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research provocations

Does knowledge brokering facilitate evidence-based policy? A review of existing knowledge and an agenda for future research

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The claim that evidence-based policy (EBP) produces better outcomes has gained increasing support over the last three decades. Knowledge brokering (KB) is seen as a way to achieve improved policymaking and governments worldwide are investing significant resources in KB initiatives. It is therefore important to understand the range of these activities and to investigate whether and how they facilitate EBP. This article critically reviews the extant literature on KB. It identifies six important limitations: the existence of multiple definitions of KB; a lack of theory-based empirical analysis; a neglect of knowledge brokering organisations; insufficient research on KB in social policy; limited analysis of impact and effectiveness; and a lack of attention to the role played by politics. The paper proposes an agenda for future research that bridges disciplinary boundaries in order to address these gaps and contribute new insights into the politics of evidence use.

Key words EBP • EBPM • evidence-based policy • evidence-based policymaking • knowledge brokering • knowledge brokers • knowledge mobilisation • what works

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Knowledge brokering (KB) is a tool or process to achieve knowledge transfer across a variety of settings. The focus of this paper is on KB for policymaking rather than practice. Although first mentioned in the literature as early as the nineteenth century (Lomas, 2007), it has gained momentum since the late 1990s. Governments worldwide have invested in knowledge brokering organisations (KBOs) and activities to improve the use of research evidence in policymaking. KB has been particularly prominent in Canada as a result of successive governments' endowment of several organisations to develop KB and evidence use in different policy areas (for example, the Canadian Health Services Research Framework). In the UK, seven What Works Centres

(WWCs) and two affiliates synthesise and broker knowledge between research and policy, receiving over £200 billion of public funding since 2012 (Cabinet Office, 2018; Gough et al, 2018). Despite these investments, there is no consensus in the academic literature as to what KB is and insufficient evidence to support claims that it works. Crucially, analysis of the political dimension of policymaking is largely absent from the literature, leading to incomplete analyses of the phenomenon. Given that KB takes place within the political world of policymaking, it shouldn't be studied without understanding and referring to the mechanisms of policymaking, including its political elements (Oliver et al, 2014; Cairney, 2016).

Our interest in KB resulted from our organisation's structure, activities and involvement as an associate member of the What Works network. When we first sought to understand the role of organisations and individuals in the space between research and policy, we became increasingly puzzled by the array and variation of research on KB. The rationale for our review of KBOs is to improve our understanding of the brokering of research-based knowledge and provide the foundations to explore more complex questions. We hope that the results will be useful to other organisations and individuals in this field and the wider policy community grappling with brokering issues. The study of KB is important as it has proliferated in policy and research discourses and grown in funding in recent years and requires analysis and critique.

The literature on KB is varied and confused. A wide range of organisations are referred to as knowledge brokers, including think tanks, academic institutes and government research services. There is also a particular emphasis on the role of individual brokers (Bandola-Gill and Lyall, 2017). Analysis has focused on a wide range of topics such as identifying specific processes and activities such as data archiving (Woolfrey, 2009), to analysing personal skills and characteristics ranging from the ability to undertake systematic reviews and conduct one-to-one meetings with policymakers (Frost et al, 2012), to individuals' charisma and emotions (Michaels, 2009).

This paper starts unpicking the meaning, practices and consequences of KB in policymaking by conducting a qualitative review of the existing literature on KB to identify key findings and gaps in current understanding. Based on a review of 75 articles, we find six limitations of the literature which concern multiple definitions; a lack of theory and empirical data; a predominance of knowledge brokers as individuals, even though there is a growing number of organisations worldwide doing KB; a lack of research in social policy; an insufficient focus on impact and effectiveness; and a limited acknowledgement of the politics of KB. In light of these findings, we discuss how policy, politics and KB literatures could be married to advance analysis and understanding of KB and outline avenues for future research for KB in social policy. This builds on the work of academics who have recently urged dialogue between the policy and politics and evidence-based policy (EBP) literatures.

Research methods: searching the literature on knowledge brokering

We conducted a literature review by searching nine major databases using 'Knowledge Broker Organisation' (KBO) and six combinations of search terms which we deduced from the academic and grey literatures on KB. These search terms were agreed over two meetings with the extended research team and are shown in Table 1 below. The review was conducted in September 2018.

Table 1: Summary of search terms and databases

Search terms	KBO	Boundary Spanner + K + Policy	Knowledge Connector + Policy	Knowledge intermediary + Policy	Innovation laboratories + Policy	KMI + Policy	Evidence interm* + Policy
Results	223	876	75	470	103	1381	49

Note: K – knowledge; KMI – knowledge management intermediary

No date range was set for the search which returned a total of 3,177 sources. These articles were scanned according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses method (PRISMA) process depicted in Figure 1 below (Moher et al, 2009).

MacKillop scanned all titles and abstracts, retaining 198 articles to be fully read. Following reading of these articles by MacKillop (all 198 papers) and Quarmby (11 s/he randomly selected) over October–November 2018, 75 sources were retained for full review based on the criteria described in Figure 1. The appendix provides full details on the 75 papers included in the review.

MacKillop and Quarmby agreed a review grid template, an example of which is depicted in Table 2, to develop a meta-study – reviewing theory, methods and findings. Downe reviewed 15 sources randomly chosen by MacKillop. This additional reviewer helped ascertain that similar critical judgement was made on these sources.

Table 3 below depicts which policy areas and countries were the subject of the 75 sources. The sources mobilised different methods and this is discussed throughout this review section. More information on the corpus is outlined in Appendix 1, available on request.

Finally, although the review was inspired by systematic methods such as how databases were searched and search terms established, we eschewed some essential systematic stages such as double-blinded peer-review due to restrictions of funding, resources and time. We accept that this is a limitation of the research.

Figure 1: PRISMA flow diagram for knowledge brokering review

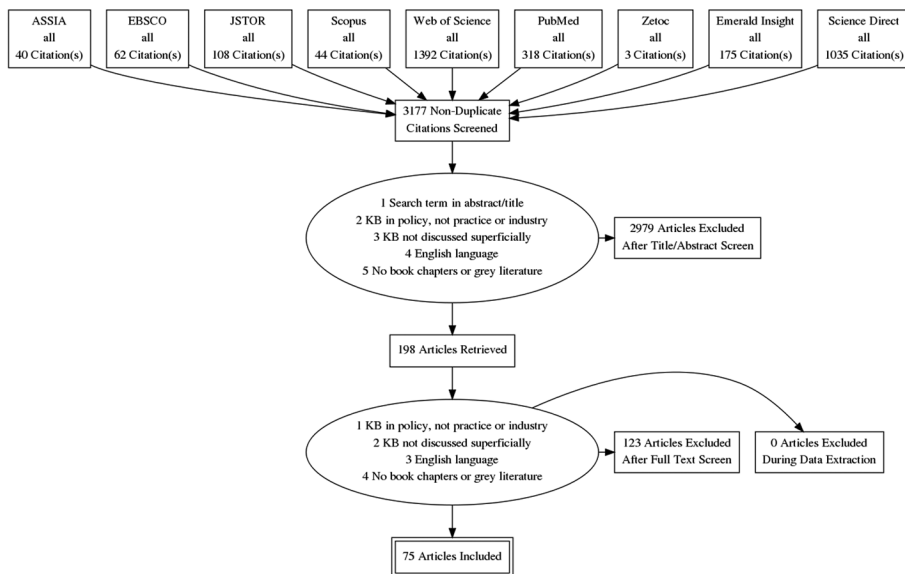


Table 2: Review grid example

Source number	Author(s) and date	Study design	Research questions & thesis	Types of KB	Findings	Limitations
4	Bornbaum et al (2015), 'Exploring the function and effectiveness of knowledge brokers as facilitators of knowledge translation in health-related settings: a systematic review and thematic analysis', <i>Implementation Science</i> , Vol. 10.	Systematic review Function and effectiveness of KB in KT Up to 2014 22 studies (29 articles)	How effective are KBs in KT? Factors?	KB limited to individual	KBs have different roles: knowledge manager, linkage agent, capacity builder (Ward et al, 2009). KB foster development of Communities of Practice. Paucity of data on effectiveness of KB in KT. Many characteristics of KB may emerge iteratively thus difficult to measure/separate from context. Impact of organisational context on KB requires more research.	Health-related only. No inclusion of theoretical papers. KB as individuals only. No theoretical discussion of KB. Need for methodologically robust case studies, qualitative design and mixed methods in KB studies.

Knowledge brokering and knowledge brokers: common themes from the literature

Definitions

We found multiple definitions of KB with some providing no definition at all (eight out of the 75 sources (8/75)). Some definitions are circular with KB being defined as the activity that knowledge brokers do, and knowledge brokers as the individuals or organisations that perform KB. For example, Lamari and Ziam (2014) state that 'knowledge brokering is defined as being an intermediation activity undertaken by intermediaries (individuals, organisations, networks, etc.) acting as "connectors"' (p 345). Most definitions are consistent with a 'push' approach to knowledge transfer, where research simply needs to be 'pushed' out of academia towards policymakers (for example, Elueze, 2015; Hopkins et al, 2018; Mallidou et al, 2018). Authors conceive of policymakers and researchers as inhabiting separate worlds (Michaels, 2009; Chew et al, 2013) with the often-repeated idea that knowledge brokers are 'serv[ing] as intermediaries between the worlds of research and policy' (Olejniczak, 2017: 554).

More broadly, Turnhout et al (2013: 356) warn against these definitional inconsistencies, with 'the current literature on knowledge brokering us[ing] the term in a broad sense that covers a wide range of strategies and activities'.

Table 3: Demographic information on the dataset

	Number of studies
Countries or geographical areas	
Canada	9
USA	7
United Kingdom	5
Remainder of Europe	7
Africa	7
Asia	0
Oceania	8
Other (for example, reviews; international focus; comparisons)	32
<i>Total</i>	75
Policy areas	
Health	34
Environment	19
Social policy	3
Other	19
<i>Total</i>	75

Highlighting this lack of clarity, they explain how KB ‘refer[s] to interactive settings (Bielak et al, 2008), organizations (Hargadon, 2002; Hargadon and Fanelli, 2002) or individuals (Ward et al, 2012)’. These multiple definitions are symptomatic of the growth of the field and of various researchers and disciplines’ attempts at making sense of and implementing/refining these new processes.

Finally, 8/75 papers reiterate the Canadian Health Service Research Framework’s (CHSRF) definition:

all activity that links decision makers with researchers, facilitating their interaction so that they are able to better understand each other’s goals and professional cultures, influence each other’s work, forge new partnerships, and promote the use of research-based evidence in decision-making. (Lomas, 2007: 131)

There were 17 extra references to the CHSRF without explicitly quoting the definition, meaning that in total a third of the papers (25/75) relied on this theoretical basis. The repetition and application across contexts is unsurprising given that frontrunner organisations are likely to have more influence on terminology, but may also be problematic because the CHSRF definition was developed for the specific area of health services in Canada and it may not apply to cases as varied as KB in other countries or policy areas.

We do not argue that a general KB definition is required; rather, that a plethora of definitions are at play, causing confusion and reiterating past models of knowledge transfer and mobilisation.

Theories and methods of analysis

A second feature of the literature is its lack of engagement with theoretical and methods questions (Shaxson and Gwyn, 2010; South, 2011; Morton et al, 2012). When

there is theory, it is often linked to social network analysis (SNA) or dissemination and diffusion theories. SNA focuses on individuals and their networks, but says very little about the role which structures, ideas and wider discourses and narratives play in policymaking (Long et al, 2013; Jessani et al, 2016; Jessani et al, 2016; Cvitanovic et al, 2017). Some notable theoretical discussions conceptualise KB as boundary spanning, especially in environmental sciences (see Michaels, 2009; Turnhout et al, 2013). These findings are likely to be difficult to translate to social policy because what constitutes knowledge is often more contested (Knorr-Cetina, 2013). Overall, a majority of sources appeared influenced by Caplan's two-communities theory (1979). This influence could be linked to the overarching belief across this literature of the existence of two distinct worlds of research and policy, requiring brokering.

Regarding research methods, there is generally a lack of rich and robust empirical data, with many reviews (22/75) (for example, Lavis et al, 2003 ; Gold, 2009; Long et al, 2013; Bornbaum et al, 2015; Elueze, 2015; Olejniczak et al, 2016; Mallidou et al, 2017; Moore et al, 2017; Sarkies et al, 2017) self-reporting 'practical experiences' (Shaxson and Gwyn, 2010: 1) and self-evaluations from authors working in the organisations studied (for example, Leicester, 2007; Pennell et al, 2013; Bednarek et al, 2016; Notarianni et al, 2016). Some articles resemble manifestos in favour of KB and EBP or 'how-to guides', with modal verbs of necessity such as 'ought' and 'must' (Gold, 2009; Godfrey et al, 2010; Hering, 2016; Olejniczak et al, 2016) (at least 17 sources use such phrasing) (Cairney and Oliver, 2018). This approach is prescriptive and normative and often involves a focus on enablers and barriers to 'good' KB (Hamel and Schrecker, 2011; Chew et al, 2013; Otten et al, 2015). Kislov et al (2017: 111) also highlight a preoccupation with 'cataloguing' KB activities rather than employing systematic and critical analysis of KB cases and their impact and situated effectiveness. The review suggests that there is still a need for robust and detailed empirical research (Cooper, 2014; Dagenais et al, 2015; van Enst et al, 2017), supported by clearly stated methodologies (Cooper, 2015; der Graaf et al, 2018). We argue that building on policy and politics could help go beyond positivist and generalising frameworks, towards critical and more realistic analyses that take account of context, politics, ideas, resistance, conflicts and alliances which constitute KB in policy.

There are relatively few case studies (18/75), these sometimes falling into self-reporting by people working in those organisations without the necessary methodological 'arsenal' to allow (some) objective evaluation of the data and reproducibility (for example, Bednarek et al, 2016). Others limit their data collection to published policy documents, thus missing out on other data collection techniques such as interviews and observations (de Leeuw et al, 2018). There are also noteworthy case studies, often involving action research, which provide some interesting findings to develop future research (Pannell and Roberts, 2009; Hoeijmakers et al, 2013; Lee et al, 2014; Saarela et al, 2015; de Leeuw et al, 2018).

Agency and structure as knowledge brokers

Despite the widespread acceptance that '[a] knowledge broker may be an individual, a team or an organization' (Shaxson and Gwyn, 2010: 6; Elueze, 2015), the literature reviewed overwhelmingly focuses on knowledge brokers as individuals (38/75) rather than organisations (13/75). Five studies treated KB as a process or strategy and 24 saw KB as including individuals, organisations *and* processes (for example, Oldham and

McClean, 1997; Lavis et al, 2003; Knight and Lyall, 2013; Meyer and Kearnes, 2013) but many only empirically discussed the role of individuals (Dobbins et al, 2009; Ward et al, 2009; Knight and Lyall, 2013; Turnhout et al, 2013; Elueze, 2015). This focus on the individual veers the discussion towards personal characteristics such as charisma and emotions, often muting other important factors such as context, the policy in question, structural rules and processes, organisational culture and complexity (see also Bandola-Gill and Lyall, 2017).

Some studies develop useful findings regarding KBOs, with for instance Cooper surveying and comparing educational KBOs across Canada (Cooper, 2014; 2015), Hoeijmakers et al (2013) discussing the activities and impact of a specific KBO, or Guston (2001) analysing how KBOs blur boundaries between research and policy to facilitate transfer (see also Wehrens et al, 2010; Boswell, 2018). However, the current focus of the literature on individuals means that there remain opportunities for original research into KBOs, analysing structures and processes of brokering at the organisational level.

Policy areas and countries

Fourth, studies tend to focus on KB in a single policy area and country. The majority focus on health (34/75) or the environment (19/75) with very few researching social policy (3/75). The literature tends to focus on 'hard' sciences rather than other types of knowledge or evidence, although we recognise that there is a wide range of 'softer' social science being conducted in health, in particular. Social policy evidence or knowledge is often considered more subjective and open to being contested by other stakeholders in the policy community (Caplan, 1979; Knorr-Cetina, 2013). This niche focus sits awkwardly with the desire of most of the research to distil universal characteristics of KB. There is, therefore, a need to develop research on KB in the social policy context. Studies could explore questions of what counts as knowledge or evidence in this domain, who evaluates these sources of knowledge, how they are communicated and negotiated differently in other sciences than social sciences and the phenomenon of social policy research increasingly using quantitative and positivist methods – for example, randomised-controlled trials (RCTs), surveys, evidence matrices – to gain credibility and legitimacy (Wallace et al, 2004; Parkhurst, 2017).

One KBO pertaining to Canadian healthcare is mentioned across several sources (see first sub-section earlier in article): the CHSRF. In fact, as noted by Elueze (2015) in her review of 26 health KB studies, the biggest group of researchers in the field are Canadian and/or based in a Canadian university, with McMaster University producing half of the journal articles, followed by Western and University of Ottawa producing six each. This dominance of Canadian institutions (including the Social Sciences and Humanities Research Council of Canada) has helped to increase the visibility of knowledge mobilisation but leads to a lack of variety and alternative stories, practices and processes of KB, especially from countries where policy attitudes to knowledge are different.

Effectiveness and impact

The question of impact remains as contentious as when it was discussed by Weiss (1977) more than four decades ago. The literature usually refers to specific

social/relational factors and recommendations for achieving impact through KB (Pannell and Roberts, 2009; Knight and Lyall, 2013; Langeveld et al, 2016) such as ‘respect’ or ‘social conscience’ (Jessani et al, 2016), receptivity to research in an organisational culture (Dagenais et al, 2015), shared perspective, language and good negotiation skills (Gagnon, 2011), or focusing on specific findings for a place directly fed to policymakers (Osmond et al, 2010). In fact, only a small number of studies evaluate KB interventions to determine their effectiveness or impact on policy, rather than simply outlining recommendations to be applied generally (Powell et al, 2018).

Other papers attempt to evaluate KB initiatives using more objective measures of impact. Cooper et al (2018), for example, examine the impact of various education research bodies on Canadian policy using surveys (see also Meagher and Lyall, 2013). Bednarek et al (2016) assess the impact of their KBO via anecdotes in the media and surveys. They draw on a hundred interviews across 12 stakeholder groups to measure the use and relevance of their evidence and practices (see also Kirchhoff et al, 2015 on longitudinal evaluation). Some assume future effectiveness of KB based on what other studies had deemed ‘good’ or effective (Mavoa et al, 2012), or rely on the self-reported perceptions of knowledge brokers (Cvitanovic et al, 2017). A number of studies refer to credibility, legitimacy and salience when discussing KB effectiveness (Shaw et al, 2013), concepts that could benefit from theoretical framing within politics literatures. The problem with these various ways of grasping impact is their lack of reproducibility and objectivity, even though the latter will always remain contentious.

A few studies go further in addressing the question of impact. Cooper (2015) builds on Qi and Levin’s (2013) knowledge mobilisation measurement tool to evaluate the impact of education KBOs in Canada, but only uses data available on websites. Saarela et al (2015) underline the need for case-by-case KB strategies and evaluations and the importance of context, developing a typology of contextual factors and a pre-policy impact assessment which can influence the production, dissemination and use of knowledge in policy. Hoeijmakers et al (2013) develop a theory of change to organise their activities and evaluate the impact of their KBO by drawing on deliberative policymaking tools such as question-and-answer sessions and dialogue on solutions. Finally, Campbell et al (2015) propose a structured reflection event bringing knowledge brokers, policymakers and funders into discussing the contributions of a KB project.

This summary of papers shows that although there are some interesting studies tackling the question of effectiveness and impact of KB, there remains much to be done to bring the various components together and develop realistic evaluations of the effectiveness of KB. As one of the papers concluded: ‘probably the biggest challenge to knowledge brokering is the lack of knowledge about how it works, what contextual factors influence it and its effectiveness’ (Ward et al, 2009: 273).

To conclude, the KB literature is still relatively young and lacks the necessary spread of empirical work to assess impact or effectiveness.

The politics of knowledge brokering and policymaking

Finally, discussion of the politics of KB features only intermittently within the corpus, which appears to be based on a simple understanding of policymaking. Out of the 75 papers, 17 make no reference to politics, and do not feature a single politic* search term (politics, political, politician and so on). An additional 26 papers reference politics

less than three times each. Some papers reference the disjuncture between the analysis of KB in the literature and the (inherently political) policy context in which KB operates (for example, [Hoeijmakers et al, 2013](#); [Bednarek et al, 2016](#); [de Leeuw et al, 2018](#)). A small number of papers refer to political science or apply specific political theories to their analysis of KB ([Leicester, 2007](#); [Gold, 2009](#); [Michaels, 2009](#); [Meyer and Kearnes, 2013](#); [Sebba, 2013](#); [Campbell et al, 2015](#)).

Many papers refer to policymaking as unravelling according to a set blueprint, for example [Mallidou et al](#) refer to 'the policy cycle' ([2018: 8](#)) (see also [Jessani et al, 2016](#); [Olejniczak et al, 2016](#); [der Graaf et al, 2018](#)). Less than ten papers provide an explicit definition of policy, and none are complete or satisfactory. For example, [De Leeuw et al](#) define policy as 'the negotiated endeavour to resolve social problems' ([2018: 540](#)) which says nothing about the role of the government or power.

Most papers show an understanding of some aspects of policymaking while omitting other elements that are fundamental to analysing KB. For example, [Lavis et al](#) reference the 'political factors with which research knowledge must compete to influence the decision-making process', but do not differentiate between different types of policymakers, referring instead to 'policy decision makers' in general ([2003: 222, 225](#)). Equally, [Dobbins et al](#) state that the 'decision making process is complex,' but use an exclusively managerial framing for this: 'program managers in public health departments typically make recommendations to senior management' ([2009a: 2](#)).

Many other papers also do not make explicit the differences between the political and civil service aspects of policymaking. Around a third of papers (26/75) do not mention politicians as policymakers. This may be symptomatic of the fact that many papers are theoretically informed by the two-communities theory ([Caplan, 1979](#)) which does not adequately account for the organisational, structural and cultural differences between the civil service and politics aspects of policymaking. Instead, this theory gives the impression that policymaking is a homogeneous and constant process ([Stone, 2012](#); [Newman et al, 2016](#)).

At least eight sources also refer to 'policy and practice' as if these two areas were a single entity ([van Kammen et al, 2006](#); [Dobbins et al, 2009](#); [Woolfrey, 2009](#); [Chew et al, 2013](#); [Knight and Lyall, 2013](#); [Sebba, 2013](#); [Cooper, 2015](#)). This is problematic given that research evidence plays a radically different role in, for example, informing a government strategy, to the day-to-day activities of medical practitioners. However, this conflation may also be explained by the dominant view in some KB fields such as health services research of practitioners as policymakers ([Lipsky, 1980](#)).

Mere reference to politics also does not necessarily indicate a greater appreciation of policymaking, and politics and policy are sometimes used interchangeably. For example, [Hage et al](#) refer to their research variously as pertaining to 'knowledge and policy in the Dutch political system' and in the 'Dutch policy system' suggesting that they regard politics and policy as synonymous ([2010: 255, 257](#)). In addition, [Otten et al](#) mention politic* once in their paper when they refer to 'the policy and politics process' ([2015: 4](#)) which pays lip service to the political elements of policymaking without incorporating this into their analysis. In sum, the lack of detail regarding the policy process, particularly the failure to sufficiently address the role played by politics, leads to a trend of incomplete analysis of KB across the papers reviewed.

A critical research agenda for knowledge brokering

The typical KB image of the policy process, which posits research evidence as a necessary part of the policymaking process, is problematic as it is naïve and idealistic. The policymaking process is complex, involving a multiplicity of stakeholders and interests. Research evidence competes with multiple other factors in the development of policy, such as political agendas, electoral tactics, the political cycle, interests of other stakeholders, technical, bureaucratic and political feasibility, costs (which has many meanings here), and gripping narratives (Stoker and Evans, 2016). Pielke (2007) contrasts Tornado Politics, where information and science play a crucial role in determining policy, with Abortion Politics, where information plays a less important role than values and power plays. Unlike most of the sources reviewed for this paper, which tend to depict policymakers as a homogeneous group without distinguishing between politicians, administrators/civil servants and government scientists or experts, Christensen stresses the key role of bureaucrats ‘as brokers between research-based evidence and politics’ (2017) (see also Gains and Stoker, 2011). In this section, we discuss four particular points which we believe will help bring a fresh perspective to the current scholarship: theory, methods, the empirical deficit, and impact and effectiveness.

Building on recent examples of authors facilitating dialogue between policy and politics research and EBP (Sanderson, 2006; Smith, 2013; Oliver et al, 2014; Parkhurst, 2017; Cairney, 2016; French, 2018; Weible and Cairney, 2018), we propose that more effort is placed on bridging academic literatures so that our understanding of KB is widened. Concepts from network governance, practice, discourse and narrative literatures could be applied to develop a more theoretically-informed and methodologically-sound approach to analyse KB and EBP (Fischer, 1990; Yanow, 2007; Wagenaar, 2011; Howarth, 2013). The EBP literature has tended to posit evidence/knowledge as homogeneous ‘facts’ and ‘truths’ to be transferred, exchanged or ignored by policymakers, often overlooking the idea that knowledge/evidence is constantly re-made, re-interpreted and contested (Newman, 2011; Sullivan, 2011; Ayres and Marsh, 2013). The role of knowledge and evidence in policy framing is important which points to the usefulness of discursive concepts in analysing such phenomena (Goffman, 1971; see also Majone, 1989). This political aspect of KB is present in only some sources (Meyer, 2010; Turnhout et al, 2013; Leino et al, 2018). Knaggård’s (2015) policy broker concept, for example, which builds on multiple-streams analysis which frame brokers and researchers as political actors (Kingdon, 1984), could be developed further by building on narrative, discourse and practice studies in politics. More broadly, given the role of evidence in the policymaking process is often messy and complex, it requires ontological frameworks that make space for these realities and the politics at play (Monaghan, 2008; Smith, 2013; Cairney, 2019). Such approaches will help focus on the ‘why’ as well as ‘how’ questions of KB, emphasising how knowledge and evidence are mobilised, negotiated, and how policy problems themselves are re/formulated during brokering processes.

In addition to building on these theoretical concepts, we suggest that a critically-inspired methodology, for instance Rhetorical Political Analysis (Finlayson, 2007), offers interesting tools from Aristotelian philosophy for analysing how evidence is mobilised in the policymaking narrative and to begin analysing the underlying discourse or rhetoric of KB and EBP. Furthermore, emulating some of the literature

reviewed, we feel that mobilising their action research tools and immersing ourselves in KBOs by working alongside them, will provide useful and detailed insights into how KB actually works, the politics of brokering, how organisations evaluate their impact and what similar or varied practices are at play (Bartels and Wittmayer, 2014). This will also help to uncover the organisational and structural dimensions of knowledge brokerage, which are often overlooked. By reframing KB and the wider EBP problematics through the prism of narrative, discourse, governance and practice, we believe it is possible to go beyond prescribing recommendations over how EBP ought to take place and instead produce empirically-rich studies which explain what happens in the real world, that is, the power plays, the different uses and mobilisations of evidence in policy, and critically discuss whether and how evidence influences policy.

There is an empirical gap surrounding the emergence and impact of new evidence intermediaries such as UK WWCs, the Ontarian Mowat Centre, US California Policy Lab, and the Africa Centre for Evidence which all operate outside of the health policy context (see National Institute for Health and Care Excellence (NICE)) and have different functions from traditional think tanks (Stone, 1996; Rich, 2004; Abelson, 2018; McGann and Shull, 2018). Various models/tools of KB have been designed and this provides an opportunity to apply some of these to examine empirically how these KBO's work in the social policy area. Policy broker studies don't discuss knowledge and evidence extensively (Ingold and Varone, 2012; Christopoulos and Ingold, 2015). Studies channelling advocacy coalition concepts are useful in conceiving of scientists as political actors but say little about these new KBOs (Weible and Sabatier, 2005). These bodies require critical analysis and comparison to understand what they do and whether and how they influence and inform policy. This could look at the range of brokering practices at play and how they mobilise and re-interpret knowledge and evidence according to different policymaking *scenarii*. Currently, such analysis is lacking and remains the territory of the bodies themselves.

Finally, there needs to be more research on the 'impact' and 'effectiveness' of KB on policy and how these terms are defined. Abelson (2018) for instance explains how counting the number of times an organisation (he speaks of think tanks) is mentioned in the press or how many governmental meetings individuals attended is unhelpful and does not demonstrate impact. Speaking of *relevance* rather than impact, he argues that influence should be determined based on 'if, when, and under what conditions they can and have contributed to specific public policy discussions and to the broader policy-making environment' (Abelson, 2018: 229). Despite some of the think-tank literature providing useful concepts and frameworks, the KBOs we discuss in this paper, such as WWCs and academic institutes, have not done enough to examine their impact.

We believe that the development of theoretically-informed discussions on KB could best be done iteratively, whereby theory and empirical data are intertwined during the research project. This process could foster strong explanations of KB with theories which have been refined in the real world; a process within which researchers play a key role in critically judging and evaluating the 'fit' between theory and data (for example, Glynos and Howarth, 2007). Although we have intuitions about the types of policy and politics theories which could enrich KB research and its understanding, we believe that it is only by trialling these in the field, comparing different cases, and critically reflecting individually and in groups, that we can achieve both theoretical contributions in the field and better understanding of KB and its multiple facets.

Conclusions

Despite the quantity of research produced on KB, our review found that many of the sources often didn't address issues of (1) definition; (2) theories and methods; (3) agency and structure; (4) policy areas and countries (5) effectiveness and impact; and (6) politics.

Based on these findings, we explored how policy and politics research could inform KB scholarship, notably by thinking about theories and methods for analysing them in a critical way. We believe that more research is needed which interrogates the different practices, processes and settings of KB in the social policy sphere, regarding topics such as education, welfare, employment or taxation. It is in these fields where knowledge and evidence often remain contested and where the problems and solutions are the topic of heated debates, that research into how knowledge and evidence are brokered will deliver important benefits.

In order to discuss and evaluate KB practices, we argue that it is necessary to develop studies which examine how KB actually happens, rather than developing models and concepts *in vitro*. Surveys are useful in painting a broad brush (though possibly blurred) picture of activities and impact, but multiple in-depth case studies of KB in different settings, policy areas, regions, countries and times could provide high-resolution snapshots of KB. These cases will help to build a more realistic and data-informed understanding of KB and its many visages. By comparing and contrasting these different practices, researchers will be able to critically discuss what works across different contexts. The results will enable individual knowledge brokers and organisations to reflect on their practices and test alternative approaches. It is by developing these bottom-up approaches, that we will be able to discuss KB and its politics in a realistic and more objective way, rather than with generalising and prescriptive 'how-to' guides and 'top tips'.

Despite both EBP and policy-politics studies documenting and discussing how policy is made, the literature have evolved in almost hermetic silos, with little cross-fertilisation happening between the two. These silos lead to the EBP literature lacking in realistic theoretically-informed discussions and methodologically-sound analyses of the policy process and of the role played by research evidence. Although EBP has evolved mostly separately from policy and politics studies, its ideas and models are increasingly influential in policymaking. These disciplinary boundaries must be bridged to bring new insights into the changing roles and politics of knowledge in policymaking. If successfully applied, it could provide considerable insight not only into how to broker research-based knowledge, but also how other forms and sources of knowledge are shared and brokered.

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Conflict of interest

The authors declare that there is no conflict of interest.

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