

# Explaining Policy Action: A Deductive but Realistic Theory

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## Abstract

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## 1 Introduction

The study of policy implementation seems to some observers to have fallen on relatively hard times. Certain analysts have commented recently that there have been few recent studies, relatively modest theoretical advance in recent years, and a paucity of large-n investigations. (For recent overviews of the state of research in this specialty, along with recommendations for advancement, see Lester and Goggin 1998; and, in response, deLeon 1999a; Meier 1999; Schneider 1999; and Winter 1999. See also deLeon 1999b.) In part, the relatively lessened attention to issues of implementation probably reflects the less ambitious agendas of governments during the past decade. Still, as O'Toole has argued elsewhere recently, the reports of difficulties and lack of progress have exaggerated the current state of the field (2000). While there are shortcomings in the research literature, and while considerable progress needs to be made, the situation is not at all bleak. A number of promising lines of work have developed in the last few years, even if less obviously so than observers might prefer. And sophisticated larger-n investigations have by no means been rare. (For a thorough assessment of the literature and justification for these several conclusions, see O'Toole 2000.)

Indeed, the field is now poised and ready for significant moves forward. The point of this paper is to contribute directly to this development. The purposes here are, in fact, two. First, and primarily, we present the outlines of a theoretical approach to implementation that offers promise for delivering a comprehensible, parsimonious, powerful, and yet nuanced explanation (and prediction) about policy action. In addition, we provide context for this approach by connecting it to some contemporary developments in the scholarship on policy theory. In particular, since the theory sketched here is heavily deductive, we offer some comparison with another recent and prominent line of deductive theorizing that has appropriately drawn some attention. The objective here is both to outline a comparison of approaches and also to indicate the overlaps, differences, and appropriate ways and circumstances for their use. The result is intended to inform researchers on policy implementation of a plausible candidate theory, and strategy for theory building, and also to indicate to the broader community of policy scholars how this perspective fits within emerging developments beyond the implementation question *per se*.

The basic structure of this article is straightforward. In the next section, we argue for the utility of theory-building efforts focused on implementation. And we suggest reasons why deductive approaches to implementation are likely to be of particular value, so long as these avoid certain potential pitfalls. We then sketch the perspective offered in the important and largely deductive policy theory of "actor-centered institutionalism" developed recently, in particular by Fritz Scharpf. We

conclude that, for the purpose of analyzing implementation, it has both important assets and also limitations. We then present the basics of our “instrumentation theory,” which bears some similarity to actor-centered institutionalism but also exhibits some nontrivial differences. The article ends with some conclusions and implications.

## **2 Implementation theory and deductive approaches**

Whither policy theory? To avoid confusion, we should be clear at the outset what we do and do not mean by policy theory. “Policy theory” in this treatment means empirical theory intended to explain and/or predict policy action, or action that emerges around a policy problem. (And policy problems are perceived situations or circumstances that some actors believe are or ought to be subjects of attention by governments, their agents, and/or their partners.) Policy theory, then, does not mean theories imbedded in policies. Nor does the term refer to theories of how policy analysts can or should assess the value or consequences of policy – e.g., benefit-cost analysis. Our attention, then, is devoted here to understanding the policy process, along with its outputs.

Recent years have seen increasing attention paid by policy theorists to policy making *per se*. It has generally been recognized that often no strict boundaries can be drawn between policy formation and policy implementation (cf. Sabatier, 1991), and this realization seems to have led to theories of the policy process that – while not distinguishing between stages of the policy process – nevertheless seem to be focused only on policy making examples and thus miss consequential lessons that could be drawn from the wave of implementation research that was particularly prominent in the 1970s and 1980s.

Our position is that it is nevertheless sensible to strive for solid and parsimonious theory for explaining action during implementation. Policy processes developing in different “stages” exhibit similarities, to be sure, and they clearly require a consistent general theory. But implementation is distinctive in the sense that a focused input – the policy – is an explicit and influential element of the setting, and the roles of the actors and their behavioral options are “focused” by the fact that they meet in an implementation arena. This logic suggests, then, that the most appropriate theory-building strategy is to tap or develop a general theory (for instance, game theory or “process” theory) and specify some of the relevant variables appropriately for implementation. Indeed, there can be systematic features of policy implementation processes -- namely the institutional and resource context of the policy (instruments) that are to be implemented. Precisely these elements are to be taken into account when analyzing these processes.

In general terms, what kind of strategy is appropriate for building implementation theory? It has been largely true that with rare exceptions theoretical efforts thus far have drawn very heavily from inductive perspectives. From the initial case study by Pressman and Wildavsky (1984) to the framework offered by Mazmanian and Sabatier (1989), and from the insights of bottom-up theorists (for example Hull with Hjern 1987) to the “third-generation” efforts of Goggin et al. (1990), theory building in efforts to understand why certain forms of policy action follow authoritative governmental commitments have moved from the specifics of detailed observation to general theoretical statements.

There is nothing wrong with inductive approaches *per se*. But the field has been so dominated by radically inductive perspectives (see O’Toole 1993 for discussion) that certain weaknesses have also become significant. One is the sheer proliferation of

variables proffered as plausible candidates for inclusion in implementation theory. A review of hundreds of studies more than a decade ago identified a dauntingly long list of such variables offered in the international research literature (O'Toole 1986). And there has been little paring down since then. In fact, Meier has commented sardonically on this point by linking it to the prominence of case studies in the research literature: "I often characterize the theory as 'forty-seven variables that completely explain five case studies' . . . . I propose . . . [a]ny policy implementation scholar who adds a new variable or a new interaction should be required to eliminate two existing variables" (1999: 5-6). Alternatively, "everyone who is interested in policy implementation should pick one variable or relationship and . . . [advocate] that it should be dropped from our theories" (p. 6). This criticism is based on substantial exaggeration; and, as suggested earlier, larger-n studies have become – if not commonplace -- far from rarities. But the comments regarding the proliferation of variables are reasonable and serve to suggest a problem for theory building.

The sheer variety and complexity of the partial frameworks and theories typically offered create difficulties in testing, accumulating insights, and building powerful formulations. The lack of parsimony has also contributed to a certain vagueness in approaches offered. The clarification of dependent variables, let alone independent ones, has been a rather uneven effort, and a result has been that it is sometimes difficult to know for certain when propositions have been disconfirmed by evidence. It is also a challenging task to combine findings from different and often disparate studies into anything approaching a rigorous meta-analysis. Another corresponding consequence has been that scholars have been reluctant to offer practical suggestions for improving implementation performance. When advice is offered, typically it has been fairly ambiguous and/or obvious (see O'Toole 1986). And it continues to remain largely true that practical suggestions are typically "desultory and strategically vague" Elmore 1979-80: 601; efforts to craft exceptions include Bardach 1998; O'Toole 1995; and perhaps Mazmanian and Sabatier 1989: 41-42).

Indeed, to the extent that the inductive and case-oriented work done thus far were to be addressed to the world of implementation practice, problems would be likely to escalate. Ideally, recommendations made by policy scholars should act as a "catalyst" to the quality of the debate during policy processes (cf. Quade, 1986). There are, however, various complications that can encourage "false learning," rather than improved performance on the basis of recommendations (cf. Bressers, Herweijer, Korsten, 1993: 239-243). Concrete proposals are almost never fully based on research, and recommendations can be expected to be grounded in only cursory attention to cultural and institutional prerequisites. Attention can be expected to move prematurely to a choice, when pressure is great for taking some action to address a pressing problem. And cases generating advice inductively about other situations are notoriously prone to problems of external validity.

Indeed, we would argue that even should a fully specified and valid theory of policy implementation command support, such a theory would be of only limited immediate value to practitioners. The *ceteris paribus* assumption, typically a part of theoretical propositions in such realms of research, violates the real features of the world of practice, where variables can shift at the rate of more than one at a time, interactive effects can be crucial, and the complexity of a mature theory is likely to offer little direct guidance for decision making.

In short, then, two key points bear emphasis. The very heavily inductive approaches that have dominated thus far have led to many interesting ideas but not much accumulated and accepted theory. (The frequent reliance on case studies has been a contributing limitation.) And the approaches that have been emphasized have not

led to much useful advice for practice. (Nor, we argue, are they likely to do so in the foreseeable future.) Both points undergird our efforts to propose a different approach to theory building to explain – and perhaps predict and ultimately influence – policy action. Instead of continuing from an inductive orientation, we move to an explicitly deductive perspective. And the deductive logic offered here is structured so as to be both parsimonious and also realistic.

These late-mentioned attributes – parsimony and realism – are difficult to approach simultaneously. Adding variables and complexity to a theoretical approach can aid accuracy and thus realism, but at the expense of simplicity. Deductive approaches, often derived from economics, are typically critiqued on the basis of their lack of realism, despite their parsimony. As explained below, however, we use the notion of “core circumstances” as a filtering device to allow for the play of complexity within, or through, a simplifying prism assisting in paring down the long list of variables into a manageable handful. The objective is a highly predictive and comprehensive approach.

In general terms, it should perhaps be emphasized, we do not adopt a naive, *de novo* logic in the deductive structure. This theory sketched below has been developed upon a basis of the extant implementation research findings, and partially on the basis of the evidence suggesting the importance of a number of variable clusters in driving policy action. But we boil these down to a simple grounding upon which a fairly subtle – and thus potentially realistic – set of propositions is built. The propositional inventory derived from the theoretical logic, in turn, avoids the *ceteris paribus* complication that has stymied many other approaches; this perspective, then, may be particularly helpful for those interested in a practical logic with potential to aid implementers and others in the real world of policy.

Deductive theory has important strengths, and we have chosen this approach for these reasons. But it is important to remember that there are limitations as well. One derives from earlier work. An important segment of existing deductive theory about policy instruments consists of economic literature in which targets’ responses, predominantly those of companies, to the application of various instruments are dealt with. The models that evolve from such literature often appear very sophisticated. In some cases the complex character of decision making is carefully dealt with. Nevertheless economic theory is often based on an objectively-rational decision-making model, sometimes even calculating pros and cons merely on the basis of monetary assets. Of course such a model is easy to use but very limited in terms of realism. A first improvement – one also often used by economists – is to emphasize the subjective character of the weighting done by target group actors. Actors do not choose on the basis of their actual circumstances, but on the basis of their perceptions about these. These perceptions may well be restricted to only part of the real behavioral alternatives and their characteristics. They can also be “wrong.” Furthermore decision makers might have to deal with uncertainty. The subjective model also means that the influence of the pros and cons is modified by the various weights that actors attribute to these aspects. Here also the importance of short-term versus long- term perspectives and uncertainty avoidance play a part. In addition, altruistic, social mimicry, and legal normative motives can in principle be included in individual motives, but in practice these need separate attention in order not to be forgotten in the “*homo economicus*” model.

A different sort of limitation has to do with the tendencies of economic analyses to treat implementation issues lightly, in general. Many economic deductive models are based on the assumption that the policy will be implemented as decided upon, a point that is contradicted by a mass of existing research findings.

Often deductive approaches focus implicitly on a one-actor decision-making model. But many actors are complex or “corporate” ones. Whether it is justifiable to treat them as single actors is a question that deserves attention in each study. (Indeed, our approach offers refinements for multiactor decision making circumstances, where – for instance – target groups are themselves may be less than united in perspective during a policy’s implementation.)

Finally, it is important when developing deductive implementation theory to avoid the trap of an implicitly top-down assumption. Target group actors are not in the business of responding to implemented policies, but in the business of minding their own business. Often the incentives that are provided by the policies are seen by such groups as merely a part – perhaps a small part – of the array of constraints and resources in their own environments of action: possibly something to reckon with, but not vital or compelling from their perspective (cf. Elmore 1979).

For all these reasons, we aim for a general deductive approach that has potential to explain policy action in implementation processes and captures as many of the advantages as possible with as few the disadvantages as feasible.

The turn to a deductive approach, particularly one based on the notion of interaction among policy actors and strategic decision making at the core of policy choice, may be reminiscent of some other recent theoretical efforts in policy research. (For a review of many of the most important contemporary policy theories, both inductive and deductive, see Sabatier 1999.) Aside from economic theorizing per se, one might note in particular the work of Elinor Ostrom and colleagues (see, for instance, Ostrom 1999 for a thorough review) and the ideas of Fritz Scharpf (1993, and especially 1997) centered on the approach called “actor-centered institutionalism” (see Mayntz and Scharpf 1995 as well). (There are other candidate approaches that could be mentioned. Note, for instance, the contributions of Torenlvlied 1996a and 1996b. Until recently (see Torenlvlied 2000), nonetheless, his ideas have not had a significant impact on the international research literature.)

This is not the place for a careful review of these approaches. What can be said is that, while Ostrom’s approach offers considerable promise for explicating aspects of multiactor processes in complex institutional settings, it seriously downplays both policies themselves and also governments as distinctively important entities in policy settings. For these reasons, we focus in the next section on the work of Scharpf. Although his approach is not devoted primarily to issues of implementation, it offers other features which, we think, render it an important candidate for serious consideration by policy researchers. And it serves as a point of comparison for our own approach, “instrumentation theory,” which can be interpreted as a way to take advantage of some of the strengths of an essentially game-theoretic logic such as Scharpf’s while also minimizing the limitations of actor-centered institutionalism as developed thus far.

### **3 Game-theoretic perspectives and “Actor-Centered Institutionalism” as approaches to analyzing policy implementation**

The argument for the utility of deductive approaches to a theory of policy implementation is not itself an argument for a certain kind of deductive theory, let alone a demonstrated case for a particular theory. But to assess whether extant theoretical efforts have the potential to advance the appropriate kind of theory for the implementation question (or whether a somewhat different kind of approach would

ultimately be needed), there are good reasons to consider the possibilities offered by game theory, as perhaps the most appropriate form of well-known deductive theory for the issues at hand.

Why focus on game theory? There are both negative and positive rationales. For the former, it should be clear that some other types of established deductive approaches frequently offered for dealing with bureaucratic settings are of questionable use for analyzing the implementation question. Principal-agent theories, for example, misspecify the essential circumstances obtaining in many implementation contexts. Even modifications that incorporate multiple principals and multiple agents assume clarity in the roles of principals and agents, whereas in many implementation settings the character of these relationships may themselves be up for negotiation. More positively, it can be said that game theory assumes certain structural conditions that are more congenial to many of the most frequently noted implementation circumstances. In particular, the modeled games are invariably circumstances of interdependence between or among actors. And the assumption of strategic decision making clearly offers a template that avoids the fallacies of either the top-down or bottom-up perspectives (Bressers and Ringeling 1995, O'Toole 1997). Top-down analyses typically assume strategic action on the part of those at the top, or center, while marginalizing similar action by those at the bottom; bottom-up logic usually does the reverse. Game theory, on the other hand, offers the prospect of analyzing the joint results of multiple strategic actors.

There have been some efforts to tap the potential of game theory to explore implementation settings. Stoker (1991) employs a nontechnical version to depict numerous circumstances. His use is apropos, particularly since his specific focus is intergovernmental implementation in a federal system, in which national and regional governments have independent and formally equivalent constitutional status. (See also Weber 1998 for an analysis of new approaches to negotiations in environmental policy, particularly for implementation. The implicit perspective is game theoretic, and Weber explores in thoughtful ways how some games might be reconfigured. In short, he explores the notion of altering games rather than merely playing them.) On the other hand, Lynn (1993) models processes in a social-service bureaucratic setting as a set of connected prisoners' dilemmas involving top management, middle management, street-level bureaucrats, and program clients. Here the analysis offers insights, but the effort ignores the very real differentials of power and authority among some of the actors. O'Toole concludes that game theory is limited in a number of respects in depicting multiactor implementation circumstances, particularly for purposes of explanation and prediction, but it has potential heuristic value in alerting implementation managers of some of the kinds of moves that may be possible in complicated situations (1993, 1995).

Perhaps the most influential effort to model policy settings with the tools of game theory has been the work of Scharpf, particularly in the "actor-centered institutionalism" developed in part in collaboration with Mayntz (Mayntz and Scharpf 1995; Scharpf 1997). Since this line of work has had broad impact on ideas about policy theory, and since Scharpf has sought to combine the game-theoretic approach with a sophisticated understanding of institutional analysis, we focus here in particular on this perspective. The goal is to analyze the potential for such an approach to provide an appropriate logic for a deductive yet realistic theory of policy implementation.

The ultimate value of a theoretical approach can only be judged through testing -- and, in terms of its practical value, an assessment of its predictive and diagnostic utility in the policy process. We do not undertake systematic testing here, but this

section considers the possible added value of the game-theoretic perspective developed by Fritz Scharpf to implementation research. Scharpf's approach holds the potential for some application to issues of policy implementation, and game-theoretic logic has been explored by others to suggest its strengths and limitations in implementation analyses (see O'Toole 1993; 1995).

In his recent overview of approaches to policy theory, Sabatier (1999) classifies the approach of Scharpf (1997) with the institutional rational choice approach (see above). There is something to be said for this categorization. Nevertheless, Scharpf and collaborators highlight a few points omitted by the most prominent proponent of an institutional rational choice perspective, Ostrom (et al.). Scharpf calls his approach "actor-centered institutionalism," and with good reason: much attention is paid to the "actor constellations." The goal and structure of the approach appear generally apt for explaining policy action, namely that the course and outcome of processes are explained. Actor-centered institutionalism places the interplay of policy-relevant actors into the foreground of analysis; and it does not give a priori primacy to a particular category of policy actors, thus avoiding a problem that plagued some earlier versions of implementation theory. Actor-centered institutionalism structures analyses to permit consideration of more complex and interactive circumstances, via connected games. Further, the approach is based primarily on individual rational actors, although values other than self-interest are also taken into account. "The co-existence of norm-oriented and self-interested preferences" (Scharpf, 1997: 181) is taken for granted (though the basic interpretations of game situations seem largely based on an assumption of self-interested individuals).

Nevertheless we should notice here that Scharpf does not really focus on the kind of context that is typical for implementation processes. Where he deals with implementation per se (pp. 117-118) he is actually referring to what we would label the chance for compliance with a policy. His notion is not about implementation as a process of coming to an individualized "agreement" (or authoritative decision) in the context of a specific policy. He steps aside the issue by stating that implementability issues, like enforcement, should be part of the agreement itself and thus can contribute to the difficulty of reaching the agreement. For that reason, he indicates, the rest of his argument deals only with the difficulties that must be overcome in reaching agreement through negotiations (page 118). In this fashion, of course, actor-centered institutionalism in its basic form eliminates the nitty-gritty questions of implementation by assumption. This leads us to the questions of what the specific characteristics of the implementation context are, and whether they can easily be incorporated into game theory. By addressing this topic we extend Scharpf's perspective explicitly to questions of implementation and, in so doing, explore the suitability of this mode of analysis.

#### *Implications of the implementation context*

Some characteristics of implementation processes imply that specific kinds of games (in a game-theoretic sense) are more likely than others. These concern two aspects of game-solution possibilities, in particular. First, typical implementation processes allow communication between both (all) parties. In fact they consist heavily of such communication. Second, typical institutions involved in implementation can opt to make the outcome of interaction binding. In fact the implementation of many policy instruments (that is, mechanisms adopted in policies to encourage desired action) is formally about producing a binding output at the level of the individual members of target groups. These instruments can include a conditional allowance of a subsidy, a license, a sanction, a levy invoice, and so forth. (Technically, this second point can be incorporated into a game-theoretic analysis through the notion of default

conditions that apply under some options, like noncooperation by target groups. Of course, this addition complicates any analysis.)

Another important characteristic refers to the “interaction orientations” (Scharpf 1997: 84-89) in implementation processes. The valuable analysis Scharpf gives here shows first of all that aside from the characteristics of the game itself, the interaction orientation has a large effect on the expected outcome. Second, the “normal” interpretation of the various games in fact is one that is based on an assumption of individualistic rationality. In actual implementation processes, of course, the values of maintaining good relations or the hostility produced by previous encounters between implementers and targets groups (Arentsen and Bressers, 1991) makes a variety of interaction orientations quite plausible.

The characteristics mentioned above suggest that implementation situations have some parallels with standard game-theoretic settings. There are, however, also differences that can be ignored only by omitting key elements of many actual empirical situations. These characteristics necessitate either a reconceptualization of central variables of game theory or an introduction of additional variables.

The first of the major differences is the fact that in implementation there is a formally adopted policy instrument that (at least in an analytical sense) serves as the focus or input of the interaction. This point implies that in implementation the actors not only have a strategic orientation towards each other (as in a game-theoretic setting), but also have an equally important strategic orientation towards the policy instrument that has to be implemented. This means that the primary interest constellation of the actors (as one of the independent variables) is not defined in terms of their preferences for defection or cooperation towards each other, but in terms of their preferences regarding the implementation of the instrument. These preferences could be referred to in implementation theories via variables such as “the consequences of implementation for goal attainment of the policy implementers.” This slightly different strategic orientation in implementation also has implications for the dependent variables of the interaction. Whereas game theory is concerned with reaching stable cooperation between actors, this focus is important, but not the entire story in implementation, for actors might find themselves perfectly happy in a cooperative agreement *not* to implement the instrument (or implement it only in a symbolic way). In the “instrumentation theory” that will be sketched in the next section, this recognition results in a specification of the basic forms of interaction, where *constructive* cooperation (resulting in implementation in full support of the policy) is distinguished from *obstructive* cooperation (resulting in minimal implementation, or even “no interaction”). Whereas both forms of cooperation could be seen as a “solution” (that is, a Nash equilibrium) in terms of game theory, it is obvious that the latter would not count as a solution in an implementation analysis that treats seriously policy intent as reflected in a mandate.

The second major difference between standard game and implementation contexts has to do with the fact that game theory has limited its scope towards behavioral (strategic) *choice*, whereas implementation includes choice, but also has (by nature of its activity) important elements of *production*. This means that besides the preferences or motivation for actions, the actors’ abilities or capacity to actually perform the actions of their choice are equally important. If an implementer decides to close down a factory that operates without a license, it is not enough to write the management a letter stating “from day X your factory is closed.” Although it is not impossible that the management would respond to such a letter by actually closing the factory down, in most cases additional actions by the implementer would be needed. In game theory the actual performance of the defect and cooperate

strategies is usually deemed unproblematic. But for implementation analysis “information” and “power” variables also need to be incorporated to take account of the ability of the actors to perform actions.

The consequences of these two points can be illustrated, in an anticipatory sense, by depicting here some outcomes of the theory to be presented in the next section. If the possible interest orientations of the actors involved in implementation – the standard focus of a game-theoretic approach – are arrayed as in Figure 1 (for the relatively simple situation of a coherent group of implementers and a target group that can be considered as a unified set), considerable variation is evident regarding the likelihood of implementation under different combinations. We assume three values each, for the “interest” variables: positive, negative, or basically neutral. In situations in which neither of the two parties is really in favor of actual implementation, the theory indicates that no interaction will occur. More interesting are the five situations in which at least one of the parties has an interest in implementation. Where there is no real clash of interests the information of the actor(s) willing to implement the instrument becomes crucial for determining the likelihood of implementation. In situations with a clear clash of interests (upper right and lower left), the constellation can be compared to a mixed-motive (or, in the extreme cases, zero-sum) game, where in addition to information the actors’ power position becomes an important variable.

*Figure 1. Likelihood of implementation*

Interest in implementation		Implementers		
		+	0	-
Target group	+	(if enough info of implementers): collaboration	(if enough info of target group): co-operation	(depending on info target group and power)
	0	(if enough info of implementers): co-operation	no implementation	no implementation
	-	(depending on info of implementers and power)	no implementation	no implementation

A further important characteristic of implementation processes is their (at least implicitly) authoritative nature, at a minimum in a formal sense. Implementation research has demonstrated that often negotiation is a better descriptor than would be hierarchical direction, the result of even negotiated processes is still a formally authoritative decision by the implementer. The characteristics of most implementation processes could therefore perhaps best be described as “negotiation in the context of hierarchy” (Scharpf 1997, p. 198). Scharpf draws some attention to games in such a setting in a depiction of negotiation between two sections of a ministerial department (pp. 198-200). In this context the sections negotiate under the condition that if they do not reach an agreement a third actor, the minister, would take an authoritative decision and the game would be “out of their hands.” This context, nonetheless, is different from most implementation contexts in the sense that in the latter

circumstance one of the players (the implementer) has the authority to take the decision. This complicates the strategic situation, for one of the players has the option to play its “hierarchical cards” by “going by the book” or, alternatively, opting for a possibly less conflictual negotiation strategy. In turn, the other actor has possibilities, for instance by appearing cooperative or belligerent, to influence this choice. In this sense the actual conditions under which the game is played are part of the game itself.

This feature is related to a further important characteristic of implementation processes: the options of the players are not fixed. In implementation the actual outcome (and thus the strategic consequences of cooperation and defection) are in most cases negotiable because of discretion in the hands of the implementers. By negotiating a solution that is more or less acceptable to all parties, the actors have the possibility of trading stringency of implementation for mutual cooperation (cf. Heckathorn/Maser, 1987, referred to in: Scharpf, 1997: 77). In this sense not only the conditions but also the actors’ alternatives and their consequences are part of the game.

The fact that negotiation over the outcome is possible draws attention to a further aspect of implementation settings: the actors are usually in a dependency relation, where the power balance between them might vary from “domination” to “more or less even.” Obviously, many policy instruments are envisioned precisely to produce dependencies as a mechanism to change current practices of target groups. Scharpf’s analysis (pp. 139-141) of the influence of forms of dependency on a “battle of the sexes” game shows the important implications of a difference in dependency. Dependency seems even more important in situations where the balance of power can influence the (non)cooperative nature of the game, or even influence the nature of the solution that the actors would find “acceptable” (the two points indicated above).

In sum, approaches like actor-centered institutionalism have considerable merits for depicting important parts of policy action. But including certain key parts of implementation contexts – like the importance of communication and the explicit presence of a policy itself – suggest a reorientation from standard game-theoretic depictions. Further, the degree of cooperation between implementers and target groups during implementation does not fully determine the extent of successful policy action. Both can collude to limit the reach of policy, and implementation requires production as well as agreement. Finally, the distinctive elements of implementation contexts suggest that information and power, rather than “mere” interests, must be taken into account. We conclude, then, that actor-centered institutionalism offers both significant assets and also real limitations for the purpose of analyzing implementation processes. It is worthwhile to take the characteristics of implementation processes as a starting point for building a related but somewhat different theory.

#### **4 “Instrumentation Theory”: A Brief Sketch**

We begin from a perspective much like that offered in actor-centered institutionalism but incorporate elements meant to deal with several of the points developed above. Specifically, the possibility of negotiating an acceptable solution is a feature incorporated into a set of hypotheses covering the “correctness of implementation” (that is, the extent of implementation in accord with the mandate’s intent) Negotiation itself is distinguished as a form of interaction, and its possible consequences for implementation are indicated. The dependencies between actors are incorporated via variables indicating their power positions. The balance of power is used both as a

factor that explains where the likely position of a negotiated solution will be found and as a factor that explains whether actors would opt for a hierarchical (confrontational), a negotiating, or a more cooperative strategy. Whereas negotiation would generally decrease the correctness of implementation, a confrontational strategy has implications for the legitimacy of implementation (and subsequently for the orientation of the target group in their decisions).

We base these viewpoints on initial theoretical efforts developed in the Netherlands – an approach called “instrumentation theory.” The theory derives its name from the fact that it was initially developed to facilitate the comparison of policy instruments (and not from a perspective that views implementation action in entirely instrumental terms or as action that can and should be controlled by central authorities). On the contrary, one of its basic assumptions is that the operation of policy instruments cannot be seen in isolation from the circumstances in which they are applied. The theory therefore not only looks at the characteristics of policy instruments and their impact on target groups, but first of all and predominantly at implementation processes. (For the first version, see Bressers & Klok 1987; 1988. After a series of generally encouraging empirical studies -- for instance Klok 1987; Grimbergen et al. 1988; Kraan-Jetten, 1991 --, revisions led to a refined version; see Klok 1991. Additional empirical studies have followed; for instance, Pullen, 1992.) Here we aim to bring the approach to the attention of a broader international community of specialists and connect it to some of the important contemporary policy perspectives. Given space limitations, the theoretical material itself is presented only in summary form here.

This section presents some of the core elements of instrumentation theory, with an emphasis on its guiding assumptions and overall deductive logic. For present purposes, we omit derivations of all the detailed propositions. We also, of necessity, avoid elaboration of variants of the core argument crafted to deal with more complex settings. For instance, taking into account implementation target groups as complex rather than unitary actors is a task that has been tackled in the theoretical project (see for instance Bressers 1998; Bressers and O’Toole 1998; Ligteringen 1999). But these aspects are not central to the current exposition and are therefore omitted from this coverage. We move, instead, directly to the basic elements of the instrumentation theory in general.

#### *Interaction processes and instrumentation theory*

Thinking in terms of policy processes suggests emphasizing their character as social interaction. Doing so shifts attention from viewing policy as a sort of production process with semifinished products and an ultimate end product to a vision in which the actors participating in the process are the central concern – thus, indeed, an actor-centered perspective. In this view the course and outcomes of the processes depend not only on inputs but especially on the characteristics of the actors involved, particularly their objectives, information, and power. All other factors that influence the process do so because, and in so far as, they influence the characteristics of the actors involved. This point holds as well for the influence achieved by policy instruments. Not all characteristics of actors, however, are determined by policy, and so it is not possible to describe a policy without paying attention to the actors involved in that policy. These actors, therefore, can be displayed explicitly in a graphic model of the policy (see Bressers, 1983),

Moreover, we conceive of the processes not as linked merely in one series or cycle, but via connection with a large number of societal processes in which government authorities sometimes participate and sometimes do not. All these are connected to still other processes in a complicated web by means of their inputs and outputs, and

possibly indirectly linked to *all* other processes. Each definition of a societal sector draws a more or less arbitrary boundary around a cluster of processes in this web.

The “instrumentation theory” which derives from this perspective focuses on the application and effects of instruments on the target groups of policy (Bressers & Klok 1987, 1988; Klok 1991) and also on the choice of policy instruments (Ligteringen 1999, Bressers & O’Toole 1998).<sup>1</sup> In this paper we will focus on the portion that deals with implementation processes.

#### *Explaining implementation with “Instrumentation Theory”*

The theory assumes that the policy implementation process is not only about achieving implementation, but also about attempts to prevent implementation or to change the character of what is implemented. The process involves activities and interactions between the implementing public officials and members of the target group. Often the same actors have already established contact with each other in connection with other matters. Moreover government and target group often exert influence on each other before the policy that is to be implemented is introduced. The new policy does not replace this interactive process, but adds a new element to it. Therefore, to assess the possibility of the new instruments’ being applied at all, and also applied in support of the intent expressed in the policy (where evident), it is necessary first of all to gain insight into the factors determining the nature of the interactive process between government and target group. We can then try to find out how these factors change due to the introduction of the new policy instruments (Bressers & Ringeling, 1989, 1995).

Another basic assumption of the theory is that the factors which influence the implementation process do not operate in isolation from each other (cf. Mayntz, 1983). The influence of the various factors cannot be simply added up; interactions are typical. A factor that exercises a positive influence under certain circumstances may exercise no influence, or indeed a negative influence, under other circumstances. The way in which these processes develop must therefore be explained on the basis of combinations of the values of the various distinctive factors. A crucial point, therefore, is that hypotheses about the relationship between the dependent variable and only one independent variable at the time, with a “*ceteris paribus*” assumption regarding other independent variables, are regarded as unproductive.

Though this basic assumption is undoubtedly more realistic, it entails severe complexity problems for theory formulation. In fact, if one were to assume 15 independent variables to be important in the development and results of the implementation process, than even if one were to treat these variables simply as dichotomies, no less than 32,768 combinations of circumstances or “settings” would need to be considered! And aside from concerns about parsimony, many of the relevant variables cannot validly be operationalized as quantitative measures. Therefore, computerized modeling provides no escape.

Instead, this complexity can be made “manageable” by distinguishing two sets of independent variables: “core circumstances” (that is, factors that have a direct influence on the development of the processes) and external circumstances (factors that have an indirect influence via their influence on the core circumstances). Policy instruments themselves can be counted among the latter. The theory indicates how the core circumstances jointly determine the development and results of a process. External circumstances, including characteristics of the policy instruments that are to be implemented, are taken into consideration when estimating the value of the core circumstances. In this way many contingencies can be treated without increasing exponentially the complexity of the theory. In this fashion, therefore, we craft a theory that is both

deductive and also realistic – that is, it takes into account the complexity of the circumstances without being overwhelmed by the complications. The number of basic kinds of settings remains limited, since they are determined by a limited array of central circumstances.

These central circumstances are comprised of the combinations of goals, information and sources of power of the actors involved. These three items have proven themselves to be exceptionally useful in explaining the dynamics of such processes (see Bressers 1983: 189-197 for an explanation of why these three in particular are essential). Indeed, we would argue that they (that is, resources, cognitions, and values) cover fundamental dimensions of social life and social science at both the individual and collective levels, and with relatively little overlap among them. We see them as critical determinants of social interaction processes more generally.

In the next subsection we elaborate this perspective in a treatment of two aspects of implementation processes. The first focuses on whether there will be implementation at all. Some anticipated implementation processes never really take off, for certain sub-sectors or at certain local sites; or even, on occasion, in general. The second aspect deals with the degree of correct implementation. “Correct” is not conceptualized in the judicial sense here, but in the sense that the implementation approach supports rather than weakens the intention evident in the mandate, as evidenced by the incentives that the instrumentation produces. Since implementation can proceed at the price of substantially weakening the intended incentives for influencing a target group’s behavior (e.g., fully using the budget of a subsidy program without monitoring recipients’ behavior), it makes sense to give special attention to this aspect also.

#### *Likelihood of implementation*

The policy implementation process is typically characterized by interactions between government “implementers” and the target group of the policy. The application of a certain policy instrument often assumes a less prominent place in this process than one would be led to expect on the basis of official procedures. The actual granting of permits to those members of the target group who are required to hold permits, the actual imposition of levies, the application of sanctions when regulations are violated: none of these can be taken for granted in the practical process. The first result of the implementation process can therefore be indicated as the possibility or likelihood that the instrument will be applied at all. Sometimes this result may have the side effect of undermining the credibility of the policy, particularly if implementation fails to get going.

It is quite conceivable that not only the members of the target group but also the governmental agency responsible for implementation attach little importance to the application of the instrument. Implementers have values and interests of their own, which may not coincide with the activities involved or even the policy as such. Symbolic policy is a well-known phenomenon in many nations – that is, policy that is not taken seriously by implementers, and perhaps is not meant to be, and that is not supported by serious commitments of resources. So the first group of factors that determines whether policy instruments are applied consists of the objectives of the implementers and the target group. To put it more specifically, the central question is whether the actual application of the instrument will contribute to the achievement of the objectives of these actors.

The successful application of policy instruments also depends on whether those involved have sufficient information. The first question to ask in this connection is whether the policy implementers know who make up the target group. Do they know, for instance, which companies are obliged to have a permit or which ones qualify for a

subsidy? If the target group itself stands to gain from the application of the instrument, for instance in the case of subsidies, then information available to the members of the target group may also help to increase the likelihood of application.

The third group of core factors that determines the development of the implementation process is the distribution of power between the implementers and the members of the target group. First of all, who is empowered to apply the instrument and how far does this power go? The power might rest exclusively with the implementers. But in some cases, for example, with subsidies, the instrument can only be applied at the request of members of the target group. The target group then enjoys an extremely strong position if it is not in favor of the application of the instrument. Other forms of power may derive from formal sources (as with opportunities to appeal) and informal sources (like dependence on another party for the achievement of other objectives).

The combination of these circumstances, we argue, determines the kind of interaction that will occur between government and target group in the policy implementation process. The theory makes a distinction between three types of interaction: active cooperation, passive cooperation, and opposition. Active cooperation occurs when both parties share a common goal. We speak of passive cooperation when one of the parties adopts a relatively passive attitude that neither hinders nor stimulates the application of the policy instrument. Opposition occurs when one of the actors tries to prevent application by the other actor. There are also situations in which there will be no interaction at all between the government and the target group. In this case the possibility that the instrument will be applied is very remote indeed.

Figure 2 gives an overview of the circumstances in the implementation process and the types of interaction and results to be expected from the application of instruments in these circumstances. Each situation contains a configurational hypothesis. For instance situation 1 can be read as: If application contributes positively to the achievement of the objectives of both the implementers and the target group, and the implementers' information is sufficient, then the interaction will be "active cooperation" and the likelihood of application will be "very great."<sup>2</sup>

[Figure 2 about here.]

#### *Degree of correct implementation*

The mere application of a policy instrument does not automatically lead to the envisaged change in the consequences of the behavioral alternatives of the target group. The application may not be up to standard; for instance, levies may be lower than originally intended, or permits may not specify restrictive regulations, or grants may not be accompanied by the intended conditions. The question in such cases is not whether the policy implementers themselves are breaking the law or other regulations, nor whether they deviate from the instrument-as-intended, as such. Empirical implementation research has shown that deviations can actually be motivated by concern for goal attainment by the implementers. The dependent variable here is whether the impact of the instrument on the consequences of the behavioral alternatives of the target group is less far-reaching than originally envisaged by the policy makers.

The factors that determine the character of the interaction process between government and target group on this point are virtually identical to those mentioned earlier: objectives, information and power. Nevertheless, we still need a separate analysis, depicted below via another diagram, since the factors may take on very different values and the types of interaction are more complex than those that occur in the earlier depiction. For

instance, the members of the target group may well favor the application of a subsidy in itself, but oppose “correct” application – which might bind them to all sorts of regulations. Or, in another situation, implementers may have sufficient information to identify those members of the target group who require permits, but insufficient information to know what regulations should and can be applied to the companies in question.

The types of interaction that may occur at this next step in the process are to a certain extent different from those sketched above. This is because the degree of correct application involves a much larger number of elements. The issue, for instance, not only concerns the question whether a company required to have a permit will indeed obtain one, but also whether that permit will contain all regulations necessary to achieve the policy objective. It is precisely the formulation of these regulations that is the most difficult part of the negotiations between government and industry. Furthermore, the application of policy instruments almost necessarily leads to interaction, so it will be impossible for the result to be “no” interaction, as in Figure 2. A distinction is made between constructive, but also obstructive, cooperation; negotiation; and conflict. Obstructive active cooperation occurs in situations where both actors stand to gain from inappropriate application. The same phenomenon can occur with passive cooperation when one or both parties have an interest in the application of the instrument – for example, because non-application would be rather too obvious to higher authorities -- but not in “correct” application. In view of the many elements involved, it is useful to subdivide the interaction type “opposition” into negotiation and conflict. In the case of negotiation, the parties do their utmost to realize as many of their own objectives as possible by reaching a compromise. In the case of conflict, the target group usually breaks the lines of communication and confronts the other party with a negative use of power. In the latter case, the target group generally questions the legality of the instrument. Finally, with some combinations of circumstances the interaction type and result are highly uncertain.

Figure 3 gives an overview of the situations and predicted interaction types as well as expected results, in terms of the degree of correct application of the instrument.<sup>3</sup> It bears repeating that the other variables often mentioned in connection with implementation processes, including the possible influence of the policy instruments themselves, enter into this theoretical logic by altering values of one or more core variables; and their influence can therefore be considered in light of this explicit model.

[Figure 3 about here.]

The implementation of a policy may also involve the deployment of more than one instrument (an example is analyzed empirically in Yu et al. 1998). In fact, different instruments are frequently applied at different stages of implementation. For instance, the first step in applying a permit system might be to issue permits specifying certain regulations; a second step might then be to enforce these regulations. Therefore, to generate a comprehensive explanation of the results, the parts of the theory described here will often have to be applied several times.

The key theme to bear in mind nonetheless, is the straightforward one that instrumentation theory as sketched very briefly in this section represents a form of actor-centered institutional perspective that is in sympathy with some key themes in other recent policy theory but that is adapted in certain respects to basic and virtually ubiquitous features of implementation situations. And the core circumstances -- built from relatively limited sets of combinations of power, information, and objectives of implementers and target groups – enable systematic analysis of diverse sets of circumstances, with inclusion of a range of other variables often deemed important by scholars.

## 5 Conclusions

In this contribution we have sought to show that deductive approaches are a promising way of proceeding to develop implementation theory. Instrumentation theory offers the prospect of a realistic version thereof, thus addressing some of the central issues plaguing this specialty.

Comparing instrumentation theory with actor-centered institutionalism is helpful: the similarities and differences show the relative advantage that each has under different circumstances. Actor-centered institutionalism offers a broader scope and, by way of its explicit connection to game theory, access to important and widely-known theoretical content. Instrumentation theory focuses more specifically on implementation, a point that counts as a disadvantage in terms of generality, but as an advantage in terms of its being more realistic in its assumptions concerning the characteristics of these processes.

The similarities between the two suggest a path that theorizing can productively take. The parallels are broader than might be apparent at first glance. The strategy of reducing complexity via key assumptions is very similar between the two lines of theorizing. The “models of the actor” resemble each other closely as well. The links between the context and the orientations of actors are very similar. Finally, the line of reasoning predicting outcomes is in each case based on strategic choice, although this is rather implicit in instrumentation theory.

The differences point to reasons why instrumentation theory may be particularly apropos for issues of implementation. Its focus on implementation not only builds upon realistic assumptions -- compared with other deductive approaches --, but also enables it to predict well-specified outcomes that can be useful both in empirical research and in application by practitioners. And this last-mentioned aim, after all, is the major objective of theory building on such a topic.

One of the lines of work that could be advanced in the future is to develop a closer connection between instrumentation theory and actor-centered institutionalism. Instrumentation theory might profit from a more explicit connection to the different game-theoretic situations that are implied by the circumstances forming the theory's hypotheses. Indeed, it might be useful to consider the linked-game character of the two aspects of implementation outlined earlier (that is, likelihood of implementation and degree of correct implementation, respectively). Actor-centered institutionalism, in turn, might profit from the notions in instrumentation theory about the specific characteristics of implementation processes and the way in which these can be modeled to form a more realistic representation of the strategic situations in which actors find themselves. In these fashions and perhaps others, distinct but related theoretical approaches might both be enhanced.

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<sup>1</sup> Additional developments in the theory take also account of the fact that instruments do not influence the characteristics of the actors involved separately but rather as a package or as an "instrumentation strategy" (see also Yu et al. 1998). Instruments and strategies have various properties, for example a certain proportionality between target group behavior and government reaction, or provision vs. withdrawal of resources to/from the target group. Such features affect their applicability in practice. Klok emphasizes that some of the instruments are designed to give those implementing the policy the power to apply still other instruments (Klok 1991: 176-194) and also that the implementing organizations depend on being equipped with sufficient capacity and expertise (idem: 163-164; see also Bressers 1983: 218-237 and 256-274). Arentsen (1991) exhaustively discusses the relation between the policy organization and policy implementation in the framework of this theory. Later publications on this approach (Bressers & Kuks 1992; Bressers 1993; Bressers, O'Toole & Richardson 1994; Bressers, Huitema & Kuks 1994) have paid more attention to the interrelations between the actors, including actors that do not directly participate in the processes under examination. Klok (1995) gives primary importance to the allocation and removal of resources in such relations and in the classification of policy instruments. The mutual relations between actors within such policy networks are seen as an important factor in the development of the content

of policy (Ligteringen 1999). In addition, the relation between policy processes at the various administrative levels is explicitly dealt with (Bressers, Kuks & Ligteringen 1998). Therefore the perspective has developed into an integrative approach, uniting elements from a variety of other approaches. Again, nonetheless, we omit treatment of such features here.

<sup>2</sup> The flow chart rests on nine assumptions. Four refer to the type of interaction that is to be expected, five refer to the expected outcomes:

1. For any interaction to evolve, it is necessary that application of the instrument contributes positively to at least one actor, and that this actor has sufficient information to apply the instrument;
2. In addition to assumption 1, active cooperation will evolve when application contributes positively to the objectives of both actors, passive cooperation will evolve when application contributes positively to the objectives of one, and neither positively nor negatively (none) to the objectives of the other actor;
3. If a request by the target group is necessary for application, the target group can veto application and prevent interaction;
4. In addition to assumptions 1 and 3, conflicting objectives of the actors (one positive, the other negative) will, in case of balanced power positions (both strong or weak) result in opposition as the type of interaction. In case the power position is in favor of one of the actors, the actor that is dominated will refrain from putting his preferences into action;
5. Without interaction the likelihood of application of the instrument is very small;
6. In case of active cooperation, the likelihood of application will be very great;
7. In case of passive cooperation and the active actor is able to apply the instrument himself, the likelihood of application is very great. If however the cooperation of the passive actor is also necessary, the likelihood of application is great;
8. In case of opposition and balanced power positions the likelihood of application is average;
9. There will be a loss of credibility in case a very small likelihood of application is related to the preferences (objectives) of the implementer or his insufficient information.

<sup>3</sup> This flow chart rests on eleven additional assumptions. Six refer to the type of interaction that is to be expected, five refer to the expected outcomes:

1. If correct application of the instrument contributes in the same way to the objectives of the actors, the interaction type will be active cooperation. In case this contribution is positive the active cooperation will be constructive, in case it is negative the cooperation will be obstructive;
2. If correct application of the instrument contributes positively to the objectives of one of the actors and not significantly to the objectives of the other, the interaction type will be constructive passive cooperation. If correct application of the instrument contributes negative to the objectives of one of the actors and not significantly to the objectives of the other, the interaction type will be obstructive passive cooperation. If correct application has no contribution to the objectives of both actors, it is uncertain which type of interaction will occur;
3. The first two assumptions have to be modified in the sense that it is uncertain which interaction type will occur in case both actors have insufficient information and the interaction would have been constructive;
4. In case of conflicting objectives (one positive, the other negative), and the actor for whom correct application will contribute positive to his objectives has insufficient information, the interaction type negotiation will occur;
5. In case of conflicting objectives (one positive, the other negative), and the actor for whom correct application will contribute positive to his objectives has sufficient information, but the power balance is dominated by the other actor, the interaction type negotiation will occur. If in the same case the power balance is in favor of the actor who want to apply correctly, the interaction type constructive passive cooperation will occur. If the power of the actors is in balance, either negotiation or conflict will occur;
6. In case of conflicting objectives and correct application contributes negatively to the objectives of the implementer, and the target group has insufficient information, the interaction type obstructive passive cooperation will occur;
7. In case of constructive (active or passive) cooperation the degree of correct application of the instrument will be very great;

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8. In case of obstructive (active or passive) cooperation the degree of correct application of the instrument will be very small;
  9. In case of conflict the degree of correct application will be very great, but there will also be a loss of legitimacy;
  10. In case of negotiation the degree of correct application will be dependent on the information of the actor who strives for correct application and the power of both actors in the following way:
    - In case of sufficient information of the actor trying to apply correctly and balanced power, the degree of correct application will be great;
    - In case of insufficient information and balanced power, the degree of correct application will be small;
    - In case of insufficient information and a power balance in favor of the actor trying to apply correctly the degree of correct application will be average;
    - In case of insufficient information and a power balance in favor of the other actor the degree of correct application will be very small;
  11. In case the type of interaction is uncertain, the degree of correct application is also uncertain.