

Neutrality or engagement? The rhetoric of research reviews ¹

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Research reviews are an increasingly important form of research communication. These, typically prepared by a group, inform policy-makers by drawing on the research of others. I compare two types: ‘systematic reviews’ and ‘politically engaged’ studies. Differences are manifested in both how these select and synthesise knowledge sources. I examine them in terms of Aristotle’s rhetorical devices, arguing that for politically engaged studies, not only methodological rigour (logos) is relevant, but also ethos and pathos.

Abstract

keywords: science advice, politics, rhetoric, knowledge for change, systematic reviews.

Introduction

In this chapter I will discuss a form of research communication that falls into the broad category of ‘science advice’. There is a substantial literature on this topic, dating back to Jasanoff (1990); with a variety of terms being used, including mode-2 science (Gibbons et al. 1994; Nowotny et al. 2001), regulatory science (Irwin et al. 1997), post-normal science (Funtowicz and Ravetz 1990). Within this broad category, I will focus on studies which review existing research so as to make it available to policy-makers. I hope thereby to contribute to the editors’ ambition of expanding research on research communication to include a greater variety of communication forms, actors and channels.

¹ Translation of «Utfordringer med politisk engasjert forskningskommunikasjon», in Bjørkdahl, Leikanger og Tellmann (red.): *Formidlende omstendigheter*. Universitetsforlaget, 2023. I am grateful to my colleagues in the COGS project for valuable comments and suggestions.

According to Gluckman (2017) academics may play a number of different roles in the research/policy arena: as knowledge generators, knowledge synthesisers, knowledge brokers, and policy implementation. Those who publish original research in academic journals fulfil the first of these. In this chapter, I will be concerned with those who undertake the next two roles: acting as synthesisers and brokers of knowledge. The sorts of challenge that here arise are somewhat different from those discussed in Chapter 6 (check chapter number), for I will be concerned not with one researcher communicating their own work, but with a group, communicating the synthesised findings from a large number of individual researchers. I will distinguish between so-called ‘systematic reviews’ and a rather particular version of these which I will call ‘politically engaged studies’.

A systematic review is:

“a specific methodology that locates existing studies, selects and evaluates contributions, analyses and synthesises data, and reports the evidence in such a way that allows reasonably clear conclusions to be reached about what is known and what is not known (Denyer and Tranfield, 2009: 672).

As the name implies, they “typically involve a detailed and comprehensive plan and search strategy derived *a priori*, with the goal of reducing bias by identifying, appraising, and synthesizing all relevant studies on a particular topic.” (Uman 2011) Policy makers are increasingly utilizing systematic reviews for decision-making (Lavis et al., 2006; Moat et al.; Petticrew et al., 2004; Welch et al., 2012). According to (Lavis et al., 2006) the shift from single studies has occurred because systematic reviews offer additional benefits to policymakers, such as having lower risk of bias than other studies, and offering more confidence in results than single studies.

I shall compare such systematic reviews with reports produced by commissions or panels that undertake what I call ‘politically engaged’ studies. These are political in two senses. First, they explicitly seek to bring about change. Second, they are motivated by the belief that certain problems, for example in the field of global health, are not well understood by policy makers - because they base their decisions on incomplete or biased evidence, or inappropriate problem framings. Such bias may be, but is not necessarily, attributed to the efforts of powerful actors, promoting their own interests.

While both kinds of study seek to serve as synthesisers and brokers of knowledge, ‘systematic reviews’ strive to be entirely neutral, and have well-established procedures and criteria to secure the rigour of their work. Why and how politically engaged studies may differ from such reviews is a subject that merits debate, to which I hope this article may make some contribution.

My purpose, one might say, is to open the black box of research reviews; a topic that has received very little scholarly attention. One of the few exceptions is (Hilgartner 2000), referred to in Chapter 1 (check) which studied three reports concerning health and diet, that were produced in America in the 1980s. The title – *Science on Stage: Expert Advice as Public Drama* – indicates the analytical perspective adopted in this book, which focuses on the ‘techniques, props and procedures that advisors deploy to build credibility’ (2000, 9). I too will be concerned with methods that are used for building credibility, but I will adopt an approach in line with the suggestion of the editors of the current volume, namely to study the rhetorical devices that may be applied in research reviews: logos, ethos and pathos.

Systematic Reviews: Cochrane and Campbell

Cochrane reviews are backed by a large organization, dating back 25 years, with a budget of almost £10 million. The organization has a network of 1,000 members and over 68,000 supporters from more than 130 countries. Cochrane’s mission is to promote evidence-informed health decision-making by producing high-quality, relevant, accessible systematic reviews and other synthesized research evidence.² Cochrane Reviews seek to establish – for example – what is the evidence that vitamin C can reduce the risk of infection. Their work “is internationally recognized as the benchmark for high-quality information about the effectiveness of health care”. These reviews “base their findings on the results of studies that meet certain quality criteria, since the most reliable studies will provide the best evidence for making decisions about health care. Authors of Cochrane Reviews apply methods which reduce the impact of bias across different parts of the review process, including:

² <https://www.cochrane.org/about-us> Accessed 01.09.2020

1. Identification of relevant studies from a number of different sources (including unpublished sources);
2. Selection of studies for inclusion and evaluation of their strengths and limitations on the basis of clear, predefined criteria;
3. Systematic collection of data;
4. Appropriate synthesis of data.» (ibid)

In selecting studies for inclusion Cochrane tend to especially favour those based on RCTs (randomized controlled trials), but also NRCTs (non-randomized controlled trials), CBA (cost-benefit analyses) and ITS (interrupted time series studies). These technically sophisticated, quantitatively-based methodologies are often regarded as superior to more 'qualitative' studies. But for a more nuanced view see, for example, (Oliver et al 2005, Oakley 2002).

The Campbell Collaboration grew out of a meeting in London in 1999, and drew on the Cochrane experience. Many saw the need for an organisation that would produce systematic reviews of research evidence on the effectiveness of social - as opposed to medical - interventions. Campbell's vision is "Better evidence for a better world"³ And according to its mission statement: "The Campbell Collaboration promotes positive social and economic change through the production and use of systematic reviews and other evidence synthesis for evidence-based policy and practice." Campbell bases its work on 10 key principles, including: minimizing bias, through a variety of approaches such as scientific rigour, ensuring broad participation, and avoiding conflicts of interest. According to Dacombe (2018) this approach "has emerged as one of the clearest signals of the development of systematic reviewing in the social sciences."

Studies included in a Campbell review are screened for quality, so that the findings of a large number of studies can be combined. Peer review is a key part of the process;

³ <https://campbellcollaboration.org/about-campbell/vision-mission-and-principle.html>

Accessed 01.09.2020

qualified independent researchers review the author's methods and results. According to their website, a systematic review must have:

- Clear inclusion and exclusion criteria
- An explicit search strategy
- Systematic coding and analysis of included studies
- Meta-analysis (where possible)

This, in summary, is the procedure that systematic reviews adopt to ensure that the selection and synthesis of knowledge is carried out in a rigorous way.

Politically Engaged Studies

In presenting the case of politically engaged studies I will make reference to two in which I am currently, or have recently been, involved. The first is the Lancet-University of Oslo Commission on Global Governance for Health; the second the International Panel of Experts on Sustainable Food Systems. I will briefly introduce both.

The Lancet-University of Oslo Commission on Global Governance for Health was an independent academic commission launched in Oslo in December 2011 in response to an invitation by *The Lancet*, and a call by the Norwegian Minister of Foreign Affairs, Jonas Gahr Støre, for an academic commission on global governance for health. The key task of the Commission, which built upon the agenda of Norway's Foreign Policy and Global Health Initiative, was to bring new research and analysis to bear regarding the need to engage beyond the health sector to solve key challenges in global health.⁴ The result of the Commission's work was published in an extensive report in *The Lancet* in 2014, revised following comments by independent reviewers.⁵

⁴ <https://www.med.uio.no/helsam/english/research/centres/global-health/global-governance-health/about/> Accessed 01.09.2020

⁵ <https://www.thelancet.com/commissions/global-governance-for-health> Accessed 01.09.2020

The Commission, comprised of “18 renowned researchers and policy makers”,⁶ was supported by a Secretariat and a Resource Group. The Commission defined its starting point as follows:

“Despite large gains in health over the past few decades, the distribution of health risks worldwide remains extremely and unacceptably uneven. Although the health sector has a crucial role in addressing health inequalities, its efforts often come into conflict with powerful global actors in pursuit of other interests such as protection of national security, safeguarding of sovereignty, or economic goals.” (Ottersen et al. 2014)

It was thus explicitly political not only in the sense that it sought to promote change, but also that it was concerned with ‘unacceptable’ inequalities, and identified powerful political interests as part of the problem.

The International Panel of Experts on Sustainable Food Systems (IPES-Food) is an independent panel of about 25 members with a mission to promote transition to sustainable food systems around the world. It includes both academic researchers and practitioners. Since 2015, “IPES-Food has shaped the debate on global food system reform through scientific reports & detailed policy recommendations”.⁷

The stated purpose of IPES-food is: “to inform policy debates on food systems reform through empirical research and direct engagement in policy processes around the world. The research projects ... aim to advocate for more just and sustainable food systems”. (IPES-Food AISBL's statutes, Goals 2.2.1) Thus, like the Lancet-University of Oslo Commission on Global Governance for Health, IPES-food is explicitly political not only in the sense that it seeks to promote change, but also that it identifies powerful political interests as part of the problem – as noted in its ten principles. These principles include not only independence,

⁶ <https://www.med.uio.no/helsam/english/research/centres/global-health/global-governance-health/about/> Accessed 01.09.2020

⁷ <http://www.ipes-food.org/about/> Accessed 01.09.2020

transdisciplinarity and critical engagement, but that IPES shall be: “Power-sensitive. Analysis of food systems must not ignore the differential power of actors to influence decision-making and to set the terms of debate for reform. Power relations and the political economy of food systems must take center-stage.”⁸

These are only two of many such initiatives which seek to promote ‘knowledge for change’: to use well documented evidence to make a case for how to improve human wellbeing. I have an inside knowledge of both, since I was a member of the former, and am still a member of the latter.⁹ Studies such as these clearly differ substantially from systematic reviews. But both are examples of research communication, seeking to guide public policy by selecting and synthesizing authoritative research findings. The similarities are sufficient, I suggest, to justify a comparison.

Analysis

In the rather limited literature that relates to my concerns, two sources in particular deserve attention. (Lentsch and Weingart, 2011, 5) assert that “there is no well-developed theory of scientific policy advice available”; and they seek to establish one, based on analysis of case studies of several different commissions and advisory bodies. As the title of the book indicates, it is concerned with ‘the politics of scientific advice’, and examines the challenge of seeking to link expert knowledge with policy, recognizing that this as a political issue. They argue that expert knowledge, in such cases, has to satisfy not only standards of ‘epistemic robustness’ – “the quality of knowledge in the sense of its validity” (Lentsch and Weingart, 2011, 8) but also of ‘political robustness’ – “the acceptability and the feasibility to implement

⁸ http://www.ipes-food.org/_img/upload/files/IPES%2010%20Principles%20of%20SFS.pdf
Accessed 01.09.2020

⁹ To make use of my own experience does, of course, raise methodological and perhaps also ethical questions. My observations regarding their work are necessarily subjective; but any empirical claims that I make will be based on written materials publicly available; and by explicitly stating my own involvement I allow the reader to judge whether there is likely to be bias in my analysis.

recommendations based on it” (Lentsch and Weingart, 2011, 8). My concern in this chapter is only with the former criterion; what they call ‘epistemic robustness’, or ‘validity’.

The question of what constitutes ‘quality’ of knowledge is also addressed in a recent review – (Langfeldt et al. 2020) - which compares a variety of conceptions, using an analytical framework in three dimensions. Thus, they distinguish: between two notions of quality (those that originate in research fields or in ‘policy and funding spaces’); between three different ‘research quality attributes’; and between five different ‘organisational sites’.

The three ‘research quality attributes’ they identify are the well-established trio (ref e.g. Polanyi 1962/2000): originality/novelty, plausibility/reliability and value/usefulness. It is the second of these attributes - plausibility/reliability - that is of relevance for this chapter. But what, more specifically, does this involve? What assessment criteria are, or should be, used? These, they argue, vary somewhat across the five ‘sites’ that they identify, namely: Individual researchers/ groups; Knowledge communities/networks (journals, conferences etc.); Research organisations; Research funding agencies; and Regional/national policy. It is perhaps the last of these ‘sites’ that is most relevant for my concerns in this chapter, but unfortunately it is here that the authors are least specific. They do, however, elaborate on how quality is interpreted by researchers, including “correctness, rigor, sound methods, thoroughness and clarity, as well as research integrity and ethics.” (122)

The criteria identified in these two books, correspond, I would argue, to the first of Aristotle’s three rhetorical devices, namely ‘logos’, an appeal to logic, persuading an audience with reason, using facts and figures. This is the basis on which Cochrane and Campbell reviews are founded. But in the case of politically engaged studies, I shall argue, both ‘ethos’ (convincing an audience by the authority of the persuader), and ‘pathos’ (making an impassioned plea or telling a convincing story) may also be relevant.

Against this background, I will now discuss what procedures and criteria politically engaged studies adopt – or may adopt – in contrast to those of Cochrane and Campbell systematic reviews. For the latter, methodological rigour alone (‘epistemic robustness’ in the words of Lentsch and Weingart, 2011)) is relevant. With regard to the selection of sources this typically implies using research from peer-reviewed international journals. With regard to synthesis it involves undertaking a ‘meta-analysis’, according to established procedures. By contrast, the situation with politically engaged studies is rather different. Methodological rigour is certainly

important. But these studies are intended not only to be relevant for policy-makers, but to have a particular political impact. This can – as I shall discuss – have an influence on the exercise. A politically engaged study is an exercise not simply of making knowledge available, but of persuading an audience.

Selection of knowledge sources

In the case of Cochrane and Campbell reviews, quality is supposed to be secured by a combination of two procedures: using research that has been peer reviewed in reputable journal; and, as described above, establishing protocols that guide how to scan the universe of potentially relevant articles and select those which satisfy specified criteria. The sheer number of articles being published in academic journals has increased enormously in the last twenty years; and the ease of accessing these articles has been transformed, thanks to google, JSTOR, Researchgate etc. Despite, or perhaps because of this, the selection criteria are not always easy to satisfy. In Cochrane studies, often based on laboratory-based research on narrowly defined issues, it may be possible. But such an approach is more challenging in Campbell studies (in the social sciences) and, *a fortiori*, in politically engaged studies. And, as I shall argue, in the latter case the authors may, legitimately, apply somewhat different criteria in selecting what research to include.

Cochrane reviews are widely regarded as the ‘gold standard’ when it comes to evidence-based decision-making. As noted above, these follow a specified protocol which explicitly defines inclusion and exclusion criteria.¹⁰ A high degree of methodological rigour in the process of selecting information can certainly be achieved in relation to narrowly defined questions. Unlike a politically engaged study, a Cochrane review typically refers to a rather narrow, well-defined issue - often concerning medical interventions - such that it is possible to a large extent to control the context and draw generally applicable conclusions. Yet even here the situation is not in practice as clear-cut as the idealised description suggests, as **may** be shown by an example of two Cochrane reviews studies which stray outside the narrow boundaries of

¹⁰ According to (Uman 2011), a 5-point Oxford Quality Rating Scale is commonly used in Cochrane reviews, but there are also other more comprehensive recommended guidelines and standards available such as the Consolidated Standards of Reporting Trials (CONSORT Statement; <http://www.consort-statement.org/>).

the laboratory: undertaken to study the effect of measures to reduce consumption of sugar - known to be a risk factor for obesity, type 2 diabetes, cardiovascular disease and dental caries. (Cochrane 2019) The first one sought “To assess the effects of environmental interventions (excluding taxation) on the consumption of sugar-sweetened beverages and sugar-sweetened milk, diet-related anthropometric measures and health outcomes.” The authors “identified 14,488 unique records, and assessed 1030 in full text for eligibility” and found 58 studies meeting their inclusion criteria, “including 22 RCTs, 3 NRCTs, 14 CBA studies, and 19 ITS studies” Of particular significance here is the selection process: first identifying no less than 14,488 records, then assessing as many as 1030, and finally including 58. The authors' conclusions are positive, and relatively clear: “The evidence included in this review indicates that effective, scalable interventions addressing SSB consumption at a population level exist.”

The second study (Cochrane 2020) was concerned with the same problem, but its objective was to assess the merits of taxation as a policy for reducing sugar consumption, with the same objective: to “reduce the prevalence and incidence of overweight and obesity, and the prevalence and incidence of other diet-related health outcomes.” Again, the scale and rigour of the selection process is impressive. “We retrieved a total of 24,454 records. After deduplicating records, 18,767 records remained for title and abstract screening.” But the conclusions were far more limited: “Of 11 potentially relevant studies, we included one ITS study with 40,210 household-level observations from the Hungarian Household Budget and Living Conditions Survey. We could not perform meta-analyses or pool study results.” Hence, in summary “There was very limited evidence and the certainty of the evidence was very low. Despite the reported reduction in consumption of taxed sugar-added foods, we are uncertain whether taxing unprocessed sugar or sugar-added foods has an effect on reducing their consumption and preventing obesity or other adverse health outcomes.” The authors conclude – as in so many other studies - that “further robustly conducted studies are required to draw concrete conclusions ...”

The purpose of referring to these two examples at some length is primarily to demonstrate the methodological rigour of the selection process; but it is also significant that the conclusions drawn may – as shown here - be quite limited even in the case of a relatively clear-cut question. The challenge is even greater in the case of Campbell Reviews. These, like the Cochrane Reviews in the field of health, are often claimed to represent a ‘gold standard’ for

the social sciences¹¹; but, as one might perhaps expect, it is far more difficult to draw clear conclusions from such studies. To illustrate the point, I take one example from a field with which I am well acquainted, namely international development. To judge from a rapid scan of the 45 studies concerning international development that are available on the Cochrane website this one is not untypical. The study findings are summarized thus:

Programmes that provide economic incentives to reduce the negative environmental impact of land use are a popular means to reduce deforestation and degradation and mitigate climate change. In some cases they also aim to improve socio-economic outcomes. The effects of Payment for environmental services (PES) programmes on these outcomes, however, remain unclear due to the low quality of available evidence.

In brief, no strong conclusions can be drawn.

This is not to suggest that such systematic reviews are not valuable, but rather to emphasise that the challenges are greater in the social as opposed to the medical sciences. When it comes to politically engaged studies, the issues addressed may be even more wide-ranging, and the selection process correspondingly more challenging. At the start of such an exercise, the authors are typically confronted by a vast body of potentially relevant research. Which should they select for inclusion? They hope, since this is politically engaged research, to find articles which are supportive of their case. But they are also aware that if their selection of evidence is manifestly biased it will not serve their purpose. In brief, they seek to have achieve political impact, but by drawing on the authority of other studies which are of demonstrably high quality. This, I shall suggest, may lead to – and indeed justify – a rather different procedure for selection of knowledge sources.

¹¹ Hammersley (2001), in discussing the relevance of such methods to the field of education, comments that “much medicine is closer to the technical end of the spectrum, in the sense that there is less diversity in the goals and other considerations treated as relevant; and thereby in evaluative criteria. Furthermore, there seems to be more scope for identifying relatively simple causal relationships between treatment and outcome.”

In order to analyse whether, and if so how, the selection of relevant knowledge sources in the case of a ‘politically engaged study’ might differ from that of a systematic review, I find it helpful to create a very simple schema, distinguishing between research that is supportive/not supportive of the case; and research that is of high/low quality, as shown in Table 1. I find it appropriate, however, to distinguish two categories of ‘low quality’ sources: between what I call ‘scientific’ and ‘non-scientific’ sources. The latter refers not to journal articles but to knowledge possessed by those whose lives are affected by the issues under study, the ‘users’: for example, peasant farmers in poor countries, or - in the field of maternal health - mothers.

Quality of the knowledge source	Implications for the case	
	Confirms	Refutes
High	A	B
Low (but ‘scientific’)	C	D
Low (‘unscientific’)	E	F

Table 1. Alternative situations arising in the use of knowledge sources

Table 1 distinguishes between six different situations (A through F) that may arise in the use of different knowledge sources. What, might be arguments for, or against, using the varying qualities of knowledge source?

Situation A: High quality research that is supportive of the case. This is clearly preferred and is likely to be included.

Situation B: High quality research that refutes the case. While unwelcome, such research should be included, since the credibility of the team’s conclusions will require that their selection procedure is unbiased.

More interesting, perhaps, are the other categories.

Situation C: Low quality (but ‘scientific’) research that is supportive. There could be a temptation to include at least some of this on the basis that ‘every little helps’. This might be justifiable if there is in fact rather limited relevant research available.

Situation D. Low quality (but ‘scientific’) research that refutes the case. It may be tempting to include at least some research of this type based on a ‘straw man’ argument - if the quality of such research is poor this suggests that the counter-case is weak. This might by some be regarded as unacceptable practice; but a good case can be made for its inclusion, as illustrated by the example of tobacco and health. Tobacco companies spent a great deal of money, over many years, sponsoring research that challenged the link between smoking and cancer. To refer to some of this research, demonstrating both its low quality and its being financed by interested parties, adds strength to the argument of a ‘politically engaged study’ regarding the political determinants of health.

Situations E and F: Low quality (‘unscientific’) sources. As briefly argued above, there is a case for including such sources; and such ‘transdisciplinary’ approaches are increasingly favoured. The challenge of ensuring ‘quality’ in the selection of such sources is twofold: it is not easy to ‘map’ the universe of such knowledge from which an appropriate selection can be made; and it is unclear what criteria of ‘rigour’ might be suitably applied.

To summarise: the criterion of methodological rigour (logos) is very relevant in the process of selecting relevant material to be included in establishing an evidence base for policy. In systematic reviews this, at least ideally, implies that all relevant peer-reviewed articles in reputable journals are included. But in the case of politically engaged studies the issue is rather more complex, as I have shown. And rhetorical devices other than logos may, arguably, also enter the picture. For example, (Oakley, 1999) suggests that very different issues and research questions would be identified in the field of maternal care drawing on the perspectives of mothers rather than doctors;¹² such arguments, based on the knowledge of mothers, might be said to appeal to ethos as much as logos. Similarly, relating to the work of IPES-food, one might argue that drawing on the knowledge of poor peasant farmers or indigenous peoples utilises both ethos and pathos, in addition to logos.

Synthesis of knowledge sources

¹² Ref also (Boaz et al 2002, 9): “Some areas of research, including the field of social care, have made significant progress in involving both the users of research and those affected by the public services being researched.”

Logos, interpreted as methodological rigour, is a relevant criterion also in the process of synthesis. In a study of the Cochrane variety – ideally - there exist numerous independent research results that are sufficiently comparable to allow for a ‘meta-analysis’: one that enables the statistical margin of error of the studies taken as a whole to be considerably less than that of each individual one. But this is often an unachievable ambition for Cochrane reviews; and *a fortiori* for Campbell reviews. And such a statistical meta-analysis is certainly not possible for the sorts of studies with which I am concerned in this article. Here ‘synthesis’ involves a rather different sort of process, perhaps more akin to the telling of a story. (McNeill 2018). Thus ‘pathos’ as well as ‘logos’ is will often be involved; and the line between these may be blurred.

Synthesis, in a ‘politically engaged study’, involves making a convincing argument, based on reliable empirical information. It is useful here to distinguish between three elements that typically constitute the core of the argument in such studies:

- 1) A causal analysis of the links between certain factors and the outcomes that are – at least partly – attributable to them. For example, showing that excessive consumption of sugar may lead to an increased incidence of diabetes, or that high intensity agriculture may lead to degraded soils.
- 2) (Often, but not always) Empirical information that demonstrates that the less powerful suffer disproportionately from the negative consequences revealed in point 1.
- 3) An empirically based analysis that gives grounds for attributing some of the identified causes to the interests of powerful actors; for example ‘big pharma’ in the health sector, or agribusiness in the food sector.

Regarding the first element, the empirical basis may well be strong (as for example in the case of sugar and diabetes), and the causal analysis correspondingly rigorous. Similarly, regarding the second point - how negative outcomes disproportionately impact on the weak - there are often relevant statistics from reliable sources, such as the World Health Organisation or World Bank. Failing this, resort can be made to powerfully expressive ‘apt illustration’. High quality information can here be synthesised in a way that very convincingly contributes to the argument, without necessarily compromising methodological rigour. By contrast, the third element (analysis of the political dimension) – is more challenging. How to demonstrate – to a high standard of rigour – that powerful actors, pursuing their own interests, cause or

exacerbate these negative outcomes? A strong *a priori* case can often be made, certainly sufficient to justify claims such as: “it appears likely that ...” But political science is not like medicine; however stringent the analysis may be, it will be difficult to demonstrate causal links in a way that is sufficiently rigorous to satisfy sceptics. Objective statistics may, however, be of some help; they can be used to measure the power of certain actors such as ‘big food’. For example, the IPES-food report on consolidation in the global agri-food market reveals that “as much as 70% of the agrochemical industry in the hands of only three merged companies”¹³. Furthermore, the expressed interests of such actors can be objectively demonstrated, for example by reference to their lobbying activities. Here, the example of tobacco companies’ attempts to stifle or misuse research is again relevant.

Thus, the criterion of methodological rigour (logos) is relevant with regard to the first two elements listed; but with regard to political impact, ‘pathos’ may – in addition - be called upon: telling a story in a way that is convincing to the audience. Here, well-designed diagrams that summarise a complex analysis can be effective. So too can powerfully expressed statistics play a part: numbers that speak, or even shout, for themselves.¹⁴

¹³ http://www.ipes-food.org/_img/upload/files/Concentration_FullReport.pdf.

The report (page 21) refers to a 2011 study by the US Department of Agriculture (USDA) which examined global market concentration over a 15-year period in the major five agricultural input industries. This revealed that by 2009, the largest four in each sector accounted for more than 50% of global market sales – well beyond the 40% benchmark of an oligopolistic market. The choice of the data source is significant: the US, and more specifically the USDA, is known to be a robust supporter of the interests of US agri-food business.

¹⁴ A good example may be taken from the field of public health; one that was used by Sir Michael Marmot in disseminating his report on the Social Determinants of Health. On the London underground, there are eight stops between Westminster and Canning Town. As one travels east, each stop, on average, reflects nearly a year of shortened lifespan.

Source: Analysis by London Health Observatory using Office for National Statistics data.

Diagram produced by Department of Health

In addition, politically engaged studies may derive what might be called moral authority from the individuals or institutions which are involved in preparing the reports, sponsoring their production, or supporting their findings. An example of the former would be Amartya Sen, who has been much sought after as a member of international commissions. (McNeill 2018). He is known not only for his academic credentials as a Nobel prize winning economist, but also as a renowned proponent of human rights. Examples of the latter are less easy to find but might include, for example, the church.

Conclusion

A research review involves two steps: the selection of knowledge sources relevant to the topic, followed by synthesis of the findings in a report. In the case of systematic reviews, there exist clearly established procedures to secure the rigour of these two exercises. Ideally, the sources selected for inclusion have passed the standard academic test of peer review; and the findings have been synthesised simply by aggregation of results from the various individual studies. This ideal is sometimes difficult to achieve in practice in the case of Cochrane Reviews (in medicine); and even more so in Campbell Reviews (in social science). Nevertheless, the basis on which such reviews claim credibility is solely their methodological rigour; which corresponds to Aristotle's rhetorical device 'logos'.

I have argued that the situation regarding politically engaged studies is somewhat different. Here the selection of knowledge sources may, under certain circumstances, legitimately include studies of lesser quality; and it may even be appropriate to include sources which could be described as non-academic. Furthermore, the synthesis of knowledge sources in such reports will not, indeed cannot, involve mere aggregation of research findings. Rather, the report will tell a story – seeking to persuade the reader. Thus, in politically engaged studies appeal is made not only to logos, but also to ethos and pathos.

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