A Typology of Public Engagement Mechanisms

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Imprecise definition of key terms in the "public participation" domain have hindered the conduct of good research and militated against the development and implementation of effective participation practices. In this article, we define key concepts in the domain: public communication, public consultation, and public participation. These concepts are differentiated according to the nature and flow of information between exercise sponsors and participants. According to such an information flow perspective, an exercise's effectiveness may be ascertained by the efficiency with which full, relevant information is elicited from all appropriate sources, transferred to (and processed by) all appropriate recipients, and combined (when required) to give an aggregate/consensual response. Key variables that may theoretically affect effectiveness—and on which engagement mechanisms differ—are identified and used to develop a typology of mechanisms. The resultant typology reveals four communication, six consultation, and four participation mechanism classes. Limitations to the typology are discussed, and future research needs identified.

Keywords: *public participation; public engagement; participation mechanisms; typology; mechanism variables*

The Concept and Enactment of Public Participation

In recent times, there has been an international trend toward increased *involvement* of the public in the affairs and decisions of policy-setting bodies—a concept that is frequently referred to as *public participation*. In the United Kingdom, for example, this trend has become apparent in both national and local government in domains as diverse as transport planning, the environment, and health care (see, e.g., Roberts et al. 1999; Owens 2000; Martin and Boaz 2000; Bickerstaff and Walker 2001). In parallel with the increased drive for public participation has come a growing number of

Science, Technology, & Human Values, Vol. 30 No. 2, Spring 2005 251-290
DOI: 10.1177/0162243904271724

processes/techniques/instruments—which shall be collectively termed *mechanisms*—for enabling involvement. The very existence of a variety of mechanisms implies uncertainty (at least, at the level of those promoting and developing the different mechanisms) as to how one should *best* enact involvement. Put another way, if involvement were a simple, bounded, and well-understood process, then one particular mechanism might suffice to enable it to be effectively achieved (and research would be best directed toward finding this); but involvement as widely understood (and imprecisely defined) can take many forms, in many different situations (contexts), with many different types of participants, requirements, and aims (and so on), for which different mechanisms may be required to maximize effectiveness (howsoever this is defined). One important outcome of research, we suggest, should thus be a theory or model that predicts or describes how to enable effective involvement (i.e., which mechanism to use, and how) in any particular situation.

There are, however, a number of *definitional* issues that need resolution *before* research can meaningfully, and with any significant chance of success, be directed toward the development of such a theory or model of the contingent utility of participation mechanisms. Definitions are both the objective of empirical research activity *and* a requirement for such activity to be effective. Research is ideally a process through which humans increase their understanding of the universe and its characteristics; through research, we seek to *define* the universe—its objects, forces, activities, and the *relationships* among these—with greater precision. Ironically, definitions are also a necessary forerunner of research, yet at the start of the research process we exist in a state of lack of knowledge. As such, research invariably begins with loosely defined concepts—essentially, untested assumptions—which are then refined (or refuted) in the light of research findings to be more meaningful, precise, measurable, and so on. The more precise our definitions, the better (more reliably, validly) we can conduct research, the easier it is to interpret findings, and the greater the confidence we can have in our conclusions. For example, to develop a theory of "what participation mechanism is most effective in enabling public participation, in what circumstances," and to be able to test it, one must possess definitions of such important concepts as *participation mechanism*, *effective*, and *circumstances*.

In the public participation domain, unfortunately, the key concepts are not generally well defined, even after several decades (or, some might argue, centuries or even longer) of sporadic research interest. Even the concept of public participation is not well formulated, such that some researchers might disagree with the scope of activities implicitly or explicitly included within the concept by others, and synonyms of uncertain equivalence (e.g., *public*

involvement and *public engagement*) may be used in place of that term. What is meant by *effectiveness* of participation is another uncertain issue (addressed by Rowe and Frewer 2004). Similarly, mechanisms for enacting the participation concept (instruments, techniques, methods, tools, etc.) also tend to be loosely defined. These range from simple surveys to complex deliberative approaches involving members of the public taking part in groups or conferences, which attempt to structure the debate and provide balanced information on the issue (e.g., citizens' juries). Not only does the lack of clear definitions hinder research activities into the effectiveness of the different mechanisms, but also the sheer abundance of mechanisms—often highly similar to one another, differing only in the order in which a number of processes are implemented—creates research problems in the sense of multiplying potential objects of research.

In this article, a number of definitions of the most important participation concepts will be forwarded to clarify what public engagement entails and does not entail, and to clarify how the various mechanisms are similar and dissimilar. We suggest that this will help reduce confusion in the domain and enhance the prospects of conducting high-quality research. The article begins by defining *participation*. The bulk of the article then focuses on defining public participation mechanisms by means of a typology, in which *conceptually significant variables* (variables that *research* or *theory* suggests will have potential impact on the appropriateness of a mechanism, i.e., its potential effectiveness in a given context) will be identified and used to associate and dissociate the main mechanisms into a smaller set of classes essentially distinguished by structural characteristics. The literature at present lacks a thorough and systematic description of the available mechanisms, discussion of their similarities and differences, or discussion of how such differences may affect their contingent appropriateness (e.g., Webler 1999; see in particular p. 61 for a quote from the US National Research Council). A main aim of this article is to address this deficit.

Definition of Public Participation: Three Concepts of "Engagement"

Before classifying public participation mechanisms, it is necessary to define the concept that such mechanisms are intended to enable, that is, *public participation*. A general definition of public participation with which few would argue is the practice of involving members of the public in the agenda-setting, decision-making, and policy-forming activities of organizations/institutions responsible for policy development. This definition enables the

distinction of participation situations from nonparticipation situations associated with the more traditional model of governance in which elected policy makers, generally with the help of nominated experts, are left to set policy without further public reference.

This definition of participation is, however, arguably too broad, leaving room for variable interpretation, because the public may be *involved* (in policy formation, etc.) in a number of different ways or at a number of *levels*—as has been noted by others (e.g., Arnstein 1969; Nelkin and Pollak 1979; Wiedemann and Femers 1993; Smith, Nell, and Prystupa 1997). In some cases, the public may "participate" by being the passive recipients of information from the regulators or governing bodies concerned; in other cases, public input may be sought, as in the solicitation of public opinion through questionnaires; and in still other cases, there may be active participation of public representatives in the decision-making process itself, such as through lay representation on an advisory committee. There are important conceptual differences among these different situations that render it inappropriate to describe them all using a single term—be that public *participation*, public *involvement*, or whatever. Indeed, one distinction that has been made in the past is between *participation* and *communication* (e.g., Rowe and Frewer 2000), the key dimension of difference being that information of some sort flows from the public to the exercise sponsors in the former, rather than solely from the "sponsors" to the public in the latter. We believe, however, that this distinction doesn't sufficiently capture the essence of the differences among the various involvement situations and that a further division of concepts is required. Instead, we propose using three different descriptors to differentiate initiatives that have in the past been referred to as public participation, based on the *flow of information* between participants and sponsors. These are *public communication*, *public consultation*, and *public participation*. From here onward, these concepts in combination are referred to as *public engagement*, and the methods intended to enable this as *engagement mechanisms* (generically) or *engagement initiatives* or *exercises* (specifically). Mechanisms intended to enable one of the three forms of engagement will be labeled appropriately, that is, *communication*, *consultation*, and *participation mechanisms*. The three concepts are defined below and represented in Figure 1.[1]

In *public communication*, information is conveyed from the sponsors of the initiative to the public. (Here, and throughout this article, the term *sponsor* is used to refer to the party commissioning the engagement initiative, which will usually—but not always—be a governmental or regulatory agency, although representatives of the public may sometimes *be* the sponsors. Our analysis is not affected by the identity of the sponsor, and although

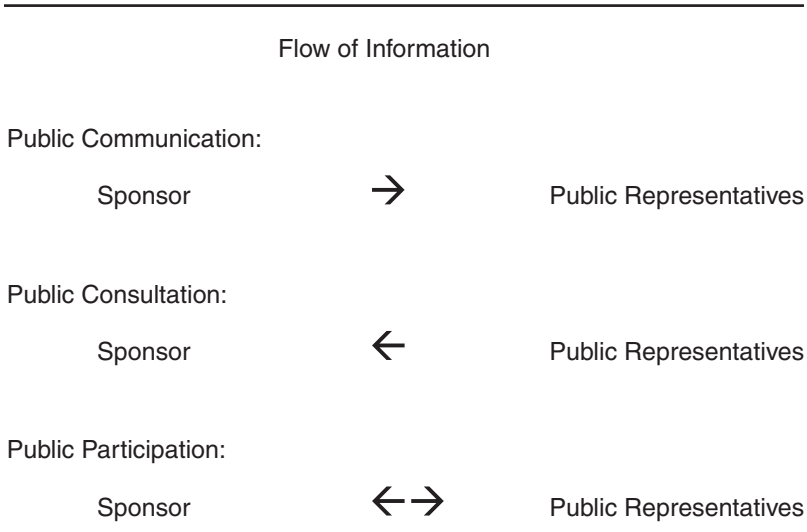

Figure 1. The three types of public engagement.

throughout we use phrasing that might be taken to assume that the sponsor is a policy-setting organization, this is for the sake of convenience only. The *organizer* is taken as the party that conducts the engagement exercise, which may or may not be the same as the sponsor.) Information flow is one-way: there is no involvement of the public per se in the sense that public feedback is not required or specifically sought. When the public attempts to provide information, there are no mechanisms specified a priori to deal with this at any level beyond, perhaps, simply recording the information.

In *public consultation*, information is conveyed from members of the public to the sponsors of the initiative, following a process *initiated by* the sponsor. Significantly, no *formal* dialogue exists between individual members of the public and the sponsors. The information elicited from the public is believed to represent currently held opinions on the topic in question.

In *public participation*, information is exchanged between members of the public and the sponsors. That is, there is some degree of dialogue in the process that takes place (usually in a group setting), which may involve representatives of both parties in different proportions (depending on the mechanism concerned) or, indeed, only representatives of the public who receive additional information from the sponsors prior to responding. Rather than simple, raw opinions being conveyed to the sponsors, the act of dialogue and

negotiation serves to transform opinions in the members of both parties (sponsors and public participants).

These three forms of engagement are sufficiently different both structurally and in terms of their aims that the mechanisms used to enable them need to be evaluated against different criteria for effectiveness.

Public Engagement Mechanisms

The number and variety of engagement mechanisms are large and growing. Rosener (1975) listed thirty-nine different "techniques" ranging from structured procedures, such as "task forces," "workshops," and "citizen referenda," to broader concepts, such as "public information programs" and "citizen employment." A recent book, called *Participation Works!* (New Economics Foundation, 1999), details twenty-one "techniques" (and briefly lists more than a dozen more) including relatively novel mechanisms such as "citizen juries" and "action planning," along with other mechanisms that appear to be uniquely applied by particular organizations. Even combining these two lists does not encompass all the mechanisms that are presently extant. Figure 2 lists, alphabetically, various terms for mechanisms described in the literature and provides references for the interested reader who wishes to discover more. Of the references associated with the different terms, some merely detail the mechanism, whereas others report actual case studies or even experimental studies or evaluations.

There are several important points that need to be made with regard to Figure 2 and the information within it, and with how it should be interpreted. The first concerns the *comprehensiveness* of terms in the figure. Although there are more than 100 mechanisms listed, the bias is on UK and US types that appear in the literature or in technical reports that are known to us: there are undoubtedly more. In other countries, these particular mechanisms may be known by different names, or there may exist still other mechanisms (much discussion of participation occurs in the vast "gray" literature that exists on this topic). A second issue concerns the *functional equivalence* of the terms, and a third concerns their *independence*. Some of the mechanisms are composite processes, some specific techniques, and others tools (that is, *not* stand-alone processes for enabling engagement), and as such, some of the mechanisms may actually *incorporate* others either completely or partly. For example, a *citizen panel* is generally taken to be a standing and representative sample of a particular population, which may be used to gain public views when needed. One way the views of the panel may be attained is via a *survey* (another mechanism type). Similarly, a *planning cell* mechanism may use a

- Act Create Experience (ACE) (1)
- Action Planning (1, 2)
- Appraisal (Community, Public), e.g., village/parish/ environmental. (Also "Monitoring," e.g., citizen monitors and scrutiny.) (1,2)
- Arbitration (Mediation) (3, 4)
- Broad-Based Organizing (1)
- Cable Television (Not Interactive) (2)
- Cable Television (Interactive) (3)
- Charette (3)
- Choice Methods (1,2)
- Citizens' Advisory Committee (CAC) (3, 5, 6, 7, 8, 9)
- Citizen Advocacy (1)
- Citizen Employment (3)
- Citizen Honoraria (3)
- Citizens' Jury (1, 2, 6, 10, 11, 12, 13)
- Citizens' Panel (Research) (2)
- Citizens' Panel (Standing) e.g., Health Panel (2, 10, 14, 15)
- Citizen Review Board (3)
- Citizen Training (3)
- Community Dinners (16)
- Community Forum - of: Place (e.g., Neighborhood); Issues; Service Users; Shared Interest (2, 10)
- Community Indicators (1)
- Community Plans/Needs Analysis (10)
- Community Site Management Plans (1)
- Community Strategic Planning (1)
- Community Technical Assistance (3)
- Complaints/Suggestion Schemes (10)
- Computer-Based (IT) Techniques (2, 3)
- Conference (generic term, often with qualifier e.g., "planning," "deliberative," "visualization") (3, 10, 17)
- Consensus Building (1, 2)
- Consensus Conference (2, 6, 18, 19, 20)
- Consultation Document (Consultation) (10)
- Consultative Panel (2)
- Coordinator or Coordinator-Catalyst (3)
- Co-option (Citizen Representatives on Policy making Bodies) (3, 10)
- Deliberative Opinion Poll (2, 21)
- Design-In (3)
- Drop-In Center (also Neighborhood Office, One-Stop/First-Stop Shop) (2, 3)
- Enspirited Envisioning (1)
- "'Finding Home" ("Visualizing our future by making maps") (1)
- Fishbowl Planning (3)
- Focus Group (3, 6, 10)
- From Vision to Action (1)
- Future Search (1, 2)
- Game Simulation (3)
- Guided Visualization (1, 2)
- Hotline (3)
- Human Scale Development Initiative (1)
- Initiatives (Citizen Initiated Petition) (2, 22)
- Imagine! (1)
- Interactive Web-Site (10)
- "Issues, Aims, Expectations, Challenges & Dialogues in a Day" (1)
- Learning Service Team (2)
- Local Sustainability Model (1)
- Maps/Mapping (Village, Parish) (1, 2)
- Media-Based Issue Balloting (3)
- Meeting–Community Sponsored (3)
- Meeting–Neighborhood (location-based) (3)
- Meeting–Public ("Open Informational," generic) (3, 10, 23, 24)
- Meeting–Town (New England Model) (2)
- Meeting–Town (Electronic) (2)
- Negotiated Rulemaking (6, 22, 25, 26)
- Neighborhood Planning Council (3)
- Ombudsman (3)
- Open Door Policy (3)
- Open House (2)
- Open Space (1, 2)
- Opinion Metres (2)
- Opinion Polls (2, 10)
- Participatory Appraisal (1)
- Participatory Strategic Planning (1)
- Participatory Theatre (1)
- Planning Balance Sheet (3)
- Planning Cell (27)
- Planning For Real (1, 2)
- Policy Capturing (3)
- Policy Delphi (3)
- Priority Search (2)
- Priority Setting Committee (3)
- Public Hearing (3, 6, 22)
- Public Information Programs (3)
- Publicity (Leaflets, Newsletters, Exhibitions) (2)
- Question and Answer Session (10)
- Random Selected Participation Groups (3)
- Real Time Strategic Change (1)
- (The) Recall (2)
- Referendum (generic; compulsory response) (2, 3, 6, 10)
- Referendum–Petition (2) Referendum–Preferences (Preferendum) (10)
- Roundtable (2)
- Social Audit (1)
- Study Circles (2)
- Surveys (e.g., Community; Tenants' (Service) Satisfaction) (2, 3, 6, 10, 16, 22)
- TalkWorks (1)
- Task Force (3, 28)
- Team Syntegrity (1)
- Tele-Polling (2)
- Tele-Voting (2)
- Time Dollars (1)
- User Management of Services (10)
- Value Analysis (3)
- Visioning Exercises/Conferences (10)
- Workshops (generic, may include: Action Planning; Design; Information Exchange) (1, 2, 3, 29, 30)
- Whole System Development (2)

Figure 2. Alphabetical listing of "participation" mechanisms (references in parentheses).

SOURCES: (1) New Economics Foundation (1999); (2) Democracy Network (1998); (3) Rosener (1975); (4) Baughman (1995); (5) Lynn and Busenberg (1995); (6) Rowe and Frewer (2000); (7) Plumlee, Starling, and Kramer (1985); (8) Hannah and Lewis (1982); (9) Pierce and Doerksen (1976); (10) Lowndes et al. (1998); (11) Barnes (1999); (12) Coote and Lenaghan (1997); (13) McIver (1998); (14) Dowswell et al. (1997); (15) Kathlene and Martin (1991); (16) Carr and Halvorsen (2001); (17) Rowe, Marsh, and Frewer (2004); (18) Einsiedel, Jelsoe, and Breck (2001); (19) Guston (1999); (20) Joss (1998); (21) Fishkin and Luskin (1999); (22) Fiorino (1990); (23) Rosener (1982); (24) Sinclair (1977); (25) Coglianese (1997); (26) Susskind and McMahon (1985); (27) Dienel and Renn (1995); (28) Stewart, Dennis, and Ely (1984); (29) Lundren and McMakin (1998); and (30) Twight and Carroll (1983).

number of decision-aiding tools, such as a *Delphi* process, to ascertain the views of the participating group, whereas a *question-and-answer session* is often an adjunct to a *public meeting*. Many case studies of participation in the literature detail lengthy and unique processes that use a variety of techniques or tools, such as those listed in the table, and attempt to assess the participation process holistically rather than assess the specific parts (e.g., Ouellet, Durand, and Forget 1994; Moore 1996). Such "unique" mechanisms (which generally have no name per se) have no place in a categorization scheme, which works best on indivisible units, and this bias is reflected in the figure.

A fourth point—and the most important for the purposes of this article—concerns the *uncertain and contradictory nomenclature* of the mechanisms. There are two major problems associated with this: first, that dissimilar mechanisms have in the past been written about or described using the same term; and second, that essentially similar mechanisms have been described using different terms. Both these problems highlight the necessity of clear mechanism definitions and an associated typology. The first problem is best demonstrated by a number of examples. Although Crosby and coworkers developed the citizens' jury at the Jefferson Center in the United States, in one of their earliest articles the mechanism was termed a "citizen panel" (Crosby, Kelly, and Schaefer 1986), and in one of the most significant articles on public participation since published, the mechanism was termed a "citizens' review panel" (Fiorino 1990). Unfortunately, the term *citizens' panel* has, at least in the United Kingdom, come to be associated with an entirely different mechanism—not one that involves a small, select group of the public but one that involves a large, standing selection of individuals that are generally polled via surveys. Similar confusion is evident in a report by Dowswell et al. (1997), which set out to survey the existence of "health panels" in the United Kingdom. Because *health panel* wasn't sufficiently well defined for respondents, a wide variety of mechanisms were detailed in response to the survey, including standing citizens' panels, citizens' juries, and other mechanisms, yet the authors continued to refer to the resultant mechanisms by using the generic "health panels" term. Another example concerns an article by Gundry and Heberlein (1984), in which it was claimed that three "public meetings" were the object of study, yet these turned out to actually comprise one public meeting, one set of 50 public meetings, and a set of two workshops. Such confusion is inimical to conducting research and unhelpful to practitioners. The validity of the nomenclature in the figure is difficult to ascertain, and we make no claim regarding this: the references in the figure are simply those that use the associated term to describe the named mechanism.

The second problem, namely, the uncertain equivalence of terms, is even greater than the misnaming of mechanisms and leads to further confusion and term proliferation. For example, is a *community forum* the same as a *community meeting*? Is a *citizen advisory board* the same as a *citizen advisory committee*? Is an *opinion poll* the same as a *survey*? Is a *citizens' jury* the same as a *planning cell*? Is a *public meeting* the same as a *town meeting*? In many cases, authors may use terms synonymously, but in other cases, authors may use one term to make a meaningful and deliberate distinction of a particular mechanism type from another. For example, a publication by the Democracy Network (1998) suggests that "surveys" are used to elicit the views of *specific groups* of participants to *general questions*, whereas "opinion polls" are used to elicit the views of a *general group* of participants to *specific questions*, implying that these are not the same mechanism (although many researchers and practitioners might disagree with this). In many cases, it is completely unclear what authors mean when using a particular term, because precise mechanism definition rarely ever takes place in published research, and the issue of the generalizability of study results is not adequately addressed. In general, Figure 2 represents something of a compromise, in which some terms are combined when it seems obvious to us that identical mechanisms are meant by different authors using synonyms, and separate mechanisms are noted when authors have made specific distinctions (even though the distinctions might not seem sensible to us)—hence, *opinion polls* are noted as different from *surveys* (Democracy Network 1998), and *neighbourhood meetings* are distinguished from *public meetings* (Rosener 1975). Other mechanisms may be so similar (conceptually, structurally) as to be *meaningfully equivalent* but have specific nomenclature, largely because they have been developed by particular teams for practical purposes and are written about in an uncritical way by advocates (e.g., *consultative panel* and *participatory appraisal*). These often contain similar elements (tools, processes), perhaps arranged in different orders, but are concise enough to be considered as stand-alone mechanisms as opposed to unique initiatives. It will be argued that meaningful equivalence of mechanisms is actually *far higher* than what at first appears to be the case and that significant reductions in the objects for research may be made through the development of a typology.

In summary, the intent of Figure 2 is to demonstrate the confusing plethora of terms used in the public engagement domain. Detailed descriptions of select mechanisms will be made later.

Given the sheer number of mechanisms available for engaging the public and also the confusion as to what each does and does not entail, and how each

differs from the others, it is unsurprising that no significant theory has emerged as to what mechanism to use in what circumstance to enable effective engagement. One way in which the problem can be made more tractable—not only in a research sense, but also in a way that will aid the sponsor and practitioner—is to properly define the different mechanisms and to categorize them according to their common *significant* features. One way of categorizing engagement mechanisms has already been identified, that is, dividing them according to their information flow into *communication*, *consultation*, and *participation* mechanisms. A more extensive typology will be developed after past categorization efforts have been reviewed.

Categorizing Engagement Mechanisms

In the academic literature, there have been few efforts at developing a typology of mechanisms per se. A number of authors have, however, recognized the multidimensional nature of the participation concept, differentiated participation subtypes (generally along a single dimension), and associated different mechanisms with each subtype. Such a process *could* lead to the development of a simple typology of mechanisms, although the authors of these articles have generally had other intentions than specifying generic mechanism types. For example, Arnstein (1969) developed a "typology" of participation by identifying eight participation formats that differed according to the degree to which publics are empowered (i.e., differing along the single dimension of "empowerment"), and Arnstein illustrated each by reference to one or more examples of mechanisms or specific exercises. Webler (1999) suggested that a number of other authors have proposed "typologies" based on a similar principle of empowerment (these largely appear in a variety of handbooks or instruction manuals, so they will be discussed no further here; see Webler 1999, 61, for details).

In the case of Glass (1979), five different participation *objectives* were identified (information exchange, education, support building, supplemental decision making, and representational input) with which were associated four "technique categories" based on structural characteristics (unstructured, structured, active process, and passive process—one of which corresponded to two objectives). Here, either "structure" or "objectives" might be considered the one organizing dimension through which Glass categorized a dozen "techniques" (e.g., citizen advisory committee, drop-in center, and citizen survey). In contrast, Nelkin and Pollak (1979) categorized public participation according to "three definitions of the problem of public acceptability" (lack of confidence, alienation, and inadequate information) with which they

associated certain "models" (i.e., mechanisms), namely, advisory models (of which they identified four examples, e.g., royal commissions), public consultation models (five types, e.g., public inquiries and referenda), and information models (five types, e.g., study circles and environmental impact statements). Nelkin and Pollak also considered five variables that might be used to differentiate the models (who participates, general intention, who conducts the procedure, what is the distribution of technical expertise, and is there really a choice), although they did not apply these variables in any structured way. Rosener (1975) also identified a number of potentially useful categorizing variables. Although she set out no typology per se, Rosener listed a large number of "techniques" and then noted which of fourteen *functional* attributes they possessed. These functions include "solicit impacted groups," "disseminate information," "resolve conflict," and "facilitate advocacy," among others. The functions are briefly described in the article, but there is no justification for choosing these as opposed to other functions, and no typology was developed on the basis of similarities or differences among the mechanisms, although this *would* have been possible (the article nevertheless provides a useful checklist of mechanisms and their characteristics).

All of these past articles have some potential merit in the sense that they break up the engagement problem into a number of types—on the basis of objectives, structure, or function—and associate certain mechanisms with each. Practitioners might use these frameworks to identify their particular engagement problem and narrow down the mechanisms that sensibly may be used to address it. Researchers might also benefit, because they have a reduced number of mechanisms to compare and contrast within a particular engagement type. Our previous deconstruction of public engagement may serve a similar function, although its intent is rather to differentiate what we consider to be *public participation* from nonparticipation (i.e., public communication and public consultation). None of the frameworks in these articles, however, may be called a typology of mechanisms, because the mechanisms alluded to are generally examples that possess one particular function, structure, or objective and that differ from other examples that possess different functional, structural (and so on) attributes. Examples given in each broad category in each framework still vary on a considerable number of dimensions.

The role of a typology of mechanisms is to reduce the plethora of examples into a lesser number of classes, within which each mechanism shares certain *key* attributes, among which each varies. The first important step is to identify what these key attributes are—which is difficult, given that engagement or participation mechanisms vary on a vast number of attributes: they involve different numbers of participants, take differing amounts of time, are

commissioned for different purposes, use different amounts and types of resources, compose the process in different ways, and so on. It is likely, however, that some of these sources of variance will be more important than others in terms of affecting the *contingent effectiveness* of mechanisms and that some sources of variance will have no significant impact on effectiveness at all (or, at least, lesser impact compared to other sources). What is meant by *importance* is considered in the next section. Once these sources of variance are identified, they may be used to classify mechanisms in a typology.

The Issue of Effectiveness

Some sources of mechanism variance are more important than others. By this, we mean that some mechanism variables are *more likely* to affect the *effectiveness* of engagement *exercises* than others. But what does *effectiveness* mean? There are many different definitions of this concept (see Rowe and Frewer [2004] for a review). These various definitions, however, essentially allude to two main concepts: the first concerns the *fairness* of the mechanism/exercise, and the second concerns the competence/efficiency of the mechanism/exercise in achieving its intended purpose—whether that is educating the public, achieving a good consensus, eliciting views, or some other aspect of the process or outcome (e.g., Webler 1995; Rowe and Frewer 2000).

Related to the concept of fairness are concepts of public acceptability, equity, democracy, representativeness, transparency, and influence, among others. This concept concerns the perceptions of those involved in the engagement exercise and/or the wider public, and whether they believe that the exercise has been honestly conducted with serious intent to collect the views of an appropriate sample of the affected population and to act on those views (this relates to public consultation and participation, as conceptualized in this article, but not necessarily to public communication). In terms of devising a typology of mechanisms, it is arguable that the fairness concept of effectiveness is irrelevant. Mechanisms and the way in which they are structured are not *intrinsically* "fair" or "unfair"—they become so through the intent of those who sponsor, organize, or participate in them, and thence the way they are enacted. As an example, a citizen jury may be conducted fairly or unfairly: a poor *exercise* might result if the sponsor biases the information fed to the participants or chooses to ignore the jury output. Even the much-maligned public meeting cannot be considered intrinsically unfair: it may well be tokenistic, as generally enacted, but this can be attributed to sponsor

behavior on one hand or, on the other, to the mistaken interpretation of the mechanism as of the *participation*, as opposed to the *communication*, type. In these cases, the variance that exists is not related to the *general nature* of different mechanisms but their *specific applications* (the variance is *within* as opposed to *among* mechanisms).

The concept of competence/efficiency essentially refers to the appropriate elicitation, transfer, and combination of public and/or sponsor views. Using the language of our information flow model of *public engagement*, it refers to *maximizing the relevant information (knowledge and/or opinions) from the maximum number of relevant sources and transferring this efficiently to the appropriate receivers*. With regard to the three aspects of public engagement, competence/efficiency means the following:

- Public communication: maximizing the relevant information from the sponsor and efficiently transferring it (with minimal information loss) to the maximum number of the relevant population, with the efficient processing of that information by the receivers (the public/participants)
- Public consultation: maximizing the relevant information from the maximum number of the relevant population and efficiently transferring it (with minimal information loss) to the sponsor, with the efficient processing of that information by the receivers (the sponsors)
- Public participation: maximizing the relevant information from the maximum number of all relevant sources and transferring it (with minimal information loss) to the other parties, with the efficient processing of that information by the receivers (the sponsors and participants) and the *combining* of it into an accurate composite

From this perspective, efficiency may be compromised when the information from the sources is somehow suboptimal (information is incomplete, irrelevant, or simply incorrect), when information is lost or distorted in the transfer process, and when the receiver inappropriately processes the information (by misinterpretation or selective attention).

It should be emphasized that other interpretations of the functional purposes of "participation" are not necessarily antithetical to the definitions above. For example, the "education" (Sinclair 1977) and "learning" of participants (Mayer, de Vries, and Geurts 1995) or sponsors (Guston 1999) are other ways of stating that participants or sponsors have *effectively processed information*, and "obtaining public input" (Blahna and Yonts-Shepard 1989; Carr and Halvorsen 2001) equates to *eliciting information from participants*. The concept of representativeness—a common evaluation criterion (Rowe and Frewer 2004)—is also incorporated in the definitions by way of the term *relevant population*.

Although it is true that much of the success or failure of a particular exercise will stem from how the particular exercise is applied, we suggest that it is also true that structural features of the general mechanisms will limit or enhance the chances of effectiveness. For example, the presence or absence of a facilitator in a group process is a structural feature of mechanisms: a facilitator may aid in eliciting participant knowledge and so potentially *increase the relevant information from participants*, although the effectiveness of any one exercise may depend on whether the facilitator is skilled and/or unbiased in doing that job.

In summary, the effectiveness of public engagement will depend on the particular mechanism chosen and the way in which this mechanism is applied (in the specific exercise). Differences among mechanisms are due to *between-mechanism variables* and in the application of mechanisms to *within-mechanism variables*. Not all between-mechanism variables will have a significant impact on the effectiveness of the mechanism (in terms of the competence/efficiency concept), and so some mechanisms that appear different structurally may result in an equally effective exercise. Identifying significant between-mechanism variables will allow the development of a typology of mechanisms, in which a smaller number of mechanism classes is distilled from the unmanageable (in both a research and practice sense) plethora of mechanisms. These classes will comprise mechanisms that do not vary on *significant* sources of variance, although they may do so on *insignificant* ones. In the next section, we identify a number of mechanism variables that are liable to affect engagement exercise effectiveness according to our information flow model.

Between-Mechanism Variables

The significant between-mechanism variables are discussed with regard to their potential impact on the different components of the information flow model of engagement (i.e., maximizing: participants, information elicitation, information transfer, information processing, and information aggregation). Table 1 gives a summary of the significant between-mechanism variables and indicates how they might affect effectiveness.

Variables Associated with Maximizing Relevant Participants

There are three figures that need to be considered with regard to the issue of maximizing participants, which are relevant to all communication, consul-

Table 1. Summary of Key Mechanism Variables

Mechanism Variable	*Levels of Variable*	*Aspect of Effectiveness Potentially Influenced*	*Relevant Type of Engagement*
Participant selection method	Controlled Uncontrolled	Maximize relevant participants	Communication Consultation Participation
Facilitation of information elicitation	Yes No	Maximize relevant information from participants	Consultation Participation
Response mode	Unlimited/open Limited/closed	Maximize relevant information from participants	Consultation Participation
Information input	Set information Flexible information	Maximize relevant information from sponsors	Communication
Medium of information transfer	Face-to-face Non face-to-face	Maximize transfer and processing of relevant information	Communication Consultation Participation
Facilitation of aggregation	Structured combination Unstructured combination	Aggregation of participant information	Consultation Participation

tation, and participation exercises. The first "figure" depends entirely on the *context* of the exercise (i.e., not on the way a particular mechanism is structured or an exercise is run), and this is the *population of interested/affected individuals*. As an example, a governmental policy should *in theory* be of significance to the entire national population, and a local government initiative should be of interest to the population living in that region. In practice, this number is often difficult to ascertain, because policies may have impacts outside of their geographical or demographic boundaries (consider a dam being built in one country on a river that flows through another) or, indeed, may practically be of limited interest within the population in question (for example, a local transport plan might only be of significance to motorists rather than to the whole local population). Theoretically, a particular engagement exercise should attempt to communicate information to, or elicit information from, *all* members of this population. Of course, this is an idealized state of affairs: in practice, any engagement initiative aims to communicate with/elicit information from a smaller sample of the population. This *population number* is important as a benchmark to calculate two other numbers that are related to the *structure* and *administration* of any particular exercise rather than the *context*.

The *intended sample size* is the second figure of significance to engagement initiatives, and this is the number actually *approached* during the exercise (although not necessarily the actual number of participants—as will be discussed shortly). The value of *this* figure will be at least in part due to choice of mechanism, *consequent on structural components*, as well as due to the enactment of the mechanism. With regard to maximizing the relevant population, the actual number of the intended sample is less important than the number relative to the *population* figure: for example, a survey that was sent to 100 people out of an interested population of 1,000 would potentially be able to access 10 percent of the *population information*, whereas one sent to 1,000 people out of an interested population of 1 million would have potential access to a much lower proportion. The former survey (all else being equal) would be better in the sense that it accesses a higher percentage of the relevant population information. A survey is an example of a consultation mechanism, although this principle is relevant to the other engagement types. Consider, for example, the use of a newsletter (a communication mechanism): different exercises will communicate with different sample sizes, and those that attempt to access more of the relevant population will be better from an information model perspective (and, indeed, it is difficult to imagine any occasion when accessing *less* information could be interpreted as "better").

There is a third figure, however, that is perhaps of even greater significance for the effectiveness of exercises than the "intended sample size," and this is the *proportion of the sample that is actively engaged*. In terms of consultation and participation mechanisms, this represents the number of people in the sample (those who have potential access to the information being dispensed, or those who might potentially respond to the information request) who *process information or respond*, respectively. Generally, this will vary across the administration of exercises of any particular mechanism. For example, consider two surveys, each of which is sent to 1,000 people: one might obtain a response rate of 20 percent, and one 30 percent. The differences in response rate will have further implications for the representativeness of the sample and, hence, the amount of information (of the whole that is pertinent to the issue) that is successfully elicited. With regard to group-based mechanisms (mainly participation mechanisms), although it might *appear* that the number of active participants is the *same* as the sample of the population (e.g., ten people selected for a group, all being "active"), this is not the case. Not only might members withdraw (from a committee, panel, etc.), but also those in attendance may not be "active," such as when an individual participant in a citizen jury remains quiet and does not contribute to discussion. This is particularly likely in large groups and when time is limited. A large number of aspects related to the conduct of the particular exercise (within-mechanism variables), from the comprehensibility of information to trust in the sponsors and to how groups are run, may affect this third figure. In general, sponsors of all engagement exercises should consider these numbers and attempt to maximize the size of the sample, and the number of active participants, up to the population number. Doing so maximizes the amount of potentially relevant information that might be distributed or attained.

Intended sample size provides an interesting problem with regard to classifying engagement mechanisms. Although some mechanisms implicitly or explicitly stipulate participant numbers within certain narrow limits (e.g., consensus conferences and other group-based mechanisms), most do not. Of those that do not, some tend to stipulate precise but variable numbers in each *exercise* (e.g., surveys and newsletters), but others have high variability in respondents with absolutely no control over numbers involved (e.g., hotlines and Internet-based consultations). Generally, when numbers are stipulated, they tend to be low (number of people who can fit into a room, for example), but it is conceivable that low numbers might be attained by using any mechanism, and, hence, *intended sample size* is not a relevant between-mechanism variable, although it is a highly important within-mechanism variable

(because, *all else being equal*, a mechanism that involves "high" numbers has access to more population information than one with "low" numbers and is better from an information model perspective). Although it may make some practical sense to distinguish mechanisms according to how precisely they stipulate the numbers involved (i.e., "precise" when defined by the mechanism, "loose" when not defined by the mechanism but defined in each example exercise, and "very loose" when neither defined by the mechanism nor in any example exercise), it is difficult to see what difference classification according to this variable will make with regard to the efficiency of information flow.

There is, however, one between-mechanism variable of significance to the issue of maximizing relevant participants, and this is the *participant selection method*. Mechanisms can be roughly divided into those that involve some degree of control of participant selection (usually by the sponsors or organizers, by targeting communications at, or attempting to elicit information from, a certain sample of the population) and those that have no control, relinquishing choice of involvement to the public participants themselves. Examples of the former include publicity via newsletters (communication), referenda (consultation), and citizen juries (participation); examples of the latter include drop-in centers (communication), computer/Internet-based consultations (consultation), and town meetings (participation). In controlled selection, both the *number* and *relevance* of those engaged may be determined (in theory), whereas in uncontrolled selection, this is not the case, and even if the actively engaged are higher in number, many of these may be inappropriate (the sample may be biased). As such, controlled selection may be more likely to maximize the relevant population involved than uncontrolled selection, and therefore this would seem an appropriate variable for use in a typology of mechanisms.

Variables Associated with Maximizing Relevant Information from Public Participants

Each *active participant* in an engagement exercise can be considered to possess a quantity of *relevant* information regarding the problem in hand (whether this is knowledge or simply an opinion) as well as other information of no relevance. An effective exercise needs to elicit all relevant information from each active participant while not eliciting irrelevant or spurious information. Should appropriate information remain unelicited or be confounded or confused by irrelevant information, effectiveness will be negatively affected.[2] In this section, we consider elicitation of information from public participants only.

There are at least two structural aspects of engagement mechanisms that are liable to affect the likelihood of maximizing relevant information elicited from public participants in consultation and participation mechanisms (not communication). The presence or absence of adaptive facilitation is the first. That is, some mechanisms specify that there is a facilitator present who plays a role in managing the elicitation process and gaining input from all (in this sense, the facilitator may also play a role in maximizing participant numbers through ensuring that all participants are active). This is a particular feature of a number of group-based mechanisms (e.g., focus groups and citizen juries), although not all (e.g., co-option and public meetings), although it is rare in mechanisms that seek individual response (a one-to-one consultation, as from an interview process, could, however, be deemed of this type). Active facilitation has been shown to increase relevant information elicited when compared to some identical process without facilitation (e.g., Offner, Kramer, and Winter 1996; Anson, Bostrom, and Wynne 1995). One way in which it appears to work is to counter a common trend in groups that results in the adoption of a "satisficing" strategy in which a group settles for the first decision that proves satisfactory (e.g., with which no one greatly objects), rather than adopting an "optimizing" strategy in which the group goes on to consider *better alternatives* (Rowe 1992). In essence, the members of such a group have within them further information that they could bring to bear on the problem, but they do not. Facilitation can theoretically aid further consideration, and therefore this seems an apt variable to use in developing the typology of mechanisms, although aspects to do with the *quality* of facilitation will also affect information elicitation effectiveness.

A second mechanism aspect that is liable to affect information elicitation in consultation and participation exercises is the *response mode* available, in particular, whether it is "open" or "closed." Mechanisms that only allow respondents to choose among two or more options (e.g., referenda or a survey requiring ratings on a scale or set questions) are "closed," whereas those that allow free responses (e.g., focus groups and conferences) are "open." It is reasonable to theorize that "open" mechanisms are more likely to elicit more of the relevant information from participants than closed ones (after all, using open questions in social science research is predicated on the assumption that they will yield richer data than will closed questions)—although, in practice, they might *also* elicit more irrelevant information. Regarding information loss, consider a referendum in which participants are limited to yes/no answers or choices among specified options. Here, the sponsor will not know if those who say "yes" (for example) all have the same reasons for doing so, whether those who say "no" do so for reasons that are in some sense more or less important and should be given greater or lesser weight, and so on. One

way in which participants might respond to exercises that overly restrict their chance to give full information is to withdraw from the process—by not responding in the first place or by responding in a nonuseful way, as in spoiling a ballot paper in a referendum (i.e., becoming a nonactive participant). The main danger in such cases, however, is that the sponsor may derive a mistaken belief that it has canvassed the appropriate views, when this is not the case. Again, there are various subtleties in terms of the exact nature of response mode used that may affect information elicitation (e.g., whether responses are numerical or nonnumerical), but these tend to vary across examples of any particular mechanism.

In summary, *active* participants only represent *potential* information sources: they need to be engaged in such a manner that comprehensive, appropriate information (and not incomplete or irrelevant information) is elicited from them, and there are several variables related to engagement mechanism structure that may affect this.

Variables Associated with Maximizing Relevant Information from Sponsors

Information sources may include the sponsors and their experts (in communication and participation exercises), as well as the public representatives (in consultation and participation exercises). Indeed, according to the information flow model, it is just as important for sponsor information to be full and relevant as for that from public participants. The sponsors responsible for initiating engagement exercises invariably assume that any information provided by them is relevant, comprehensive, and appropriate for public understanding and decision making. Whether this is the case is difficult to ascertain in all communication cases: the information is often set *prior* to the initiative and therefore, at least practically, outside of the consideration of it. Some communication mechanisms and most participation mechanisms, however, do speak to this issue, in the sense that their structure allows for flexible, variable, and responsive information provision from sponsors (i.e., information elicitation by the public). It may be hypothesized that mechanisms of the latter type may, in general (and all else being equal), be more likely to result in maximized relevant sponsor information than set-information mechanisms, in the sense that they enable the public participants to identify holes in the information and to clarify uncertainties (e.g., when the information is full of technical jargon). A distinction is therefore made between *communication* mechanisms with set information input and those with flexible information input (from sponsors). Examples of the set type include newsletters and

leaflets, and examples of the flexible type include telephone hotlines and public meetings. Participation mechanisms, however, invariably allow flexible information input, because dialogue and interaction would be difficult if one of the parties involved could only read from a set information sheet. As such, this variable (flexible or set input) is of less use for distinguishing different *participation* mechanism types because most (if not all) are of flexible type.

Variables Associated with Maximizing the Effective Transfer of Information to, and Its Processing by, Recipients

The aim of engagement is to acquire all relevant information from all relevant members of the population (sources) and transfer this to relevant recipients (be these the sponsors or the participants). A mark of the efficiency of transfer is whether the recipients fully understand that information (i.e., process it). The most significant variable in this respect is the *medium* of information transfer. In communication mechanisms, for example, information may be delivered over the phone (hotline/helpline), via computer technology (e.g., teleconferencing), or face-to-face (e.g., at information centers). Each medium has its own attributes, advantages, and disadvantages. In the first two cases, lack of physical contact removes visual, nonverbal cues that make up a large part of human communication (see Sproull and Kiesler [1986] for discussion) and might lead either the communicator or recipient to misunderstand information, so diminishing the relevant information transfer. As another example, information distributed by mail may be treated as junk mail and might not be read (inadequate transfer here acting to reduce active participants). People may be more likely to watch or listen to a broadcast than read leaflets and brochures—although the information that could be communicated is likely to be less (putting at risk the maximal transfer of information). Medium of information transfer—both from sponsor to public and vice versa—is also pertinent with regards to consultation and participation mechanisms, and might likewise reduce respondents/recipients and the information elicited from them. For example, use of cable TV, the Internet, or the telephone, may disenfranchise those who do not possess these media (Rowe and Gammack 2004). There are a number of aspects of questionnaire administration that are believed to help in obtaining increased responses—that will apply in varying forms to the different elicitation media. For example, if a questionnaire is sent by mail, then return postage on a supplied envelope should be prepaid; or in the case of televoting, the respondent should be able

to dial a "freephone" number. Response rates might also be enhanced by offering incentives such as money or shopping vouchers—although one should beware that this might bias the sample. Offers to provide feedback or details of findings might also enhance response rates. Chipman et al. (1996) have considered what is the best *medium* for transmitting information to a "target" audience; Rowe and Gammack (2004) reviewed evidence that suggests there are qualitative differences in the way that people respond to face-to-face and electronically mediated information.

Because face-to-face transfer of information seems less likely to lead to information loss or misrepresentation (Sproull and Kiesler 1986), it might be hypothesized that, all else being equal, an engagement mechanism entailing this type of process is likely to lead to a more effective exercise than a similar mechanism that does not. The medium of information transfer may thus be defined according to whether a mechanism specifies face-to-face transfer of information. Although other aspects of the transfer medium, such as whether information is presented graphically or textually, are likely to affect effectiveness, these tend not to be definitively specified by mechanisms (i.e., different media may be used within one mechanism or in different examples of one mechanism) and are considered sources of within-mechanism variance. Within a particular mechanism using a particular medium, variability will also occur in the operation of the exercise. Consider, for example, a local newspaper: the positioning of the information within it could affect its likelihood of being seen by the public, as could the paper's circulation (different papers have different levels of circulation within different communities). Likewise, information centers might have variable success at information communication depending on their physical location and ease of access to the population. In both cases, poor administration might reduce the number of active participants.

Other variables related to the transfer and processing of information seem to be largely within-mechanism ones. One example is *comprehensibility.* That is, it is important that recipients *fully understand* all of the information they receive. This applies largely to communication and participation mechanisms, although it includes the understanding of questions and tasks required in consultation mechanisms. (Whether recipients agree with information is another matter. We do not hold that communication should be evaluated by its ability to convince—because the best, most full, and most compelling information in the world may still fail to convince those with entrenched beliefs—but it is simply to inform. Arguably, if the information is full and comprehensive, then there is a greater chance that recipients might be persuaded by it.) Aspects to do with the presentation of information and its

wording might affect this. For example, technically comprehensive and correct information that is written using difficult terms and jargon is unlikely to be fully understood by recipients. In this case, even if the information is correct and the entire relevant population receives it, information is effectively lost in the transfer process, and the exercise is suboptimal.

Variables Associated with Maximizing the Aggregation of Relevant Information

In participation exercises and, to a lesser extent, consultation exercises, the problem arises as to how to merge the various participants' knowledge or opinions into some composite response that *accurately combines all relevant information* from those participants. Clearly, inefficiency here can severely harm the effectiveness of an exercise, even if all relevant participants have been involved and all relevant information has been elicited from these and then transferred (and been processed by) the intended recipients. One variable of relevance here is whether there is *facilitation of the aggregation process*. This bears some similarity to facilitation of information elicitation, but it is not identical. An actual facilitator may help *elicit information* from group participants as well as help to combine that information effectively; however, facilitators are rare in individual-based mechanisms, *although facilitation of the aggregation process is usual in these*, as will be explained shortly. Furthermore, the absence of facilitation of information elicitation in a group does not mean that aggregation itself cannot be facilitated (a case here would be a nonfacilitated meeting, followed by a vote by all involved).

When values are elicited from participants behaving as individuals, it is possible and usual (for organizers and sponsors) to combine these in some equitable manner that takes into account all inputs. For example, responses to a survey will usually be aggregated to reveal what proportion of participants holds certain views (this is true of qualitative data as well as quantitative). The aggregation process is structured following certain rules (even if certain data are discarded, there is generally a need to justify this). On the other hand, when values are elicited from groups, the output itself represents an aggregation performed within and by the group. It is unstructured in the sense that no clear rules are set out and followed, and equity, or *input from all participants*, is not guaranteed. Indeed, various difficulties have been documented regarding group behavior and inequity of influence in terms of dogmatic individuals dominating proceedings over less confident individuals, group polarization of response, and so on (e.g., Rowe 1992). It is likely that group-based output does not reflect the group *opinion* with complete accuracy,

although group solutions have been found to generally be better than aggregated individual judgments *in terms of quality of judgment* (e.g., Hill 1982). Facilitated group aggregation can take place, however, through the use of procedures such as the Delphi technique (for reviews, see Rowe 1992, 1998), and these have been shown to provide even better judgment than regular groups (Rowe 1998) as well as enable an accurate accounting of the *opinions* of the whole group. The context of the exercise—whether it is seeking accurate judgments or a fair representation of opinions—seems important in the choice of appropriate mechanism.

The particular methods used to control information aggregation vary not only among different classes of participation mechanism but also among examples of a particular mechanism. For example, a variety of methods are used in public conferences (for elicitation as well as aggregation), including brainstorming, causal impact diagrams, ranking, timelines, community maps, Venn diagrams, and policy Delphis (e.g., Democracy Network 1998). Such aspects need to be considered for the best enactment of public engagement mechanisms.

The Typology

There are several ways in which a typology might be developed, that is, of using the significant between-mechanism variables to classify mechanisms. One way is to list all of the engagement mechanisms and indicate what value they take for each variable. (This is essentially what Rosener [1975] did. Her variables, however, were not justified in any way. Furthermore, she went no further than identifying characteristics of the different mechanisms—it was not her intent to note similarities and differences among these, and to use this information as the basis for developing a typology.) The mechanisms listed in Figure 2 could be used for this purpose. As previously noted, however, there is some uncertainty about what many of these entail structurally, because few have been written about extensively in the academic literature. In the absence of clear definitions of their necessary structures and processes in definitive sources, we do not feel confident in classifying the majority of them (that might be left to those who know them better). Furthermore, some may be better regarded as concepts as opposed to actual mechanisms (e.g., arbitration, mediation, citizen training, citizen honoraria, and co-option onto committees) or as specific tools or processes that may form part of broader, defined mechanisms (e.g., community technical assistance, mapping, policy Delphi, question-and-answer sessions, and workshops; also, arbitration, mediation, and co-option again). Nevertheless, a limited number of mecha-

nisms could be used for the purpose of developing a typology, although at the risk of missing some classes of extant mechanisms.

A second strategy involves setting out the total number of potential classes of mechanisms by establishing all possible variations, naming these classes, and then considering which of the current mechanisms fit into each class. This allows the interesting possibility of identifying hypothetical classes in which there are no present mechanisms. The main problem with this strategy, however, is that the number of classes is potentially very large, and one of the key aims in developing a typology is to *reduce* the domain's objects of study rather than increase them. For example, if there were only four significant between-mechanism variables, and each of these had two forms, then the total number of classes/combinations is two to the power of four, or sixteen; if five, then this is thirty-two, and so on. Of these hypothetical classes, it is also possible that a large number will be practically difficult or insensible, and this may be the underlying reason for the absence of any existing examples.

In Table 2, we therefore use the practical method of the first strategy: we detail a number of the most formalized of the engagement mechanisms from Figure 2, describing them according to their similarities and differences on the main between-mechanism variables. In a number of cases, the mechanisms in Figure 2 are merged or broken down, either when it appears that they represent synonymous concepts (e.g., opinion polls/surveys or the different types of meetings and referenda) or when a label appears to represent different mechanisms (e.g., *publicity*—which includes newsletters and exhibitions), respectively. Mechanisms with high variability in structure are not included, such as *workshops* (Lundgren and McMakin [1998] suggested these may either have select members or open invitation, and may either be nonfacilitated or facilitated)[3] and *citizen advisory committees* (which Rosener [1975] described as a generic term denoting several techniques).

The information in Table 2 may now be used to identify classes of mechanisms. In Table 3, the mechanisms that share identical features in terms of the between-mechanism variables are grouped together and described. For simplicity, the table simply labels the different classes as *type 1*, *type 2*, and so on. Another approach would be to generate names that encapsulate the significant structural features of each class or to name the classes after the most notable popular mechanism within it. Because Table 3 gives fairly complete descriptions of the mechanism classes, we will only allude to a number of general issues and trends in the text.

Table 3 identifies four classes of communication mechanisms, six classes of consultation mechanisms, and four classes of participation mechanisms. Many of the traditional communication approaches are designated *type 1*,

(text continues on page 283)

Table 2. Key Engagement Mechanisms Classified According to Structural Variability

		Variables					
Engagement Type	*Mechanisms*	*Selection Method: Controlled-Uncontrolled*	*Elicitation Facilitation: Yes-No*	*Response Mode: Open-Closed*	*Information Input: Set-Flexible*[a]	*Medium of Information Transfer: FTF–Non-FTF*	*Facilitation of Aggregation: Structured-Unstructured*
Communication	Cable TV (not interactive)	Uncontrolled	NA	NA	Set	Non-FTF	NA
	Drop-in centers (open-house, drop-in center, one-stop shop, first-stop shop, exhibitions)	Uncontrolled	NA	NA	Set	Non-FTF	NA
	Hotline	Uncontrolled	NA	NA	Flexible	Non-FTF	NA
	Information broadcasts (“publicity” via TV, newsletters, and/or radio)	Controlled	NA	NA	Set	Non-FTF	NA
	Internet information (“computer-based”)	Uncontrolled	NA	NA	Set	Non-FTF	NA
	Public hearings/ inquiries	Uncontrolled	NA	NA	Flexible	FTF	NA
	Public meeting (with question-and-answer session)	Uncontrolled	NA	NA	Flexible	FTF	NA

Consultation	Citizens' panel—group-based (e.g., health panel)	Controlled	Yes	Open	NA	FTF	Structured
	Consultation document	Controlled	No	Open	NA	Non-FTF	Unstructured
	Electronic consultation ("interactive Web site")	Uncontrolled	No	Open	NA	Non-FTF	Unstructured
	Focus group	Controlled	Yes	Open	NA	FTF	Unstructured
	Open space	Uncontrolled	Yes	Open	NA	FTF	Unstructured
	Opinion poll	Controlled	No	Closed	NA	Non-FTF	Structured
	Referendum (various types)	Controlled	No	Closed	NA	Non-FTF	Structured
	Study circle	Uncontrolled	Yes	Open	NA	FTF	Unstructured
	Survey	Controlled	No	Closed	NA	Non-FTF	Structured
	Telepolling/ Televoting	Controlled	No	Closed	NA	Non-FTF	Structured
Participation	Action planning workshop	Controlled	Yes	Open	Flexible	FTF	Unstructured
	Citizens' jury	Controlled	Yes	Open	Flexible	FTF	Unstructured
	Consensus conference	Controlled	Yes	Open	Flexible	FTF	Unstructured
	Deliberative opinion poll	Controlled	Yes	Open	Flexible	FTF	Structured
	Negotiated rulemaking	Controlled	No	Open	Flexible	FTF	Unstructured
	Planning cell	Controlled	Yes	Open	Flexible	FTF	Structured
	Task force	Controlled	No	Open	Flexible	FTF	Unstructured
	Town meeting (New England model)—with voting	Uncontrolled	No	Open	Flexible	FTF	Structured

NOTE: FTF = face-to-face.

a. There is always a degree of information from the sponsors, even if only instructions as to how to respond. As such, consultations are described as *NA* because the information is set, specific, and minimal.

Table 3. Types of Engagement Mechanisms

Mechanism Classes	*Examples*	*Characteristics*	*Descriptions*
Communication type 1 (traditional publicity)	Information broadcasts ("publicity" via television, newspaper, and/or radio)	Controlled selection Set information Non-FTF	These are traditional communication mechanisms, typically used as part of public information programs, through which a particular population is targeted with set information, via a variety of (non-FTF) media. They are regularly used by councils in the UK to publicize aspects such as how council tax is spent.
Communication type 2	Public hearings Public meetings (with questions and answers)	Uncontrolled selection Flexible Information FTF	These mechanisms rely on the public to come to the information rather than vice versa. As such, the involved public is largely self-selected and biased in terms of those most proactive and interested. Information is communicated face-to-face by sponsors to those involved and is variable, depending to some degree (often small) on what participants ask. Public hearings are often required when some major government program is about to be implemented or prior to the passage of legislation; public meetings may be initiated by a local authority or convened in response to citizen concerns.
Communication type 3	Drop-in centers Cable TV (not interactive) Internet information	Uncontrolled selection Set information Non-FTF	These mechanisms rely on the public to come to the information. Drop-in centers (frequent in most UK authorities) involve staffed information distribution points at which citizens can stop to ask questions, review literature, or look at displays or exhibitions concerning a project in the area. More modern methods supply information via the Internet (e.g., council plans on a Web site) or cable TV (e.g., the Parliamentary Channel in Britain). The information is set in that the public can only acquire what sponsors make available, although it is variable in depending on what is sought and when. Although there may be FTF contact with drop-in center staff, these tend to be representatives of decision makers directing the public to appropriate information rather than significant information sources in themselves.

Communication type 4	Hotline	Uncontrolled selection Flexible information Non-FTF	As with type 3 mechanisms, these rely on public initiative. Information is flexible, however, and supplied in response to individual query. Information is not provided FTF but via some other medium, such as the phone. A hotline allows citizens to phone in questions on a particular project and receive either a direct answer or an answer by return call.
Consultation type 1	Opinion poll Referendum Survey Telepolling/voting	Controlled selection No facilitated elicitation Closed response mode Non-FTF Structured aggregation	These mechanisms are essentially highly controlled ways of acquiring answers to specific questions from large samples. Quantity of data is more important than quality (there is no facilitation of the elicitation process, responses are closed/limited, and there is no FTF interaction). Notable sources of within-mechanism variance include whether there is direct impact of elicited responses (yes for referenda; no for surveys, opinion polls, and advisory referenda, or "preferenda") and the precise medium of transmission (i.e., whether postal or over the phone; e.g., telepolling/voting).[a]
Consultation type 2	Consultation document	Controlled selection No facilitated elicitation Open response mode Non-FTF Unstructured aggregation	This class aims to attain open responses on a significant issue. The typical mechanism is the consultation—in which a document is sent to a list of potentially interested people (often, representatives of interest groups and other organizations) with limited time available for open commentary. Potentially, nonselected others may contribute but may find it difficult to do so if they are outside of the information loop. See type 3 for consultations that deliberately aim for wider input.

(continued)

Table 3 (continued)

Mechanism Classes	*Examples*	*Characteristics*	*Descriptions*
Consultation type 3	Electronic consultation (interactive Web site)	Uncontrolled selection No facilitated elicitation Open response mode Non-FTF Unstructured aggregation	As type 2, but with uncontrolled selection. Some local authorities in the UK have intranet sites inviting e-mail messages from citizens on particular local issues or service matters.
Consultation type 4	Focus group	Controlled selection Facilitated elicitation Open response mode FTF Unstructured aggregation	This type of consultation emphasizes quality of information over quantity, with effort expended to facilitate the information elicited with FTF interaction. It is typified by the focus group, which may involve as many as a dozen people facilitated in discussion of a general issue. Because there is no significant sponsor information, this may be seen as a consultation rather than participation mechanism.
Consultation type 5	Study circle Open space	Uncontrolled selection Facilitated elicitation Open response mode FTF Unstructured aggregation	This type is similar to type 4 except that participant selection is uncontrolled (participants self-selected). It is typified by the study circle (frequent in Sweden and the US). In this, a group of 5-20 people meets to discuss an issue or study a series of books: they come together for at least three sessions with a volunteer facilitator/group discussion leader. Guidelines are laid down for the conduct of the discussion. Open space involves large assemblies of self-selected participants who identify issues, which are discussed in smaller workshops before participants come together for a final plenary session.

Consultation type 6	Citizen panel—group based (e.g., health panel)	Controlled selection Facilitated elicitation Open response mode FTF Structured aggregation	The main example of this type is the standing citizen' panels (e.g., health panel). This is characterized by the choice of representative participants who meet in a facilitated group setting. Unlike the focus group, the panel may meet several times a year to debate different topics (i.e., views may be traced throughout time), with members rotated off after a while. At the end of meetings, opinions are usually aggregated via some form of vote/secret ballot. Consultations may also take place via mail (i.e., non-FTF, a different mechanism class).
Participation type 1	Action planning workshop Citizens' jury Consensus conference	Controlled selection Facilitated elicitation Open response mode Flexible information FTF Unstructured aggregation	The mechanisms of this type are characterized by the controlled selection of participants, facilitated group (FTF) discussions, unconstrained participant responses, and flexible information input from the sponsors, often in the form of "experts" who are available for questioning by the public participants throughout a number of days. The group output is not structured as such and may depend on social and psychological group factors (dogmatic individuals, and so on).[b]
Participation type 2	Negotiated rule making Task force	Controlled selection No facilitated elicitation Open response mode Flexible information FTF Unstructured aggregation	This class of mechanisms is structurally similar to type 1 but with the difference that there is no facilitation of the information elicitation process. In many ways, they are simple group processes with no specific facilitation—of input from group members, or aggregation of opinions. The examples noted here use small groups of participants (public representatives), with ready access to all pertinent information, to solve specific problems.[c]

(continued)

Table 3 (continued)

Mechanism Classes	*Examples*	*Characteristics*	*Descriptions*
Participation type 3	Deliberative opinion poll Planning cell	Controlled selection Facilitated elicitation Open response mode Flexible information FTF Structured aggregation	This class is also similar to type 1 but with the essential difference that structured aggregation takes place. In the case of deliberative opinion polling, the selected participants are polled twice, before and after deliberation on the issue (and questioning of experts); and in this process, structured aggregation of all participant opinions is attained. In the case of planning cells (a German mechanism), these tend to use various decision aids to ensure structured consideration and assessment, and hence aggregation, of opinions.
Participation type 4	Town meeting (New England model)—with voting	Uncontrolled selection No facilitated elicitation Open response mode Flexible information FTF Structured aggregation	This mechanism class differs from the others on a number of dimensions. Importantly, selection is uncontrolled, and there is no facilitation of information elicitation, although aggregation is structured. The archetypal exam is the town meeting (New England model), in which voting (aggregation) takes place after debate between self-selected participants.[d]

NOTE: FTF = face-to-face.
a. Doorstep or street surveys are FTF and might be considered a separate mechanism.
b. The ostensible aim of specific mechanisms may be to gain consensus (e.g., consensus conferences), and facilitators may work toward this, although formal aggregation mechanisms are not specified.
c. This is not to say that meetings are not chaired and that there is no control at all of the group process, but rather that control is limited, with emphasis on solving a problem rather than gaining fair consideration of all views.
d. The presence of public input differentiates this participation mechanism from the normal public meeting, which is a communication mechanism.

which is distinguished from the other types by involving the controlled selection of participants rather than allowing participants to select themselves. By distributing set information using mass media approaches (i.e., non-face-to-face), they have the potential to reach many people with a standard message—and thereby seem to have advantages in terms of maximizing quantity of information to the intended community. The other types, relying on the self-selection of participants and also flexible information (types 2 and 4), would seem less optimal from the perspective of maximizing information distribution (unless one considers that the sponsors may themselves be unclear as to *who* are the appropriate participants and *what* is the most important information to impart). Effectiveness according to the information flow model does not just depend on the quantity of information and number of participants, however, but also on whether the participants understand and correctly process the information they receive. From this perspective, the opportunity of uncertain individuals to gather information they feel they require might counter the disadvantages that would seem apparent in the more flexible mechanism types. Clearly, then, the different classes may be differentially appropriate, and empirical research is needed to establish the different contexts in which this is so.

Type 1 consultation mechanisms (e.g., opinion polls and referenda) bear many similarities to type 1 communication mechanisms: they are typified by the controlled selection of participants and use of mass media (non-face-to-face) to ascertain specific information from as many of the relevant population as practically possible. Because responses are elicited in a set format, they are able to aggregate information to ensure maximum input from respondents. Their nature does, however, ensure that little effort is made to facilitate the information from participants by checking individual understanding on the issue on which the consultation is taking place. The other mechanism classes, to a greater or lesser extent, limit the control over the process by allowing participants to select themselves (e.g., types 3 and 5); by allowing flexible, open responses from participants (all other classes); or by omitting any standardized procedure for aggregating participant information (types 2, 3, 4, and 5). Where extra control *is* exercised in these other mechanism classes it is in the elicitation of information using a more intensive medium of information collection (i.e., face-to-face: types 4, 5, and 6) and in facilitating the process of eliciting knowledge from participants (types 4, 5, and 6). A distinction among mechanisms that appears to correlate with a number of these differences is whether they are individual- or group-based (there is more emphasis on controlling the process and gaining information quantity in the former, and of loosening control and concentrating on information quality in the latter). As with communication mechanisms, the

appropriateness of the different classes of mechanisms will be context dependent.

Although the number of participation mechanisms is apparently very large, with many different types of meetings, workshops, conferences, and fora, there is a high degree of similarity among these (indeed, the names are often used interchangeably). As a consequence, Table 3 identifies just four distinct classes of participation mechanism. All types involve face-to-face (essentially group-based) processes with flexible input from the sponsors, and most (types 1, 2, and 3) have controlled selection of participants. The main difference between type 1 mechanisms (typified by the citizen jury) and type 2 ones (typified by the task force) is the presence or absence of active facilitation of participant views. Generally, type 2 mechanisms tend to be used with knowledgeable stakeholders (public representatives), who may be anticipated to have the knowledge and motivation to play a role in solving a real problem (hence, being in less need of facilitation), rather than with the kind of lay public members generally used in practical examples of type 1 mechanisms. Such context factors—motivation, degree of preexisting public knowledge on the topic, and specific versus hypothetical/general problem solving—may be important for determining which mechanism class to use to gain maximal effectiveness. Type 3 mechanisms add further control to the process by structuring the aggregation of participant views, using mechanisms such as repeated polling or decision aids. This is also true of type 4 mechanisms (e.g., the New England model of town meetings) in which the voting process enables aggregation, although this mechanism class has uncontrolled selection of participants and hence greater potential information loss from not maximizing appropriate participants. Once again, empirical research is needed to establish the contingent appropriateness of the different mechanisms, because each has potential benefits and drawbacks in terms of maximizing information elicitation, transfer, processing, and aggregation, as detailed in the information flow model.

Discussion

In this article, it has been argued that imprecise understanding of key terms in the public participation domain has hindered the conduct of good research and militated against effective participation practices. To add some clarity to this domain, an attempt has been made to define key concepts and provide a framework for research. The disparate area of public participation has been rephrased as *public engagement*, and three significantly different

activities within this domain have been identified and defined—as *public communication*, *public consultation*, and *public participation*. The three concepts have been differentiated according to the nature and flow of information between the exercise sponsors and public participants. According to such an *information flow model*, the *effectiveness* of an exercise may be ascertained according to the efficiency with which full and relevant information is elicited from all appropriate sources, transferred to (and processed by) all appropriate recipients, and combined (when this is required).

Public engagement, in its different forms and its many different instances (exercises), is enacted through a variety of structured *mechanisms*. These mechanisms are great in number and generally poorly defined—two characteristics that hinder effective research and practice. A *typology* of mechanisms, in which classes of mechanisms are succinctly and appropriately defined, may counter both of these difficulties to a degree. In the typology that has been developed here, mechanisms (of communication, consultation, and participation types) have been classified on the basis of their similarities and differences on a number of key variables related to their structures. These *between-mechanism variables* are ones that might hypothetically affect exercise effectiveness according to the information flow model. The resultant typology reveals four classes of communication mechanisms, six of consultation mechanisms, and four of participation mechanisms.

It is important to emphasize that the typology presented in this article should be regarded primarily as a working model and an aid to research rather than as a definitive typology (in many ways, the typology itself should be seen as of secondary importance to the explication of the rationale for its necessary development and the process of producing it). There are certainly limitations to the typology itself. For example, there may be other between-mechanism variables of equal or greater importance to those used in developing the typology, which ought to be used in preference to, or in addition to, these. And there may also be other basic mechanism classes that have been missed, because we have not taken into account all existing engagement mechanisms. Underlying these potential difficulties is the fact that of the plethora of engagement mechanisms that have been developed and used, there are relatively few definitive accounts of their natures (and these are often contradictory), and this has limited the number of mechanisms we could classify with confidence.

The existence of such a typology is an important step toward developing a theory of "what works best when" (Rowe and Frewer 2004)—a theory of the contingent effectiveness of engagement mechanisms (because one mechanism is unlikely to be the most appropriate/effective in all situations).

A further step involves understanding and defining, perhaps via a second typology, the different types of *context* in which engagement takes place. Empirically, once effectiveness is defined and instruments are developed for measuring this, mechanisms of the different classes can be compared to the different context classes to establish contingent effectiveness. Developing and testing such a theory is likely to have great academic and practical implications (Rowe and Frewer 2004), and should be the focus of future research efforts. The typology itself also needs further elaboration: it is an initial attempt only, and we would expect further conceptual consideration and empirical research to lead to its evolution, perhaps through identifying other key variables that need to be included, perhaps by redefining or undermining presently included variables, and almost certainly by considering the plethora of mechanisms that are not classified here and classifying them appropriately. As such, we would welcome other researchers extending and amending the typology.

Matching an appropriate class of engagement mechanisms to an appropriate context will not, however, guarantee that an engagement exercise will be a success. There are other important variables related to the actual application of the particular exercise that will play an equal and perhaps greater role in this respect (e.g., Webler 1999). We have termed these *within-mechanism variables*: they differ from between-mechanism variables in showing variation *across* the different practical applications of any specific mechanism. Identifying these, and understanding their potential impact on exercise effectiveness, is another area requiring future study.

NOTES

1. In this article, we deliberately adopt a simplified model of the nature and purpose of communication and participation for the purpose of developing a typology of mechanisms. This is not to deny that the rationale for communication between sponsor and public is a complex, multifaceted issue; for a good discussion on the wider context, see, for example, Gregory and Miller (1998).

2. When we talk of "relevant" and "irrelevant" information, we are referring to a theoretical relevance to the issue at hand—for example, in a debate on the safety of genetically modified food, information about health risks is relevant, but information on what I had for dinner last night is not. The sponsor obviously has his or her own interpretation about what is and is not relevant, but this political interpretation is not our concern here—indeed, it is possibly related to a within-mechanism variable regarding sponsor integrity (or some such) that does not affect our typology, which is based on between-mechanism sources of variance.

3. As such, *workshops* are instead considered a tool that is present in several of the more specific named mechanisms that are included in the table.

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