Successful policy formulation processes: Lessons from 15 case experiences in five Dutch departments

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1. Introduction

Members of parliament, cabinet ministers, and top-level civil servants com-
plain a lot about policy formulation in Dutch departments: 'It takes too
much time.' 'Too many participants are involved.' 'Quality frequently falls
short of minimal standards.' 'Sometimes you get something no: nearly re-
sembling what you expected.' These are just a few of the more common
charges. In short, politicians asking for solutions to political problems, and
for implementation of their decisions, are disappointed by what they get as
an answer from policymaking civil servants.

Pressed to defend themselves, civil servants, engaged in drafting policy
documents, point toward an impressive list of everyday problems in policy
formulation practice at the level of departmental divisions and sections.
Among other things they usually mention inchoate, ambiguous, and chang-
ing assignments or 'policy output specifications', communication failures
between public officials and their political overseers, coordination failures
between divisions and sections both within and between departments, the
wicked or messy nature of most policy problems, time pressures, and fre-
cquent external intrusions in bureaucratic workflows (cf. Comnissic-Von-
hoff 1981; Hoogerwerf 1986, p. 194ff). Or, blame should not go to civil ser-
vants, but to organizational problems, to the nature of policy problems
themselves, and to unclear decisionmaking or will-formulation by politi-
cians themselves.

Is it possible to arrive at successful policy formulation? Successful in the
sense of a better match between the products of civil servants and the expec-
tations of politicians. Is it possible, at least, to arrive more frequently at suc-
cessful policy formulation?

Practicing civil servants usually attribute successful policy formulation to
an intuitive, tacit, practical and highly personal knowledge; a mixture of
mystery and mastery to be acquired only after years of apprenticeship. But
knowledge-transfer about policy formulation is considered a matter of infe-
tion, or imitation at best; hardly as a self-conscious learning process.

Scholars in fields like political science, public administration, organization studies and policy science have suggested several ways to improve practice. First and foremost, by preaching the synoptic, analytical, or rational-comprehensive gospel. But, 'Reach for the synoptic ideal always, everywhere, and with all possible means' is practically impossible, and frequently it is a psychologically counterproductive instruction as well (Lindblom 1979, p. 318). After all, policymaking staff are observed to usually do their best; but also to work under conditions that deny them the possibility of living up to their own standards. Therefore, second, some scholars have translated non-synoptic theoretical views into practical guidelines (Dror 1968; Etzioni 1968; Kuyper 1980; Hoogerwerf 1992; for a brief overview, see Hoppe 1993).

A third possible alternative way for scholars to help improve policy formulation is learning from best practice. 'What policymakers lack are theories grounded in the best of practice, and practice that is guided by the kind of theory from which it can learn with benefit', say Mason and Mitroff (1981, p. 19). By focussing research on (1) making explicit, and (2) making systematically accessible to the reflection of others what some policy formulating professionals achieved 'in their finest hours', the administrative sciences may define a new, more feasible task.

The purpose of this article is to attempt a few steps in the direction of learning from best practice. Particularly, we set out to gain empirically plausible insights into the relationships between certain theoretically relevant policy formulation process properties and certain desirable output properties. The research problem addressed, therefore, is: Can predictable process properties be observed for policy formulation processes in Dutch departments during the seventies and eighties perceived to have 'successful' outputs?

We will answer this research question in a number of steps. In the next section, we will introduce the theoretical concepts we use; and construct a model of the policy formulation process. We model policy formulation essentially as a process of cooperative and antagonistic political-intellectual shaping; as 'thinking out' and 'fighting out' policy alternatives (Lindblom 1968; Hoppe 1983). This provides the theoretical basis for distinguishing between output types and process properties. In section 3, testable hypotheses will be formulated as theoretically predicted or expected relationships between output types and process profiles, i.e. typical combinations of process properties. Then, in section 4, we turn to issues of research strategy and design. Following Yin (1989), we use a multiple case, replication logic research design to get the most from our data. Against the framework of this general design, we discuss case selection, data collection, and case analysis methods. In section 5, we present the findings resulting from a pattern-matching cross-case analysis of the data. Systematically, profiles of processes with in-
incremental and nonincremental outputs, as well as process profiles resulting in successful and (partially) unsuccessful outputs will be compared. A summary of conclusions (section 6) completes the article.

2. Concepts and model

2.1. Policy formulation as a transformation process

Policy formulation can be quite generally referred to as the genesis of a policy. It may be defined as a process of cognitive and conative activities, starting out from a general sense of 'thinking-about-doing-something' about an issue or problem on the political agenda; and resulting in the formulation and adoption of a policy or political strategy. It is a process in which policymaking officials, (at least) formally instructed and supervised by political overseers (ministers, members of parliament), design, analyze, compare, formulate and justify a more or less coherent set of choices, making up a plan to solve a public problem.

In terms of a workflow, the transformation process called policy formulation can be described as a joint reasoning and writing process. Before settling on a course of action to be followed in numerous cases, good reasons are generated and tested in procedures of governmental decision-making and public debate. Ideally, those arguments withstanding the widest possible range of objections and criticisms, or otherwise gaining the support of a winning coalition of political actors in relevant forums and decision-making arenas, are finally written down as one coherent piece of discourse in a document formally acknowledged to lay down official governmental policy statements (Van de Graaf and Hoppe 1992, p. 264ff; Hoppe 1993, p. 107ff).

2.2. Eight types of output

The concept of 'policy' in this article is restricted to the immediate or primary output of the formulation process, i.e. a politically adopted, authoritative-ly proclaimed government plan (Van de Graaf and Hoppe 1992, p. 43-46). Almost any explanatory statement accompanying a new general law, statute, executive order, or decree is an adequate illustration of what we mean by 'a policy'.

The research project reported in this article focusses on the discovery of links between process and output properties in policy formulation in five Dutch departments. Its basic assumption is that process properties in policy formulation with an output labelled 'successful' by a panel of relevant practi-
tioners and evaluators will non-randomly or predictably vary from process properties of formulation processes with outputs characterized as 'unsuccessful'. Thus, what is a 'successful' output, from both a practitioner's and a theoretician's point of view?

Previous research (George 1980, p. 1-3; Hoppe et al. 1989) has shown that in political and administrative practice a successful policy (1) enjoys sufficient political and administrative support, (2) is of high analytic quality, and (3) is delivered in time according to prior instructions and output specifications. Thus, the output properties making for 'success' or 'failure' are high or low scores on support, quality, and timelines. However, as will be discussed in the research design section, we selected as candidate cases for our research project officially adopted policies only. This means that the cases do not meaningfully vary on the support dimension. Therefore, in this paper, a 'successful' output is defined by the combination of only two properties: quality and timelines.

Timeliness was measured simply by observing whether the policy document had been completed before set deadlines expired. Quality is a much more difficult concept to measure. It is by nature a kind of over-all judgment, based on a multitude of divergent implicit and explicit partial judgments. Moreover, political and academic standards for quality in policy documents sometimes contradict each other. Here we have opted for quality criteria discussed by Hoogerwerf (1986) and Walraven (1991). In their views, the quality of policy outputs increases if:

- the diagnosis of the policy problem is more encompassing;
- policy assumptions and predictions are more plausible;
- underlying arguments for the choice of goals and means are more expert-based;
- goals, objectives and means have been more clearly formulated;
- goals, objectives and means have been formulated more consistently;
- in case of mutually competing or exclusive goals and values, priorities have been more clearly set;
- the already visible effects of the new policy design are larger in scope or nature;
- undesirable side effects have been more consciously anticipated;
- goals, objectives, and means have been meaningfully quantified where possible;
- time horizons for goals and objectives have been more clearly specified;
- policy feasibility has been tested;
- the sufficiency of resources (manpower, capacity, finances, et cetera) has been provided for;
- political, organizational and financial acceptability has been secured.
As for theory, the literature points to degree of envisaged change (compared to policy as officially stated or implemented) as one of the more powerful determinants for process properties (Braybrooke and Lindblom 1963; Etzioni 1968, 1986; Mintzberg et al. 1976; Janis and Mann 1977; Nutt 1984; Hickson et al. 1986). Degree of envisaged change can be projected on a scale. At zero point, one would have institutionalized routine adjustment or policy creep by responsible implementors (Goodman and Steckler 1980, p. 66-68; Weis 1980). In the middle, one would have incremental change by a pre-existing issue network of policymakers (Braybrooke and Lindblom 1963; Braybrooke 1974). At the highest extreme, one would find fundamental or nonincremental policy innovation, involving the whole gamut of proximate and not so proximate, governmental as well as non-governmental policymakers (Lindquist 1988, p. 95, 103).

The reason why degree of envisaged policy change affects process properties is that, as we move from routine to more fundamental change, prevailing policy is increasingly called into question. Policy formulators will not question the policy base in the case of routine adjustments. With incremental change, they will leave the policy base largely intact; with marginal issues sufficiently contested for explicit policy (re)formulation. In the case of innovative changes, even the core principles of the policy base will be open to reconsideration, prompting an all-out and major policy formulation effort. Thus, their self-defined conception of the scope of required policy change will influence the way they consciously or unconsciously shape the policy formulation process.

On the basis of the available literature (a.o. Braybrooke and Lindblom 1963; Dempster and Wildavsky 1979; Etzioni 1986; Gershuny 1978; Goodin and Waldner 1979; Hoppe 1983; Lindblom 1979; Wildavsky 1974 (1964); Wimberley and Morrow 1981) the amount of change was measured as ‘larger’ if:

- the nature of the policy goals changed;
- the size of the target group(s) increase(s) or decrease(s) substantially;
- priorities among target groups are re-set;
- the size of a policy’s budget increases or decreases substantially;
- the scope of governmental responsibility increases or decreases substantially, e.g. through re-regulation or deregulation, or through centralization or decentralization;
- tow or more of the above occur simultaneously.

Again, due to procedures for case selection to be discussed in the research design section, our cases do not include routine adjustments. So we can only distinguish between cases involving incremental and nonincremental out-
puts. Combining the theoretical output dimension 'incremental/nonincremental change' with the practical dimensions of 'high/low quality' and 'in time/too late', the following eight output types result (see Figure 1 and Appendix 3).

It should be pointed out that in one important respect this output typology follows practitioners' judgments. In trading off quality versus timeliness, the latter more often than not comes out first (Melsner 1976; George 1980; Feldman 1989; Hoppe et al. 1989). Timely delivery of output is called 'success', even if only 'partial', due to quality sacrifices. On the other hand, a high-quality output untimely delivered from the point of view of political or administrative expediency, is branded a 'partial failure'.

2.3. Five process properties

At present the empirically grounded literature on policy formulation is growing rapidly. Capturing the gist of previous research findings in a parsimonious theoretical model of policy formulation, we propose to distinguish five major process properties (for a more elaborate statement, see Van de Graaf and Hoppe 1992, p. 264-294).

(a) Activation of formulation routines – Policy formulation requires for its successful completion the solving of a number of typical formulation problems.

![Table: Types of output, and classification of cases](image)

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<thead>
<tr>
<th>QUALITY</th>
<th>IN TIME</th>
<th>TOO LATE</th>
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<td>CHANGE</td>
<td>HIGH</td>
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<td>I</td>
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<tr>
<td>INCREMENTAL</td>
<td>#4 PCO</td>
<td>#11 SO2</td>
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<td></td>
<td>#6 LIDB</td>
<td>#13 SAPT</td>
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<td></td>
<td>#12 BBT</td>
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<tr>
<td>NON-INCREMENTAL</td>
<td>#1 SG</td>
<td>#9 PRA</td>
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<td></td>
<td>#2 IIP</td>
<td>#7 SSSR</td>
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<td>#8 EQHE</td>
<td>#14 BFP</td>
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<td></td>
<td>#10 LPG</td>
<td>#15 D-CPA</td>
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<td>SUCCESS</td>
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One may accordingly distinguish typical formulation routines, i.e. activities playing a key role in (almost) every formulation process. We distinguish six such formulation routines (Mintzberg et al. 1976; Hoppe 1983; Nutt 1984):

1. **Assignment formulation (AF);** stipulating the terms of reference or mandate for those responsible for the actual workflow of policy formulation.
2. **Problem finding (PF);** the construction and definition of the policy problem. The problem is analyzed, factorized, weighed, and possibly (re)formulated a number of times.
3. **Megapolicy choice (MC);** the choice of the postures, assumptions, and main guidelines to be followed by specific programs or partial policy designs.
4. **Design (D);** the elaboration and detailing of megapolicy choices in one or more policy programs or partial designs.
5. **Negotiation (N);** trying to enhance the proposal’s political and administrative acceptability by bargaining, making deals and arrangements, et cetera.
6. **Feasibility testing (FT);** the optimizing-balancing re-design of partial policies and programs along criteria of both acceptability and implementability.

During a formulation process, routines can be (1) fully and self-consciously activated; (2) moderately and subconsciously activated; or (3) not be activated at all. A minimum condition for a policy formulation process to exist, is the observation of a fully activated design routine, followed by some form of political authorization.

(b) **Sequence of activated routines** – Evidently, formulation processes may differ in the sequential ordering of routines. This is not to say that in somewhat complex processes involving more than one policymaker different formulation routines do not occur simultaneously. On the contrary, by mapping the absence/presence of routines on the axis of conventional Gantt-charts, simultaneous activation is frequently observed. E.g., sometimes partial programs are being designed before or during the megapolicy choice routine; or some negotiation takes place prior to megapolicy choice.

In such cases the temporal sequence of routines is determined by a sort of critical path analysis. A formulation routine is (more) critical to the extent that it brings a decisive turn to the substance of the resulting policy. Or if it proves to be a crucial period of increased vulnerability and heightened potential for the successful completion of the formulation process as a whole. Thus, the concept of a ‘phase’ or ‘stage’ in policy formulation is not always used in its customary sense as a time interval. Sometimes this conventional usage proves empirically accurate, given the time patterns mapped on the Gantt-charts. At other times, the ‘stage’ concept is used in the sense of a criti-
cal 'problematique'. Of course, a certain formulation routine is critical during a
given period of time. But, in the case of parallel activation, the critical routi-
ne cannot be unambiguously pinned down on a precise time scale. Neverthe-
less, it can be assigned an empirically observed locus in the temporal se-
quence of routines characterizing a given formulation process.

(c) Intellectuality/politicality mix per routine – Mintzberg et al. (1976, p. 262-
263) and Hickson et al. (1986, p. 59) have all pointed out the importance of
‘politics’ or the exerting of (individual, organizational, institutional) power
or influence in policy formulation generally. Both view politics as a kind of
continuous but tacit background function or ‘supporting routine’ (Mintz-
berg et al. 1976, p. 260). ‘Politics’ in this sense should be sharply distin-
guished from the negotiation routine, which involves explicit bargaining be-
tween parties.

Students of governmental policymaking, however, have also stressed the
potential dysfunctions of (bureaucratic) politics in public policy formulation
(Allison 1971; Rosenthal 1988). Lindblom (1968, p. 12) analyzes the policy
formulation process as a mix of fighting over and reasoning out policy.
Wildavsky (1980, p. 109ff) sees policy analysis as tension between intellectu-
al cogitation versus social interaction. Hoppe (1983, p. 228ff) further sharped
the distinction between cogitation and interaction by analyzing it as a
polarity, i.e. a relation of necessarily interdependent games between different
(but partially overlapping) sets of policy actors, but played by strikingly diffe-
rent, sometimes outright contradictory rules. He went on to empirically an-
alyze formulation processes as dynamic dualism, with each episode of the
process characterized by its own mix of intellectuality and politicality.

Therefore, we see the intellectuality/politicality mix per routine and the
overall mix as important process properties. Individual routines can be either
(1) dominated by intellectual, or (2) by political (power) factors, or (3) have a
balanced mix. Overall mixes can be aggregated from the mixes per routine
in several ways.

(d) Feedback/forward between routines – Empirical studies of policy formulation
invariably stress the cyclical nature of most processes. Trouble, experienced
during routines activated later in the process, may reactivate previous routi-
nes. Using Occam’s razor to find a theoretically meaningful reduction in an
overwhelming number of possible feedback loops between six formulation
routines, we distinguish between the following:

– Problem Definition Cycle (P). Usually originating in megapolicy choice, this
cycle covers a set of feedbacks/forwards between the assignment formul-
ation, problem finding, and megapolicy choice routines.
- **Design Cycle (II).** This cycle is a set of feedbacks/forwards between the design, problem finding, and megapolicy choice routines. It is most commonly activated by problems emerging during detailed design activities. (As we shall see, in incremental formulation processes the Design Cycle feeds back from the design to the assignment formulation routine.)
- **Bargaining Cycle (III).** During negotiations issues may crop up demanding the (partial or complete) reactivation of (e.g.) the megapolicy choice or design routines.
- **Evaluation/Redesign Cycle (IV).** Mostly during feasibility testing problems may arise that demand the reactivation of (parts of) the design and negotiation routines.
- **Authorization Cycle (V).** Policymakers with decision-making authority may instruct a reactivation of (parts of) negotiation and feasibility testing routines as condition for final approval.

Obviously, policy formulation processes may vary according to the types of cycles activated and not activated, the duration of cycles, et cetera. Here we will be concerned only with types of activated cycles and the number of times a given cycle was activated.

(e) **Interruption/speedups and over-all duration** – The complaints about average duration of formulation processes and numerous ('outside', 'political') intrusions in bureaucratic workflows are reflected in the literature. 'Turbulence', 'dynamic change', and 'raplexity' are viewed as important sources for numerous types of interruptions and speedups (Mintzberg et al. 1976, p. 263ff; Hickson et al. 1986, p. 108ff). In this analysis we are just interested in over-all duration of a formulation process and the number of interruptions/speedups.

We have identified five major properties of policy formulation processes. Every individual process can be described by observing appropriate data for deciding on the proper value on each of the five variables. In this way a so-called process profile can be constructed. A process profile may be defined as the set of (five) relevant properties or variables which allow classification and comparison of a single policy formulation process as one possible type in a morphology of such processes (cf. Nutt 1984, p. 416).
3. Hypotheses

3.1. Hypotheses concerning degree of change and process properties

The general theoretical idea for constructing hypotheses is that all of the eight output types (see figure 1) can be unambiguously linked to their 'own', eight (disjunct categories of) process profiles. But first we formulate some hypotheses about the general differences between processes resulting in incremental as compared to nonincremental outputs.


#1. On average, incremental processes take considerably less time than non-incremental processes.

#2. Each single incremental process takes considerably less time than each single non-incremental process.

These two hypotheses test the most obvious implication of policy formulation theory, i.e. routine processes with incremental outputs are more time-efficient.

#3. On average, non-incremental processes have a greater number of interruptions/speedups than incremental processes.

#4. Each single non-incremental process has a larger number of interruptions/speedups than each single incremental process.

These two hypotheses serve a double purpose. On the one hand, they test one possible and rather obvious explanation for the shorter duration of incremental processes. On the other hand, if the hypotheses are confirmed, they run against one important assumption in current prescriptive theory, i.e. to keep non-incremental policy formulation away from political 'disturbance' as much as possible.

#5. Incremental processes, on average, show a lower degree of activation of routines than do non-incremental processes.
If it is the case that incremental processes are routine, then policymakers should be less aware of the design routines they use. In contrast, if it is true that an envisaged non-incremental output makes policymakers aware of the difficulty of their tasks, they should think more consciously about how to go about it and why.

#6. Incremental processes have no fully activated, and hardly any moderately activated problem-finding (PF) and megapolicy choice (MC) routines.

This goes to the heart of the matter: if the theory is correct, incremental processes should differ from non-incremental ones exactly because their efficiency gain is achieved by skipping the problem formulation and megapolicy choice routines.

#7. In incremental processes, evaluation/redesign (IV) and authorization (V) cycles occur more frequently than the other types of cycles.

This hypothesis tests for the empirical truth of a logical implication of the previous one: if incremental processes skip problem formation and megapolicy choice routines, feedback loops are logically to be expected in evaluation/redesign and/or authorization. Hypothesis #8 is the contrasting one for non-incremental processes:

#8. In non-incremental processes none of the types of cycles occurs significantly more frequently than the other types.

3.2. Expected process profiles for successful outputs

Both empirical and prescriptive theory (Etzioni 1968; Dror 1968; Steinbruner 1974, p. 25-46; Lichfield et al. 1975; Quade 1982 [1975]) stress the following process properties for high-quality and timely, i.e. successful nonincremental policy designs:

#9a Successful non-incremental processes have intellectuality/politicality mixes showing substantially higher intellectuality components than all other types of processes.

#9b Successful non-incremental processes have no, or very few interruptions or speedups.

#9c Successful non-incremental processes are generally characterized by full activation of all formulation routines.
#6$ Successful non-incremental processes will show a logical sequence of formulation routines (i.e. AF→PF→MC→D→N→FT).

#7$ Successful non-incremental processes usually are highly integrated, i.e. they show a large number of activated cycles.

In brief, the theoretical justification for these hypotheses is that, as a set, they are the translation into observable process properties of some of the main tenets of the synoptic ideal.

Finally, we will address successful formulation processes with incremental outputs. They are expected to somewhat resemble their non-incremental counterparts. Particularly, one would expect them to also show (relatively) high degrees of activation and logical sequencing of routines as compared to non-successful incremental processes. But successful incremental processes are predicted to deviate from successful nonincremental processes along the lines of most hypotheses specified above, especially hypothesis #6.

An interesting problem arises in connection with hypothesis #9$. Lindblom claims that, generally, incrementalism's strategic simplifications nicely mesh with polyarchic political contexts. Therefore, one would predict politicaity to clearly dominate intellectuality, even in successful incremental processes with high quality outputs. On the contrary, Etzioni claims that incremental designs come about through methods of contextuating rationalism, avoiding incrementalism's 'sins of omission' in bit-designs. This way of reasoning expects the existence of an 'Etzonian' subtype of successful incremental processes with intellectuality/politicality mixes (roughly) equal to successful non-incremental processes.

Summarizing the above, one would predict for successful incremental processes the following:

#10$ Successful incremental processes show process profiles resembling successful nonincremental processes with respect to higher levels of activation (compared to other types of incremental processes).

#10$ Successful incremental processes will resemble their non-incremental counterparts with respect to logical sequencing of routines.

#10$ In all other respects successful incremental processes will deviate from their nonincremental counterparts along the lines of hypotheses #1 through #8, especially #6.

#10$ Concerning the politicaity/intellectuality mix, both politically dominated ('Lindblomian') and intellectually dominated ('Etzsonian') mixes will occur.
4. Research design and methods

4.1. Case selection

Research data are based on case studies and analyses of fifteen policy formulation processes conducted in five Dutch national departments during the seventies and eighties (see Appendix 3). Although well aware of differences in policy formulation cultures between departments (Koppenjan et al. 1987), it should be stressed that we are looking for theoretically predictable similarities between (relatively) successful policy formulation practices. Selecting cases from Dutch departments during the decade of full fledged welfare state politics and economics and the decade of cut-backs, means that for each case we may suppose a policymaking culture and environment that was sufficiently similar (to the extent that each case was embedded in normal conditions of the Dutch political system), or, at least, experienced comparable changes (to the extent that the shift from welfare state to cut-back policies impacted on all selected departments). That is why, in the theoretical model, we do not even try to link process properties to external or environmental variables. More precisely, we do not look for explanations for policy formulation process profiles per se. In each individual case and across cases, we solely focus on the observable links between process properties and output properties. All other variables bearing on policy formulation processes are considered ceteris paribus, given the stock of cases from which we selected.

The research design closely follows Yin's account of a multiple-case study, replication logic (Yin 1984), with some minor adaptations. Theory-driven, contrasting pair-wise case selection was first applied to all primary case studies as much as possible. For each participating department, key informants were asked to list six candidate cases. The next step was that in three departments (cases #7-#11), through a snowballing technique, focussed panels were created for structured and open-ended interviews for judging output properties. Panel members' judgments as observed from interview data determined the final selection of two cases per department to be actually studied. In another department (cases #2-#3, and in the first pilot case #1), key informants' qualitative judgments had to be accepted as sufficient for final case selection. Thus, the primary case studies were selected on the basis of interview data on output properties. In most of these cases, between 30 and 30 people involved in the policy formulation process answered a questionnaire with structured and semi-structured questions that operationalized the dimensions and aspects of 'scope of envisaged change' and 'quality' as discussed in section 2. Although in these cases it is always impossible to claim statistical representativeness in the technical sense, in each case, the 'samples' consisted of both advocates and opponents of the proposed policy; of both 'inner cir-
cle' participants and 'outside' observers (envisaged implementors, or target group actors); of both civil servants and politicians.

Four major criteria guided the selection procedure:

1. Cases would have to be success/failure pairs in one department, or single cases representing (as much as possible) undisputed 'outright' failure or 'outstanding' success.
2. Cases should show sufficient variation on the 'degree of change' output dimension.
3. Cases should permit the unambiguous identification of starting points and outputs of policy formulation.
4. Cases within or between departments should not be contaminated (Rosenthal and 't Hart 1994)

Obviously, the first two criteria intended to guarantee sufficient theoretical variation in the output typology. To guarantee output comparability between processes, secondary criteria like 'legal status' and 'policy scope' were also used.

Our third selection criterion served both methodological and practical purposes. Without an unambiguously identifiable output document, it would have been impossible to measure output properties before final case selection. Although absolutely essential in the multiple-case, replication research design, one disadvantage of this selection procedure was that routine outputs from 'policy accretion' (Weiss 1980, p. 382) could not be identified. Another drawback proved to be a bias in proposed candidate case in favor of easily memorized and therefore nonincremental cases. Yet another disadvantage is the costliness of the method. The practical motive for cases with readily identifiable starting points was the estimation of research time needed per case, given scarce resources like money, field research assistants, et cetera.

One major advantage of this somewhat cumbersome case selection procedure is that, given a clear definition of the research problem, testable hypotheses, and a stringent theoretical framework (see above), one can easily control for case contamination in the temporal and cognitive-intellectual sense.

As can be inferred from Figure 1 (above) and Appendix 3, the primary case studies left us with three empty cells and an over-representation of nonincremental outputs. Given the research questions, theoretical interests, and design choices, expansion of the number of cases was in order. Time and money constraints indicated a secondary analysis of suitable, completed case studies as an advisable research strategy. Van Putten's multiple case study of departmental policy formulation in the seventies was an available and easily accessible option (Van Putten 1980). But the option proved methodologically
adequate, too. As regards case selection, scholarly debate on these cases judged them to have largely incremental outputs. In our research project, sixteen advanced students, doing a research training course in public administration at the M.A.-level, supervised by the authors, each student comparatively judged two outputs. After exposure to the relevant literature, students were given a data analysis protocol analogous to the structured/open-ended interview questionnaires used to tap practitioners’ output judgments. Inter-rater correspondence on positioning an output in the typology averaged 70% or more.

The findings reported in Figure 1 (above) prove satisfactory from the point of view of research design. The number of incremental outputs increased remarkably. Only two out of eight cells remain empty; i.e. we did not identify partially successful incremental cases and nonincremental failures. Nevertheless, we conclude that case selection criteria and procedures have resulted in an amount of prior knowledge of theoretically structured output variation sufficient for a multiple-case, replication research design focussing on the properties of process profiles with (relatively) successful outputs compared to (partial) failures.

4.2. Data collection

Data collection methods were chosen to counter reliability and construct validity problems as much as possible. On the basis of two pilot studies (case #3 reported in Hoppe 1983; research report on case #7), case study protocols for identifying and measuring process properties and constructing process profiles were designed, closely following guidelines by Yin (1989, p. 53ff) and Miles and Huberman (1984, p. 54-72).

In the primary case studies, the protocols were used by two research assistants holding M.A.-degrees in political science and/or public administration, supervised by the first author. The secondary analyses were performed, with identical data collection protocols (minus field procedures, of course) by teams of 2-3 students in the above-mentioned course. To avoid case contamination in the observational sense, students having judged the output from one particular case, were excluded from participating in the process analysis team for the same case. Each team produced a written case analysis following an identical, prescribed format.

The data collection protocol was essentially based on methods described as ‘process reconstruction’ or ‘decision process analysis’ (Nutt 1984; Heppe 1983; Menting 1988; Carroll and Johnson 1990). Using as data base multiple sources of evidence – official documents, internal administrative documents, personal records, newsclickings, and tapes of unstructured elite interviews
with 10-15 (key) informants per case – the actual course of events in a policy formulation process was reconstructed in narrative form. The narrative was, in each case, reviewed and approved by key informants.

One of the main reasons for selecting the Van Putten-cases for secondary analysis was their close similarity in data collection methods (Van Putten 1980). Three important dangers of using available data for secondary analysis were thus offset: incompleteness of data, lack of reliability, and lack of correspondence between types of data and conceptual model (Kiley 1963, p. 253-254). Although the case study protocol expressly sensitized analysts to these possible flaws, none was reported.

4.3. Cross-case analysis through pattern-matching

There is one assumption widely shared by many authors or policy formulation. They all stress the causally complex, contextual, dynamic, sometimes erratic qualities of policy formulation processes. Any theory (like ours) asserting a one-directional link from process properties to output properties should take these complexities into account. Particularly, the theorist should beware of postulating a single cause for an output. Moreover, he should take into account that causes rarely act in isolation. Usually it is the combined effect of multiple causes that produces a certain effect.

The notion of process profiles achieves this respect for multiple, conjunctural causation (Ragin 1989, p. 27) in attempts to link process to output properties. The general assumption in our model is that only through their interaction in a process profile, the process variables jointly, and only jointly produce a specific output-type. The theoretical section presented a specification and prediction of patterns between a set of dependent output variables (output-types) and a set of independent process variables in policy formulation (process profiles). The hypotheses take the form of ‘coping relationships’ (Mayntz 1983, p. 49-50): different types of policy output require for their realization ‘congruent’ configurations-of-process-properties, or process profiles.

To analyze the data with a view to unravel such complex patterns requires a mode of cross-case comparisons in which cases are matched as much as possible as a way to establish experiment-like designs. Cases and case data are not considered as data points in a sample. Cases and patterns of case data are viewed as results from multiple real-life ‘experiments’, selected according to a replication logic intended to corroborate or refute theoretical propositions. In so far as we draw general conclusions from comparisons of a (set of) case(s), this is entirely based on theoretical considerations governing the selection and comparison of cases. Nowhere do we claim that our (sub)set(s) of
fifteen cases should be considered a 'representative sample' in some virtual 'population' of all policy formulation processes. Each case is 'selected' or, rather, has to permit ex post analysis, with a view to determining the (degree of) presence or absence of those (combination of) critical process properties theoretically expected to correspond to certain output properties. This was the whole point of formulating hypotheses #1-#10.

The method of cross-case analysis used is called pattern prediction (Mayntz 1985, p. 49) or pattern matching:

In (pattern-matching for independent variables) several cases may be known to have had a certain outcome... The concern of the case study analysis... is with the overall pattern of results and the degree to which a pattern matches the predicted one. (Yin 1984, p. 103)

Cross-case data are presented in two overall data matrices. Appendix 1 is the primary data-matrix and represents all data used for cross-case comparative analysis in their different scale measures, ordered according to relevant variables. Appendix 2 presents the same information in a transformed data-matrix, in binary form and nominal-scale measures. Using data-processing techniques based on Boolean algebra, this way of presenting the data permits a more rigorous form of conditions analysis, i.e. an analysis of process properties in terms of necessary and sufficient conditions for the production of output types (see Appendix 2).

Cross-case analysis follows the logic of the theoretical section. First, process profiles for incremental and nonincremental outputs will be compared to each other and to the theoretical expectations. Later parts of this section likewise compare empirical process profiles corresponding to output types ranging from success to failure, given their (non-)incremental nature.

5. Results

5.1. Process profiles and degree of change

Eight hypotheses predicting contrasts between process profiles resulting in (all categories of) incremental and nonincremental outputs were formulated. The first cluster of four hypotheses concerns durations and interruptions/speedups. Hypotheses #1-#2 concern duration:

#1. On average, incremental processes take considerably less time than nonincremental processes.

#2. Each single incremental process takes considerably less time than each single nonincremental process.
Table 1: Average duration and number of interruptions/speedups, comparing incremental and nonincremental processes.

<table>
<thead>
<tr>
<th></th>
<th>Duration</th>
<th>Interruptions/speedups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental processes</td>
<td>17 months, &lt; 1.5 years</td>
<td>5, or &lt; 1 per case</td>
</tr>
<tr>
<td>Non-incremental processes</td>
<td>39.5 months, &gt; 3 years</td>
<td>12, or &gt; 1 per case</td>
</tr>
</tbody>
</table>

Evidence adduced in Table 1 confirms hypothesis #1. Typically, public policy formulation processes spanned long time periods—the shortest (cases #4 and #6) taking about half a year; the longest ones (cases #14 and #7) lasting for (far) more than four years. Processes resulting in incremental outputs averaged 17 months, or about 1 1/2 year; processes having nonincremental outputs averaged somewhat over 39 months, or a little more than 3 years. Thus, processes having nonincremental outputs last twice as long. (Even if the outlying cases #7 and #14 are left out, time spans for processes resulting in nonincremental outputs outlast processes issuing in incremental outputs for over a year.)

But hypothesis #2 is falsified on the basis of data in Appendix 1. Inspection of these data shows this refutation to depend on two partially failing incremental processes (cases #11 and #13), typically showing durations only slightly shorter than the average time period for processes with nonincremental outputs. If restricted to formulation processes with outputs delivered in time, hypothesis #2 is true. If constrained to formulation processes with outputs delivered too late, the hypothesis is false. Therefore, the data suggest that successful incremental processes take less time than all other types of processes. This is exactly what the theory predicts.

Hypotheses #3 and #4 concerned predicted differences between incremental and nonincremental processes in number and impact of interruptions/speedups:

#3. On average, processes showing nonincremental outputs have a greater number of interruptions/speedups than processes resulting in incremental outputs.

#4. Each single process having a nonincremental output has a larger number of interruptions/speedups than each single process showing an incremental output.

Findings summarized in Table 1 clearly corroborate hypothesis #3. Conforming to theoretical expectations, incremental processes showed only five interruptions/speedups, or less than one per single case. We found twelve in-
terruptions/speedups in nonincremental processes, or more than one per individual process. However, untimely delivered incremental processes approaching nonincremental process time spans typically have some interruptions, while other incremental processes have none at all. Obviously, then, intrusions on workflow increase the time span of policy formulation processes.

Again, inspection of single-case data in Appendix 1 falsifies hypothesis #. Moreover, there is no single output type that accounts for this refutation. Data suggest that interruptions in incremental processes in which quality is upheld, produce considerable delays (cases #11 and #13); but the absence of interruptions guarantees neither timeliness nor quality (case #3). Nonincremental processes appear to be immune to a limited number of interruptions/speedups. But their absence or limitation is no guarantee for success.

A second cluster of hypotheses dealt with the type and degree of activation of activated formulation routines:

#5. Processes with incremental outputs show a lower degree of activation of routines than do nonincremental processes.

#6. Incremental processes have no fully activated, and hardly any moderately activated problem-finding (PF) and megapolicy choice (MC) routines.

Relevant data are presented in Table 2.

Hypothesis #5 predicts, first, lower numbers of fully and moderately activated routines for incremental processes. From the maximum number of (6x6=) 36 activated routines in such processes, we found 38% to be actually activated. The corresponding fraction for nonincremental processes is much higher (91%). Hypothesis #5 predicts, second, a lower degree of activation for incremental processes. Data in Table 2 show nonincremental processes to have fully activated routines almost three times the number in incremen-

Table 2: Number of activated routines, and degree of activation, comparing incremental to nonincremental processes.

<table>
<thead>
<tr>
<th>Activated routines</th>
<th>Degree of activation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fully act.</td>
</tr>
<tr>
<td>Incremental processes</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>58%</td>
<td>39%</td>
</tr>
<tr>
<td>Non-incremental processes</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>39</td>
</tr>
<tr>
<td>91%</td>
<td>72%</td>
</tr>
</tbody>
</table>
tual processes, while the relative importance of moderately activated routines is exactly the same. Therefore, we conclude that hypothesis #5 is corroborated in all respects.

Hypothesis #6, having a high information content in the Popperian sense of that term, predicts that in incremental processes no fully activated, and hardly any moderately activated problem finding and megapolicy choice routines will occur. Conditions analysis shows a fully activated megapolicy choice routine (fA-MC) to be a necessary and sufficient condition for the occurrence of nonincremental processes (see Appendix 2). Moreover, no incremental process shows an even moderately activated problem finding routine; and we find only a single moderately activated megapolicy choice (mA-MC) routine in case #6. We conclude that not only is hypothesis #6 corroborated; the data allow a more stringent reformulation:

#6' Incremental processes have no fully and moderately activated problem formulation routines, and hardly any moderately activated megapolicy choice routines.

A final cluster of hypotheses (#7-#8) involves the number and types of activated cycles:

#7. In incremental processes evaluation/redesign (IV) and authorization (V) cycles occur more frequently than the other types of cycles.

#8. In nonincremental processes none of the types of cycles occurs significantly more frequently than the other types.

Relevant data have been presented in Table 3 and 4.

Thus, there is no incremental process in which cycles of problem definition (I), design (II), and bargaining (III), taken together, occur more frequently than the evaluation/redesign (IV) and authorization (V) cycles taken together. This hypothesis cannot be falsified for single incremental processes. The data in Table 4 do not permit an easy test of hypothesis #8. A rather inadequate test is to compare the probability of our findings with the probability of a normal distribution. The probability of our results being produced by chance turns out to be p = .45. This means that hypothesis #8 cannot be falsified on the basis of our data. However, inspection of single nonincremental processes demonstrates the hypothesis to be not necessarily true in each single case.

Table 3: Frequency of occurrence of cycles in incremental processes.

<table>
<thead>
<tr>
<th>Types</th>
<th>IV &amp; V</th>
<th>I, II &amp; III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of occurrences</td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>

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Table 4: Frequency of occurrence of cycles in nonincremental processes

<table>
<thead>
<tr>
<th></th>
<th>Type I</th>
<th>Type II</th>
<th>Type III</th>
<th>Type IV</th>
<th>Type V</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of occurrences</td>
<td>16</td>
<td>13</td>
<td>12</td>
<td>15</td>
<td>18</td>
<td>74</td>
</tr>
<tr>
<td>% of occurrences</td>
<td>22%</td>
<td>18%</td>
<td>16%</td>
<td>20%</td>
<td>24%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Summarizing our conclusions, two contrasting process profiles for incremental and nonincremental outputs emerge. Moreover, our findings tend to reflect theoretical predictions that, on average (but not necessarily in each single case), incremental processes have shorter time spans, suffer less interruptions/speedups, show less activated routines and cycles, demonstrate lower degrees of routine activation, and have, moreover, no problem finding and megapolicy choice routines, entailing the absence of problem definition and the near absence of design cycles. On the other hand, nonincremental processes take more time, show more intrusions in policy formulation workflows; but also have a greater amount of more consciously activated routines, and generally show a higher number of activated cycles.

5.2. Successful outputs and process profiles

This sub-section tests hypotheses #9 and #10, specifying process profiles for successful nonincremental and incremental processes. This does not restrict cross-case analysis to such processes only. Some of the process properties' theoretical interpretations depend on contrasts with nonsuccessful incremental or nonincremental cases.

For successful nonincremental processes we formulated five hypotheses. The most important one, reflecting both empirical and prescriptive theory, asserts the following:

#9* Successful nonincremental processes have intellectuality/politicality mixes showing substantially higher intellectuality components than all other types of processes.

Data presented in Table 5 compare the distribution of the three types of intellectuality/politicality mixes for all the routines observed in successful nonincremental processes with the distribution of such mixes observed in all routines in all other output types. From 22 routines observed in successful nonincremental processes, 41% show a mix clearly dominated by intellectuality of the design routine. From 48 routines observed in the remaining processes, only 14% shows high intellectuality. If one combines the high intel-
Table 5: Intellectuality/politicality mixes observed in formulation routines, comparing successful nonincremental to all other types of processes.

<table>
<thead>
<tr>
<th></th>
<th>high intellectuality</th>
<th>balanced mix</th>
<th>high politicality</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful non-incremental processes</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>41%</td>
<td>32%</td>
<td>27%</td>
<td>100%</td>
</tr>
<tr>
<td>All other processes</td>
<td>7</td>
<td>9</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>14%</td>
<td>19%</td>
<td>67%</td>
<td>100%</td>
</tr>
</tbody>
</table>

lectuality and the balanced types, the results remain striking: 73% for successful nonincremental processes, as compared to 33% for all other types of processes. In this simple eye-ball test, hypothesis 9 is clearly corroborated.

The hypothesis has to be qualified, however, if we compare for deviations from the 'normal' pattern for each process (see ad L, Appendix 2). Out of four occurring successful nonincremental processes, three devote in the direction of higher intellectuality components. Only one (case #2) shows a slight inclination towards politicality. Comparing the four successful nonincremental processes to the one partly successful nonincremental process (#9), conditions analysis shows higher politicality of routines to be a necessary and sufficient condition for lower quality. On the other hand, ten out of the eleven other cases observed deviate towards higher politicality; only one shows the opposite trend. This means that, although hypothesis 9 is generally plausible, it is not necessarily true in each single case.

Also conforming to both empirical and prescriptive policy formulation theory, we asserted:

#9b Successful nonincremental processes have no, or very few interruptions or speedups in the analytic process.

#9c Successful nonincremental processes are generally characterized by full activation of all formulation routines.

Table 6 presents the relevant data from the case studies.

Supporting hypothesis #9b, Table 6 shows successful nonincremental processes to have very few interruptions/speedups (less than 1 per case). This is comparable to the number of intrusions for all incremental processes (cf. Table 1); it is much better than nonsuccessful nonincremental processes (almost 2 interruptions/speedups per case), and even better than nonsuccessful incremental processes (more than 1 per case). Concerning hypothesis #9, from evidence presented in Table 6 it may also be inferred that, while the number of activated routines does not differ much between successful and
Table 6: Number of activated routines, degree of activation, and number of interruptions/speedups, compared for (A) successful incremental, (B) successful non-incremental, (C) incremental partial failure and (D) partially successful and partially failure non-incremental processes

<table>
<thead>
<tr>
<th>Number of cases</th>
<th>routines activated</th>
<th>Degree of activation</th>
<th>Interruptions /speedups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>fully act.</td>
<td>moderately act.</td>
</tr>
<tr>
<td>A</td>
<td>3</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>61%</td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>92%</td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>90%</td>
<td></td>
<td>33%</td>
</tr>
</tbody>
</table>

Nonsuccessful nonincremental processes (92% versus 90%), degree of activation does differ substantially (92% versus 57% fully activated routines). Inspecting the datamatrix of Appendix 1, one does even find that all activated routines were, indeed, fully activated.

The next hypothesis on successful nonincremental processes concerned the sequence of activated routines. Again conforming to prescriptive theory, we asserted:

### Hypothesis #9

Successful nonincremental processes will show a logical sequence of formulation routines (i.e. AF→PF→MC→D→N→FT)

Comparing successful to merely partially successful processes, conditions analysis demonstrates logical phasing to be a necessary and sufficient condition for high quality. But the evidence regarding this hypothesis is ambiguous (see Appendix 1). Three out of four successful nonincremental cases show the predicted logical sequence of design routines; but negotiation and feasibility testing routines were skipped in case #8, without, obviously, impairing quality according to practitioners' judgments. This finding can support either of two interpretations. Either hypothesis #9 is refuted after all; or contingent conditions can be specified in which negotiation and feasibility testing routines can be skipped without affecting output quality. Skipping
or reversing design routines involving negotiation and/or feasibility testing occurred in nine out of fifteen cases. Moreover, three of these cases concern incremental processes judged to have successful outputs. Therefore, we will devote a separate sub-section to this subject. Anticipating the argument, we state as our conclusion that in case #8 both routines were justifiably skipped.

The final hypothesis formulated for successful nonincremental processes runs as follows:

#9 Successful nonincremental processes usually are highly integrated, i.e. they show a large number of activated cycles.

Conditions analysis corroborates this assertion. Comparing successful nonincremental to successful incremental processes, three or more activated cycles are necessary and sufficient conditions for high quality nonincremental outputs to occur. If the comparison is limited to successful incremental and nonincremental processes, the number of activated cycles increases to four.

In the meantime, let us summarize the above by saying that, on the whole, our research findings contain plausible evidence for the existence of a successful nonincremental process profile; and, moreover, that this process profile tends to show a predictable property-set. For us, the profile of case #1 represents a sort of 'empirically grounded ideal type' of fully successful nonincremental processes.

To what extent is this also true for successful incremental processes? Let us first repeat the set of formulated hypotheses:

#10 Successful incremental processes show process profiles resembling successful non-incremental processes with respect to higher levels of activation.

#10 Successful incremental processes will resemble their non-incremental counterparts with respect to more logical sequencing of routines.

#10 In all other respects successful incremental processes will deviate from their nonincremental counterparts along the lines of hypotheses #1 through #8, especially #6.

#10 Concerning the politicality/intelectuality mix, both politically dominated ('Lindblomian') and intellectually dominated ('Etzioni') mixes will occur.

Negatively, hypothesis #10 predicts differences between successful incremental and nonincremental processes to largely resemble differences between both types of processes in general. Inspection of evidence presented in the data-matrix (see Appendix 1) and Table 6 shows this to be a correct pre-
duction. Successful incremental processes span the shortest time periods and have the least number of interruptions/speedups of all cases. Like other incremental processes, problem finding does not occur, and megapolicy choice is not moderately activated once; entailing the non-occurrence of low-occurrence of problem definition and design cycles respectively. In this connection, however, we should perhaps mention one striking resemblance between successful incremental and nonincremental processes. Conditions analysis shows that for both types a fully activated assignment formulation routine is a necessary and sufficient condition for high quality outputs.

Successful incremental processes take expected middle-positions between successful nonincremental processes and nonsuccessful incremental processes regarding their number of activated routines, and degree of routine activation (see Table 6). The relatively high degree of routine activation (evidence for hypothesis \#10) reported in Table 6 is a stable process property in successful incremental profiles. However, this is not the case for intellectualinity/politicality mixes (see Appendix 1). Two out of three cases (\#4 and \#6) show exclusive political roles, explained by adaptation to external pressure group politics in case \#4, and by internal bureau politics in case \#6. On the contrary, case \#12 is strangely intellectual for an incremental process, clearly resembling Etzioni’s ‘contextuating rationalism’, where incremental policy designs elaborate prior nonincremental policy change. Regarding the more logical sequence of routines predicted in hypothesis \#10, we find skipping and reversing of negotiation and feasibility testing routines not harming quality according to analysts’ judgments. Once more anticipating discussion of this subject in the next sub-section, we reach conclusions like those for case \#8 above.

Summarizing, we believe there is fairly plausible evidence for the existence of successful incremental process profiles. The plural is used advisedly because, evidently, successful incremental processes have not one, but at least two profiles, as predicted by hypothesis \#10. It is our view that case \#12 is a fair ‘empirically grounded ideal type’ for the ‘Etzioni’ contextuating-rationalist profile; whereas case \#4 well serves this theoretical function for the ‘Lindblomian’ (bureau)/political-incrementalist profile.

A final remark on complete failure. We found only one such case. No hypotheses on process profiles were formulated, because things go awry in many more ways than to be theoretically predictable. Nevertheless, case \#3 provides us with one instance that suggests incremental output failures to have ‘minimalistic’ process profiles, inclining toward minimal existence, and near abortive conditions for the policy formulation process as a whole. Awaiting further research to reveal other failure profiles, case \#1 may be retained for the time being as a good example of ‘how-not-to-do-it’.

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5.3 Skipping and reversing of routines

Skipping or reversing of negotiation and feasibility testing routines was frequently observed. What makes this theoretically relevant, is their occurrence in processes resulting in successful nonincremental and incremental outputs. Obviously then, contradicting prescriptivist policy formulation theory, such skipping and reversing does not necessarily, or under all conditions, impair output quality (Witte 1972).

In search of an explanation, in the primary case studies showing skipping and reversing of routines, we asked key informants to justify their behavior. The answers given point towards negotiation and feasibility testing as, in practitioners' eyes, contingent routines. Theoretically, contingencies appear to depend on the relative priorities given to the three properties of successful outputs in the George-model (George 1980, p. 2).

To achieve output success, policymakers face interdependent trade-offs between the need for support, the search for quality, and the demand to meet deadlines. E.g., for incremental (familiar, tractable) policy issues, this will lead to skipping or superficial activation of problem finding and mega-policy choice routines. Incremental designs allow copying such routines' results from prior processes, thereby speeding up the formulation process without jeopardizing support and quality.

Nonincremental designs that primarily serve a public opinion 'climate-setting' function, allow for skipping or superficial activation of feasibility testing without harming (relevant) quality criteria (e.g., case #5); whereas quality considerations require intense feasibility testing in cases of policy formulation exercises whose output is to serve as implementation manual (case #12, case #10).

Activating or skipping negotiation routines strongly depends on the need for support. Particularly, three conditions affect practitioners' judgments about the need to activate negotiation routines:

1. Nature of policy issue at stake. If explicit arrangements between policymakers and implementors and/or clients are not required, negotiation is not considered a 'must' (e.g., case #12); on the contrary, if without such arrangements authorization stands no chance, negotiation becomes a high-priority routine leading to reversals (e.g., case #4 and case #9).
2. Prior knowledge and distribution of policy positions. If policymakers are well informed about the interests and positions of other relevant policy actors; and if such positions indicate either a clear majority, or an equally clear absence thereof, starting negotiations is neither necessary, nor useful in getting support (e.g., case #7).
3. Perceived balance of power. The mutual perception of relative power and
options available to parties to avoid negotiations obviously affect the ini-
tiation of negotiation routines in policy formulation (e.g., case #11 and
case #9).

Considerations of quality and support affect practitioners’ decisions to ac-
tivate or skip feasibility testing routines. Two conditions appear to be par-
cularly influential:

(1) **Long term policy orientation.** Political ideology in the eighties favored
long term policy orientations to be focussed on decentralization, dere-
gulation, privatization, and experimental programs to be evaluated and
adjusted/terminated after a number of years. Such policies either pro-
crastinate feasibility testing; or pass responsibility for feasibility testing on
to non-policyformulating actors (case #6, case #8).

(2) **Implementors’ (actual/expected) attitudes.** Radical nonincremental policy
changes are sometimes anticipated to cause such adverse and unpredic-
table implementation problems, that feasibility testing is explicitly omit-
ted or very superficially activated by policymakers (case #8, case #9); or
blocked by uncooperative implementors (case #7).

Reviewing the examples given reveals that one or more of the conditions
mentioned prevailed in the cases in which skipping or reversing of routines
was observed. Particularly, skipping and reversing of routines in processes
resulting in successful incremental and nonincremental outputs is explained.
Only in cases #3, #14, and #15 routines were skipped in the absence of any
of the conditions listed. Obviously, then, the list of contingent conditions
presented here is not exhaustive, and more research is called for.

6. Conclusions

This article set out to answer the following research question: Can predic-
table process properties be observed for policy formulation processes percei-
ved as ‘successful’?

To answer this question, we started out by distinguishing between incre-
mental and nonincremental process outputs. Hypotheses #1-#8 were for-
mulated to theoretically specify predicted contrasts between incremental
and nonincremental process profiles. Testing these hypotheses against the
data, plausible evidence could be adduced. Not only do contrasting incre-
mental and nonincremental process profiles exist; they tend to differ on
theoretically predicted process properties.

Next, using the incremental-versus-nonincremental distinction as a
springboard, we formulated theoretically derived hypotheses (#9–#10) concerning predicted/excluded process properties occurring in process profiles leading to different types of policy outputs. Hypotheses #9–#10 predict successful nonincremental processes to show (a) high intellectuality components, (b) no or very few interruptions/speedups, (c) full activation of formulation routines, (d) logical sequencing of routines and (e) a large number of activated cycles. Plausible evidence for all sub-hypotheses could be adduced. Regarding a logical sequence of routines in successful nonincremental processes, the results prompted the formulation of contingent conditions under which formulation routines (particularly, negotiation and feasibility testing) may be skipped or reversed without impairing quality. The case #1 process profile was considered ‘typical’ for generating successful nonincremental outputs.

Hypotheses #10a–d predicted ways in which successful incremental processes would deviate from their successful nonincremental counterparts – particularly, that successful incremental process profiles have no fully or moderately activated problem finding and hardly any megapolicy choice routines, bringing in their wake the (near) absence of problem definition and design cycles. Here, too, plausible evidence corroborating the hypotheses could be adduced. Interestingly, we found not one, but two different process profiles representing incremental success: a contextuating-rationalist profile (case #12), and a (bureau)political-incrementalist profile (case #4).

The purpose of this paper was to gain empirically plausible insights into the relationships between certain theoretically relevant policy formulation process properties and certain practically relevant output properties. The above shows that the research objective was feasible. Of course, much more research is needed to check on the reliability and validity of these findings. But if practically relevant output properties can indeed be empirically connected to theoretically meaningful process properties, an important step has been taken towards productive cross-fertilization of empirical and prescriptive policy formulation theory.

Next steps in research focusing on linking empirically based policy formulation theories to prescriptive theories could be:

- Research into the standards policymakers themselves use in judging their own policy designs ‘good’ or ‘bad’. Customary scholarly standards (the ones we had to use in the research just reported included) more or less, but always to a substantial degree, reflect the synoptic utopia.
- Intensive comparative research into well-selected cases of ‘best’ and ‘worst’ policy formulation practice – the type of research attempted here. In the end, we may achieve much more detailed knowledge about the how’s and why’s of policy formulation processes.
Empirical research on the discovery of management practices steering operations and workflows in policy formulation practice. So far, the policy and administrative sciences have focussed on discovering rules governing practitioners' cognitive processes or activities; more recently, practitioners' argumentative practices have attracted scholarly attention (Dunn 1981; Schön 1983; MacRae 1988; Pröpper 1988; Edwards 1990; Fischer and Forester 1993). Research into policy formulation process management also has hardly been taken up (see however: George 1980; Lynn 1987; Heydemann 1988; Van de Graaf and Hoppe 1992; Koppenjan 1993).

Taken together, these three strands of research make up a repertoire-building research strategy, defined by Schön (1983, p. 369) as ‘... research that can be undertaken outside the immediate context of practice in order to enhance practitioners' capacity for reflection-in-action.’

Rather than the predominantly theoretical approaches attempted so far, practitioners’ complaints can be remedied by following a repertoire-building research approach, taking its cues from learning-from-best-practice research projects.

Notes

1. This article has been presented as a paper at the 11th Annual Research Conference of Association for Public Policy and Management, Bethesda, Maryland, October 24–26, 1991, and at the Dutch Political Science Association Annual Meeting, Soesterberg, June 4–5, 1992. The authors wish to express their gratitude to Professor Duncan MacRae, Professor Andries Hoogerwerf, and two anonymous reviewers for useful comments on previous drafts.

References

Dempster, M.A.H., and A. Wildavsky (1979), 'On change: Or, there is no magic size for an increment'. Political Studies 27, p. 371-389.


Hoppe, R., R. Pranger, and E. Besseling (1990), *Policy belief systems and risky technologies: The Dutch debate on regulating LPG-related activities*. *Industrial Crisis Quarterly*


Koppenjan, J. (1993), Management van de beleidswijziging. 's-Gravenhage: VUGA.


### Appendix 1:
Data matrix of fifteen process profiles and output types

<table>
<thead>
<tr>
<th>output type</th>
<th>duration in months</th>
<th>number of interrup- tions/ speedups</th>
<th>Routines</th>
<th>Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>AF</td>
<td>PF</td>
</tr>
<tr>
<td>Type I: HQ*TL/I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.PCO</td>
<td>5</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>6.LDHB</td>
<td>7</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>12.BBT</td>
<td>15</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Type II: HQ*TL/I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.SO2</td>
<td>35</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>13.SAPT</td>
<td>30</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Type IV: LQ*TL/I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.M.ECA</td>
<td>10</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Type V: HQ*TL/NI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.SO</td>
<td>37</td>
<td>2</td>
<td>1</td>
<td>II</td>
</tr>
<tr>
<td>2.HP</td>
<td>32</td>
<td>-</td>
<td>1</td>
<td>II</td>
</tr>
<tr>
<td>8.EQHE</td>
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<td>II</td>
</tr>
<tr>
<td>10.LPG</td>
<td>44</td>
<td>1</td>
<td>1</td>
<td>II</td>
</tr>
<tr>
<td>Type VI: LQ*TL/NI</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.FRA</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>II</td>
</tr>
<tr>
<td>Type VII: HQ*TL/NI</td>
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<td></td>
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<tr>
<td>5.SIA</td>
<td>27</td>
<td>-</td>
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<td>II</td>
</tr>
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<td>7.SSR</td>
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<td>II</td>
</tr>
<tr>
<td>14.BFP</td>
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<tr>
<td>15.D.RCPA</td>
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<td>1</td>
<td>1</td>
<td>II</td>
</tr>
</tbody>
</table>

Legend: HQ = high quality; LQ = low quality; I = in time; TL = too late; I = incremental; NI = non-incremental; I, II, ... VI = place of routine in sequential order after critical path analysis; fa = routine fully activated; ma = routine moderately activated; - = routine not activated; p = politically dominated; i = intellectually dominated; ip = balanced intellectuality/politicality mix.
Appendix 2: Conditions analysis

In the data matrix below, the primary data (see Appendix 1), are used (combined) to generate some more properties of policy formulation processes. The variables are dichotomized, i.e. the value of each variable for a process is either '1' or '0'. The definitions of the variables and the way they are dichotomized are explained below. On the basis of this data matrix we try to find out which process properties are necessary conditions, or necessary and sufficient conditions for the generation of a specific output type, or combination of output types.

The presence of a particular property will be called a necessary and sufficient condition for the generation of a particular output type (or combination of output types) if in all processes resulting in that (combination of) output type(s) that property is present ('1' in the data matrix below), whereas that same property is absent ('0' in the data matrix below) in all processes resulting in other output types.

The presence of a particular property will be called a necessary condition for the generation of a particular output type (or combination of output types) if in all processes of that that (combination of) output type(s) that property is present, whereas the same property is absent in at least some processes resulting in other output types.

The absence of a particular characteristic will be called a necessary condition for the generation of a particular output type (or combination of output types) if in all processes resulting in that (combination of) output type(s) that property is absent, whereas that same property is present in at least some processes of other output types.

Examples include the following:
- The presence of C (full activation of the megapolicy choice routine) is a necessary and sufficient condition for the generation of a nonincremental process (i.e., a combination of output types V through VIII-Table 1).
- The presence of property K (logical phasing of the formulation process) is a necessary (but not a sufficient) condition for the generation of a successful nonincremental product (output type V-Table 1).

Datamatrix

<table>
<thead>
<tr>
<th>output type</th>
<th>process (case #)</th>
<th>properties</th>
<th>FGHJJ</th>
<th>abode</th>
<th>light</th>
<th>KLMN</th>
<th>OPQ</th>
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</thead>
<tbody>
<tr>
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<td>10011</td>
<td>00011</td>
<td>00111</td>
<td>0100</td>
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<td>6. LEDB</td>
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<td>00001</td>
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<td>10001</td>
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<td>11. SO2</td>
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</table>
R. Hoppe e.a.: Successful policy formulation processes

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<td>V</td>
<td>2. HIP</td>
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<td>V</td>
<td>3. EQHE</td>
<td>111110</td>
<td>111000</td>
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<td>00111</td>
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<td>0001</td>
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<td>V</td>
<td>10. LPG</td>
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<td>14. BFP</td>
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<td>000111</td>
<td>0111</td>
<td>1100</td>
<td>1010</td>
</tr>
</tbody>
</table>

Explanation:
A: routine AF fully activated
B: routine PF fully activated
C: routine MC fully activated
D: routine N fully activated
E: routine FT fully activated

a: six routines fully activated
b: five or more routines fully activated
c: four or more routines fully activated
d: three or more routines fully activated
e: two or more routines fully activated

F: routine AF fully or moderately activated
G: routine PF fully or moderately activated
H: routine MC fully or moderately activated
I: routine N fully or moderately activated
J: routine FT fully or moderately activated

f: six routines fully or moderately activated
g: five or more routines fully or moderately activated
h: four or more routines fully or moderately activated
i: three or more routines fully or moderately activated
j: two or more routines fully or moderately activated

K: logical phasing
L: mix is "p"
M: process is integrated
N: high amount of activated cycles

O: cycles IV and V dominant
P: many intrusions
Q: long duration
V: process is integrated

(authorization cycle excluded)
(authorization cycle included)
Appendix 3: List of the 15 cases

#2. IIP  Industrial Innovation Project, 1979, Ministry of Economic Affairs (secondary analysis of Van Dijk 1986)
#4. PCO  Price Control Ordinance for Products and Services, 1976, Ministry of Economic Affairs (secondary analysis of Van Putten 1986)
#7. SSSR  Social Security System Redesign, 1984, Ministry of Social Affairs and Employment**, (primary case study, Hoppe and Van der Meulen 1986)
#11. SO2  Decree on SO2 Policy, 1986, Ministry for Housing, Physical Planning, and Environment (primary case study, Hoppe et al. 1988)

* Dr. Van Dijk is gratefully acknowledged for making available his case study data.
** Dr. Van Putten is gratefully acknowledged for making available his data base for secondary analysis.
*** The departments of Domestic Affairs, Social & Employment Affairs, Education & Sciences, and Housing, Physical Planning & Environmental Affairs are gratefully acknowledged for their financial support; and the latter three for permitting access to data and providing a generally hospitable, though challenging research 'laboratory'.

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