

# The Control Process: Steering and Review in Large Organizations

LENNART LUNDQUIST  
University of Lund

## 1. Introduction

When, in a 1964 essay, Herbert Kaufman pointed out the importance of political scientists' and organization theoreticians' paying attention to each others' analytical instruments, the flow of information between the two disciplines was exceedingly small:

In the literature on organization theory, one rarely finds references even to contemporary political theorists and almost never to those who wrote in the past. By the same token, political theorists rarely seem to find anything relevant to their interests in the work of students of organization. Measured by the acknowledged exchange of information between the disciplines, the gulf between them is wide and seldom bridged.<sup>1</sup>

Since then, political scientists have begun to take an interest in organization theory. At least there are probably few political scientists who deny the value of attempts at using organization theory within their own discipline. At the same time, arguments for attempting empirical research on a non-theoretical basis have disappeared from serious debate.

Even in a superficial comparison, the resemblances between the two disciplines of political science and organization theory are striking. Both make organizations their basic object of study, and the relevant problems are largely the same whether or not the organization can be designated 'political'.<sup>2</sup> However, there are few analyses within the realm of political science that use theories and paradigms based on organization theory. This applies, not least, to those subjects most naturally connected with organization theory, namely pressure groups and public administration.

# The Control Process: Steering and Review in Large Organizations

LENNART LUNDQUIST  
University of Lund

## 1. Introduction

When, in a 1964 essay, Herbert Kaufman pointed out the importance of political scientists' and organization theoreticians' paying attention to each others' analytical instruments, the flow of information between the two disciplines was exceedingly small:

In the literature on organization theory, one rarely finds references even to contemporary political theorists and almost never to those who wrote in the past. By the same token, political theorists rarely seem to find anything relevant to their interests in the work of students of organization. Measured by the acknowledged exchange of information between the disciplines, the gulf between them is wide and seldom bridged.<sup>1</sup>

Since then, political scientists have begun to take an interest in organization theory. At least there are probably few political scientists who deny the value of attempts at using organization theory within their own discipline. At the same time, arguments for attempting empirical research on a non-theoretical basis have disappeared from serious debate.

Even in a superficial comparison, the resemblances between the two disciplines of political science and organization theory are striking. Both make organizations their basic object of study, and the relevant problems are largely the same whether or not the organization can be designated 'political'.<sup>2</sup> However, there are few analyses within the realm of political science that use theories and paradigms based on organization theory. This applies, not least, to those subjects most naturally connected with organization theory, namely pressure groups and public administration.

As far as the study of administration is concerned, this is particularly surprising, considering the fact that Herbert Simon's *Administrative Behavior*, a natural starting point, has been available since 1945. The reasons are difficult to explain, but can partly be found in the strong dependence on law studies characteristic of European political science.

The following essay contains a scheme of analysis for the study of public administration. The main outline of the scheme includes the information flow between two suborganizations within an organization – the one that makes the decisions, *the decision-maker*, and the one that carries them out, *the implementer* – as well as the processes within these suborganizations. The paradigm has been tested empirically a few times; for example, in a synopsis attempting an outline of the problems relevant to the study of administration,<sup>3</sup> in a non-frequency content analysis of the Swedish debate on decentralization,<sup>4</sup> and in a study of administrative reform in the Swedish county councils.<sup>5</sup> Re-worded, the paradigm could probably be used for a study of the relations between the decision-maker and those trying to influence him.

## 2. The Organization

The control process is concerned with the relations between the decision-maker and the implementer in an organization. The distinction between these two roles is seen as an analytical matter. He who in relation to one level is implementer can in relation to another level be decision-maker.<sup>6</sup> The simple model presented here presumes that an organization consists of a decision-making unit and one or more implementation units.

According to a common definition, an organization means 'an arrangement of interdependent parts, each having a special function with respect to the whole'. It has 'a basic objective, and to be viable it must have some control system to guarantee accomplishment of this objective'.<sup>7</sup> It is sometimes questionable whether an organization actually has *one* basic goal in view, especially when dealing with the political system, the type of organization which is the object of analysis in this paper. Goals can be imagined at different levels so that the achievement of one goal is a prerequisite for the achievement of other goals. Such an intermediate goal could be that the organization system should continue to exist, which might be a prerequisite for achieving ends such as happiness and prosperity for the individual.<sup>8</sup> Because the organization is still goal-oriented, it must have some form of control process that coordinates its activities toward the determined goals. The problems arising from goal conflicts will not be discussed here.

The fact that the organization's activities are goal-oriented implies that its decision-making is rational.<sup>9</sup> When it is a matter of the importance of such a prerequisite for studies of organization theory and of the level of rationality that is

supposed to exist in organizations, this study refers to the opinion expressed by Simon:

A theory of administration or organization cannot exist without a theory of rational choice. Human behavior in organizations is best described as 'intendedly rational'; and it merits that description more than any other sector of human behavior.<sup>10</sup>

The organization must be an open system, which means that it communicates with its environment via input and output. Apart from this, the organization is presumed to have a number of qualities so chosen that the model can be quite easily defined in terms of a political system.

These qualities are: 1) the organization must be so large that it includes special suborganizations which take care of the decision-making and implementation functions; 2) 'the distance' between decision-maker and implementers must be so large that communication between them cannot take place by face-to-face contacts; 3) the organization's activity must be of a range that excludes the decision-maker from taking part in every individual implementation case.

### 3. The Variables in the Control Process

The organization is presumed to include a control process that coordinates its activities toward its determined goals. This process can be described as an information transaction between decision-maker and implementer. It concerns primarily a communication problem that should be analyzed on the basis of the information that is the main content of the communication.<sup>11</sup> Transactions other than of information also occur. Kochen and Deutsch, for instance, discuss the transfer of 'people, things and information with reference to the process of decentralization'.<sup>12</sup> However, the first two of these objects of transfer can also be analyzed in terms of information.

The communication process, more than most phenomena, has been the object of study in the social sciences. This has resulted in communication analysts' developing a well-tried scheme of analysis – the so-called communication paradigm. The relation between decision-maker and implementer in the organization is analyzed in terms of this scheme.

In its classical version, the communication paradigm was worded: *Who says what, to whom, how, and with what outcome?*<sup>13</sup> Thus five variables, transmitter, communication, receiver, channel, and outcome, were obtained. Research has gradually added new variables to the paradigm, one of which is the transmitter's intentions or goals, i.e. answering the question: Why is a communication transmitted?<sup>14</sup> Another variable refers to the current situation, i.e. answering the question: Under what circumstances does the communication take place?<sup>15</sup> With

these two new variables, the scheme of analysis can be reformulated as: *Who says what, why, under what circumstances, to whom, how, and with what outcome?*

With the introduction of computers, information technique has developed at a tremendous speed. Where the communication paradigm is concerned, this has resulted in the addition of a further variable. If the transmitter is to function rationally, it must be informed of the results of its communication. Without such information, it is unable to correct undesirable results. Information about the results of the communication is obtained through a process called 'feedback' in cybernetic terminology.<sup>16</sup> It can be described as a communication in a channel to the transmitter. Feedback is added to the communication paradigm as an eighth variable.

To sum up, the scheme of analysis involves two agents – one that sends a communication, *the transmitter*, and one that receives it, *the receiver* – and two *channels* via which communications are transmitted – one from the transmitter to the receiver, and the other for *the feedback communication* from the receiver to the transmitter. The activity of the transmitter has a *purpose*, and its communications result in *outcomes*. All this takes place in a particular *situation* that covers all the activities involved that have not been included in the variables enumerated so far.

The communication paradigm is now applied to the relation between decision-maker and implementer in an organization with the above-mentioned qualities. The agents then become the suborganizations, i.e. the transmitter (the decision-maker) and the receiver (the implementer). Naturally, exchanged roles can also be imagined, i.e. the implementer becoming the transmitter and the decision-maker the receiver. In this study, the former communication channel is analyzed; *this in no wise implies that, in general, it is more important than the other channel*. It is merely a question of an analytical delimitation, which is justified on the basis of the fundamental problems in the study.

The decision-maker's conscious attempts to influence the implementation in a certain direction are called *steering*. This consists mainly of information formulated in various ways, although it can also consist of other things, for instance money. The latter form of steering is described in terms of information. The steering consciousness of the decision-maker presumes that he has goals for his activity and that the steered implementation will result in outcomes. The difference between goals and outcomes can be said to be a measure of the rationality of the decision, and the difference between decision and implementation a measure of the reliability of the steering. The information produced by the feedback process partly reflects the conscious efforts of the decision-maker to get information about the rationality of his decision and the reliability of the steering. This activity, which follows the implementation decision, is called *review*.<sup>17</sup> Review can be measured in terms of both scope and effectiveness. Its scope applies to that part of the implementation that is the object of the review, and its effectiveness to those parts of the deviations that are indicated by the review. To the extent that the review indicates deviations, the decision-maker can correct the implementation by *re-steering*. Re-steering means steering that is used after an indication of a deviation.

Both steering and review communications are transmitted through channels. The qualities of these channels are one of the variables that determine the reliability of the steering and the review.<sup>18</sup> These qualities include the ability of the channel to transmit communications faultlessly, the time the communication takes, the costs of the communication, and the capacity of the channel.<sup>19</sup> When the decision-maker determines his steering and review strategies, the qualities of the two channels are one of the basic variables.<sup>20</sup>

Finally, the control process is influenced by its environment. The variables involved here are called *situation* variables.

The control process can be summarized using four main variables, which can in some ways be said to include all communication variables. These main variables are the decision-making process, steering, the implementation or administrative process, and review. These four variables are discussed in more detail in the rest of the study. First, however, we shall survey and describe them as in Figure 1.<sup>21</sup>

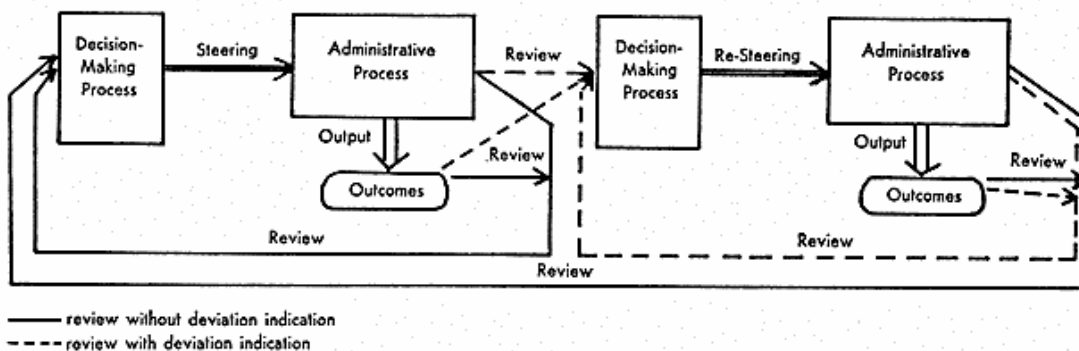


Figure 1. The Control Process.

1. The process of decision-making leads to a decision.
2. The decision is transmitted by means of steering to an implementer.
3. The implementer carries out the decision via the administrative process.
4. By review, the decision-maker is informed of the reliability of the steering and the rationality of the decision.
5. If the review does not indicate any deviation, the control process begins again from 1.
6. If the review indicates deviation, the decision-maker can re-ster the implementation.
7. If the review does not indicate any deviation from the re-steering, the control process begins again from 1.
8. If the review indicates deviation from the re-steering, the control process begins again from 6.

#### 4. The Decision Processes

Of the two decision processes included in the control process, the decision-maker takes care of the decision-making process, and the implementer of the administrative process. To permit further reasoning, the content of these processes must be

accurately defined. The analysis of steering requires a more detailed examination of the administrative process, because 'a component can only cause a change in the productive behavior of another component by influencing its decision-making behavior',<sup>22</sup> and an analysis of the decision-making process is necessary in order to be able to understand the total activity of the organization.

As pointed out earlier, the distinction between decision-maker and implementer is an analytical one. In the implementer's suborganization, the same distinction can be made between the person who makes the administrative decision and the person who carries it out. In this relation, too, there are possibilities for deviations, especially if the implementer's suborganization involved is very large. In order not to further complicate the model of the control process, no deviation is presumed to exist between the administrative decision and its execution.<sup>23</sup>

Because both the decision-making process and the administrative process are processes of decision, they should have certain basic qualities in common. The above reasoning based on general organization theory is therefore valid for both types of decision processes.

The decision process includes all the considerations that the agent takes into account when he makes his decision. The decision itself can be described as the agent's conscious choice between two or more courses of action. From this standpoint – presented by Ramström in a very elaborate form – the decision process can be analyzed as an information process where a *decision rule* is used to change a certain amount of information called *the decision basis* into a decision.<sup>24</sup> Both the decision basis and the decision rule depend on the organization's *resources*. Broadly speaking, the resources consist of money, trained personnel, a suitable organization, technical aids, and so on.<sup>25</sup>

The three variables in the decision process, namely the decision rule, the decision basis, and the resources, are mutually dependent. It costs money to provide the decision basis with information and to interpret the information. Only trained personnel can make decisions with the aid of precise decision rules. Thus there is a relation between the resources, on the one hand, and the decision basis and the decision rule on the other. There is also a relation between the two latter variables. The better the information basis, the more precise the usable decision rules; and the more precise the decision rule used, the greater the demands made on the decision basis.<sup>26</sup>

Following normal present-day practice in studies of organization theory, a decision rule based on bounded rationality is postulated. The decision-maker, the administrative man, acts rationally on the basis of the information available to him; therefore, one sometimes speaks of a decision rule that is based on subjective rationality.<sup>27</sup> This decision model differs from an earlier model of 'economic man' mainly on two points. Whereas the latter had complete information and aimed at an optimum decision, the administrative man has incomplete information and seeks only a satisfying decision.<sup>28</sup> The model of economic man was too unrealistic to be fruitful in organization analysis. This is chiefly because the information was



considered definite. In reality, time, money, and effort are required to get information and then to interpret it. The decision-maker is also limited in his capacity to deal with a number of matters at the same time and can only absorb a limited amount of data. Uncertainty is ever present in decision-making, especially when it refers to certain types of prognoses.<sup>29</sup> The decision-maker is therefore presumed to turn to a decision rule with 'bounded rationality'.

The bounded rationality decision rule involves the following considerations: the goals must be formulated; only a few of the possible courses of action are taken into account; the situation is obscure, as are its developmental tendencies, which must be roughly estimated; uncertainty prevails about the relation between means and goals (it must therefore be estimated by rule of thumb); a satisfying course of action is chosen when the decision is made.<sup>30</sup>

A decision rule based on bounded rationality also makes demands on the decision basis. In order to make decisions with, on the whole, some degree of rationality, certain information is required. This information can be specified using the five *information precedents*, which match the considerations listed above: information about goals, means, the situation, the prognosis for the relation between means and goals (prognosis), and the outlook for the development of the situation (situation prognosis).<sup>31</sup>

The rationale of decision-making so far discussed applies to both the decision-making process and the administrative process. Later, the two processes will be discussed separately: the decision-making process with regard to goal formulation,<sup>32</sup> and the administrative process with regard to various types of administrative decisions. The relations of the latter process to steering and review are discussed in the two remaining sections (5 and 6) of this paper.

The decision-maker is supposed to formulate the organization's objectives. He is dependent on information from his environment and from other people in the organization. Thus, the implementer can well exercise a decisive influence on the organization's objectives.<sup>33</sup> A common way of approaching the analysis of the objectives of an organization lies in the use of means-end hierarchies.<sup>34</sup> It is then supposed that the agent can fit his means and goals into the different levels of such a scheme. It can be assumed that a decision-maker acting with bounded rationality can hardly hope to achieve a completely formulated means-end hierarchy. However, he is presumed to be able to achieve some form of roughly delimited, more or less explicitly formulated scheme. He can then use this scheme as an aid to his decision-making. In an analysis of an organization, this scheme can be reconstructed as a mapping of the agents' objectives and of their concepts of the relations between different means and goals.<sup>35</sup> When attempts are made to reconstruct such a means-end hierarchy, proper consideration – as pointed out above – should be paid to all the difficulties caused by the problem of rationality.<sup>36</sup>

The administrative process is the object of steering and review by the decision-maker and, in addition, receives information from the environment. Of particular interest in this context, however, is that the implementer's suborganization makes decisions founded, so to speak, on different levels:



1. Administrative decisions that decide the output of the organization;
2. Administrative decisions that are directed to another part of the organization; for instance, the decisions involved in the preparation of the decision-maker's decisions;
3. Administrative decisions that remain within the implementation suborganization; for instance, decisions concerning different types of internal matters, such as appointment instructions, etc.

The direct steering discussed below concerns the output of the implementation suborganization, i.e. decisions as in points 1 and 2.

## 5. Steering

Steering is defined as the conscious attempts of the decision-maker to influence implementation in a desired direction.<sup>37</sup> Three steering problems are discussed in more detail below: 1) the qualities of the steering forms, 2) the relations of the steering forms to the variables in the administrative process, and 3) the reliability of the steering and the rationality of the decision.

If the key variables of the control process are expressed in steering terms, the following are obtained: *steering subjects* consisting of the decision-maker and possible steering units; *steering objects*, which are the variables in the administrative process; and *steering forms* (simply called steering) which are the types (and in the case of indirect steering also the content) of communications through which steering takes place.<sup>38</sup> Re-steering, which has the same qualities as other forms of steering, is discussed together with the review in section 6. As pointed out earlier, steering problems can be found in several places in the organization; for instance, they are involved in the relation between decision-maker and steering units.<sup>39</sup> To simplify things, the latter steering is presumed to be reliable (as is all other steering that does not concern the relation between decision-maker and implementer). This stipulation can be seen as a result of the desire to keep the model as simple as possible.

Four different dimensions can be distinguished in the property space of the various forms of steering. (Dimensions 2, 3, and 4 refer to the formulations of the steering communications.) They are:

1. *The material content of the steering.*
2. *Direct-indirect steering.* With direct steering, the implementer is given goals and/or means for the implementation suborganization's output. Indirect steering is meant to influence the implementer's ability and/or will to carry out the direct steering;<sup>40</sup>
3. *Specific-general steering.* In specific steering, the decision-maker intends to

influence one implementation decision only, whereas, in general steering, he tries to influence all implementation decisions in general or all decisions of a certain type.<sup>41</sup>

4. *Precise-imprecise steering.* Each form of steering includes a continuum from the most precise indication to the most imprecise indication of the methods that the decision-maker would like the implementer to use. The less precise the steering, the greater is the scope given to the implementer to make an impression on the organization's output.<sup>42</sup>

These four dimensions provide a property space for classification into steering forms. By combining direct steering with the dimension called specific-general steering, one can obtain *order steering* and *rule steering*. With the former, the steering communication covers the goals and/or means for an individual case; with the latter, it covers goals and/or means for all implementation cases of a specific type.<sup>43</sup> In the latter form, the implementer is thus given a rule that he must apply to individual cases.

Indirect steering can be viewed in many different ways. From the point of view of its material content one can split it into *recruitment steering* and *form steering*. Recruitment steering indicates that the decision-maker employs or establishes the bases for the employment of personnel in the implementation suborganization. Form steering covers the formation of the implementer's organization, processes, personnel conditions, and territory. While both form steering and recruitment steering are mostly used in a general sense, they can also be used specifically, for instance, with regard to recruitment steering if an official is employed to make one implementation decision only and is then dismissed. Two more indirect steering forms can be derived from consideration of the material content of the steering. These are *financial steering* and *information steering*, both of which can be used in a specific and a general manner. Financial steering includes the money required for the operation of the implementation suborganization and for the execution of the organization's task. If the implementer lacks his own resources, as is usually the case, his activity is completely dependent on financial steering. Information steering can be interpreted as a variable that includes all the other indirect steering possibilities not mentioned above. The decision-maker can use information steering to vary the extent to which he sets his imprint on the implementer's decision basis. Training steering, where the decision-maker can 'indoctrinate' the implementation personnel, can be seen as a special form of information steering. Information steering can also be used to strengthen the decision-maker's influence on the implementer.<sup>45</sup> Indirect forms of steering can also range from extreme vagueness to great precision in their prescription of the methods to be used.

Material content is not included in direct steering, but is restricted to a special variable called *subject areas*. The decision-maker can use steering to influence all three variables of the administrative process, i.e. the decision basis, the decision rule, and the resources. Direct steering is aimed at the decision rule. When direct

steering provides goals or means for the organization's output, it 'locks' the decision rule in the position indicated in the steering communication. If the steering indicates methods precisely, the calculation of the bounded rationality decision-maker will be locked in a position where he merely has to carry out the steering communication. If, instead, the steering is imprecise, he will perform every item in the calculation except goal formulation, which the steering has already locked by indicating the output goal. Of the indirect steering forms, recruitment and information steering affect the decision basis, and financial form and recruitment steering (which thus influence two variables) affect the resources. The latter three forms also influence the decision basis and the decision rule through their effect on the resources.<sup>46</sup> The above reasoning about direct steering presupposes a situation where the steering is reliable.

In reality it is by no means certain that the decision-maker's steering will result in the desired behavior of the implementer or that it will achieve the desired outcomes. The question of the reliability of the steering and the rationality of the decision is one of the essential problems of steering. The *reliability* of the steering is defined as the difference between the decision and the way it is implemented. No difference exists between them when the steering is absolutely reliable.<sup>47</sup> The *rationality* of the decision is defined as the difference between the intended outcome (the goal) and the result achieved (the outcome), when the steering is reliable. There is no difference between goal and outcome when a decision is completely rational.

Because the model assumes that the decision-maker's rationality is bounded, the consequent loss of rationality in his decision-making can be expected to lead to deviations between goals and outcomes. No analysis of this problem is attempted here; it is sufficient to point out the difficulties of empirical measurement. When a deviation between goals and outcomes is detected in a real-life situation, how large a part of this must be ascribed to the lack of reliability in the steering?

When discussing the reliability of the steering, two different situations must be taken into consideration. The first is one in which the implementer tries to carry out the decision, but for some reason is unable to do so. This could be, for instance, because he does not understand the intentions underlying the decision, because he lacks the resources necessary for its execution, or because the decision simply cannot be executed.<sup>48</sup> It can also be that the steering communication does not reach him in the condition intended, and this can be due to deficiencies in transmission, for instance the poor quality of the communication channel.

The second situation implies that the implementer consciously diverges from the steering, although he has correctly understood it. There is in this case a power problem, which is well worth closer examination. If the angle of approach is changed to that of the implementer, one can formulate the problem by posing the question: Why does the implementer obey the decision-maker's steering? For the large organization, which is involved here, at least three sets of reasons can be imagined:<sup>49</sup>

1. The implementer obeys for fear of penalty or wish for reward;
2. The implementer obeys because he believes the decision to be rational or because it agrees with his evaluations;
3. The implementer obeys because he appreciates the decision-maker personally or because he always obeys the steering communications from certain organization roles, irrespective of who occupies the role.

If we attempt to analyze these three different sets of reasons for obedience from the standpoint of the decision-maker, we face, above all, the question: Which forms of power or influence make the implementer follow or obey the steering? In the very extensive literature on influence, there are several different classifications of these forms; however, in this context, there is little reason to discuss them more closely.<sup>50</sup> Nonetheless, we can with profit pause to consider the last two of the three sets of reasons for obedience listed above. When the implementer obeys because he understands a decision to be rational, it usually means that the decision-maker exercises power expertly. When the implementer obeys according to the various reasons in the third set, the decision-maker is considered to exercise authority over the implementer. In Weber's example, authority is defined as a special form of power. If the implementer obeys because he appreciates the decision-maker personally, it is charismatic authority; if he always obeys certain roles, the occupier of the decision-making role exercises either traditional or legal authority. In practice, the various forms of authority can be combined together. Legal authority is usually regarded as the most important in large modern organizations.<sup>51</sup>

The decision-maker is presumed to use steering as an instrument to obtain power over the organization. In what ways can the various steering forms be related to the different reasons for obedience? Manipulation of penalties or rewards can be made through information steering, for instance by advising the implementer of what to expect if he diverges from the steering or if he follows the steering well. However, this form of power is thought to have great limitations and can hardly of itself produce reliable steering in a large organization. A considerably better guarantee of reliable steering would occur if the implementer shared the evaluations of the decision-maker or understood him to be rational. Information steering can function here too by allowing the decision-maker to determine, to some extent, the content of the information the implementer has access to. In this way the implementer's possibilities of formulating alternatives to the steering are reduced. Recruitment steering can function similarly. At the same time as the decision-maker selects a certain official to do the implementation, he also chooses a certain decision basis for this implementation, i.e. the evaluations and knowledge of the official. This will naturally influence the administrative process. Where the decision-maker exercises a high degree of authority over the implementer, this offers a perhaps even greater guarantee of reliability. This authority relation can also be influenced by information steering, because the implementer's interpretation of the authority situation must depend on his information. In the large modern organization, all these power forms can be expected to occur side by side.<sup>52</sup>

## 6. Review

Consequently it cannot automatically be presumed that correctly formulated steering will be correctly implemented (the reliability problem), or that reliable steering will have the intended outcomes (the rationality problem). The decision-maker therefore depends on a mechanism that can inform him of possible deviations. This mechanism can be called *review*<sup>53</sup> and is defined as the conscious attempts of the decision-maker to obtain information about the reliability of the steering and the rationality of the decision. Problems of review can be discussed under three headings: 1) review forms, 2) the effectiveness and scope of review, and 3) re-steering.

If the key variables of the control process are expressed in review terms, we have *review subjects* consisting of the decision-maker and possible review units, *review objects* which are the administrative process, the implementation decision, and the outcomes of the output, and finally *review forms* (usually abbreviated to review), which are the activities through which the review is carried out.<sup>54</sup> The review forms can be analyzed on the basis of the information they provide concerning the review object.<sup>55</sup> It is from this information aspect that the review can be interpreted as a form of institutionalized feedback.

The property space of the review forms will here contain two dimensions: the object of the review and the initiator of the review:

1. *The review object.* In a review of the reliability of the steering, the review is concerned with the administrative process – the *process review*, or with the administrative decision – the *decision review*. In a review of the rationality of the decision, the review is concerned with the outcomes of the implementation – the *outcome review*;
2. *The review initiative.* In an *active review*, the initiative is taken by the review subject. In a *passive review*, the initiative is taken by someone else, a sub-organization or an individual.<sup>56</sup>

The review can be analyzed with regard to its *effectiveness*. An absolutely effective review identifies all the deviations in the implementation cases that are the object of the review. The effectiveness of the review can thus be measured as the difference between the number of deviations that have occurred and the number indicated in the implementation cases that have been reviewed. The review can also be analyzed on the basis of its *scope*. The more implementation cases that are the object of review, the more extensive is the review.

When the decision-maker determines his review strategy, he is faced primarily with a cost problem. A prerequisite for achieving a higher degree of rationality is that the review should cover all implementation cases and that it should correctly identify all deviations. This means that it must be both of total scope and absolute effectiveness, which must result in high costs. In order to reduce these costs somewhat, various restrictions on the scope of the review can be imagined,

for instance that only reliability is reviewed, or only rationality, or that the reviews are carried out in some random form. One possibility is to choose the less cost-demanding passive review, which can be initiated outside the organization management.<sup>57</sup> In the choice of control strategy, the implementer cannot be ignored either. For instance, sometimes the mere occurrence of reviews that are too extensive and effective can reduce the motivation of the implementer.<sup>58</sup>

The review information supplied to the decision-maker can show that the review has either detected deviations or has failed to indicate any (cf. Figure 1). When a deviation has been indicated, the decision-maker (or the steering and review units) can *re-steer* the implementation. Re-steering is a form of steering that comes into operation as a result of a deviation-indicating review. Otherwise, re-steering can be executed through some of the other forms of steering discussed above (cf. section 5). The question of how to construct re-steering in cases of deviation from the direct steering is a matter that will have to be discussed further. Re-steering does not necessarily imply the use of order steering. One can suppose, for instance, that re-steering could require that an implementation decision that had led to a deviation should be nullified. An attempt could then be made to use some form of indirect steering to get the implementer to produce an acceptable implementation.

## NOTES

1. Herbert Kaufman, 'Organization Theory and Political Theory', *American Political Science Review* 58 (1964), p. 5.
2. *Ibid.*, pp. 5ff; Jan-Magnus Jansson, *Politikens teori*, Borgå: Söderström, 1969, pp. 35ff.
3. Lennart Lundquist, *Förvaltningen i det politiska systemet*, Lund: Studentlitteratur, 1971.
4. Lennart Lundquist, *Means and Goals of Political Decentralization*, Lund: Studentlitteratur, 1972.
5. Harry Petersson, *Landstingens centrala förvaltningsorganisation. Samverkan förtroende-män-tjänstemän*, Kommunalforskningsgruppen, Avhandlingsserien 25, Lund, 1972 (mimeo).
6. Cf. Fred W. Riggs, 'Professionalism, Political Science, and the Scope of Public Administration', in James G. Charlesworth (ed.), *Theory and Practice of Public Administration: Scope, Objectives, and Methods*, Philadelphia: The American Academy of Political and Social Sciences, 1968, pp. 51ff; Amitai Etzioni, 'Organizational Control Structure', in James G. March (ed.), *Handbook of Organizations*, Chicago: Rand McNally, 1965, p. 650. Business economic organization theoreticians discuss the same relation in terms of the administrative units and production units of an enterprise (cf. Eric Rhenman, *Företaget som ett styrt system*, Stockholm: Norstedt, 1964, p. 6; Dick Ramström, *The Efficiency of Control Strategies*, Stockholm: Almquist & Wiksell, 1967, pp. 51f; Dick Ramström, *Systemplanering*, Stockholm: Scandinavian University Books, 1969, p. 53).
7. Dorwin Cartwright, 'Influence, Leadership, Control', in James G. March (ed.), *op.cit.*, pp. 1f; Peter M. Blau and W. Richard Scott, *Formal Organizations*, London: Routledge & Kegan Paul, 1963, p. 5. H. I. Krusinga (ed.), *The Balance between Centralization and Decentralization in Managerial Control*, Leiden, 1954, pp. 3f.
8. Cf. Börje Langefors, *System för företagsstyrning*, Lund: Studentlitteratur, 1968, pp. 39ff.
9. Cf. Ramström, *op.cit.*, 1967, pp. 34, 46f.
10. Herbert A. Simon, *Models of Man. Social and Rational*, New York: John Wiley, 1957, p. 196; cf. Donald W. Taylor, 'Decision Making and Problem Solving', in James G. March (ed.), *op.cit.*, pp. 59ff; Ramström, *op.cit.*, 1967, pp. 45f.
11. Cf. Harold Guetzkow, 'Communications in Organizations', in James G. March (ed.),

- op.cit.*, p. 534; Ramström, *op.cit.*, 1967, pp. 55f; Bengt Stymne, *Values and Processes. A Systems Study of Effectiveness in Three Organizations*, Lund: Studentlitteratur, 1970, p. 34.
12. Manfred Kochen and Karl W. Deutsch, 'Toward a Rational Theory of Decentralization: Some Implications of a Mathematical Approach', *American Political Science Review* 58 (1969), pp. 737f.
  13. H. Lasswell, D. Lerner and I. Pool, *The Comparative Study of Symbols*, Stanford, Calif.: Stanford University Press, 1952, p. 12.
  14. Gunnar Sjöblom, *Party Strategies in a Multiparty System*, Lund: Studentlitteratur, 1968, pp. 99f; Ole R. Holsti, *Content Analysis for the Social Sciences and Humanities*, Reading, Mass.: Addison-Wesley, 1969, pp. 24ff.
  15. Sjöblom, *op.cit.*, pp. 99ff; Alexander L. George, *Propaganda Analysis*, Evanston, Ill.: Row, Peterson, 1959, pp. 107ff.
  16. Kochen and Deutsch, *op.cit.*, p. 735; cf. Ramström, *op.cit.*, 1969, p. 52.
  17. Various terms are found in the literature to describe what is here called steering and review. Ramström distinguishes between 'control in the large' (steering) and 'control in the small' (review and re-steering), cf. Ramström, *op.cit.*, 1967, p. 54. Litterer's division is based on the time relation between implementation decision and control, cf. Joseph A. Litterer, *The Analysis of Organizations*, New York: John Wiley, 1965, pp. 233ff. The term 'control' is usually used to describe both steering and review, and thus has the same meaning as the term 'control process' in this paper.
  18. Cf. Rhenman, *op.cit.*, p. 15; Litterer, *op.cit.*, pp. 252, 257f; Ramström, *op.cit.*, 1969, p. 131; Stefan Melesko, *Mål- och målformuleringsproblem i en organisation*, Stockholm: The Economic Research Institute, Stockholm School of Economics, 1970 (mimeo), pp. 2, 39f; Stymne, *op.cit.*, p. 12.
  19. Ramström, *op.cit.*, 1967, pp. 75ff and Chap. 7.
  20. Ramström, *op.cit.*, 1969, p. 125; Kochen and Deutsch, *op.cit.*, pp. 738, 745f; Anthony Downs, *Inside Bureaucracy*, Boston: Little, Brown, 1967, pp. 144ff.
  21. Cf. Rhenman, *op.cit.*, p. 11; Litterer, *op.cit.*, pp. 233ff; Ramström, *op.cit.*, 1969, pp. 24ff; Etzioni, *op.cit.*, 1965, p. 650; Kruisinga (ed.), *op.cit.*, pp. 18f.
  22. Ramström, *op.cit.*, 1967, p. 54.
  23. *Ibid.*, Chap. 6; Ramström, *op.cit.*, 1969, p. 10.
  24. Ramström, *op.cit.*, 1969, p. 11.
  25. Cf. Lundquist, *op.cit.*, 1971, pp. 72ff.
  26. Cf. Ramström, *op.cit.*, 1969, pp. 13f.
  27. Cf. Herbert A. Simon, *Administrative Behavior*, 2nd ed., New York: Macmillan, 1957, pp. 75ff; James G. March and Herbert A. Simon, *Organizations*, New York: John Wiley, 1958, pp. 138f.
  28. Taylor, *op.cit.*, p.60.
  29. Downs, *op.cit.*, pp. 3, 75ff; Taylor, *op.cit.*, *passim*.
  30. Cf. Ramström, *op.cit.*, 1969, pp. 16ff.
  31. Cf. Langefors, *op.cit.*, pp. 66f; Ramström, *op.cit.*, 1969, pp. 11ff.
  32. For a more detailed discussion of goal and goal formulation problems with an extensive literature survey, see Melesko, *op.cit.*
  33. Cf. Lundquist, *op.cit.*, 1971, pp. 38ff.
  34. Cf. Charles Perrow, 'Organizational Goals', in David L. Sills (ed.), *International Encyclopedia of the Social Sciences*, New York: MacMillan and The Free Press, 1968, Vol. 11, p. 305; Simon, *Administrative Behavior*, 1957, p. 63; Stymne, *op.cit.*, pp. 11, 54f; Christer Wallroth, 'An Analysis of Means-End Structures', *Acta Sociologica* 11, 1-2 (1968), pp. 110ff.
  35. Cf. Simon, *Administrative Behavior*, 1957, p. 53; Stymne, *op.cit.*, pp. 54ff.
  36. Cf. Langefors, *op.cit.*, pp. 13, 20.
  37. Cf. Ramström, *op.cit.*, 1969, p. 52; Langefors, *op.cit.*, p. 17; Rhenman, *op.cit.*, p. 6.
  38. Cf. Lundquist, *op.cit.*, 1971, Chap 2.
  39. Cf. Downs, *op.cit.*, pp. 148ff.
  40. Cf. Lundquist, *op.cit.*, 1971, pp. 28ff.
  41. *Ibid.*, cf. Cartwright, *op.cit.*, p. 24.
  42. Cf. Downs, *op.cit.*, pp. 133ff; Cartwright, *op.cit.*, p. 24; Ramström, *op.cit.*, 1967, pp. 114ff.



43. Lundquist, *op.cit.*, 1971, pp. 28f.
44. Sometimes the literature contains constructions in which the direct steering forms are analyzed according to their degree of precision-imprecision. Ramström, for instance, determines three points on this continuum between the most precise and the most imprecise steering: 1) goal steering, where the implementation goal is indicated and the implementer's freedom of action is thus very great, 2) frame steering, which can be said to be a mid-position where the boundaries for permitted behavior are stipulated, and 3) program steering, which approaches a precise indication of the activities to be undertaken and where the implementer is given very little scope of action. Cf. Ramström, *op.cit.*, 1969, p. 67.
45. Lundquist, *op.cit.*, 1971, pp. 28ff.
46. *Ibid.*, pp. 76ff.
47. Cf. Ramström, *op.cit.*, 1969, p. 54; Rhenman, *op.cit.*, pp. 14ff.
48. *Ibid.*; cf. Riggs, *op.cit.*, pp. 50ff; Stymne, *op.cit.*, p. 84.
49. Cf. Cartwright, *op.cit.*, pp. 12ff, 28ff; Amitai Etzioni, *Moderna organisationer*, Stockholm: Aldus, 1966, pp. 82ff.
50. Cf. Robert A. Dahl, 'Power', in David L. Sills (ed.), *op.cit.*, Vol. 12, p. 412.
51. Cf. Etzioni, *op.cit.*, 1966, pp. 84ff; Simon, *Administrative Behavior*, 1954, p. 22.
52. Cf. Cartwright, *op.cit.*, pp. 12f, 28ff; Etzioni, *op.cit.*, 1966, pp. 83ff; Blau and Scott, *op.cit.*, pp. 140ff.
53. Usually the literature does not contain the sharp distinction between steering and review fundamental to this paper; normally the word 'control' is used for both concepts (cf. Ramström, *op.cit.*, 1969, p. 70). It can also happen that 'control' is given a restricted meaning corresponding to 'review' as it is used here (cf. Earl P. Strong and Robert D. Smith, *Management Control Models*, New York: Holt, Rinehart and Winston, 1968, pp. xi, 2f; Etzioni, *op.cit.*, 1966, p. 43).
54. Cf. Lundquist, *op.cit.*, 1971, Chap. 6.
55. Cf. Ramström, *op.cit.*, 1967, p. 56.
56. Lundquist, *op.cit.*, 1971, Chap. 6.
57. Cf. Downs, *op.cit.*, pp. 146f.
58. *Ibid.*, p. 147.