



Evaluating the effectiveness of impact assessment instruments: Theorising the nature and implications of their political constitution

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ABSTRACT

The central role of impact assessment instruments globally in policy integration initiatives has been cemented in recent years. Associated with this trend, but also reflecting political emphasis on greater accountability in certain policy sectors and a renewed focus on economic competitiveness in Western countries, demand has increased for evidence that these instruments are effective (however defined). Resurgent interest in evaluation has not, however, been accompanied by the conceptual developments required to redress longstanding theoretical problems associated with such activities. In order to sharpen effectiveness evaluation theory for impact assessment instruments this article critically examines the neglected issue of their political constitution. Analytical examples are used to concretely explore the nature and significance of the politicisation of impact assessment. It is argued that raising awareness about the political character of impact assessment instruments, in itself, is a vital step in advancing effectiveness evaluation theory. Broader theoretical lessons on the framing of evaluation research are also drawn from the political analysis. We conclude that, at least within the contemporary research context, learning derived from analysing the meaning and implications of plural interpretations of effectiveness represents the most constructive strategy for advancing impact assessment and policy integration theory.

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1. Introduction

“Agreement about effectiveness is mainly an agreement to disagree.” (Cameron, 1986: 539).

Scientists and other actors working at the policy–science interface have long been interested in evaluating the outcomes and effectiveness of policy interventions, yet interest in evaluation has both increased substantially and altered substantively in the last decade. The political ascendancy of evidence-based policy-making in many Western countries (Nutley et al., 2007; Owens et al., 2006) and of the notion of the knowledge society more generally (Jasanoff, 2004) has been particularly influential in this regard. The principle underlying the evidence-based policy agenda is that interventions should be based on ‘what works’ (i.e. empirical evidence of effectiveness), rather than political beliefs; thus, Pawson (2006: 2) describes it as the “anti-ideological turn” in policy-making. The evidence-based policy agenda

is also a response to demands for greater accountability in the use of public funds (Schweigert, 2006).

Evidence review techniques have been applied to a broad range of sectors and policies: from clinical trials of medicines in health policy to interventions designed to produce behavioural reforms in the social welfare and criminal justice sectors (Nutley et al., 2007). The evidence-based policy agenda has also had a particularly pronounced impact on philanthropic activities, notably, in the context of impact assessment, in the development aid field, where policy failure (i.e. failure to deliver stated goals, generation of unanticipated spillover effects, etc.) has been a particularly significant problem. This has led to a considerably higher profile for evaluation activities associated with development aid, often under the motto of ‘management for results’ (see, for example, OECD, 2005).

The implications for impact assessment of demand for evidence-based policies and greater accountability in expenditure of public funds have been at least twofold. Firstly, increasing reliance has been placed on impact assessment instruments to process data on the probable effects of policy initiatives: their use has proliferated both in terms of the amount of assessments undertaken and the variety of contexts in which they are used (Cashmore et al., 2008; Hertin et al., 2007). Secondly, the effectiveness of impact assessment instruments themselves has come under the spotlight, particularly within the

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context of efforts to promote economic competitiveness through deregulation and the simplification of existing legislation (see, for example, Cashmore et al., 2009; GHK, 2008; Swedish Government, 2007; UK Government, 2007). It is this second concern—the evaluation of impact assessment instruments themselves—which is the focus of this article.

Evaluating effectiveness is conceptually and methodologically problematic, and it is arguably the case that rejuvenation of interest in, and growth in demand for, evaluation has yet to result in significant advances being made in relation to these issues. A seemingly intransigent issue in evaluation research, that has given rise to enduring debate, concerns the meaning of effectiveness itself. Typically, effectiveness has been defined as a measure of goal attainment, although in cases this definition is expanded to include notions of cost efficiency (Etzioni, 1964; Georgopoulos and Tannenbaum, 1957; Independent Evaluation Group, 2007). Whilst an apparently simple notion, as Rawls (1972: 130) notes, “[t]he merit of any definition depends upon the soundness of the theory that results; by itself, a definition cannot settle any fundamental question”. It is when consideration is given to moving from simple definitions of effectiveness to empirically useful theory that significant difficulties have emerged. These difficulties include issues such as whose interpretation(s) of effectiveness underpins analyses (notably in relation to defining goals and goal attainment), where boundaries are drawn (e.g. spatial and temporal scales, issues considered, etc.), and legitimate procedures for arriving at such decisions (e.g. how do we decide which interpretation of goals and goal attainment are prioritised?) (Adger et al., 2003; Emmelin, 1998; Rolf, 2006).

Enduring debate over the concept of effectiveness has led in some disciplines to calls to abandon the term (Goodman et al., 1983; Hannan and Freeman, 1977). Yet unrelated research provides an alternative lens for interpreting and valuing debate on the meaning of effectiveness. Firstly, in their examination of debate concerning sustainable development in the UK planning system, Owens and Cowell (2002) challenge conventional wisdom by suggesting that it is unrealistic and probably undesirable to expect a preformed, consensual definition of sustainable development to be implemented in such an arena. The main contribution of the planning system, they suggest, has been to provide a concrete forum in which understandings of sustainable development can be negotiated and constructed. Secondly, Emmelin (1997) criticises as conceptually misguided the technocratic tendency of seeking to reduce political concepts (in the case of his analysis, sustainable development) to a single, supposedly authoritative interpretation.

Whilst arguably viewed as unsatisfactory by actors competing to bring to the fore their beliefs, drawing on the insights of Owens and Cowell (2002), debate on effectiveness could be viewed as an important component of constructing opinions about the purpose and use of impact assessment instruments. As such, it serves to clarify and open-up for analysis beliefs underpinning actors' interpretations of, for example, the goals of these instruments and legitimate ways of achieving them. This is significant partly because the basis of actors' beliefs have rarely been explicitly considered in discussions on impact assessment instruments (Cashmore, 2004; Lawrence, 2003), but have potentially far reaching consequences for how they are conceptualised, used and interpreted. Additionally, taking forward Emmelin's (1997) critique of technocratic tendencies to de-politicise political concepts (of which the goals of impact assessment instruments are clearly an example) then it follows that the theoretical implications of plurality need due consideration.

This article contributes to theorising effectiveness evaluation for impact assessment instruments through the examination of a neglected, but arguably pivotally important, component of their constitution: politics. We analyse both how political considerations are embedded in notions concerning the design and use of impact assessment instruments and the implications for evaluation research.

The focus of this article is thus resolutely on sharpening the theory of effectiveness evaluation, rather than the effectiveness of impact assessment instruments per se, although there are clearly interlinkages between these two goals. Furthermore, we deal with theory at a level of abstraction that is intended to encompass multiple types of impact assessment instruments and multiple scales or levels of evaluation (e.g. system performance, individual cases, elements of individual cases, etc.).

In choosing to focus on the political constitution of interpretations of effectiveness and the theory of effectiveness evaluation, we are neither underestimating nor seeking to downplay the methodological challenges of evaluation research, such as measurement, attribution and, invariably in policy arenas, the absence of a control case. Rather, we choose to address conceptual aspects of effectiveness evaluation based on a belief that without a concrete understanding of these issues, sound methodology in evaluation studies is unachievable. Furthermore, a great deal of attention has already been devoted to methodological improvements designed to reduce epistemic uncertainties, both in terms of impact assessment instruments per se and the evaluation of their effectiveness (e.g. Hertin, Turnpenny, 2007; Radaelli and De Francesco, 2007; Wismar et al., 2007). The conceptualisations of effectiveness underpinning these efforts have received considerably less attention (Emmelin, 1998; Schweigert, 2006). We distinguish, therefore, between two forms of contribution to effectiveness evaluation: those designed to reduce epistemic uncertainties (e.g. pertaining to the accurate measurement of goal attainment) and those that address conceptual uncertainties (e.g. pertaining to the meaning or intention of the goals) (Rolf, 2006; Törnqvist, 2006). This article focuses upon the latter type of uncertainty.

The remainder of the article unfolds as follows. In the next section, we explain how the term politics is interpreted and analysed in this article and introduce the fundamentally political characteristics of impact assessment instruments. The ways in which politics impinges upon impact assessment instruments are then explored more concretely and in greater detail in three analytical examples, which were purposefully selected to illustrate a variety of sources and types of political influence. Next, we consider the implications of the political constitution of impact assessment instruments for theory on effectiveness evaluation, focusing on what we perceive as the central contemporary issue in evaluation research: how the concept of effectiveness is interpreted and used. We conclude with recommendations for advancing the practice of evaluation and for future research.

2. The politics of impact assessment

A number of commentators have suggested that impact assessment instruments are inherently and inescapably political (e.g. Elling, 2009; O'Faircheallaigh, 2009; Richardson, 2005; Turnpenny et al., 2009). In the context of the knowledge society, it is axiomatic that political activity converges around sites of knowledge creation and use (Jasanoff, 2004). Yet what is it that makes impact assessment instruments inherently political, in addition to arenas in which politics are played out? In order to explore this issue, it is first necessary to explain how the term politics is interpreted in this analysis.

Politics is a term that is used in a variety of ways; indeed, parallels can be drawn between the protracted debates on the meaning of politics and effectiveness (Palumbo, 1987). Popularly, politics may often be equated to activities associated with the administration of sovereign states, or what can be described as the macropolitics of nationhood (Jasanoff, 2004). In the political sciences, however, the term tends to be interpreted considerably more broadly. The influential political scientist Harold Laswell, for example, suggested politics constituted the struggle over, “who gets what, when and how”

(Laswell, 1935). This means that all activities concerned with the acquisition or exercise of power can be considered political, including the processes through which collective societal decisions (referred to hereafter as policy decisions) are taken and implemented (Jordan and O'Riordan, 2001). It also means that politics is not limited to the acts of sovereign governments and their administrations, but is also conducted in a multiplicity of arenas at international and local levels (Martello and Jasanoff, 2004). It is this Laswellian interpretation of politics that underpins our analysis.

The concept of power warrants further consideration at this juncture for it is fundamental to the political analysis of impact assessment instruments; indeed, for some political scientists the study of politics is the study of power (Jordan and O'Riordan, 2001). Power can be expressed visibly through coercion based on the threat or use of physical violence. Yet it may also be created and expressed through mechanisms that operate more insidiously: notably, through factors linked to social norms and customs. Haugaard's (2003) classification of forms of power (Table 1) is used as a guiding framework in this article for examining the variety of ways in which power (and hence politics) can be expressed in relation to impact assessment instruments.

Given the interpretation of politics that has been presented, at least three fundamentally political characteristics of impact assessment instruments can be identified. Firstly, impact assessment instruments are political in that they are based on a theoretical premise of engendering a change in the values underpinning policy formation and implementation. The predominant formulation of impact assessment instruments evident in the literature is that they are intended to encourage greater attention to be given in policy formation (and to varying degrees implementation too) to a particular issue or issues, such as health, gender equality, sustainable development, or regulatory burden—they are 'policy integration' tools. Precisely what form and level of policy integration is to be achieved are political concerns, and will vary between systems and actors. What is evident, however, is that the adoption and use of impact assessment instruments, in theory at least, represent political statements that the issue (or issues) which is meant to be integrated into policy is important to a given society and must be considered

explicitly.¹ This is undeniable, but rarely acknowledged or discussed (Lascoumes and Le Gales, 2007).

Secondly, impact assessment instruments also reify particular governance norms. That is, they draw boundaries around how societal issues are framed, analysed and debated, by normalising procedures concerning: how knowledge is generated, codified and interpreted; what forms of knowledge are considered pertinent to policy; and, opportunities for scrutinising the knowledge underpinning policies (Kothari, 2001; Nutley, Walter, 2007; Wynne, 1984). The design and use of impact assessment instruments thus expose beliefs concerning the relationship between government and the polity: they are constitutive of governance theories beyond the issue of policy integration (Lascoumes and Le Gales, 2007).

Thirdly, impact assessment instruments are inherently political in that they centrally concern the linked issues of distributional justice (such as the allocation of resources within and between generations, the satisfaction of needs, etc., at the level of individual policy decisions) and liberty (Jasanoff, 2004). They thus constitute loci for the exercise of power and the negotiation and renewal of power relationships, both in relation to their design and use (Richardson, 2005).

A number of analytical examples are now used to explore in greater detail and more concretely how (and how extensively) politics pervades the theory and practice of impact assessment instruments. The politics of knowledge use at the microlevel (e.g. its non-use, strategic use, misrepresentation, etc.) and the power relationships which enable or constrain such opportunities are subjects that have received considerable attention over many years (e.g. Flyvbjerg, 1998; Mitchell et al., 2006; Nilsson et al., 2008; Weiss, 1979; Wynne, 1984). The examples we draw on are selected to illustrate instances of politics in impact assessment instruments above and beyond the use of knowledge in individual decisions. The first two examples explore political motives behind the use (or suggested use) of impact assessment instruments and their role in establishing system biases: in particular, they look at impact assessment instruments as tools of governmentality and the politics of scholarly discourses on impact assessment. The third example deals in more detail with how various forms of social power are reproduced through the design and use of impact assessment instruments, by analysing the politics of the scientific method. Cumulatively, the analytical examples illustrate a variety of dimensions of the inherently political nature of impact assessment instruments.

It is emphasised that the intention of the analytical examples is not to pass judgement on particular political positions or actions. Our analysis does not deal with matters of truth or falsity, and whilst we do not uphold the notion of value-free science, we seek to delimit our role as analysts of impact assessment theory and practice from that of ethicists. The aim of the analysis is merely to make visible some of the political dimensions of impact assessment instruments in order to sharpen effectiveness evaluation theory (i.e. essentially a mode four empowerment strategy based on Haugaard's (2003) classification).

2.1. Impact assessment and the politics of governmentality

Our first analytical example focuses on the use of impact assessment instruments as tools of governmentality—the art of government² (Foucault, 2008). It was noted in the previous section that a fundamental theoretical premise of impact assessment instruments is that they are used to effect a change in the values

Table 1
Forms of power.

Form of power	Explanation
1. Power created by social order	Possibilities for the exercise of power arise from the production and acceptance of societal rules which makes peoples' actions predictable.
2. Power created by system bias	Social order precludes, or at least views as illegitimate, actions which do not conform to the 'rules of the game'. Possibilities for empowerment and disempowerment are created through such 'system biases'.
3. Power created by systems of thought	Possibilities for power creation derived from the way a system of thought (i.e. an actor's fundamental beliefs or frame) makes certain actions or thoughts incommensurable with the way in which they make sense of the world.
4. Power created by tacit knowledge	Empowerment by making actors aware of how tacit knowledge structures social order, and thereby raising this tacit knowledge to conscious awareness.
5. Power created by reification	Power created through the reification of system biases by actors believing that they are more than arbitrary social constructs (e.g. for reasons of tradition, religious beliefs, or scientific frames).
6. Power created by discipline	Power created through the internalisation of routines that prevent tacit knowledge from being raised to discursive consciousness, leading to predictable behaviour through the maintenance of system biases.
7. Coercion	Coercion through actual, or threats of, violence. Occurs when the exercise of power within the social system (1–6) fails.

Adapted from Haugaard (2003).

¹ We note that the theoretical goals of impact assessment instruments may be contested, interpreted in different ways, and/or not reflected in their practice, and explore this issue further in the analytical examples.

² We use the term government in a Foucauldian sense, referring not simply to political and administrative regimes, but more generally to the ways in which the conduct of individuals and groups are directed.

underlying policy decisions. It is abundantly evident at the micro level that actors seek to subvert intended value changes in order to further their own goals or beliefs (e.g. Flyvbjerg, 1998). Yet the extent to which this occurs above and beyond individual policy decisions is arguably underappreciated, partly because impact assessment instruments are typically portrayed as neutral tools, rather than components of the policy process which create their own specific effects (Lascombes and Le Gales, 2007). In our first example we focus, therefore, on how the intended value changes may be subverted at the macro scale of the government of nation states and international relations as part of the politics of governmentality.

Development aid agencies are influential actors in relation to the design, institutionalisation and practice of impact assessment instruments. It has been suggested, however, that the values and governance norms that impact assessment instruments purport to integrate into policy decisions have been used by aid agencies in certain instances, firstly, to pursue an essentially neo-colonial development agenda and, secondly, to obfuscate this goal (Dezalay and Garth, 2002; Goldman, 2004; Lane and Corbett, 2005; Miller, 2004). A concrete example of this is provided by Goldman's (2001) critical analysis of the use of impact assessment instruments and other pseudo-scientific protocols by development aid agencies to legitimate extensive intervention in the national policy framework of the Lao People's Democratic Republic. Impact assessment instruments were used in this context to develop, "a new cognitive mapping of Lao nature and society" (Goldman, 2001: 512). This was predicated on an environmental ethic: the facilitation of biodiversity conservation through the establishment of a series of national reserves. The assessment and related policy work (e.g. the design of reskilling and institutional restructuring programmes, the drafting of legislation, etc.) were undertaken mainly by Western consultants, for the Lao population was judged to lack the appropriate training and experience.

Goldman (2001) identifies a number of cases of the manipulation of experts and knowledge in specific scientific assessments, but what is arguably more significant in a political sense is the cumulative impact of the effects of impact assessment usage on Lao society. Whilst ostensibly focused on biodiversity conservation, the introduction of land use classifications and rights served to open-up Lao to Western business interests, particularly tourism, resource use, and energy industries. The impact assessment and related policy work also contributed directly, and to the benefit of Western nations, to what has been labelled the international trade in expertise (Dezalay and Garth, 2002). At the national level, the reclassification of land use and rights dispossessed the non-Lao minority communities of forest dwellers of the natural resources on which their livelihood depended, thereby contributing to the Lao government's controversial resettlement and nationalisation policies. In this way impact assessment instruments were part of a strategy for depoliticising the development agenda (both internationally and nationally) and for mobilising particular lifestyles. The consequences for Lao society are potentially far-reaching (Rigg, 2009).

The subversion of the intended value changes represents a fairly direct (albeit nevertheless covert) instance of the politics of governmentality pervading the use of impact assessment instruments. It is also possible to identify instances where the politics of governmentality influence impact assessment use somewhat less directly. We take as an example to illustrate this point what superficially appears to be simply a case of the international diffusion of impact assessment instruments, the introduction of SEA legislation in China. Trends of diffusion and convergence in international policy have been attributed to a number of different factors: including coercion, mimicsation, harmonisation, and the promotion of policy models by international organisations (e.g. Knill, 2005; Radaelli, 2005). Yet in the case of the introduction of SEA legislation in China, more overtly national political factors also appear to have been influential. The Chinese

environment protection agency has been accused of advocating the institutionalisation of SEA and other environmental legislation so as to enhance its political standing and influence at the national level (Zhu and Ru, 2008), rather than necessarily in pursuit of policy goals commensurate with its political mandate. The introduction of SEA legislation and its remit are politically significant because they create system biases (form 2 power creation, Table 1) that extend the role of the environmental protection agency in policy formation and implementation. Contestation over the introduction and content of SEA legislation in China can thus be conceived as pertaining to the negotiation of power distribution amongst bureaucrats operating at the national level, despite the debate being phrased publicly in terms of economic and methodological issues. In consequence, such features as the scope of policy actions covered by the legislation (one of the key contested issues amongst the government ministries and agencies) are an expression of the degree to which the environmental protection agency was able to exert power over non-environmental government ministries.

This is not to suggest that the use of impact assessment in the politics of governmentality to establish system biases produces the intended outcomes in all cases. It is noteworthy that impact assessment instruments also provide opportunities for policy entrepreneurs to alter the *status quo* in unpredictable ways at the micro level. What is significant at the macro scale is merely the capacity of system biases to initiate, perpetuate and/ or reinforce certain political objectives.

2.2. Scholars as influential political advocates

The idea that impact assessment instruments are political in that they reify certain values and governance norms has interesting implications for the way in which scholarly discourse on their design and use (or non-use) are interpreted. Firstly, this observation means that such discourses ineluctably constitute political advocacy (Nykqvist and Nilsson, 2009). This may be advocacy for the consideration of certain principles (e.g. gender equality or intergenerational equity), for organising relations between government and the governed (e.g. accountability), or for particular visions of society (e.g. one rooted in Enlightenment thinking). The political nature of these objectives may not be immediately self-evident to their proponents for they can be deeply embedded in their beliefs and culture, and hence their political constitution taken for granted. Secondly, given that politics is fundamentally about power, it is important to analyse who benefits (and conversely loses) from the use of impact assessment instruments, in what ways, and how such considerations might influence the content and tenure of scholarly discourses. The conventions of science portray scholarly discourses as moderated (through, amongst other things, peer-review) deliberations amongst detached experts, but it is apparent that scholars are not neutral commentators and may receive various benefits from the intellectual positions they adopt (Jasanoff, 1990; O'Riordan, 2001).

Advocacy on the (non-)use of impact assessment instruments in scholarly discourses can be illustrated using the literature on SEA written prior to its widespread institutionalisation. Unequivocal advocacy is recognised to have taken place in this discourse (Wallington et al., 2007). This is evident, for example, in Fischer's (2003: 162) assertion that: "the debate [on SEA theory and practice] should redirect its main focus back to the question as to why SEA is applied in the first place; in this context, there is a particular need to stress the potential benefits that arise from SEA application".

However, advocacy of a less overt nature also permeated the discourse. Bina (2007) notes that the dominant argument on the benefits of SEA changed during the course of little more than a decade prior to its widespread institutionalisation: from an early focus on the need for environmental policy integration at all levels of decision-making, to redressing the failings of EIA, and subsequently to

emphasising the potential of SEA to contribute to sustainable development. The divergence between these expectations of SEA and what it has achieved to-date in practice (see, for example, Noble, 2009; Retief, 2007; Sánchez and Silva-Sánchez, 2008) are attributed by Bina (2007) to theoretical over-simplifications. This conclusion has resonance, for the history of public policy is littered with examples of what are with hindsight apparently obvious erroneous assumptions (see, for example, Flyvbjerg et al., 2003) and the poorly developed theoretical basis of SEA provides considerable scope for unexpected outcomes. Yet it is contended that the malleability of the scholarly discourse on the benefits of SEA also reflected political pragmatism by SEA scholars who wished to see this form of impact assessment institutionalised. Simply put, the dominance of arguments on the benefits of SEA, within certain limits of feasibility, reflected perceptions of the political salience of particular lines of argumentation at a given point in time. SEA scholars were searching for the most salient political 'problem' to attach their 'solution' to, rather than critically, reflexively and impartially developing its theory.

The benefits that SEA scholars may have received from the now widespread institutionalisation of SEA are naturally a matter of conjecture. Self-evidently, the benefits may take the form of moral satisfaction based on the belief that their political principles (in this case, environmental policy integration) have been furthered. They may also reflect less utilitarian goals in terms of, for example, promoting a particular form of environmental policy integration in order to further their own career or otherwise increase their prestige and standing. Finally, it is also worth noting that, as was the case with the Chinese environmental protection agency, the institutionalisation of SEA legitimises an extended role for its scholars in policy processes through the creation of systems biases, which can be used in the pursuit of environmental goals, career advancement or, indeed, other goals.

The use of SEA as an example of political advocacy of varying levels of opacity in scholarly discourses is not intended to suggest that it is a unique case amongst impact assessment instruments. Similarly uncritical reviews of perceived benefits and pragmatic alterations in justifications for institutionalisation are found in discourses on other impact assessment instruments (see, for example, Burdge, 2008; Næss, 2006; Wismar, Blau, 2007). Yet SEA is an interesting example because the environmental movement enjoys a high level of international influence (Jordan, 2005; Nilsson, 2009), and its lobbying power may affect the degree to which political advocacy is, firstly, recognised as such and, secondly, tolerated in scholarly discourses.

Advocacy in relation to the (non-)use and design of impact assessment instruments is, of course, not limited to scholarly discourses. For example, the OECD (Organisation for Economic Co-operation and Development) and the WHO (World Health Organisation) have been influential advocates at the international level of the use of regulatory impact assessment and health impact assessment, respectively (Russel, 2007; World Health Organisation, 1999). Similarly, the investment by the EC of considerable research funds on initiatives related to its internal impact assessment system, which has contributed to the establishment of integrated impact assessment as a topic of academic import,³ can also be considered an attempt to direct policy in a particular direction. What is significant within the context of this article is that scholarly discourses are typically portrayed as impartial and authoritative, being based on evidence and expertise rather than politicised debate about societal values, visions and governance norms. It is also important to note that those

individuals contributing to scholarly discourses have a powerful and privileged position. Given this, we suggest that scholarly discourses on the design and use of impact assessment instruments matter in a very real, political sense.

2.3. Science as (political) culture

The final analytical example used to exemplify how and to what extent politics pervades the theory and practice of impact assessment instruments focuses upon the politics of methods, and in particular science as (political) culture. Impact assessment instruments are invariably grounded in scientific principles and methods, albeit to varying degrees and using various scientific paradigms. Indeed, it is from their scientific grounding that these instruments derive much of their cultural legitimacy and authority. Yet science constitutes an influential world culture, which can shape public policy in a variety of politically significant, but arguably still poorly recognised, ways (Levi-Faur, 2005). As such, it constitutes a powerful system of thought (form 3 power creation) that is constitutive of social order (form 1) and, in turn, of taken for granted practices (form 6).

The historical and sociological dimensions of science, and their epistemological implications, have received considerable attention in recent decades (e.g. Feyerabend, 1993; Kuhn, 1970; Latour, 1988). It is increasingly recognised that political considerations are embedded in all aspects of scientific practices, for science and its products embody beliefs not only about how the world is, but about how it should be (Kolakowski, 1972; O'Riordan, 2001). This is reflected, for instance, in varying disciplinary approaches both across and within the natural and social sciences to considerations that are central to the issue of effectiveness: e.g. values, rights and justice. Thus, apparently simple methodological decisions in impact assessment—such as what methods, scales, and variables to employ—can be interpreted as acts of power, for they involve the imposition of a particular set of interests upon policy decisions.

In addition to issues related to the politics of philosophies of science, a series of more practical interlinkages between political and scientific spheres can be identified that are relevant to our understanding of the nature and extent of politics in impact assessment instruments. Van den Hove (2007) classifies these into three categories:

- Political influence on the organisation and funding of public and private science;
- Political agendas in quality control and validation procedures in science; and,
- Political steering of scientific education and training, and politics within professional networks.

To explore concretely and tangibly the extent to which politics is embedded in scientific culture, we draw upon two examples that illustrate the full spectrum of Haugaard's modalities for the creation of *social* power (i.e. forms 1 to 6). Firstly, we note how science establishes system biases that are constitutive of social order (forms 1 and 2) through its definition of knowledge in scientific terms, which regulates participation in policy debates by privileging a particular way of knowing. Whilst impact assessment instruments superficially appear to offer new opportunities for participation (their often-cited 'democratising democracy' role), their scientific basis makes them highly agentive, for it establishes who is qualified to know and contribute, and who is not (Hobart, 1993). That is to say, actors who want to participate in an impact assessment must adopt scientific conventions for knowledge claims in order for their contributions to be viewed as legitimate. This is itself a very important act of power, for it devalues the knowledge, and hence citizenship, of large parts of society, privileging certain actors and effectively excluding others (Visvanathan, 1997). Furthermore, it may also perpetuate the scientificisation of society (Cashmore et al., 2008), thereby reinforcing the cultural authority of already powerful scientific institutions. We illustrate this phenomenon by returning to the use of impact assessments in the reconstitution of Lao national policy. Whilst local communities had an

³ The EC has commissioned a number of multi-million Euro research projects concerned more or less directly with their internal impact assessment regime. These include 'A-Test' (Advanced techniques for the evaluation of sustainability assessment tools), 'EVIA' (Evaluating integrated impact assessments), 'Matisse' (Methods and tools for integrated sustainability appraisal) and 'LIAISE' (Linking Impact Assessment Instruments to Sustainability Expertise).

exceedingly rich understanding of biodiversity that was potentially of great relevance to conservation goals, this knowledge could not be captured in impact assessments until such time as it was translated (by outside experts and through the training of Lao scientists) into the classification of species based on Linnaeus's nomenclature (Goldman, 2001).

Secondly, it is recognised that scientific conventions produce specific representations of policy issues: they influence, amongst other things, how societal issues are interpreted and framed, what impacts are considered important, and what policy responses are deemed appropriate (Beck, 1992; Lascoumes and Le Gales, 2007). One aspect of scientific framing that has received particular attention from scholars is the problematisation of policy issues in terms of risks and/or impacts. Critiques of this framing of debate on policy decisions are numerous and include:

- That it subverts into technical and analytical considerations issues that are quintessentially political, for they pertain to societal aspirations and desires;
- That it imposes upon society a particular representation of policy issues, ignoring alternative public meanings and thereby homogenising policy debates;
- It conceals multiple dimensions of 'ignorance' by giving prominence to a restricted range of tractable uncertainties and, in so doing, it also obscures important questions about the policy implications of ignorance; and,
- Through a combination of the above points, it systematically exaggerates the capabilities and potential of science. (Wynne, 1991, 1992, 2002, 2003)

The effect of scientific conventions on how policy issues are framed is eloquently illustrated in the following extract from a conversation between two individuals responsible for advising the UK Government on policy concerning genetically modified crops. Their conversation concerns the potential for new technologies to give rise to unanticipated consequences (so-called 'unknown unknowns'), which some analysts (e.g. European Commission, 2007; Wynne, 1992) view as central to public anxiety over the introduction of contentious technologies.

“RGW [Robin Grove-White]: Do you think people are reasonable to have concerns about possible 'unknown unknowns' where GM [Genetically Modified] plants are concerned?

Advisory scientist: Which unknowns?

RGW: That's precisely the point. They aren't possible to specify in advance. Possibly they could be surprises arising from unforeseen synergistic effects, or from unanticipated social interventions. All people have to go on is analogous historical experience with other technologies...

Advisory scientist: I'm afraid it's impossible for me to respond unless you can give a clearer indication of the unknowns you're speaking about.

RGW: In that case, don't you think you should add health warnings to the advice you're giving to ministers, indicating that there may be 'unknown unknowns' which you can't address?

Advisory scientist: No, as scientists, we have to be specific. We can't proceed on the basis of imaginings from some fevered brow..."

(Grove-White, 2001: 471)

For the advisory scientist, the scientific method puts beyond question an analysis of the possibility of 'unknown unknowns', despite repeated demonstrations of their policy relevance.⁴ Their existence simply cannot be contemplated in an acceptable manner

⁴ Take, for instance, the human health risks posed by BSE (Bovine Spongiform Encephalopathy), the climatic effects of fossil fuel usage, and the atmospheric impacts of CFCs (chlorofluorocarbons), to name but a few examples.

given the cultural paradigm of understanding that science creates and they are externalised as inventions of a 'fevered brow'. Thus, through the reification of its beliefs (forms 5 and 2) and discipline systems (form 6: e.g. peer-review), science forms a powerful system of thought (form 3) structuring how issues are conceived and addressed by society. It is for such reasons that Wynne (2003) concludes (form 4) that in allowing science, by default, to become the dominant paradigm of understanding, society has become enculturated by its own contingent constructs.

We note that growing awareness amongst the scientific community of the need to better communicate uncertainty, particularly in relation to deeply uncertain policy issues such as climate change, has emerged in recent decades. Yet many (if not most) initiatives to improve the communication of uncertainty fail to address the fundamental issue of the framing of debates by scientific culture. Methodological approaches that seek to counterbalance and/or actively direct scientific input have also been promoted. The practical application of such approaches, however, has exposed the need for more considered theorisation of their operation and outcomes within political environments, for they have often failed to achieve their intended goals (see, for example, Cooke and Kothari, 2001; Petts and Brooks, 2006; Turnpenny, Lorenzoni, 2009).

3. Implications for effectiveness evaluation theory: interpreting and using the concept of effectiveness

In the previous section we presented purposefully selected examples of the reification of politics in the design and use of impact assessment instruments. We have argued that the development of a detailed understanding of their political constitution is an important component of sharpening theory on effectiveness evaluation, and this article is intended to contribute to this goal directly and indirectly, by stimulating debate and further theoretical work. Exposition of the political constitution of impact assessment instruments is also important from a practical perspective because their image as neutral and rational tools remains deeply engrained in the policy community, despite the social sciences providing substantial evidence to the contrary over the course of several decades (Owens, 2004).

In this section of the article, we return our attention to the more strategic implications of our political analysis for effectiveness evaluation theory. The discussion focuses on arguably the pivotal immediate challenge in this field: the issue of what does the concept of effectiveness mean, or to re-interpret this question in a more conceptually constructive manner, how should the concept of effectiveness be interpreted and used in evaluation research?

Historically in the field of impact assessment, evaluation research, whilst superficially acknowledging the existence of multiple perspectives, has typically employed analytical criteria derived from a reasonably heterogeneous group of actors: so-called 'experts' (This-sen, 2000). The analytical example concerning the politics of scientific culture, upon which 'expert' definitions are invariably founded, demonstrates that science-based frameworks are no less value-ridden than any other social interpretation. Such approaches are based on often unrecognised assumptions of, amongst other things, consensus on values and in the status of knowledge. Furthermore, attempts by 'experts' to define effectiveness constitute political acts in themselves. The 'experts', consciously or otherwise, seek to create their own system biases (form 2 power creation) that perpetuate a particular way of thinking, based on their supposed special access to the truth (form 5).⁵ Eitic critiques of the effectiveness of impact assessment instruments which have resulted from these expert frameworks have

⁵ Thus Cameron (1986: 540) suggests, perhaps somewhat melodramatically, that, "careers are often made or murdered on the basis of adherence to and support of some set of effectiveness indicators".

arguably served more to legitimise this policy integration ideology, than to challenge it (Cashmore, 2004; Emmelin, 1998).

In more recent times, a belief that plural ways of knowing and valuing are valid, and that mutually acceptable evaluation frameworks can be developed through participatory processes, has emerged (Guba and Lincoln, 1989), although it remains outside mainstream evaluation theory and practice (Lay and Papadopoulos, 2007). This approach—known as fourth generation evaluation—is also problematic, we suggest, for a number of reasons. Firstly, it is founded on the questionable assumption that perspectives derived from divergent ways of knowing and valuing are commensurate: that is to say, that a single analytical evaluation framework can be derived from plural perspectives. This assumption can be criticised on ontological and epistemological grounds (Evans and Marvin, 2006). Indeed, it is somewhat paradoxical that fourth generation evaluation, which is based upon a constructivist theory of knowledge,⁶ can be reconciled with a belief in the commensurability of plural perspectives for anything other than purely pragmatic reasons. In the context of the form of *ex-post* effectiveness evaluation of impact assessment instruments that is the focus of this article, we are in the fortunate position where development of a single evaluation framework is unnecessary as well as undesirable, an argument which we articulate further subsequently.

Secondly, we also problematise, from a political perspective, the notion of consensus which frequently underpins participatory approaches seeking to combine plural perspectives, in fourth generation evaluation and more generally. Various commentators have highlighted that, like the notion of rationality, consensus is effectively a 'straw-man' concept for, in practice, it inevitably involves the exclusion of actors and/or ideas, and hence involves the exercise of power (e.g. Connelly and Richardson, 2004; van der Hove, 2006). This is recognised by some theoreticians: Habermas, for example, emphasises the role of compromise-orientated negotiation in deliberations about issues other than universal norms (White, 1989). Yet oftentimes conceptualisations of consensus and participation fail to adequately address political considerations (Kothari, 2001; Tam, 2006). Furthermore, care needs to be given to ensure that the need for consensus does not result in ambiguous definitions that provide powerful stakeholders with the latitude to subsequently re-interpret meaning (Emmelin and Lerman, 2007). There is thus a risk of, "an unachievable consensual norm acting as a mask for the more usual domination by powerful interests" (Isaksson et al., 2009: 9).

It could be concluded at this juncture that the concept of effectiveness has limited theoretical or practical merit, and abandoning its use is a desirable course of action. Whilst a change of terminology may be superficially appealing, other concepts (e.g. goal-achievement, outcomes, efficiency or simply evaluation) either face similar theoretical complexities or by seeking to define the evaluation topic more narrowly, provide only partial insights of limited theoretical interest (see also Adger et al., 2003). A change in terminology will not, therefore, solve the fundamental problems associated with evaluation research.

We highlight an alternative theoretical framing for effectiveness evaluation to either basing it on criteria defined by privileged actors or seeking some form of negotiated or consensual definition of effectiveness. Both these approaches devalue (analytically, philosophically and politically) plurality and have tended to inadequately address the issue of power. We contend that, given the contemporary theoretical context, the significance of effectiveness evaluation lies in the opportunities it provides for learning about how impact assessment instruments are conceived, interpreted and used by different actors. The theoretical and practical implications of the

findings can then be used for the more strategic goal of advancing knowledge on policy integration. Effectiveness evaluation for impact assessment instruments should thus seek to give voice to plural interpretations of their design and use, and promote policy-relevant learning by deconstructing these perspectives and analysing their meanings.

In contrast, focusing on an individual interpretation of effectiveness obscures the complexity of policy decisions (in terms of such factors as power relations, political aspirations for governance and development, etc.), creating the potential for erroneous conclusions to be drawn from partial understandings of reality. It is also unnecessary in the context of *ex-post* evaluation to privilege a particular interpretation of effectiveness for we are not dealing with situations where a policy decision is immediately linked to the analysis, as is the case typically with the application of impact assessment instruments themselves.⁷ Furthermore, privileging a particular perspective is philosophically contradictory if the validity of plural perspectives on effectiveness is truly accepted. The purpose of effectiveness evaluation, as we interpret it, is not to dull dissent from particular (normally 'expert') models of impact assessment embedded in expectations regarding effectiveness; nor is it to provide politically expedient, but incomplete, 'results' metrics. Its value lies in the capacity it offers to harness the learning potential of endogenous social interpretations in understanding the dynamics of policy integration.

Additional support for this framing of effectiveness evaluation can be found in numerous dimensions of social science research, including:

- Recognition of the significance of social legitimacy in the use of knowledge in policy decisions (Mitchell et al., 2006);
- Acceptance of the need for more honesty about political and institutional constraints to the use of knowledge in policy decisions (Owens et al., 2006);
- The complexity, dynamism and indexical nature of policy decisions and knowledge utilisation (Collins et al., 2009; Nutley et al., 2007; Wagenaar and Cook, 2003); and,
- The magnitude and significance of conceptual outcomes of impact assessment instruments (Nutley et al., 2007; Cashmore et al., 2008).

It is also an approach to effectiveness evaluation that will produce results which are more amenable, we suggest, with interpretation against social science theories, and hence more useful for theory building.

In line with our assertion concerning the extent of politicisation of impact assessment instruments, we emphasise the role of political analysis in effectiveness evaluation research. It is learning about the beliefs, values and aspirations of actors engaged in policy decisions and impact assessment, the strategies they use to promote their visions, and the conditions under which their strategies effect change that we seek to promote. Topics for investigation may thus include such issues as: What kinds of political visions and messages did actors' input to impact assessment attempt to convey? Did impact assessment influence the renegotiation of power relations in policy decisions? Who benefited and lost from the use of impact assessment in policy decisions, and in what regards? As such, we reiterate the recommendation that the starting point for evaluating effectiveness is the analysis of interests implicated in the design, use and evaluation of an impact assessment instrument, not least of which, of course, are those of the evaluator(s) (Weiss, 1998).

Whilst the focus of this article is effectiveness evaluation theory, for the purpose of illustration we briefly examine what such a framing for

⁶ Constructivism is a theory of knowledge in the philosophy of science which is based on a belief that all knowledge is indeterminate, for it is a human construct, contingent on such factors as experiences, conventions, and culture.

⁷ We acknowledge that this is a proposition that would require further elaboration and justification if we were examining the use of evidence in reaching a policy decision. Whilst we believe there are ways in which plurality can be handled in the face of the need for a policy decision to be taken (see, for example, Elling, 2008), we do not engage with this issue in this article.

evaluation might involve in practice. We use as an example effectiveness evaluation at a system's resolution (i.e. impact assessment in a particular jurisdiction or organisation). Impact assessment instruments have often been introduced with sub-goals of fostering greater participation and accountability in decision-making, in addition to their prime goal of policy integration; the former have been viewed as prerequisites for the latter. It has been suggested, however, that in formalising the rules of participation (and hence defining the legitimate ways in which actors can participate) IA instruments may actually constrain opportunities for those actors with limited power to exert an influence on policy (Amy, 1990). Impact assessment instruments, whilst based on the pretext of changing power relationships, may thus buttress the power base of already influential groups. An important topic for effectiveness evaluation might then be to what degree impact assessment system tools reproduce these effects?

Using this question to frame the evaluation of an impact assessment system, an evaluator would then seek to unearth actors' aspirations concerning their role in and influence upon policy decisions and analyse to what degree impact assessment practices allow them to realise their aspirations and, significantly, why. This would provide theoretically and practically useful information on, amongst other things: the governance expectations of different stakeholders for socially legitimate policy decisions; the extent to which different actors' expectations are facilitated or constrained by impact assessment rules and practices; whose expectations are reflected in impact assessment rules and practices (i.e. who wins and conversely who loses); and, what variables operate in practice to facilitate or constrain the realisation of expectations. We contrast the richness of information this framing would generate about policy integration to that of mainstream evaluation approaches for impact assessment systems (e.g. Wood, 2003).

The methodological approach for effectiveness evaluation under this framing would clearly differ from that employed in most contemporary evaluation work, although not radically. What is arguably a more significant practical implication is the skills that evaluators would require: for example, a willingness and capacity not to judge people and a deep curiosity in seeking understanding about complex phenomena.

4. Conclusions

Impact assessment instruments play an increasingly prominent role in contemporary political culture (and hence democratic theory (Jasanoff, 2004)) in numerous governance contexts the world over. What is less well recognised is that not only are they components of political systems, but impact assessment instruments themselves are also highly politicised, overtly and often covertly. Theorising effectiveness evaluation for impact assessment and other policy integration and decision support instruments thus requires a strong analytical focus on politics and power so that the complex dynamics of their constitution and that of associated evaluation frameworks can be better understood. This is an aspect of both impact assessment and effectiveness evaluation theory that is critically under-developed.

The approach introduced here to analyse politics, developed from Haugaard (2003), offers an analytical perspective on the different forms of power which are manifest in the design and use of impact assessment instruments. The analytical examples illustrate the promise of Haugaard's approach and highlight foci for future in-depth research on this topic. As well as inspiring sharper analysis of politics and power in action, Haugaard's integrative approach offers a heuristic for understanding how impact assessment instruments, and the evaluation of their effectiveness, operate at the level of micro-practice, as well as at the societal level.

It has been suggested in this article that, given the political nature of the goals of impact assessment, it is unnecessary and conceptually misguided to follow existing evaluation ideologies: that is, to seek to chose between or reconcile plural interpretations. Rather, it is postulated that focusing on interpreting the meaning and implications

of plural constructions of effectiveness represents a more productive strategy for advancing impact assessment and policy integration theory in the immediate future. The adoption of a more critical, politically astute and reflective lens is thus a central challenge for future research. This development is essential if manipulation of these instruments by powerful stakeholders to maintain the status quo (Foucaultian 'subjectivisation') is to be avoided and robust approaches to policy integration are to emerge.

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