge and change. The research journey need not be presented as one from A to B to C, but A *and* B *and* C, etc. It is the 'and' that can mark this organisational arrangement as an experimental *and* experiential journey of attachment, 'such that the point of view is not always projected from the central, masterful position of the privileged human' (Muecke, 2017b, p. 169). Uniformity and unanimity are not necessarily the goals here. Indigenous scholar Margaret Kovach

(2009, p. 21), for example, uses 'three braids' in her writing: 'expository, analytical, and narrative', with occasional use of the first-person voice for narrative storytelling.

Of primary importance is that this organizational decision-making is participatory and not out of bounds for non-academic experts. Evidence of participation and diverse perspectives in the subheadings – the infrastructure of the submission – is a powerful semiotic strategy. Otherwise, as Stoecker (2009, p. 394) has long been arguing, 'suspicion [remains] that the community is not seen as competent or valued when it comes to making informed decisions'.

For example: The original snapshot article described how, based on first-person narratives and complex systems thinking, the research team developed 'rich picture maps' which revealed that 'there were multiple systems depending on whose perspectives, interests, narratives were being shared or considered' (Adams et al., 2019, p. 5). These maps revealed an interconnected problem from local, regional and state perspectives, as well as the depth of local and disciplinary-based expert knowledge, know-how and on-the-ground action underway. Here, inclusion of the map (perhaps the map could be in the Introduction as a visual form of Move 3: 'Presenting the problem') and the three geographic levels could form the overall structure of the telling, with different paragraphs the responsibility of different individuals or groups, narrated in the first person, if they wished.

Voice, practice and empirical material

Following on from the above, a key, ongoing question needs to be, 'Whose voice needs to be part of this submission?' Second, what kind of practice-led empirical material needs to be included, and how could that be presented? These questions are considered here together in recognition of Santos' (2018, p. 43) understanding that 'artisanal' knowledges, while being very diverse, have in common the fact that 'they were not produced separately, as knowledge-practices separated from other social practices'. Well-established conventions exist for documenting matters of fact by stabilising and fixing them in place. Bazerman (2013, p. 64) offers a wonderfully

suggestive alternative, or complementary activity, noting that texts 'originally were fully integrated into daily non-textual activities, as cows and sheep were tallied in the meadow and barn, and tax collectors carried their lists as they traveled the land'. So, one way to think about what to include in the text is to turn this question on its head: to where, in the research terrain (populated, uncertain, complex), does the text need to travel? Consider what needs to be seen, felt, measured, heard, remembered, drawn, sung in order that the reader may fully know and understand a problem, and who should rightfully participate in the telling, writing, making, doing.

For example: Take VRAN's own wager: 'the hypothesis that sustainable strategies are those created by the people most affected' (Adams et al., 2019, p. 3). This framing supports the active participation of community groups and individuals, private landowners and public land managers, First Nations members caring for Country and burial sites at risk from the burrowing habits of rabbits, government agencies, industry and scientists. Also participating are the rabbits themselves, described as 'powerful agents' (Adams et al., 2019, p. 4), plus the 300-odd threatened species of flora and fauna made more vulnerable by the rabbits' actions (Woolnough et al., 2020, p. 211). This last group of plants and animals is arguably the wagerer with most at stake in the research, with the least powerful voice. The lead author, Lisa Adams (2022), explains how the first-person narratives were woven into an 18-page briefing paper, which all stakeholders read in advance of the first workshop together. By retaining *all* of the distinct, diverse perspectives, everyone arrived at the workshop 'humbled and engaged. They realized how little they understood'. Out of this emerged the powerful, complex picture maps and eventual creation of the VRAN group.

Authorship

Research partnerships should make their own decisions. It is, however, recommended that submissions will be co-authored by individuals, collectives, organisations. Authorship is understood to be an acknowledgement of, and responsibility for, two main things: an essential involvement with the text (which doesn't necessarily mean with the writing); and accountability as to its integrity and accuracy. Of greatest

importance is to include as author every individual and/or organisation without whom the submission could not have been created. A statement of contributor roles by each signatory and acknowledgements for other contributors are welcome.

Authors are encouraged to look around: there is greater variety than many social science journal guidelines would suggest. Recent research by Patience et al. (2019) notes that published articles in the field of experimental high-energy physics have alphabetical author lists that 'approach 3000 individuals routinely and the record for the most authors is 5154'. Another considered response can be seen in the series of articles in which Bawaka Country, located in Northeast Arnhem Land, Australia, is accredited as the 'lead Author and an active partner of our research collaboration' (Country et al., 2019).

Peer review

Social semioticians argue that semiotic change necessarily 'follows on from social change, so that the semiotic resources inevitably lag behind' (Kress & van Leeuwen, 2021, p. xiii). These hypothetical guiding principles are a deliberate attempt at semiotic catch-up. But in responding to social change well underway, they hopefully contribute to more of the same, and no area of journal practice is more in need of sustainable and just transformation than peer review. The current, dominant global system for peer review is reliant on unremunerated and excessive workloads, prone to bias and waste, and more likely to secure boundaries than dismantle them (Aczel et al., 2021; Lariviere et al., 2015). Yet a thoughtful, attentive review is a generous gift, warmly received.

While retaining what is of great worth – communal support and vital critique – some new parameters are needed for non-hierarchical and multiperspectival submissions. Paraphrasing Schön (1995, p. 33), there is a 'need for a kind of organizational learning … [journals] have to learn how to critique such research, to create for it a kind of community of inquiry capable of fostering an understanding of the kind of rigor appropriate to it – perhaps even to help younger faculty members learn how to do it.'

Necessary participants to this learning are the full range of expert contributors, university- and community-based.

By being included as a considered and valued part of a scholarly text, even in a small way, what non-traditional participants are *witness to* is an acknowledgement by others of the incompleteness of any one knowledge. The institutional practice of peer review may even become reminiscent of what Odora Hoppers (2009, p. 612) has called 'a theatre of encounter … not patronizing, not preservationist, not fundamentalist, but open and playful'.

Thus, more than a guideline, this is a statement of intent. The role of witnessing (peer review) is primarily understood to be concerned with assessing and asserting the incompleteness of different ways of knowing and being in the texts we co-produce and share, which can nevertheless aspire to come together in dialogue and partnership. The primary responsibility to do this differently lies with the institution, requiring genuine and sustained collaborative capacity-building efforts. The role of witness remains to aid the critical consideration of questions of focus, purpose, clarity and rigor, but it must be a shared responsibility, dependent for *its* clarity and legitimacy upon a range of perspectives.

Final notes

Santos (2018, p. 126) describes our era as 'basically a time of epistemological imagination aimed at refounding the political imagination … Ultimately, the purpose is to strengthen the social struggles against domination'. Applying his proposals to scholarly writing is both building on reams of substantial evidence and a leap of the imagination. It is an invitation for comparison and contrast from different perspectives and at different scales, among subjects, problems, practices and processes not usually found in relationship with each other (Santos, 2018). Most crucially, it is about making material in our shared texts the 'consequences of not separating life from research' (Santos, 2018, p. 128). Indigenous scholar Margaret Kovach (2009, p. 11) similarly observes that 'many young non-Indigenous people are attracted to Indigenous

approaches as well because, I believe, it has to do with a generation seeking ways to understand the world without harming it'. The epistemological and social imagination necessary for communicating and disseminating community-based research is thus fundamentally concerned with relationships, with what keeps us tethered here meaningfully. This is understood expansively, as human and more-than-human, of the past, present and future, between incomplete knowledges and partial ignorances. This thesis, then, is not about wholly rejecting or even replacing the research article. Rather, it is a very concerted effort to refute the idea that the research article 'just is', and to displace that with a practical and critical appreciation of what it could be. It is, in the end, an effort to recognise in our shared, ongoing communicative efforts our multiple and evolving attachments, in all their distinctiveness, and thereby better treasure them.

Appendices

Appendix 5.1 Respondent demographic results: Survey statistical summary

Demographics	Category	Community-based % N=13	Academics % N=42	Postgraduate students % N=6
Gender	Female	69.2	60.4	66.7
	Male	30.8	39.6	33.3
	Total	100.0	100.0	100.0
Age	20-29	0.0	0.0	16.7
	30-39	15.4	9.5	33.3
	40-49	30.8	21.4	16.7
	50-59	38.4	28.6	33.3
	60 and above	15.4	40.5	0.0
	Total	100.0	100.0	100.0
Indigenous/First Nations	Yes	7.7	9.5	16.7
	No	92.3	90.5	83.3
	Total	100.0	100.0	100.0
Person with a disability	Yes	23.1	4.8	0.0
	No	76.9	95.2	100.0
	Total	100.0	100.0	100.0
Born in current country of residence	Yes	61.5	85.7	66.7
	No	38.5	14.3	33.3
	Total	100.0	100.0	100.0
English as a first language	Yes	84.6	73.8	83.3
	No	15.4	26.2	16.7
	Total	100.0	100.0	100.0
Highest level of education (Community-based respondents)	High school	0.0		
	Trade/Ad. Diploma	0.0		
	Bachelor's Degree	7.7		
	Graduate Diploma	7.7		
	Master's Degree	46.2		
	Doctoral Degree	38.4		
	Total	100.0		
Academic rank (or closest equivalent)	Postgrad. student		0.0	33.3
	Assoc. Lecturer		2.4	16.7
	Lecturer		0.0	0.0
	Senior Lecturer		2.4	16.7
	Assistant Professor		9.5	16.7
	Assoc. Professor		30.9	16.7
	Professor		52.4	0.0
	Adjunct Professor		2.4	0.0
	Total		100.0	100.0
Basis of employment in tertiary sector	Casual		4.8	16.7
	Sessional		0.0	0.0
	Tenured		61.9	0.0
	Tenure track		9.5	0.0
	Continuous fixed term		11.9	16.7
	Visiting		0.0	16.7
	Other		11.9	50.0
	Total		100.0.	100.0

Appendix 5.2 Disciplines and areas of focus

Academic/postgraduate student	
Discipline	**Subdiscipline/Specific focus**
Earth Sciences	Environmental governance
	Environmental health
	Environmental policy
	Environmental studies
	Geography
Education	Adult education and human resource development
	Higher education and community engagement
Health & Medicine	Ageing and service learning
	Community medicine
	Family science
	Global health; Medical anthropology
	Mental health
	Nursing
	Paediatrics
	Public health
	Rural and remote health workforce and service development
	Social and community psychology
History	
Languages & Linguistics	Interpreting and translation; Action research
Social Sciences & Social Work	Human service organisations and management
	Interdisciplinary social research
	Leadership
	Political science
	Public Administration
	Political economics
	Social policy

	Sociology
	Social work and Law
	Violence against women
	Youth studies

Community-based professional and community member	
Discipline/Area of expertise	**Subdiscipline/Specific focus**
Environment	Ecology
	Facilitation, community engagement, biosecurity
	Food systems development
Health and medicine	Community-based health equity; Nursing
	Evaluation of community-engaged health research and interventions
	Family medicine
	Public health
	Social care and health
Social sciences and Social work	Information science
	Public engagement in research
	Social work and social entrepreneurship
Transdisciplinary research	

Appendix 6.1 Journal guidelines for peer referees

The following guidelines are provided by the journal to all referees.

A referee's report should offer a critical appraisal of an article and give an indication as to its suitability for publication. Referees are anonymous and comments will be passed on to contributors.
In compiling your report, please generally address the following criteria:

- *How significant is the contribution to the scholarship and/or practice in the area?*
- *Is the writer's research original/interesting?*
- *Has the writer placed his or her work within its scholarly context?*
- *Has the research been well designed?*
- *Does the article demonstrate adequate use of evidence?*
- *Has the data been used effectively?*
- *Does the article engage alternative or competing perspectives?*
- *Does it engage the practical implications of the ideas advanced?*
- *Has the writer clearly established a central theme or argument?*
- *Is the argument original/interesting/tenable?*
- *Are conclusions clearly stated?*
- *Do the conclusions adequately encapsulate all elements of the research?*
- *Are the arguments and data communicated clearly?*
- *Is a comprehensive bibliography included?*

Reports should be between 500 and 1000 words, though more detail may be appropriate in borderline cases. They should conclude with one of the final recommendations:

- *Accept Submission*
- *Revisions Required*
- *Resubmit for Review*
- *Decline Submission*

Appendix 6.2 Sample review

This manuscript introduces important issues with regard to engaged activities in [X country] universities and could make an important contribution to the literature. As the manuscript now stands, however, it will be difficult for readers to come away with a clear sense of the goals of the author(s). For example, is this intended to be a paper about the challenges of measuring knowledge transfer? Or is the focus intended to be on policies in different countries that could support knowledge transfer or are needed to advance a knowledge transfer agenda? Might the aim of the paper be to situate work in X within the larger context of international efforts aimed at strengthening knowledge transfer? Is the focus to make clear that there are definitional issues about knowledge transfer that are in urgent need of attention? Or might the goal be to clarify the different types of knowledge transfer and then assess how particular types might more effectively advance the aims of higher education? Is the focus on exploring in depth Mode 1 and Mode 2 knowledge production models and using this framework to analyse what is taking place in X? Or is the focus intended to be on the crisis in higher education in X and the ways in which greater emphasis on knowledge transfer could help address this crisis? At different points in the paper, the author(s) seem to emphasise each of these very different points as *the* overarching goal. The result is that the narrative fails to provide readers with a clear sense of direction and focus. Individual paragraphs suffer from this same problem. In many cases, several different themes are introduced within a single paragraph and it is challenging to understand where the author(s) are going and how one set of arguments is intended to build on the next.

As a reader well-versed in much of this literature, I would find it enormously helpful if the author(s) were to reframe their points, making clear what the unique contribution of the paper is expected to be. In other words, how are readers intended to use the analysis? Which of the above points is seen as providing the most insight given the current state of the field? Once the overall goal is made clear, then it would be useful to have the authors tightly reorganise the paper to highlight this theme and reduce emphasis on secondary topics.

A few minor points. On page 5, a sentence is repeated in the first paragraph. The second paragraph includes a run-on sentence.

Resubmit for review

Appendix 6.3 Suggested further reading from the peer reviews

Select list of suggested further reading, mentioned in the reviews:

Alvesson, M., & Sköldberg, K. (2010). *Reflexive methodology: New vistas for qualitative research* (2nd ed.). SAGE.

Bice, S., Neely, K., & Einfeld, C. (2019). Next generation engagement: Setting a research agenda for community engagement in Australia's infrastructure sector. *Australian Journal of Public Administration*, *78*(2), 290-310.

Bishop-Clark, C., & Dietz-Uhler, B. (2012). *Engaging in the scholarship of teaching and learning: A guide to the process, and how to develop a project from start to finish*. Stylus.

Clayton, P.H., Bringle, R.G., & Hatcher, J.A. (Eds.) (2012). *Research on service-learning: Conceptual frameworks and assessments* (Vol 2A: Students and Faculty). Stylus.

Denzin, N.K., Lincoln, Y.S., & Smith, L.T. (2008). *Handbook of critical and indigenous methodologies*, SAGE.

Dostilio, L.D., Harrison, B., Brackmann, S.M., Kliewer, B.W., Edwards, K.E., & Clayton, P.H. (2012). Reciprocity: Saying what we mean and meaning what we say. *Michigan Journal of Community Service Learning*, *19*(1), 17-32.

Freire, P. (2017). *Pedagogy of the oppressed* (trans. M.B. Ramos). Penguin.

Green, J., & Thorogood, N. (2018). *Qualitative methods for health research* (4th ed.), SAGE.

Janke, E.M. (2008). Shared partnership identity between faculty and community partners (PhD dissertation). Penn State. www.etda.libraries.psu.edu

(2013). Increased community presence is not a proxy for reciprocity. *eJournal of Public Affairs*, *2*(2).

Kovach, M. (2010). *Indigenous methodologies: Characteristics, conversations, and contexts*. University of Toronto Press.

Long, N., & Long, A. (1992). *Battlefields of knowledge: The interlocking of theory and practice in social research and development*. Routledge.

Saltmarsh, J., Hartley, M., & Clayton, P. (2009). *Democratic engagement white paper*. New England Resource Center for Higher Education.

Sandmann, L.R., & Weerts, D.J. (2008). Reshaping institutional boundaries to accommodate an engagement agenda. *Innovative Higher Education*, *33*, 181-96.

Santos, B de S. (2007). Beyond abyssal thinking: From global lines to ecologies of knowledges. *Review (Fernand Braudel Center)*, *30*(1), 45-89.

Smith, L.T. (1999). *Decolonizing methodologies: Research and indigenous peoples*. Zed Books.

Stoecker, R., & Tryon, E., with Hilgendorf, A. (Eds.) (2009). *The unheard voices: Community organizations and service learning*. Temple University Press.

Tolley, E.E., Ulin, P.R., Mack, N., Robinson, E.T., & Succop, S.M. (2016). *Qualitative methods in public health: A field guide for applied research* (2nd ed.). Wiley.

Weerts, D.J., & Sandmann, L.R. (2008). Building a two-way street: Challenges and opportunities for community engagement at research universities. *Review of Higher Education*, *32*(1), 73-106.

Appendix 6.4 Expanded journal guidelines

Amended guidelines for authors, editors and reviewers:

A referee's report should offer a critical appraisal of an article and give an indication as to its suitability for publication. Referees are anonymous and comments will be passed on to contributors.

In compiling your report, please generally address the following criteria:

Primary consideration:

- *Is the article based on research that is the result of actively engaged community-university partnerships and/or projects?*
- *Are the community-based partners involved in the communication and dissemination of the research?*

Other considerations:

- *Is the purpose and research objective clearly articulated?*
- *How significant and relevant is the research, and for who?*
- *Is the writing compelling, cogent and coherent?*
- *Has the writer placed his or her work within its scholarly and social context?*
- *Is the writer's research original/interesting?*
- *Has the research been well designed?*
- *Is attention paid to ethical and methodological challenges of working with, rather than for or on, communities?*
- *Does the article engage with difficulties and/or lessons learnt?*
- *Has the data been used effectively?*
- *Does the article engage alternative or competing perspectives?*
- *Does it engage the theoretical and/or practical implications of the ideas advanced?*
- *Does the article discuss actual or potential uses and impacts of the research and its findings, and for who?*
- *Was the research disseminated in other ways, to other audiences?*

- ~~*Is the argument original/interesting/tenable?*~~
- *Are conclusions clearly stated?*
- *Do the conclusions adequately encapsulate the various elements of the research?*
- ~~*Are the arguments and data communicated clearly?*~~
- *Is a comprehensive bibliography included?*

Reports should be between 500 – 1000 words, though more detail may be appropriate in borderline cases. They should conclude with one of the final recommendations:

- *Accept Submission*
- *Revisions Required*
- *Resubmit for Review*
- *Decline Submission*

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