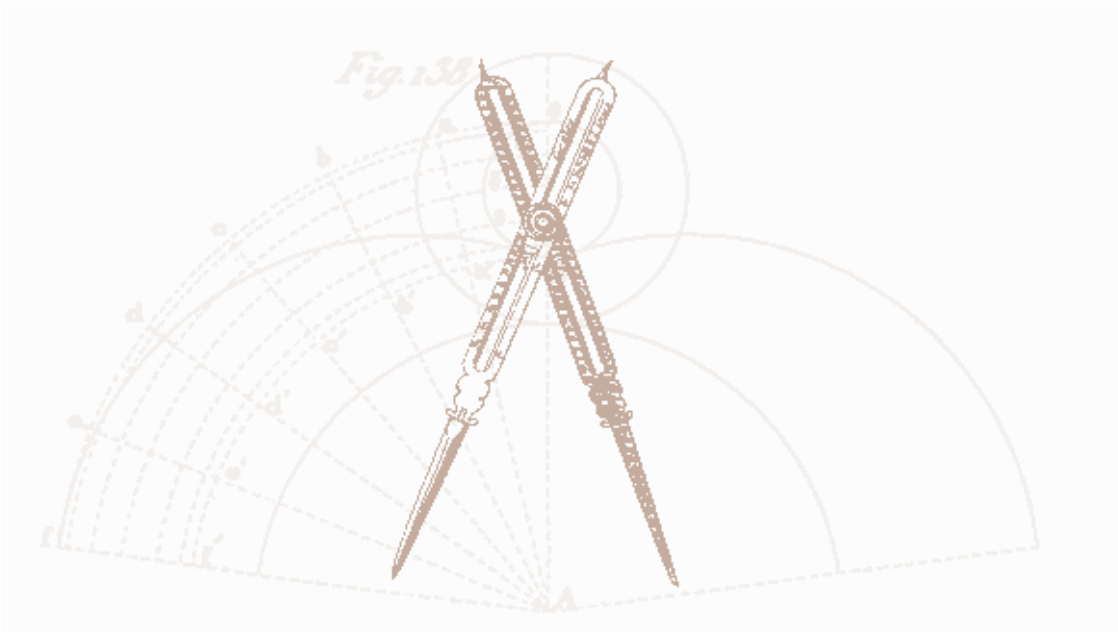
CONNECTING RESEARCH AND POLICY



BY **JONATHAN LOMAS**

RÉSUMÉ ► Les chercheurs et les responsables de l'élaboration des politiques gouvernementales tireraient tous profit d'une meilleure compréhension mutuelle de leurs univers respectifs. Pour les chercheurs, il est essentiel de comprendre que la prise de décision n'est pas tant un acte ponctuel qu'un processus diffus, aléatoire et plutôt instable. Quant aux décideurs, il leur faut admettre qu'il y a davantage dans la recherche qu'un événement ponctuel. S'ils souhaitent renforcer les liens entre leurs collectivités, chercheurs et décideurs doivent trouver d'autres points d'échange que ceux qu'ils ont établis au stade du « produit » de chacun de leurs processus. Il faut accorder plus d'attention à l'établissement et au maintien de liens permanents entre leurs deux univers.

(Traduction : **www.isuma.net**)

ABSTRACT ► Researchers and policy makers would both benefit from a greater understanding of each other's worlds. Researchers need to appreciate that decision making is not so much an event as it is a diffuse, haphazard, and somewhat volatile process. Similarly, decision makers need to recognize that research, too, is more a process than a product. Better links between research and decision making depends on the two communities finding points of exchange at more than the "product" stage of each of their processes. More attention needs to be given to establishing and maintaining ongoing links between the two worlds.

Research and policy as processes not products

There is an oft-quoted line that the two things you should never watch being made are sausages and public policy. To this duo might be added research. And, indeed, other than a handful of specialists paid to do it, few people actually observe either the policy process or the research process. However, this does not mean that there are no processes to arrive at the "products."

Decision making is not an event

Researchers and decision makers tend only to connect, if they connect at all, around the products of their processes. Just at the point of decision, after the issue has bubbled up onto the policy agenda, after it has been framed within a particular context, after the various claimants for a voice have been adjudicated, the procedures for negotiation and exchange agreed upon, and often after the limits have been set around feasible options, the researcher arrives brandishing his or her study. This is a less than opportune time to insert research into this now complex stew. This approach emanates from the "decision making as an event" view — as if policy were made by a defined small group of actors clustered in a room at a specified time, perhaps until a puff of white smoke is emitted.[1] This view fails to do justice to the ethereal nature of that diffuse, haphazard, and somewhat volatile process called decision making.

Research is not a retail store

Equivalently, products from and not processes within the research community are what concern decision makers. They arrive at the research community's doorstep with complex questions and urgent deadlines. After the months and sometimes years of deciding study priorities, establishing a conceptual framework, choosing a methodology and endpoints, acquiring the research grant and obligations, and collecting and analysing data, the researcher is faced with a decision maker who wants help with an emerging problem upon which decisions are being made *now*. It is unlikely that, in the absence of earlier communication of priorities and politically feasible options, any specifically relevant research products will be available to such a decision maker. This emanates from the "research as a retail store" view — as if researchers are busy filling shelves of a shop-front with a comprehensive set of all possibly relevant studies that a decision maker might some day drop by to purchase. This view recognizes neither the breadth of possible studies that could be done, nor the numerous stages involved in choosing which of those studies to do and how to do them.

Implications of research and policy as processes

The clearest message from evaluations of successful research utilization is that early and ongoing involvement of relevant decision makers in the conceptualization and conduct of a study is the best predictor of its utilization.[2] Similarly, research centres with ongoing linkages to and an accepted role in a specific jurisdiction's or organization's decision making, have greater influence than those without such links.[3] Apparently, familiarity breeds pertinence not contempt. This is a large part of the explanation for the burgeoning number of dedicated centres and institutes funded by and linked to decision-making organizations such as ministries of health, regional health authorities, hospital consortia or practitioner associations.

TABLE 1

Stages in policy oriented research process

Hypothesis generation
Methods development
Develop causal model (theory)
Study-specific evaluation (efficacy)
Knowledge summary/synthesis Results communication
Application *to* policy world (effectiveness)
Application *in* policy world (applicability)
Ongoing monitoring/evaluation

By treating policy as a discrete product rather than an extended process, researchers miss the opportunity to influence how issues are framed or even whether they make it on to the policy agenda. As Rist has said: "So long as researchers presume that research findings must be brought to bear upon a single event, a discrete act of decision making, they will be missing those circumstances and processes where, in fact, research can be useful."[4] By treating research as a product instead of a process, decision makers miss the opportunity to influence both the topics under investigation and the approaches adopted. As Huberman observes: "If it takes a research team two years to get hold of its study, conceptually speaking, why should we assume that the reading of a single research report in a few days... will bring enlightenment (for the decision maker)."[5]

Tables 1 and 2 present one view of the various stages in the policy and research processes. For the purposes of presentation, both processes are listed as if they move sequentially from one logical stage to the next. As numerous analysts and observers have noted, this is rarely the case. However, the apparent illogicality of policy making to the researcher, and research to the decision maker, does not mean that work on any or all of the stages does not proceed, it just rarely proceeds in the kind of logical sequence represented by the tables.

TABLE 2

Stages in the decision making process

Environmental scanning
Agenda-setting and priorities
Problem identification
Causal model evaluation
Assemble feasible options
Develop consultation methods
Assess public/stakeholder reaction
Choose and apply decision
Justify decision
Evaluate impact of decision

This multi-stage process characteristic of research has a further implication. The stages of the research process are not necessarily intra-project stages i.e., a single research project will rarely contain all stages within it (see Table 3). A single project may do no more than develop an idea, validate a methodology, assess efficacy or evaluate applicability. Indeed, the "abuse" of research findings often occurs because a single study within one stage of the process (often an efficacy study showing that something works under "ideal" conditions) is taken as the product of the entire process and used as if it was a synthesis of all stages and applicable in far more complex "real world" conditions.[6] The unit of research transfer should rarely be the single study but should, rather, be the summary and synthesis of knowledge across the entire spectrum of stages in the process. Just as decision makers in the legislative and administrative levels decry premature adoption by clinicians of innovations based on single or limited studies, so too should all decision makers be sceptical of responding to the findings of a single study emanating from only one of multiple stages in the research process.

Grant funding agencies, particularly traditional biomedical and clinical ones, have inadvertently perpetuated the inappropriate idea that single studies are worthy units of transfer and dissemination. This is because of their major focus on funding project-based assessments rather than issue-based programs of research and/or relevant summaries and syntheses. The approach has reinforced the idea that advances in knowledge come only from project-based

assessments and has downplayed (and often left unfunded) other important contributions from methods development, descriptions of alternative causal models, or case studies of failed attempts to apply an apparently efficacious approach in particular settings.

Better links between research and decision making depend, therefore, on the two communities finding points of exchange at more than the "product" stages of each of their processes and, furthermore, on a redefinition of the research product as synthesis of a broad spectrum of knowledge rather than an individual study's findings. More attention is required on both sides to the task of establishing and maintaining ongoing links and more comprehensive communication.

The importance of institutional and political context for decision making

It took 263 years after Lancaster demonstrated the preventive value of citrus juice against scurvy before the British merchant navy finally introduced citrus at the end of the 19th century as a routine supplement to its sailor's shipboard diet.[7] The seeds of "evidence-based medicine" were sown in 1916 when the Flexner Report transformed medical training from quackery to science, but it has taken until now to see this incorporated into the assumptions of decision making for health care systems. Sir Richard Doll's most important findings linking smoking to lung cancer were completed in 1950 but it was not until 1957 that any legislative action was initiated.[8] The initial studies demonstrating surgical rate variations were done in the 1950s, but significant policy concerns at legislative, administrative or clinical levels were not manifest until the early 1990s.

In each of these cases, it can be argued, the political and institutional context was initially misaligned with the findings. Decisions based on these insights did not flow into "useable knowledge"[9] until the research resonated with other contextual factors, providing a justification for its use or corroborating its value. It is these "other factors" that researchers trained in the rationality and logic of science find so hard to understand and/or give credence to.

TABLE 3

Stages of the research process — an illustration using shared patient decision making

Hypothesis Generation

shared patient decision making is a good idea (i.e., it is valued)

Methods Development

how to elicit and/or aggregate patient values and preferences

OR

how to present risk-benefit trade-off information

Causal Model or "Theory"

lack of patient involvement leads to "unwanted interventions"

Study-specific Evaluation (Efficacy)

RCT of interactive video-discs under ideal controlled conditions

OR

RCT of living wills' impact on health care use at the end of life

Knowledge Summary and Synthesis

meta-analysis of study-specific work; social science overviews

Result Communication

dissemination to providers/patients in study, media, journals, etc.

Application *to* Policy World (Effectiveness)

what are the barriers to using video-discs (living wills, etc) under different health care funding and organisational arrangements?

Application *in* Policy World (Applicability)

details of implementing shared patient-decision making for specific jurisdiction, institution, or even practitioner

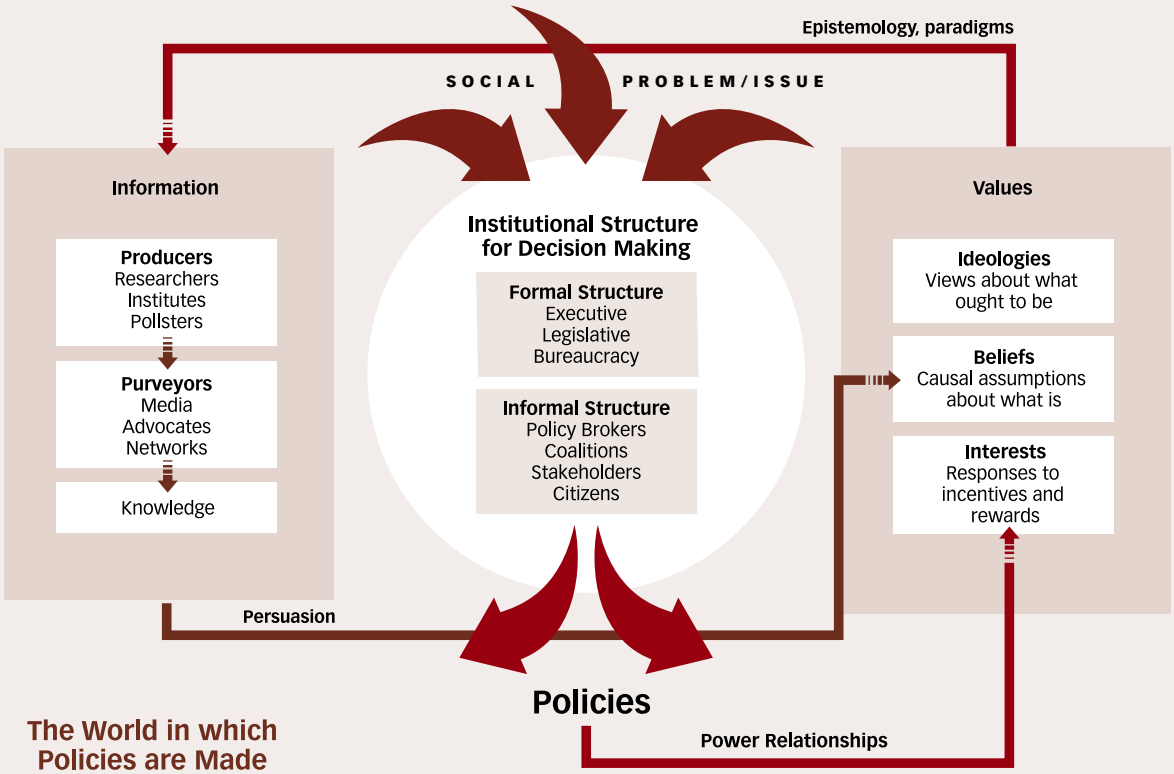
A framework for understanding the context of decision making

In order to understand these factors, and how research relates to them, it is useful to divide the decision-making world into three interrelating domains (see Figure 1). First, is the *institutional structure for decision making* – its design, those who officially and unofficially have a voice, the history and nature of the interest groupings, the distribution of responsibility and accountability, the implicit and explicit rules of conduct. This is the "sausage-machine" out of which emerge the products "policy," often redefining new power relationships and changing stakeholder interests. Into this structure go the outputs from two other domains — the values in which decisions are immersed and the information upon which a decision is based and justified.

Values influencing a decision emerge from a complex interaction of interests with beliefs and ideologies, and are expressed through individuals and organizations.[10] Interests are how one would like the world to work e.g., "as an executive in a for-profit health care company I support the expansion of private hospitals." Interests change readily with context and are altered with each new policy decision. Ideologies declare a person's or an organization's view of how the world ought to work e.g., "there ought to be a greater role for the private sector and the market than for government in health care (education, job creation, etc.)." They are hard if not impossible to change. Beliefs are sandwiched between interests and ideology. They are our knowledge of how we think the world actually does work, arrived at on the basis of whatever has persuaded us from the bombardment of information we receive e.g., "for-profit private hospitals are more efficient than public hospitals." Beliefs, therefore, are the main target of research findings. Nevertheless, these findings must compete with other sources of persuasion, as well as with the pressure for rejection because of their incompatibility with interests or ideology (see Box One on p. 144). Beliefs, therefore, are likely to change only over years, if not decades — burning bush experiences are the exception not the rule.

FIGURE 1

A Schematic view of the contextual influences on the decision making process



The values for a decision, especially in public policy, emerge from a process of cognitive dissonance reduction.[11] Individuals, organizations and policy sub-systems try to bring into congruence often competing messages from their interests, ideologies and beliefs. Only one of these — beliefs — are really amenable to change based on research, and even then this influence is usually over prolonged periods of repeated exposure in the context of competing sources of information. Furthermore, and especially at the legislative policy level, the window of opportunity to make major change, however compelling the research, opens only rarely and briefly when the constellation of values may happen to coincide with the research's implications.

Information also comprises more than research. Not only are there other sources for the "evidence" used for decisions — anecdote, experience and even propaganda — but also there are many purveyors of the research and other information, from think-tanks and interest groups through to the media.[12] It is these purveyors who turn information into "common knowledge." It is this common knowledge, only partly representing health researchers' labours, that serves as both the input to the institutional structure for decision making and as a persuasive force acting on the beliefs embedded in values.

The distinction between rational and sensible decisions

The impact of, for instance, researchers demonstrating that for-profit private hospitals are less efficient than public hospitals is not straightforward. The ideologically committed private sector proponent with interests determined by his or her for-profit health care company is more likely to question the study methods than to accept the researcher's verdict and change beliefs. Furthermore, in their translation of this research into common knowledge the purveyors of information are as influenced by the values as they are by the evidence. What appears to the researcher to be an irrational response — ignore the findings that favour not-for-profit

BOX ONE

How ideology biases receptivity to research

Psychologists have elegantly demonstrated how our ideologies bias our reaction to research findings. Lord et. al.* gave a class of undergraduates a survey to evaluate the strength of their opposition to or support for capital punishment. They took two groups from this sample — those with the strongest views at either end of the spectrum. To half of each group they presented research studies showing a deterrence effect of capital punishment, and to the other half of each group studies showing no deterrence effect. In other words, half of each group saw research supporting their pre-conceived ideology and half saw research contradicting their pre-conceived ideology.

The experimenters first showed the students the studies' results, then assessed any impact of them on their attitudes to capital punishment, then they showed the methods used to arrive at the results in each study before again assessing the students' strength of support for or opposition to capital punishment.

Perhaps predictably, when confronted with results in support of their initial ideology the students embraced them and the research was used to strengthen their pre-conceived views. Subsequent presentation of each study's methods had little or no additional impact. In contrast, students presented with results contrary to their ideology moved their views only minimally or not at all in the direction of the findings. On presentation of the studies' methods, these students immediately reverted to their pre-conceived views, even increasing the strength with which they held them! Criticism of the methods was used as the "excuse" for rejecting research contrary to their initial ideology.

In a delightful twist of study design the experimenters had, in fact, controlled for the quality of each study. They had re-constructed each research report so that half the time it had the original methods, but half the time methods used in an opposing study were inserted. Students were indiscriminate in their use of methods to reject "uncomfortable" research findings. Methods used in studies recently embraced for their confirmatory value were now used to reject contrary findings!

These undergraduates are the future decision makers and scientists. As M. Marmot wrote in the April 19, 1986 issue of Lancet (pp. 897-900): "When facts collide with theories, scientists [and, one might add, decision makers] are far more likely to discard or explain away the facts than the theory."

**Lord et al.* Journal of Personality and Social Psychology *1979; Vol 37:2098-2109*

performance — is sensible from the perspective of a decision maker trying to minimize conflict and perhaps embedded in a pro-business organization or government.

Researchers who ignore the distinction between rational and sensible decisions i.e., fail to acknowledge the influence of these political and institutional factors, are restricting themselves to a very limited niche in the decision-making world. A better understanding by researchers of the competing sources of information, the likely manner in which their findings will be purveyed into common knowledge, the nature of the decision-making structure/s, and the prevalent values will help them to know not only whether, but also how and when their findings might be useful.

Jonathan Lomas is Executive Director, Canadian Health Services Research Foundation, Ottawa. This perspective is drawn from a longer discussion paper "Improving Research Dissemination and Uptake in the Health Sector: Beyond the Sound of One Hand Clapping." The full paper in English is available through the Policy Commentary Series of the Centre for Health Economics & Policy Analysis at McMaster University, Hamilton (905-525-9140, ext 22135) and in French through CHSRF (613-728-2238, ext. 20).

Endnotes

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