

THE UNIVERSITY OF MANITOBA

THE CFI AFFAIR: PROVINCIAL GOVERNMENT DECISION-
MAKING BEHAVIOR AND RESOURCE DEVELOPMENT

by

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PREFACE

In 1958 with the election of Duff Roblin's Conservative Government, a plan to increase the economic development of Manitoba was developed. To assist in the achievement of this goal, special government machinery was created to help attract private enterprise. The machinery, the Manitoba Development Authority and the Manitoba Development Fund, was designed to aid and encourage all types of economic development. However, as events unfolded, one objective of the Government began to receive greater and greater priority. This goal, the utilization of Manitoba's large reserves of northern forests, almost became an obsession with two men, Duff Roblin and Rex Grose. Their determination in spite of many difficulties resulted in the Manitoba Government entering into an agreement with a little known Swiss development company; the result of which has become known as the CFI scandal.

It was this decision process and the factors affecting it that is the subject of this study. In order to study the decision problem, three decision-making theories that incorporate the case study approach were used. The theories: the basic rational model, the adaptive rational model and, the cognitive processing model of individual decision-making present different theoretical perspectives to the case material. The use of each model provided an opportunity to test the applicability of these theories to this type of government decision process.

From the application of each theory it was found that the cognitive processing model provided the most consistent explanation of the events

that transpired, unlike the other two models which were unable to account for several factors that dominated the decision process. Finally, the study reveals the important affect that psychological processes can have on policy making and its execution in the public milieu.

CHAPTER I

The complexity of today's society has created new demands for government - demands that are more complicated and difficult to answer than what government faced a half a century ago. As one social scientist suggests:

"The familiar parameters of modern society - increased concentration of population in urban complexes; the widespread application of advanced technology; increasing specialization in the labour force; the integrative effects of rapid mass communications; the continuing cycles of poverty, unemployment, and dependency; etc. - all serve to create new occasions for government interventions in the economic and social activities of its citizens."

1

Government involvement has become necessary so that such demands can be met. Private industry, individuals, social and religious organizations do not have the mandate nor the financial, human, and technological resources to coordinate all the changes modern society has produced during the last half century. In order that today's society receives the maximum benefit from new technological and social advances, and that these benefits are shared as equally as possible, a broadly based organization like government that can meet these diverse needs is required to coordinate all the changes in today's society. Canadian governments at all levels have increasingly been concerned with providing policies to meet these new demands.

Canadians have since the beginning of the century been influenced by the Laurier notion that the Twentieth Century belongs to Canada. This notion was and in many instances still is, largely based on the widespread belief that Canada is blessed with an unlimited supply of

natural resources. Canada's natural resources have played a key role in the economic development of the country. Both the Federal and Provincial governments have actively sought this kind of development. The Federal government has provided special tax concessions, preferential shipping charges, and, in some cases transportation facilities to the different resource industries. The Provincial governments have given exclusive jurisdiction over large tracts of land, tax concessions and other forms of assistance within provincial jurisdiction. Big business in Canada often means Imperial Oil, INCO, ALCAN. And because of this, resource development has been a special area of concern for all Canadian governments.

If governments are to provide effective utilization of these resources, it will be necessary for them to fully maximize their organizational potential when making resource policy decisions. To ensure that this happens and to provide as much support as possible, continued analysis of government decision processes must be carried out. A common belief summed up by one writer is that: "Analysis is almost certainly a necessary condition for achieving more successful government."³ One method available to social scientists to ensure this happens is the case study approach.

The use of case studies while being considered by some researchers to be limited in their ability to analyze events significantly, provides political scientists with a research tool that can have immediate implications to their research. As one investigator writes: "As a strategy for generating insights and propositions, the case study

is invaluable."⁴ And several other writers state: "One case study can be used to build on another in a rough but effective kind of inductive learning."⁵ Case studies, they further suggest "if carefully analyzed, can provide means both for the accumulation of organizational knowledge and for the acquisition of increasing skill in diagnosing both the general and the unique about every case."⁶ Case studies can focus on a particular sequence of events that has either taken place or is in the process of happening. They provide for the interested political scientist a method of recording the actions or processes that lead to a specific alternative. They are not designed to aid the political scientist in making predictions about future events. Rather, their use can add to the body of knowledge already available, with the expectation that at some future point, enough information will have been accumulated to lead to the development of a more comprehensive understanding of decision-making processes.

The decision by the Progressive Conservative Government of Duff Roblin⁷ to promote the development of an integrated forestry project in Northern Manitoba represents an opportunity to study from a case-study approach the decision-making process in an important area of government concern, that of resource development. It is this decision process which began in 1958 and the circumstances influencing it, that will be analyzed in Chapter III.

Manitoba has always been a province dominated by its resource potential. In the decades before it became a province, the fur trade dominated the economic activity, and the arrival of Lord Selkirk's

settlers in 1812 did little to change this. It was not until the 1880's when large numbers of settlers began to homestead, that the fur trade began to lose its importance. While agriculture would dominate the economic scene for years to come, Manitobans quite rightly, still looked to the development of its natural resources to increase its wealth.

Little progress was made towards this goal until 1928 when the first major mine was opened in the North at Flin Flon. Several years later three more mines were also brought into production.

"The stage seemed set for the opening and development of the North with an economy based largely on mining but unfortunately the Great Depression intervened and as it deepened, so economic development slowed down and for a decade was virtually moribund."

8

Further mineral development did not occur till after the Second World War. In 1956 the International Nickel Company of Canada announced the discovery of one of the world's greatest nickel belts and with the discovery, Manitoba began to develop the hydro electric potential of the Nelson River.

During this same period, Manitoba's forestry potential was also being utilized, but nothing that could be considered major had taken place. In 1927 Abitibi built a newsprint mill at Pine Falls and by 1938 there were approximately 200 sawmills in Manitoba, most of which were of a small scale. This situation remained somewhat static till 1958 when Duff Roblin's Conservatives were elected to power. For Roblin this situation was intolerable and he considered it a waste

of a valuable resource that could aid Manitoba's development. During
his testimony to the Commission of Inquiry which investigated the
circumstances surrounding the development of the Forestry and Industrial
Complex at The Pas he stated, "Although everybody knew the forest was
there and a number of potential developers had undoubtedly looked at
it, none had come forward to harvest it on a large scale."¹⁰

Upon his election Roblin set out to rectify this situation. He
appointed Rex Grose to the position of Deputy-Minister of Industry
and Commerce. Grose's appointment was in large part due to his past
experience in this area of government activity.¹¹ At this time, the
Government also created the Manitoba Development Authority (MDA)¹² and
a special "Fund"¹³ to assist its efforts to attract economic development
to Manitoba. Grose was also named General Manager of the Fund besides
his duties of Deputy-Minister. Between 1958 and 1965 the Government
through Grose actively pursued several pulp and paper companies. It
commissioned numerous studies to investigate the economic feasibility
of locating an integrated forestry complex in the North. It then
appointed Grose to the full time task of seeing the project through.
It advertised both nationally and internationally the economic profits
that could be reaped from such a project. It increased substantially
the incentive package available. It refused several other types of
resource development proposals from interested companies, because it
wanted an integrated forestry project. No company remained interested
in the development for long, that is, until September 1965 when the
Government finally signed an agreement with a company it had been

negotiating with for three days.

Three models of decision-making will be used to analyze this decision process of the Roblin Government. The three theories which will be discussed in detail in the following chapter are the basic rational model, the adaptive rational model and, the cognitive processing model of individual decision-making. The salient reason for selecting these models was based on their account of the factors that affect a decision-process and the important role expectations have on the decision process. Each model views the expectation of the decision-maker differently. The rational model suggests expectations have no affect on the decision process other than as a concept of maximization. The adaptive model states expectations are matched to available alternatives. And the cognitive model suggests the decision-maker will retain an expectation without changing it. Another equally important reason was the approach each model takes in analyzing the decision process. The basic rational model views the government decision-makers as a single entity, the adaptive rational model sees them as a coalition of individuals and, the cognitive model from an individual basis. Thus we will have three different perspectives, but with each having the same objective. Each model also adopts the case study approach to the study of decision processes. Therefore this study will add another perspective to the evidence already available in this area of decision-making analysis.

In choosing the basic rational model several other reasons were also considered. First, this theory or slight variations of it, is one of the most commonly-used models in decision-making analysis.

Second, it is generally accepted that government decision-makers themselves use such a method when making decisions. Briefly, the model suggests that the decision-maker has perfect information, he knows every alternative and he chooses the alternative that will bring maximum satisfaction to himself. Because government decisions are typically thought to be made according to this model's expectations and its widespread use, its inclusion provides a good starting point for this case study.

The adaptive rational model is a variation of the first theory but its major emphasis is on decision-making at a group level, i.e., organizational. It also is different in that it does not accept the notion of perfect information, nor does it accept the premise that decisions are made according to the best alternative. The adaptive rational model states that constraints must be imposed on the environment to make it manageable, because of the condition of uncertainty that exists. Subject to these conditions, the first alternative in a sequential search that satisfies some minimum level of expectation will be chosen. The model posits several hypotheses: one, a firm engages in a sequential analysis of alternatives and chooses the first one that meets its desired level of expectation; two, decisions are directly related to a few parameters whose values are constantly assessed; three, to further reduce uncertainty, restriction of the environment is necessary; four, learning processes are subject to successful or unsuccessful experiences and that consistent failure to meet a certain level of aspiration will result in a reduction of that level.

The last theory, "the cognitive processing model", primary purpose is the analysis of actions by individuals rather than the total group. It is based on three commonly accepted psychological principles. The first proposition suggests that the mind is an information processing system which responds to new data by comparing it to previous experiences (i.e., in the form of belief structures) before deciding on some course of action. The second principle states that not only is information processed but that it is processed according to an inference hierarchy and decisions are based on this hierarchy. The last concept acknowledges the fact that the mind is subject to vast quantities of information. To maintain an efficient processing mechanism, the mind must retain a minimum level of consistency in its belief structure. Like the adaptive rational model, this theory posits several specific expectations to which this study will address itself. They are: one, decision-makers tend to restrict the time span of their considerations to the near future; two, decision-makers will tend to focus on a single objective and they will tend to ignore, deny or somehow avoid recognizing any conflict in information relevant to that objective; three, decision-makers will tend to rely upon impossibility inferences; four, decision-makers will avoid making adjustments in principal objectives by adopting transformational inferences, and; five, decision-makers will seek concurring information from other like-minded individuals to support their own belief structures.

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Does the CFI decision process offer social scientists the necessary significance to warrant an investigation? Several factors

indicate that it does. First, the decision process involved the Province's key political leaders and a civil servant. Second, it centered around an important policy concern of the Conservative Party's attitude towards economic development. Third, it affected the economic growth of Manitoba. Fourth, it involved an important area of government jurisdiction - resource development. Fifth, the eventual decision has had both inter-provincial and international repercussions. And sixth, it drew the attention of the entire province.

The general purpose of this study is to provide the reader with an analysis of the Churchill Forest Industries decision process from three theoretical perspectives. Specifically it is the intent of this thesis to apply the expectations generated by the three models to the decision process to see which model best explains the events and circumstances that resulted in the CFI scandal.

While such studies can not improve the present decision performance of government officials, their immediate value lies in the fact that they provide researchers with a valuable research tool in their analysis of the behavior exhibited by decision-makers. As more evidence is collected, this research tool's usefulness will assist political scientists in formulating a more comprehensive model of decision-making theory. One case study is not capable of providing a universal explanation for all decision processes, but it can offer a reasonable explanation for a particular decision process like the CFI affair.

FOOTNOTES

1

John D. Steinbruner, The Cybernetic Theory of Decision, (Princeton: Princeton University Press, 1976), p.6.

2

This should not be interpreted to mean that government can do the job alone. There remains many areas in which private industry with its sophisticated technology, managerial expertise and skilled labor force are the only organizations capable of developing certain sectors of the economy.

3

Steinbruner, op. cit., p.7.

4

William M. Evan (ed.), Organizational Experiments: Laboratory and Field Research, (New York: Harper & Row, Publishers, 1971) p.1.

5

Paul R. Lawrence and John A. Seiler, et al., Organizational Behavior and Administration, (Homewood Ill.: Richard D. Irwin, Inc., and The Dorsey Press, 1965), p.VIII.

6

Ibid.

7

Dufferin Roblin was Premier of Manitoba from 1958 to 1967.

8

Province of Manitoba, Report of the Commission of Inquiry into The Pas Forestry and Industrial Complex at The Pas, Manitoba, (Winnipeg: The Queen's Printer, 1974), vol. 1, p.80. (Here after referred to as Report).

9

The Commission was established on January 29, 1971 by the Government of Manitoba with an order of the Lieutenant-Governor-in-Council. Its terms of reference was "to conduct a comprehensive inquiry into all the facts and circumstances surrounding the origin and development of the Forestry and Industrial Complex at The Pas." (Report, vol. 1, p.1.) The Commission composed of the Hon. C. Rhodes Smith, Q.C., Chairman, Leon Mitchell, Q.C., and Murray Donnelly, Ph.D. submitted the Report to the Manitoba Government in August, 1974.

10

Report, vol. 1, p.83. See also Exhibit 326, p.10.

11

Grose had left the civil service in 1957 to work in private industry, but under the Campbell Government had been Deputy-Minister of Industry and Commerce.

12

The Authority had a Directorate or policy-making body which was a committee of Cabinet. It also had a Board consisting of senior civil servants at the Deputy-Minister level that acted as a recommendation and implementation group.

13

The Manitoba Development Fund (MDF) or better known as the "Fund" had its own Board made up of prominent businessmen. It was autonomous by terms of its statute from both the Government and the MDA.

14

For stylistic purposes, the decision process that the Roblin Government began in 1958 and which later resulted in the Churchill Forests Industries complex being built at The Pas, will be generally referred to in this paper as the CFI decision process, the CFI affair or just CFI.

CHAPTER II

In this chapter we will discuss the theoretical alternatives to be applied to the Churchill Forest Industry case study material. The objectives are to: examine the conceptual alternatives offered by the decision-making literature; elaborate the kinds of conditions to which decision-making processes in the public sector encounter; provide a clear outline of the expectations generated by the basic rational, adaptive rational and cognitive processing models. The expectations generated from these models will be used to gain an insight into the materials provided in Chapter Three.

In the area of decision-making we are concerned with, two widely accepted approaches are significant to the models noted above. The classical economic approach provides a foundation for the basic rational model and H.A. Simon's concept of "bounded rationality and satisficing" forms an integral part of the adaptive rational model. The third model, the cognitive processing theory is not associated with any of the generally accepted approaches and it has had limited use because of its recent development. The models have been adopted from John Steinbruner's study, The Mind and Milieu of Policy-Makers: A Case Study of the MLF in which he analyzed the development of a major foreign policy decision¹ by the American Government.

The most commonly accepted approach to the study of decision-making has been the classical economic approach. According to this concept, man is an economic being who possesses three properties. He is: (1) completely informed; (2) infinitely sensitive, and; (3) rational. According to this model, the way in which decisions are made one author

writes, is to

"evaluate the ends in terms of alternative costs and to allocate means in terms of marginal (or comparative) utility. The ultimate objective of all decisions and actions has been assumed to be the maximization of welfare or satisfaction or output per man-hour or some other measurable quantity." ²

Another more general way of explaining this is offered by Robinson and Majak: "Classic economic theory, ... assumes that in any decision, participants formulate all possible alternatives and select the best one on the basis of known utilities for each alternative and ordered preferences among them." ³ This is commonly referred to as the "rationalistic" model from which the basic rational model is derived. The expectations from this model are generated from the basic assumptions this model attaches to the decision-maker. These expectations will be discussed in the section dealing with the basic rational model elsewhere in the chapter.

In contrast to the concept of rationality proposed by the classical economic theory, Herbert Simon suggested the idea of "bounded rationality" which took into account man's limited abilities. This theory, James Robinson states "...would more nearly comport with what is known about the psychological and physiological limits of decision-makers." ⁴ Simon felt that man's ability to process information and solve problems is not infinite when environmental complexity is taken into account. "In fact it is so complex" as Chris Argyris suggests "that man cannot make decisions without having constraints imposed upon his environment to help make it manageable." ⁵ Given this constraint on man's analytical ability, the decision-maker in Simon's view can only consider a few alternatives, and

of these he can only approximate their utility.

To counter this problem Simon suggested that the decision-maker bases his decision choice on the attainment of a minimum level of expectation rather than optimization. For Simon the decision-maker does not carry out the search pattern that the classical approach holds. Rather as two analysts write:

"...that a decision will be adopted when an alternative seems to meet minimal standards, or is "good enough", and that a decision is not dependent on the availability of all possible alternatives from which the best may be selected."

This type of action would lead the decision-maker to seek a satisfying solution rather than the "best" one. It is this concept that ties Simon's model to the adaptive rational model and gives Cyert and March's model greater latitude in analyzing decision processes.

Generally a decision-making situation is classified as uncertain, certain or risky. Robinson suggests that this classification can be broken down even further: uncertainty, risk, routine and unprogrammed. While it would appear that the classification of the decision process may be subject to semantical interpretations, there is a major argument in the literature about as Robinson and Majak state: "The degree to which one can justifiably transfer - whether substantively or heuristically - observation and generalizations about nonpolitical decision-making to political decisions..." In their article "The Theory of Decision-Making", Robinson and Majak summarize the literature dealing with this question and caution the neutral participant:

"If one cannot reach a conclusion on the generalizability of nonpolitical decision behavior to political decision behavior

(and vice versa), he is at least prompted to generalize with caution and to recognize the need for retesting in political settings propositions derived from non-political decision studies."⁹

For our purposes we will assume that such processes can be equated and that concepts can be formulated from political decision-making and other organizational decision-making on the same terms.

Decision-making is subject to the amount of information available. In some business decisions, all the facts necessary for the decision are known in advance; that is, there is no uncertainty or risk about future costs or expected profits. The problem then is to select the best alternative. For example, a manufacturing firm has several factories that ship goods to its warehouses located throughout the country. The firm knows exactly the shipping costs of each factory to each warehouse, as well as the manufacturing capacities of the factories and the requirements of each warehouse. The problem facing the firm is to decide the optimum (least cost) shipping schedule (i.e., which factories should ship to which warehouse). In this case all the relevant information is known in advance. This type of knowledge is characteristic of "decision-making under certainty".

The tossing of a coin is an example of "decision-making under risk". When a coin is tossed there is a 0.5 probability (i.e., 50% chance) of tossing a head. The decision-maker in this case can predict with some accuracy the chance he will have of achieving a desired goal. When a number or probability can be attached to a decision problem then it is viewed as a risk. "A proposition about the future to which a number

can be attached, a number that represents the likelihood that the proposition is true, may be called a first-order risk.¹⁰ Therefore when a person knows before hand the probability of achieving a specific goal, he is making a "decision under risk".

When a decision is made without the benefit of having all the relevant information or knowing the probability, it must be viewed differently. For example, if the firm did not know the requirements of their warehouses because of changing market conditions and/or that by the time shipments were ready, a new fee schedule (not yet known) would be in effect, the firm would have to make a "decision under uncertainty". This type of decision is characterized by the fact that the decision-maker does not know all the facts and must proceed on this basis. The CFI decision made by a group falls into this last category.

For the CFI decision group, the decision process took place under a condition of uncertainty. But unlike business firms which usually operate in an oligopolistic market, there are several differences in this condition of uncertainty due to the milieu each organization is exposed to. First, the business firm can specify or define a small list of key variables affecting its decision thus placing parameters on the decision problem. The government decision-maker can not do this and often some of the parameters (i.e., environmental factors) can not be so defined. A second area relates to the "flow of relevant events". In the market place, these events occur in a fairly uniform pattern (e.g. seasonal sales) giving the firm a better idea of the decision time available. In government, such patterns are not predictable nor uniform and the "lead time" can not be ascertained with such precision. In most

instances this last factor is due to the different activity the two organizations are involved in. The business firm operates in an environment that is repetitious, while government when making policy decisions does not. In the actual administration of these decisions a repetitive situations does exist. With the establishment of these parameters the study now turns to the specific parameters defined by the three models.

THE BASIC RATIONAL THEORY OF DECISION-MAKING

The basic rational theory of decision-making is derived from the classical economic theory discussed above. Man is said to possess three characteristics: one, he is assumed to have complete and perfect information about his environment; two, he is infinitely sensitive to all possible alternatives for attaining a preferred state, and; three he ranks his alternative according to a preference ordering to receive the maximum benefit from his decision. This last point, a central principle of the theory of riskless choice assumes that the decision-maker will always choose the highest ranked alternative. ¹³ These characteristics can be viewed as expectations of the basic rational model. They present to the investigator a series of hypotheses which can be tested in the CFI decision process.

An important assumption of the basic rational model's expectation of rationality is the concept of search. For the decision-maker to have perfect knowledge he must carry out a search for all the information associated with a particular decision process before he can rank-order his alternatives and make the preferred choice. Scanning theory of search reflects the rational decision-maker's continuous exploration of his environment for new information and policy

options or alternatives to improve his level of decision-making performance. The on-going process of search posited by this theory would suggest that in an operational setting, as one writer states, "...would seem to imply that a large number of alternative policies would be generated and, at any rate, that the development of alternatives would be actively encouraged."¹⁴ This expectation can be verified in conjunction with the general expectation of rationality in the CFI decision process.

Equally important is scanning theory's assumption that the decision-maker will produce large amounts of information relevant to the decision problem and that the decision problem would be defined at a general level rather than a specific level (e.g., in the CFI case, economic development of the North instead of CFI itself). This expectation can also be tested in the CFI case study.

Use of the basic rational model provides a general characterization of a decision-maker that can be used throughout our analysis. A decision-maker can be viewed as having a conscious purpose in relation to his environment and one who uses the resources at his disposal to achieve specific goals. In doing so, he exhibits a tangible degree of efficiency and effectiveness in achieving his goals. This generalized view of a decision-maker cannot be dismissed too easily because of its general acceptance. The model provides us with a number of expectations; the opportunity to test a concept which government decision-makers have traditionally been thought to employ when making decisions; to investigate what other alternatives were available to the Government; to study the objectives of the CFI concept; and it provides us with the perspective that government decision-making can be analyzed as the actions of a

single entity. Therefore these models provide a good basis to start a study. As one author argues "...investigation out to begin with a rational model and proceed from there, introducing such modifications as one needs in analyzing a given problem". It is the intent of this study to follow the author's suggestion.

THE ADAPTIVE RATIONAL THEORY OF DECISION-MAKING

As suggested above the next model we shall use to analyze the political decision-making behavior in the CFI case is the "adaptive rational model". The model was developed by Cyert and March on the basis of Simon's criticisms of rational theory. Prior to the formulation of this model March and Simon had conducted an extensive study in which they found little work had been carried out on "information processing" in relation to understanding organizational behavior. They rejected the concept of preference ordering and instead substituted Simon's concept of "satisficing". Cyert and March in their follow up study suggested that the "satisficing concept" plays an important role in a firm's decision-making behavior because of the condition of uncertainty the firm is faced with and the limited analytical ability of the decision-maker. Following this reasoning, Cyert and March hypothesized that the firm with its multiple objectives engages in a sequential analysis of alternatives and chooses the first one that meets its desired level of expectation.

Like the basic rational model, the adaptive rational model raises the notion of search. The latter model however rejects the scanning theory of search and its process of optimization. It posits instead the concept that search is based on the solving of immediate problems and is a function of aspiration level goals. It is a process of

problem solving by sequential attention hence the name of "problemistic and sequential theory of search".

A major premise of this theory suggests that the decision-maker is not constantly searching his environment for additional information nor is he constantly generating alternative policies. Rather the decision-maker focuses attention on areas where expectations are not being met. Thus, the theory hypothesizes that alternative policies are evaluated sequentially (i.e., one at a time) until one is found that meets the desired expectation. In addition, the model suggests that if the search process is not successful, modifications will take place to expectation level and the alternatives until such time as a policy alternative and a desired aspiration match. The model's hypothesis will be tested in the CFI case study.

In addition to the problemistic and sequential theory, Cyert and March proposed another theory which is an adaption of the latter model. While conducting a study they observed the subject organization responding to a problem with a solution that had little to do with the problem. As a result of this observed behavior they concluded that firms have a tendency "...to develop policy alternatives independent of problems, and then to apply these to problems which later arise." ¹⁹ From these actions, Cyert and March suggested that search behavior is based on the linking of two processes - problems seeking alternatives and alternatives seeking problems. Therefore they hypothesized that alternatives are developed independently of a particular problem and quite often are distinct from the problems to which they are mated.

Another major premise of the adaptive rational model is the presence

of uncertainty and the firms response to this condition. Cyert and March labelled this "uncertainty avoidance". Business firms face uncertainties in market behavior, stockholder attitudes, behavior of competitors. To reduce the uncertainty such factors raise, business firms will adopt decision-rules that encourage short-run solutions and avoid situations in which they are required to forecast future long term events. "In short", March and Cyert state,

"they achieve a reasonably manageable decision situation by avoiding planning where plans depend on predictions of uncertain future events and by emphasizing planning where the plans can be made self-confirming through some control device."²⁰

Subject to these observations the adaptive rational model hypothesizes that decisions are directly related to a few parameters whose values are constantly assessed. It also hypothesizes that firms further reduce uncertainty by ensuring control and predictability by restricting the relevant environmental factors. These expectations will be applied to the CFI case study material.

The adaptive rational model's next major concept is "organizational learning." This concept refers to the process of adaptive behavioral change over time. It involves three phases in the decision process: 1) adaptation of goals; 2) adaptation in attention rules and; 3) adaptation in search rules. Cyert and March state that "...organizations change their goals, shift their attention, and revise their procedures for search as a function of their experience,"²¹ and therefore firms adjust their behavior in response to environmental conditions.

The adaptation of goals by a firm reflects the organization's

sensitivity to the success competitors have in attaining goals and to its own experiences in achieving its goals. The adaptation in attention rules is a function in which an organization tends to respond to some informational inputs while neglecting others. This process is directly related to an organization's tendency to deal with immediate problems or goals. In this instance information relevant to the short term objective or problem will be utilized while information pertaining to long term situations will be bypassed. The third phase, adaptation in search rules is a behavior organizations exhibit whereby if they find a particular search pattern successful, they will tend to use it again. Together the three functions suggest that past success will tend to determine organizational behavior in the future. Therefore the adaptive rational model hypothesizes that the learning process is subject to successful or unsuccessful experiences and that consistent failure to meet a certain level of aspiration will result in that level of aspiration being reduced.

The theoretical discussion of the basic rational and the adaptive rational models has suggested to the reader a series of hypotheses that are very different. For example, the former model suggests that the decision-maker is a rational being who has complete information about the decision situation. On the other hand, the latter model suggests that the decision-maker does not possess such information. Furthermore it suggests that he does not have the analytical ability to process this data nor is he aware of all the possible alternatives - a statement that is contrary to the basic rational model's hypothesis. These two notions - perfect versus imperfect information, and; total analytical

versus limited analytical ability suggest two essential differences in these models approaches in analyzing the decision-making behavior of the CFI decision group.

Another area of theoretical dispute involved the concept of search. The basic model stated that search is a continuous function, always generating more data and alternatives for the decision-maker to improve his decision performance. The adaptive model suggested that search was either a function of necessity - that is, when a problem arose or expectations were not being met, then the decision-maker would act. Or, it suggested that problems and alternatives are mated. In the CFI decision process these expectations will be tested in relation to the behavior the Government exhibited as the search went on for a developer.

The concept of optimization or maximization posited by the rational model is in direct contrast to Simon's concept of "satisficing". The former model states that the alternative that brings the highest utility to the decision-maker will be chosen. The latter model however states that the first alternative that meets a particular level of expectation will be chosen. If this does not happen than the aspiration level will be lowered. While the Government was in the midst of its decision process, a variety of alternatives were available to it. The behavior of the Government will be analyzed to see if it conforms to either hypothesis.

As stated at the conclusion of the theoretical discussion of the first model, the application of a model gives the researcher a chance to test a model's applicability to a decision situation. In the adaptive rational model, the opportunity is presented to analyze the Government's

decision-making behavior from another theoretical perspective.

A COGNITIVE PROCESSING THEORY OF INDIVIDUAL DECISION-MAKING

The third model in our analysis of the CFI decision problem is the "cognitive processing theory of decision-making."²² In this model, man is considered as an individual, subject to information and a variety of stimuli from his environment. A central premise of the model is that man - the decision-maker - has an Ego which screens incoming information, categorizes it, attaches values to it, and then stores it for future use and information. This process is referred to as the "reality principle". In other words, man is viewed as a decision-maker and the Ego is the executor of his decisions. A central problem in this approach is the relationship between the attributes of cognitive functioning and behavior patterns exhibited in response to, or in anticipation of, environmental conditions. Three basic concepts of psychology set the parameters for this psychological model of decision-making. They are: 1) the concept of information processing; 2) the concept of cognitive organization, and; 3) the consistency principle of cognitive processing.

The concept of information processing states that the Ego is an organized processing system. The Ego responds to new environmental stimuli by the use of intervening variables.²³ It compares the new information to stored data before it decides on some form of action. This suggests that behavior can be understood in terms of past behavior and in terms of principles of information storage and comparison. This concept also suggests that behavior is partly determined by how an

individual organizes his notions of the world independently of the actual environment situation.

Cognitive organization, the model's second principle argues that not only is the Ego an information processing system, but it stores this information according to inference hierarchies and makes decisions based on this hierarchial system. Inference hierarchies are a series of sets, each containing particular information pertinent to the set and then prioritized according to the importance the perceiver attaches to that set. These sets of information are commonly called beliefs. Information in a belief set can be positive or negative. One belief may be a sub-set of another thus establishing the basis of a complex belief structure. When new information is processed it is compared to existing belief sets to see if it has any relation. If it does the new data is processed into the existing set, if it does not then a new belief set will be established.

Political belief patterns are an important factor in individual decision-making and group decision-making behavior at the government level. Common experience is a reflection of thoughts and thoughts are based on beliefs. In order for a group to work effectively together, there must be a common basis. "As we shall see," one writer states, "common belief patterns are thought to be functional to organizations and societies (as well as to individuals) in helping the members work together." Belief patterns help to define for both the individual and society, roles and role behavior, as well as applying a hierarchial ordering to this memory organization. It is assumed that an individual's or group's behavior response to any given stimuli is therefore subject

to some component in the total belief (operative) structure,

There has been a great deal of research in regards to memory organization on a hierarchical basis. Research has demonstrated the operation of inference structures in determining basic aspects of behavior. Since such conclusions are predicated on basic aspects of behavior, we will assume when dealing with events that are more complicated (i.e., government decisions) that the mind still operates in the same way. Thus, the propositions of information processing and cognitive organization are also inclusive for the types of decision-making behavior we will be analyzing.

The last concept states that the cognitive processing mechanisms operate in such a manner as to maintain a minimal level of consistency in the inference structure. Consistency is the key factor concerning information processing and storage. This concept has two implications: one, internal relationships within each set must maintain some consistent level of tolerance or acceptance and; two, it is assumed that maintenance of an overall consistency level is difficult because a complex belief structure requires much more cognitive processing. The two implications are important to our analysis of the CFI problem because the principle of consistency states that the information in a given set must support the defining inferences. Furthermore in a complex structural situation, changing a set specification will require sizeable rearrangements in the belief structure especially if there is a considerable amount of inconsistency in the new information.

Not only does inconsistent information pose the above problems, but it also necessitates a system to handle inconsistency within the

present belief structure. This is important because "changing the set-defining inference, for example, when inconsistent information is added, cannot answer the problem if an alternative inference which resolves the inconsistency is not immediately available."²⁸ Maintenance of consistency levels within a belief set or sets becomes especially important to decision-makers operating in the complex environment of government.

29

Leon Festinger in his book A Theory of Cognitive Dissonance deals with the problem of reducing inconsistency levels. According to his theory the level of dissonance that exists after a person has made a decision is in direct relation to the number of inconsistencies he knew before hand.³⁰ The existence of such dissonance is psychologically uncomfortable for the person and he will try to reduce it and achieve consonance. Festinger emphasized this point. "When dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance."³¹ In the study of the CFI decision material this situation will appear with alarming regularity and the consequences it had will be examined carefully.

Before any specific hypotheses from the general structure stated above are stated, a number of additional specifications remain to be defined. These specifications include: 1) types of inferences; 2) structural flexibilities and inference strengths; 3) mechanisms of consistency management and; 4) the principle of structural simplicity.³²

Types of inferences refer to the differences that make belief sets distinct from each other. These differences include: the distinction

between fact and value where value inferences can be supported or damaged by factual inferences; and where beliefs based on factual inferences can dominate beliefs based on value inferences. Another distinction of this specification relates to where value inferences exceeds supportive facts. "This means that the strength of a value belief is not as dependent upon the encompassed data as is a factual belief." In other words, beliefs based on value inferences can in some instances dominate beliefs relying on factual inferences.

The specification of structural flexibility and inference strength deals with the problem of flexibility and rigidity in the operative belief structure. In other words, the notion that some component beliefs are subject to more change than others. Two concepts, that of inductive support and deductive support, arise from the above specification. Inductive support reflects the inner relationship between the elements of a belief set and the set's parameters. Deductive support refers to the resistance to change exhibited by some belief sets because of their position in the overall operative belief structure and not because of the supportive information of that set. Allport explains this concept thus:

"The more firmly a hypothesis is embedded in a larger organization of a cognitive sort, the less will be the amount of appropriate information necessary to confirm it and the less subject will it be to changes in later experience."

34

A further sub-specification is the presence of "structural uncertainty", a result of in-coming information being applied to a complex decision

problem with a large number of multiple factors involved. This denotes a situation whereby a large number of inferences are generated, but no inference with a high degree of inductive reasoning is able to dominate, because of the dispersion of factual data among the various inferences. In such situations inferences will have a tendency to be established on deductive grounds.

Mechanisms of consistency management refer to the techniques the mind uses to maintain a certain level of consistency in a given belief structure. Consistency is necessary because "without some minimal coherence in a person's belief structure, no experience at all is possible and no behavior can occur,"³⁵ Reduction of inconsistencies in a belief set or between sets can be achieved by: changing the beliefs; seeking supportive information, and misperceiving or altering new information to conform to an existing belief.

The last specification "the principle of structural simplicity" is a sub-specification of the major concept of cognitive organization discussed above. It assists the Ego in maintaining the organized inference hierarchy. In the discussion, we have noted the function of the reality principle. This function constrains or insures that the Ego remains aware of the environment. It should also be noted that for the Ego to operate effectively it must maintain a minimum awareness of its own belief structure (i.e. inference hierarchy). These constraints place a limit on the Ego's functional abilities. Therefore the Ego will devise the simplest, least structured system to process incoming data, by operating with the smallest number of belief sets

possible. Overall, there will tend to be a conservative tendency not to develop new belief sets. The Ego will try to store new information under present belief sets before establishing new ones. Also, information that maintains the existing belief set or simplifies the properties of that set will be favoured over information that does not.

In the discussion of the other models, certain expectations were noted to test each model's ability in analyzing a decision-making problem. The cognitive processing model makes such assertions in a number of areas that also require some test of its analytical ability.

A major premise of the cognitive model is that the decision-maker is not a long-range planner but rather one who tends to approach problems with short-term solutions. This assertion is based on the idea that long range planning will present the decision-maker with a more difficult cognitive processing problem. Several factors discussed support this notion: 1) maintaining long-term belief sets is more difficult due to the greater uncertainty involved; 2) new information tends to strengthen short-term beliefs thus making them stronger than long-term beliefs. This process is a result of short term beliefs having a natural advantage because of their deductive support; 3) the principle of structural simplicity supports the use of short-term beliefs because of the reduced processing necessary to fit new information into a belief set; 4) structural simplicity does not support the tendency to retain two conflicting courses of action. The model's first hypothesis then is that

"Decision-makers tend to restrict the time span of their considerations to the near future."

An individual makes decisions subject to his operative belief structure. Simply stated, decisions are the result of objectives which form an integral part of the operative belief structure. Without this component, a decision-making situation would not exist. Before stating the next hypothesis a number of points should be stated. We must assume that when some decisions are made, not all the objectives of a belief set may be satisfied. Therefore we have a question as to how different value based objectives of a belief set will be prioritized. This question is resolved by considering the impact information processing has on strengthening short term or immediate inferences over long term and/or abstract inferences. Consequently short term value objectives will tend to dominate in such situations.

When a belief set is viewed in an "immediate context" it often becomes associated with other objectives with seemingly similar content. Such an association may cloud an issue and in many cases the objectives may be in actual conflict. Each model approaches this problem differently. The adaptive rational model hypothesizes that the decision-maker will recognize such a relationship and devise some method of "integrating the various gains and losses." The basic rational model postulates simply that any action taken to promote one objective will be at the expense of the other. The cognitive model based on the concept of structural simplicity assumes the decision-maker will seek an alternative with the least number of objectives when possible. Steinbruner explains this proposition in the following manner. "Since a single defined objective is all that is required to give guidance to purposive action, the strongest

expectation of the model is that decision-makers will maintain an operative belief structure having a single objective.³⁶ The model's second hypothesis states that

"Decision-makers will tend to focus on a single objective and will ignore, deny or somehow avoid recognizing any conflict in information relevant to that objective."

Whenever a decision-maker can not reduce the problem to a single objective, he will structure any competing objectives in such a way as to prevent any competition between them. This reduces the processing load, which is in accord with the principle of structural simplicity. One further point merits discussion, the effect of value inferences on objectives. These inferences are not wholly based on empirical evidence and are not subject to the same induction processes as factual inferences. They are though, an integral part of one's belief structure and help to determine one's perception of the world. Consequently, the stronger the value inference the more likely an objective or information matching these criteria will be selected.

For the Ego to operate within a less complex information processing system the cognitive processing model has envoked three principles: 1) the reality principle; 2) the consistency principle and; 3) the principle of structural simplicity. Because of the constraints imposed on the Ego by these principles, Steinbruner argues that decision-makers frequently use "impossibility inferences". These inferences are a mechanism which removes any belief from further consideration if the perceiver feels it to be improbable.

Several factors support this argument. In the first place, such

inferences are usually based on deductive processes rather than inductive processes because the former are a part of an established belief structure. Inferences of this kind typically have much stronger belief strengths. In other words, they 'cost' more to give up. In addition, the external information situation is subject to several interpretations. The result is that weaker beliefs are more easily dismissed. Therefore a decision-maker who feels some objective is impossible will discard it without really trying to verify it. A second factor suggests that it is easier to build a negative case than a positive case for an objective. A positive case requires a good deal of supportive evidence and cognitive processing, whereas the negative case needs but one objection to validate it in the mind of the decision-maker. A negative case therefore not only fulfills the requirements of the principle of structural simplicity but it also is consistent with the decision-makers present belief structure and with his perception of the world. Thus the model's third hypothesis suggests

"Decision-makers will tend to rely upon impossibility inferences."

Decision-makers according to Cyert and March will frequently be confronted with a situation in which their belief structures are not compatible with their perception of the world. When this problem occurs the Ego will initiate steps to adjust both its belief structures and its worldly perceptions until the two are once again in equilibrium. This action is taken in a constrained situation where the relevant parameters are completely specified (i.e., not under conditions of

uncertainty).

Decision problems like the CFI on the other hand take place under conditions of structural uncertainty. In such situations the parameters are not specified, the fact-value relationship is less constrained. Thus as Steinbruner points out

"the comparison between actual performance and objectives, the determination of performance, the determination of environmental constraints -- all these inferences are relatively unconstrained under conditions of structural uncertainty."

37

Thus many inductive inferences can be made from the new information, and given the strength that deductive inferences possess, factual inferences are replaced by the other type more readily as their belief strength becomes dispersed. Deductive inferences it should be remembered are firmly established components of a belief structure and changes in value inferences do not take place easily. Some other method of resolving this dilemma becomes necessary.

To resolve this problem, the cognitive model states transformational inferences will be used. Steinbruner explains their use. "Transformational inferences simply posit a general trend whereby the existing state of affairs will be transformed gradually to accord more closely with the desideratum." This proposition finds strength in the fact that support for inferences of this kind is deductive and they protect existing beliefs from new information which would require a change in the existing structure. Again, this type of inference is consistent with the three principles stated above. Thus, the fourth hypothesis of the cognitive

model is that

"Decision-makers will avoid making adjustments in principal objectives by adopting transformational inferences."

The maintenance of particular structures by decision-makers noted the use of impossibility and transformational inferences. One other possibility must be discussed. It has often been suggested that decision-makers will seek the opinions of others who share similar value inferences in order to strengthen their own belief structures. Evidence strongly suggests that individuals will actively reinforce their beliefs by seeking opinions from other like-minded individuals. Festinger, Hovland, and March and Adams have all found this behavior to occur in their experiments. This tendency by decision-makers suggests two behavior patterns. One, decision-makers will seek concurring information to support their own belief structures and two, they will use this type of information to strengthen weaker belief structures when appropriate. Thus the model hypothesizes that

Decision-makers will seek concurring information from other like-minded individuals to support their own belief structures.

The theoretical discussion of the three models has presented the reader with three different perspectives to analyze the CFI case material. Each theory suggests that the decision-maker will respond to a decision situation differently. The basic rational model states that decision-making is a process of maximization or optimization. That is - the

alternative that is chosen has the highest utility to the decision-maker and it is for this reason that any particular alternative is chosen. The adaptive rational model suggests that decision-making is not a process of maximization but rather one of satisfying a certain level of expectation. The first alternative that achieves this level of expectation will be chosen. There is not as the first model suggests, a comparison of alternatives, then choosing, but only a sequential matching of each alternative to a minimum level of expectation. The cognitive model on the other hand suggests neither is the case. The decision-maker has a particular objective in relation to an expectation that are a result of his operative belief structure. The cognitive model posits several hypotheses as to how the decision-maker will meet this objective. The essential difference between this theory and the other two is that the cognitive model's decision-maker has an established expectation level from which he will not deviate. The other two suggest that the decision-maker's expectation level is based on the process of maximization or satisficing.

With the application of the cognitive model to the CFI case material, the analysis will look at behavior the CFI decision-makers exhibited in relation to: the time span of their considerations; the nature of their objectives and the information associated with them; the maintenance of their beliefs, objectives, etc., and; the affect of the group on attitude behavior.

On the basis of the expectations posited by the three models, the study now turns to analyzing these expectations in relation to the CFI

decision process. If the various models do not provide a complete analysis, their application will nevertheless have helped answer some questions and perhaps pose new questions that can be the subject for further research.

FOOTNOTES

1

John D. Steinbruner, "The Mind and Milieu of Policy-Makers: A Case Study of the MLF", (unpublished Ph.D. dissertation, Massachusetts Institute of Technology, 1968). In his study, he used four models in his analysis of the development of the Multilateral Nuclear Force (MLF) proposal, but this is not necessary in the CFI study because of the different organizational structure involved. This point will be discussed in the following chapter where the organizational structure of the CFI decision group is explained.

2

Paul Diesing, "Non-economic Decision-making", Ethics, vol.65 (1955), p.18.

3

James A. Robinson and R. Roger Majak, "The Theory of Decision-Making," in Contemporary Political Analysis, ed. by James C. Charlesworth (New York: The Free Press, 1967), p.179.

4

James A. Robinson, "Decision-Making; Political Aspects," in International Encyclopedia of the Social Sciences, ed. by David L. Sills (New York: The MacMillan Company and The Free Press, 1968) vol.4, p.56.

5

Chris Argyris, "Some Limits of Rational Man Organizational Theory," Public Administration Review, vol.33(1973), p.254.

6

Robinson and Majak, op.cit., p.179.

7

Robinson, op.cit., p.58.

8

Robinson and Majak, op.cit., p.176.

9

Ibid., p.178

10

Ward Edwards, "The Theory of Decision-Making", in Decision-Making, ed. by Ward Edwards and Amos Tversky (Baltimore: Penguin Books Inc., 1967), p.27. First-order risks refer the function of one probability distribution, second-order risks is a function of two probability distribution and so forth. This example is not as clear cut as it would seem. Eg. When you have a completely biased coin, with a probability =1. A probability is attached but there is no risk.

11

When a Government moves to introduce new legislation often it may be without precedent. The Government may not be able to predict the time element necessary for its effective introduction. Nor can it always specify the affect it may have on other programs. For example, the introduction of Autopac led to much criticism by the public, auto insurance agents and the media. The Government knew before hand the opposition it would encounter and it might have been able to predict the intensity of the criticism. On the other hand, it might not have been able to predict the deficits the new legislation might incur nor the affect these deficits would have on its other priorities. Such a condition would involve structural uncertainty.

12

This refers to economic man being able to classify a number of choices by preference and that these preferences are transitive. For example, if economic man prefers A to B, and prefers B to C, then he prefers A to C. Both conditions of weak ordering have been satisfied, the ranking of preferences A to B to C and the condition of transitivity A to C. For a detailed historical account of decision-making theory see Ward Edwards, op.cit., pp.13-64.

13

A distinction is noted between decision-making under certainty (i.e. riskless choice) and decision-making under risk. In the former economic man is assumed to maximize utility, while in the latter state he is assumed to maximize expected utility.

14

Steinbruner, op.cit., p.245.

15

Steinbruner, op.cit., p.229.

16

Richard M. Cyert and James G. March, A Behavioral Theory of The Firm, (Englewood Cliffs: Prentice-Hall, Inc., 1963).

17

James G. March and Herbert A. Simon, Organizations, (New York: Wiley, 1958).

18

See Chapter VI, Cyert and March, op.cit., for a description of their theory of organizational decisions.

19

Steinbruner, op.cit., p.247.

20

Cyert and March, op.cit., p.119.

21

Ibid., p.123.

22

This particular model was developed by Steinbruner as part of his study of the MLF decision-problem. Application of the model has been limited with the result that not too much discussion has taken place about its merits. To ensure that the thrust of the model is not lost in this author's interpretation, it will be necessary to follow closely Steinbruner's explanation. The purpose of this study is to explain Steinbruner's model and apply it to our study. It would be therefore too large a task for this study to review all the literature dealing with decision-making theory from this particular area of psychology. Such reviews are listed in Steinbruner's study, op.cit., p.310.

23

H. B. English and A. C. English, A Comprehensive Dictionary of Psychological and Psychoanalytical Terms, (New York: David McKay Company, Inc., 1966), define variable as a quantity that may increase or decrease, continuously or discontinuously, without other essential change. An intervening variable is any variable that is functionally connected with a preceding and a following variable.

24

This concept compliments Simon's idea of "satisficing" as explained in the section dealing with the "adaptive rational theory".

25

English and English, op.cit., define a belief as an emotional acceptance of a proposition or doctrine upon which one implicitly considers adequate grounds. Beliefs have varying degrees of subjective certitude.

26

Robert E. Lane, "Patterns of Political Belief," in The Handbook of Political Psychology, ed. by Jeanne N. Knutson (San Francisco: Jossey-Bass Publishers, 1973), p.85.

27

Ibid., p.97.

28

Steinbruner, op. cit., p. 280. See pages 280-284 for a discussion of experiments demonstrating the consistency principle. Essentially the experiments showed that inference manipulations had occurred without conscious awareness on the part of the perceiver, that

these phenomena were noticeable and highly predictable. Such experiments were carried out in normal circumstances, but the consistency principle has also been demonstrated in experiments not dealing with direct and immediate perception.

29

Leon Festinger, A Theory of Cognitive Dissonance, (Stanford: Stanford University Press, 1970).

30

Leon Festinger, Conflict, Decision and Dissonance, (London: Tavistock Publications Ltd., 1964), p.5.

31

Festinger, A Theory of Cognitive Dissonance, p.3.

32

For a detailed discussion of these "intermediate specifications" see Steinbruner, op.cit., pp. 284-295.

33

Steinbruner, op.cit., p.286.

34

As quoted in Steinbruner, op.cit., p.289. See also F. A. Allport, Theories of Perception and the Concept of Structure, (New York: Wiley, 1955), pp. 386-387.

35

Steinbruner, op.cit., p.291.

36

Ibid., p.299.

37

Ibid., p.303.

38

Ibid., p.304.

39

See J. S. Adams, "Reduction of Cognitive Dissonance by Seeking Consonant Information," Journal of Abnormal and Social Psychology, vol.62, 1961, pp. 74-78; Festinger, op.cit., 1970; C. I. Hovland et al, Communication and Persuasion: Psychological Studies of Opinion Change, (New Haven: Yale University Press, 1953); and J. G. March, Handbook of Organizations, (Chicago: Rand McNally, 1965).

CHAPTER III

THEORETICAL ALTERNATIVES TO THE CFI DECISION PROCESS

The case study material to be examined will provide the interested reader with a retrospective view of an important political decision process in Manitoba's development. The decision process is part of Manitoba's history, thereby removing the predictive problem (as well as the predictive testing) of the decision-making theories. The material covers a seven year period, beginning with the election of Duff Roblin's Conservative Government in 1958 and ending in 1965 when the Conservative Government signed an agreement with a Swiss-based development company. This period was chosen because it marked the duration of the Government's long search for an integrated forestry complex in the North. It is also significant because the Government's behavior became firmly established during this period with regards to the CFI concept. In addition, some reference to events outside this time sequence will be discussed in relation to the decision-process under analysis, but the primary focus of attention remains the 1958-1965 period.

The Royal Commission that investigated the affair, carefully detailed the chain of events and the negligence of the principle actors involved. The Commission's Report was, as one newspaper journalist so aptly described, a clear analysis of what can only be viewed as a disastrous scandal. He summarized the Report in the following manner:

"But what is so shattering about the 3000 pages of the Smith commission judgment is the litany of "incompetent, irresponsible, negligent and self-serving" acts by cabinet ministers, public servants, lawyers, economic consultants and chartered accountants, so carefully chronicled through the six volumes." 3

It is this behavior exhibited by cabinet ministers and public servants that the case study is concerned with.

Two men, the Premier of the Province, Duff Roblin and Rex Grose former Deputy Minister of Industry and Commerce, Executive Director of the Manitoba Development Authority (MDA) and Chairman and General Manager of the Manitoba Development Fund (MDF or Fund) were the principal actors in the Government's CFI decision group. The Roblin-Grose decision group consisted of several other people, all of whom were Cabinet Ministers. While Roblin's and Grose's presence in the CFI decision group was permanent, the other membership varied with time. In the beginning the group consisted of Roblin, Grose, Gurney Evans, the Minister of Industry and Commerce, Sterling Lyon, the Minister of Mines and Natural Resources, and Maitland Steinkopf, the Provincial Secretary. It was this group, with a slightly different membership - but a Committee of Cabinet nonetheless that made the decision to accept⁴ the Swiss Company's offer.

The CFI case material from 1958 to 1965 should be viewed in terms of the parameters established by the three models. It provides the researcher the opportunity to investigate the concepts of maximization, satisfying, search, information generation and utilization, goal retention, and goal attainment vis-a-vis long and short term objectives, etc. The CFI material identifies the principal actors, Roblin and Grose. It also clarifies for the reader that while the entire episode did not end until 1971, when the complex was placed under Receivership by the NDP Government, there were several distinct

decision processes including the one under investigation. They are: one, the 1958 to 1965 time period that began with the election of the Conservative Government till the agreement was signed with Monoca in September 1965; two, the period from September 1965 till the defeat of the Conservative Government in June, 1969, and; three, from the election of the NDP Government till the CFI Complex was placed in Receivership in January, 1971. While each decision process would present the interested researcher with an opportunity to test the applicability of three models, this exercise is beyond the present scope of this study. In addition, the reader should note that the events of the first decision process played an important role in the subsequent decision processes, therefore it is not only appropriate but necessary that such an analysis begins with the first decision process.

THE BASIC RATIONAL MODEL AND THE CFI DECISION PROCESS

The economic development of the North as envisioned by the CFI concept formed an integral part of the Progressive Conservative Party's platform when it was elected to power in 1958. Economic development was in Roblin's view quite necessary to change the province's position from a "have-not" to a "have" position in order to provide a better way of life for its residents. In his evidence before the Commission, Roblin emphasized this viewpoint: "Economic well-being is a foundation of the quality of human life. To those to whom this proposition is not self-evidence, it is not demonstrable; I therefore do no more than just state it." Diversification of the

Province's economy was viewed by Roblin as the necessary vehicle to bring about this change.

A northern forestry development project was just such a vehicle despite the many attempts made, the different plans advanced, the companies contacted and the failures encountered. But the concept remained just a vision that was not realized till September 1965. It was a policy with no competitors; a concept that was the responsibility of only one government body. It was not like many other proposals lost or watered-down in the intra-government bargaining process. Rather as time progressed it became grander, till finally it was seen as a "forestry and industrial complex". A complex that would lead northern Manitoba into the Twentieth Century.

In the discussion of the basic rational model in the previous chapter, three characteristics were attributed to the decision-maker. It was suggested that he had perfect information, was infinitely sensitive and he was rational. In addition, an important assumption was the concept of search.

Did the Roblin Government have "perfect information" as suggested by the basic rational model to make the correct decision? The Roblin Government began to assemble detailed information on the North's economic potential through its Department of Industry and Commerce in 1958. But even before this, several studies had been carried out by the Campbell government. In 1954, the Liberal-Progressive Government of Douglas L. Campbell received a feasibility report from the Department of Mines and Natural Resources on the establishment of a pulp and

paper operation at Grand Rapids. Two years later, the same department began an inventory of Manitoba's forests. That same year, the Campbell⁷ Government commissioned Arthur D. Little Inc., (ADL), to investigate the North's economic potential. ADL produced two reports: "Memorandum, Pulp and Paper Manufacturing in Northern Manitoba"; and a second study entitled, "Economic Survey of Northern Manitoba, 1958". The latter study was viewed as "...the first major report on the resources⁸ of Northern Manitoba and techniques for developing them..." Each study the Government received added to the optimism of the North's potential.

Information continued to accumulate while the government actively encouraged private development of the North's forestry potential. In July 1960, ADL presented the Government with the report "Recommended Measures to Attract a Forest Products Industry to Northern Manitoba". This was followed by another ADL report in 1965 "Evaluation of Pulp and Newsprint Mills, The Pas - Manitoba". The Department of Industry and Commerce in conjunction with the Vita Mayer Company of Milan, Italy in 1960 hired Sandwell International Ltd., to conduct a feasibility study into the technical aspects of a pulp and paper industry in the North. In 1965, the Government also received a report from Stadler-Hurter International Ltd., on a "Proposed Newsprint Mill at Arnot, Manitoba".

The general themes of these reports indicated that the North could support a viable forest products industry. These reports were however produced at the request of the Government and one can only speculate that this might have had some bearing on their conclusions.

During the years that it pushed for private development, a large amount of negative information was also generated. In particular, considerable opposition to the policies, estimates and proposals recommended by these studies came from other government departments. The Treasury department was especially critical of the 1960 ADL report which had recommended a very generous incentive program. In their report the Treasury department stated:

"It may be a most unpopular recommendation, but we cannot bring ourselves to bring down other than the following. For the time being, we should probably abandon any effort to locate a pulp and paper mill in Northern Manitoba."⁹

In its investigation the Commission of Inquiry summarized the Treasury department's research group criticism succinctly

"In general, the research group found that the optimism of Arthur D. Little was backed by few if any real facts, that the logic connecting alleged facts was often shaky and that many statements were contradictory. Indeed, as Treasury saw it, the ADL Report presented with some accuracy the main difficulties of a northern location for a pulp and paper mill - isolation and hence distance from market and therefore high transportation costs, an inexperienced labour force, a difficult terrain and a harsh winter climate - but failed to convince that these could or should be overcome by a program of incentives.

10

In 1961 as negotiations with Vita-Mayer progressed, Grose continued to receive contradictory information from other government departments. In a response to a Grose memo concerning tax concessions, C.H. Chappell Deputy-Minister of Municipal Affairs stated:

"There is a limit beyond which local and provincial subsidization of industry may be considered prudent and advantageous. While local communities may be prepared to subsidize industry to a degree, tax-wise fixed assessments are wrong in principle and lead to complicated inter-municipal and inter-school financial problems. The impact of such relationships may be clearly recognized in River East School Division. While the R. M. of East St. Paul has granted the tax concession to Imperial Oil, the impact of this concession falls heavily on the City of East Kildonan. A similar situation may be expected to occur in this instance but here the Town of The Pas, which can ill afford it, will suffer the major impact of the tax concessions contemplated here."

11

Similar reservations came from Manitoba Hydro's Board Chairman D. M. Stephens when he was queried on fixed hydro rates by Grose;

"...It appears to me that even in the most extreme case we could imagine and one wherein the Province might supply free power and charge no stumpage costs, the costs of a ton of pulp would seem to be decreased by only 7% and then even under these hypothetical circumstances the proposed industry would be in a very marginal position if "union rates" were paid to pulpwood cutters ... Personally I have always felt that we were treating industry rather well when we undertook to supply power at cost, particularly when the credit of the Province is being used so freely in the guarantee of our very substantial borrowings."

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Not only was Grose aware of these misgivings but the Premier also was informed by these three departments of their concerns. Added to this air of pessimism, companies that Grose had been actively pursuing were doubtful. Vita-Mayer felt a northern pulp and paper project was not viable after conducting its own investigations. A Norwegian group expressed similar hesitation about the cost figures

being promoted by the Manitoba government based on the ADL estimates. The Norwegian group after receiving a report from their consultants were not only uncertain about the suggested costs but also whether or not the product could even be sold. The Government for its part chose to ignore these contradictory and direct indicators as well as the oblique indicators from the many companies that did not even respond to its inquiries.¹³ Instead it continued to promote an integrated forestry project predicated on the favourable and enthusiastic feasibility studies prepared by ADL.

From the evidence available it appears that the Government was in sufficient possession of enough information to make a decision. However, the evidence also shows that the Government was not completely informed about many factors affecting the decision. It did not for example have precise information about wood costs, nor the costs related to tax concessions, or the saliability of the product, etc. These information gaps are not consistent with the model's general hypothesis of "perfect information" and decision-making.

Even if it was assumed that the Government had "perfect information", there is a significant deviation in its behavior from this premise. The notion that a decision-maker has perfect information does not preclude any particular type of information. It must be assumed "perfect information" includes all knowledge whether it is positive, negative or neutral to the problem in question. The decision-maker can not make an optimum choice without this first essential trait. The basic rational theory does not suppose all information to be complimentary, but it does

assume that in the decision-making process, the decision-maker utilizes all this "perfect information". Did the government act in such a logical manner? Evidence presented at the Commission of Inquiry showed that the estimates used were misleading but even this did not affect the decision process. Several witnesses testified to this fact and A. E. Penny, a Commission consultant stated:

"What I'm saying ... is, that anybody with experience -- if you went to any major pulp and paper company in Canada, and I believe also in North America, with the information that Arthur D. Little had, that it would not have been credible. They wouldn't have believed it. That's why I felt it wouldn't have aroused that much interest."

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Grose knew about the unrealistic figures, because it was he who had requested ADL to prepare estimates based on hypothetical costs. Any decision made by the government should have been the result of all the information available. In the CFI affair this was not the case.

The model's second assumption is that: "The decision-maker is assumed to survey all possible means for transforming the world into a preferred state." ¹⁵ This preferred state would refer to the Conservative government's election promise to increase economic investment in the province. More specifically this meant an "integrated forestry project" in the North. Three alternatives were available to it. They were: one, private development; two, crown corporation, and; three, equity participation. However, as the Government became more committed to the concept, a significant factor began to influence its ability to make "rational decisions." This factor, the government's decision that the

project must be carried out by private enterprise, created a constraint in its decision-making process. The idea that a Crown Corporation or equity participation could be used as mechanisms was discounted. Roblin in his testimony to the Commission made this point quite clear:

"I haven't any philosophical objection to crown corporations, or to Government doing things ... For example, we have the telephone and the hydro in this Province that are crown corporations, and there are others, and in certain circumstances one has to use, or should be willing to use, that method of organizations...and I would guess that as a general principle, when you get a natural monopoly like electricity or the telephones, that that's a very suitable thing for a crown corporation to handle...our feeling was that when you got into a marketing situation in particular, that you'd have problems with a crown corporation, where there was a competitive atmosphere that really was not well adapted to civil service activities."

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Examination of the government's behavior reveals that it did not act in the mode presupposed by the basic rational model. The Premier's philosophy about crown corporations and equity participation placed specific parameters on what means would be surveyed. This constraint became even more specific. Development of the North had to include pulp and paper. As early as 1958 the Roblin Government placed this proviso on future Northern development.. When a proposal from Premium Iron Ores Ltd. was discussed by the Manitoba Development Authority, Roblin's views were recorded in the Authority's minutes:

"The Chairman said that he would be prepared to agree to the large mining concession proposed provided the Province could obtain definite assurance that the proposed newsprint and pulp mill would be constructed. The Province was more anxious to obtain the newsprint and pulp mill and the consequent utilization of the

Power from the Kelsey project than the development of mining in the remote area in question - north of 57°⁰. He said that the Government would be prepared to face criticism on the size of the mining concession if it could be assured that the newsprint and pulp mill would be constructed."

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In the opinion of the Commission "...mining development did not have first priority with the Premier and some of his colleagues."

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It was, the Commission noted

"...that the Roblin government was determined to find a way to utilize the forest resources of the North, and was willing to assert this determination by making the establishment of a pulp mill a condition for other forms of resource development."

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Such a rigid attitude by the government could only decrease the probability of the Government achieving its desired goals because only a partial examination of the various possibilities would be conducted. By affirming and maintaining this position over long and fruitless periods of time, the die was cast for later events.

After a decision-maker has examined all possibilities utilizing his perfect information, he is expected "...to calculate all the relevant consequences of each alternative means or policy actions" and chose the alternative that maximizes his expectations. The Government did not have the luxury of making a choice in the manner assumed by the basic rational model. There were three reasons for this: one, it did not avail itself to all the information it had about the project; two, it did not survey all possibilities, only the ones involving private

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investment and; three, the government was never in a position where it could compare the merits of one alternative to another. In fact during its search the Government never really had more than one solid prospect to negotiate with at one time.

In the years 1960-1965 before Monoca appeared, the Government slid in and out of negotiations with one group after another. First the Vita-Mayer Company of Italy, then British Columbia Forest Products, the Proctor and Gamble Company, the Norwegian consortium and finally the Mayo group of Nanaimo, British Columbia. At one point in 1965 prospects were so bleak that Evans sent this memo to the Premier:

"Despite repeated disappointments I still believe private capital can be found to undertake these ventures. I am therefore planning that Mr. Grose spend his full time on this project in Canada, United States and overseas for a 4 to 6 week period commencing about the middle of September..."

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As a result of this dismal situation the Government was not in the position to carry out a prioritization of different alternatives based on the maximization concept.

In addition to the general hypothesis of rationality, the sub-specification of search further examines the behavior of the decision-maker in this situation. Scanning theory, the main model's search theory component assumes that the decision-maker will always seek more information for the generation of new alternatives to improve his level of performance and the problem will be reviewed at a higher level of generality.

The generation of information in large amounts did take place during

the CFI decision process. Sources from which this information came included: feasibility studies commissioned by the Government, departmental studies, interdepartmental exchange of ideas, concerns and recommendations, feedback from private companies and their studies, and public opinion. The presumed purpose of this process according to scanning theory's hypothesis is that with a large amount of information more alternatives would be available to the Government. While the Government did not lack the information base, alternatives were not generated in the manner suggested by scanning theory. If it had occurred, the Government would have also generated alternatives that suggested either the discontinuance of the project under its present scope, or preceding with it under the parameters of public ownership or equity participation. Instead the Government proceeded on the basis of only one alternative - private development.

During the discussion of the basic rational model and the CFI case material, it was noted that there was a lack of different approaches to solving the problem. However, modifications occurred to the Government's private development proposal. These modifications were not alternatives, only additional incentives improvised at different times to "sweeten the pot". The fact that the Government had restricted its alternatives by placing the "private enterprise" constraint on itself, contradicts the scanning model's concept of generation of alternatives and their subsequent utilization.

Scanning theory's third expectation is that the decision problem will be reviewed at a high level of generality. Once again evidence of Government behavior does not support this conclusion. During the 1958

election campaign Roblin spoke of the need to promote the economic development of the province with the Northern area presenting the greatest challenge. Special Government machinery to promote this development was considered necessary. Roblin in a speech in 1958 stated that an Industrial Development Bank was required to aid normal sources of credit and increase growth.²² Roblin's answer to this problem would indicate that he saw the solution to economic development as broadly based, and that all types of development would be necessary for Manitoba to overcome its economic disparities. In practice however, the Government did not assume such a broad position.

In his testimony to the Commission, Roblin stated that "forcibly grown hot-house flowers of commercial and industrial development were unacceptable as lacking an enduring base from which to add to the real benefit of society."²³ It can be assumed from the context of this statement that the Government associated "an enduring base from which to add to the real benefit of society" to mean large scale industries, i.e., capital intensive developments. Economic development of this nature does not guarantee that society will always benefit. Large developments have often resulted in the opposite, while small-scale projects though not as impressive physically or financially have often produced the same desired results Roblin attributed to the former type of development.

Roblin's analysis, which was translated into Government policy of how development should proceed, assumed specific boundaries. The general concern for northern economic and social upgrading became immersed in the concept of pulp and paper. While in the midst of negotiations with

Vita-Mayer Grose wrote to Evans:

"We should spare no efforts in getting this firm to locate in Northern Manitoba." With characteristic optimism he reviewed the benefits that would accrue to Manitoba and the North: a total work force of more than 1000 people with an annual payroll of \$2.5 million; shipment of products from the plant of about \$25 million each year; purchases by the company of \$13-14 million annually. He even foresaw some benefits that had not been suggested by any one, including "a \$½ million pulp moulded products manufacturing plant at The Pas" and within 3-5 years, if not immediately ... \$1 to 1.5 million paper converting and container plant in the Winnipeg area."

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Enthusiasm and/or optimism of this sort displayed by the Government's decision-makers quickly led to a situation where the Government could not see the forest for the trees. Generality was lost to specificity and its behavior was not rational in terms of the scanning model.

The application of the basic rational model to the CFI decision problem raised the issue of whether or not the Government acted as a rational entity. The examination of its behavior suggests definitely that it did not. The Government did use different alternatives to achieve its goal. But for the Government different alternatives meant increasing the incentives (i.e. modifications) as time went on to attract reluctant companies. It did not mean for example the use of public ownership, an option that could have been considered a real alternative to its decision problem. Nor did the Government think of shelving the project until such time as the market would warrant interest. The Government wanted an integrated complex. In other words, a highly sophisticated technologically based industry in the North, Little

consideration was given to other forms of forest utilization such as the production of the primary product, logs and lumber for example, a foundation that in the future could be used to promote broader, more diversified development.

If the Government had considered the other alternatives of public ownership or equity participation to achieve its goal, it would have had to adjust its platform on private investment versus public capital. The Government was a free enterprise party and these other alternatives smacked of socialism. Roblin's personal views on the Northern development concept dominated the Government's approach to this problem. He supported the concept of Crown Corporations but only in a monopoly situation. In the free market situation it was a different matter. Civil service activities were not suited to the competitive atmosphere of business he felt and because of this the Government should not be involved in this type of development. Viability of the project would be proved by private involvement and Government participation would only handicap its potential. Roblin stated:

"It would reduce both the risk and the profit of the private sector, the ultimate incentives to effort and success, while adding nothing to the efficacy of management. Far better for all concerned for government to have its equity participation in the form of taxes collected from a successful private enterprise..."

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By adopting this rigid attitude that private enterprise was the key to the North's future prosperity, any possibility of this situation occurring was removed.

While the Government's decision process was not strained by the above problem, it was taxed by its inability to find a developer. Therefore it had to revise its offer continuously and with each revision, the Government had to find new rationalizations for these moves. The problem for the Government was not one of integrating conflicting alternatives and goals, but rather one of maintaining its objectives in relation to the giveaways it was forced to make. Within the parameters established by the basic rational model, this question can not be answered. This inability by the model to provide a logical explanation to this question and its other expectations suggests some other model of analysis is necessary.

THE ADAPTIVE RATIONAL MODEL AND THE CFI DECISION PROCESS

The adaptive rational theory of Cyert and March suggested that a decision-maker will engage in a sequential analysis of alternatives and choose the first one that meets a certain level of expectation. If this does not result in a choice, the decision-maker will lower his expectation level and begin the sequential search over again until such time as one alternative does satisfy his goal. This general hypothesis is based on the idea that the decision-maker does not have "perfect information" and he operates under a condition of uncertainty. Given this situation, man must impose constraints upon his environment to make it governable. Therefore, he can only consider a few alternatives and roughly calculate their utility to his level of expectation. It is within these parameters that the adaptive rational theory analyzes

decision-making behavior.

In rejecting the process of maximization the adaptive model also rejects its component theory of scanning. Search is not a process of maximization but rather one of solving immediate problems. This approach does not have to satisfy the overall expectation level of a decision problem only a portion that is related to the immediate concern. This process is called "problemistic and sequential" search and its first major premise states that data collection and alternative policy generation is not a constant function of the decision-maker. A second, closely related premise is the search process begins with a simple modification followed by further modifications if required.

The validity of the first premise is demonstrated by the fact that the Government initiated search to support their initial position and subsequently gathered major information only when the initial data base had been cast in doubt. This happened on several occasions during negotiations with private companies. Examples of this behavior can be found in Grose's biased information responses to the skeptical inquiries of Vita-Mayer and the Paus and Paus.

In the CFI decision process, evidence shows the second premise's assertion was the normal pattern of behavior. The Government would respond to any negative evidence by compiling new data supporting their viewpoint. It would also modify any arrangements it thought necessary to persuade a company to agree to the project. This information generation and policy modification served a dual purpose. First, it enabled Government to fill gaps in its information systems and to present

revised alternatives to the companies. Two, it reassured the Government that it was doing the right thing (i.e., reinforced their thinking) even when evidence suggested otherwise.

Sequential theory's two other major premises; attention is focused on areas where expectations are not being met and; the sequential evaluation of alternative policies until one is found that meets the desired level - does not fit the behavior exhibited in the CFI decision process. While it is true the Government did respond to troublesome information gaps, it did so because of the negative comments of the various companies. The Government's total expectation about the social and economic benefits that would accrue remained the same throughout the search process despite the increasing cost of its incentive program. Similarly, the Government with only one policy "an integrated forestry complex" was not faced with the problem of evaluating different policy alternatives to meet this expectation level. To them, this complex symbolized social and economic progress for the north, and only this approach would do.

The premises of this theory of search do not fit the case material. When viewed separately the first two major premises are validated by the Government's actions. However when viewed together with the latter two, the actions of the Government with its stop and go method of gathering data, it is clear that the reason behind this behavior was the desire to have the project built by private development. The theory is too broad to accommodate the case of a decision-making body which retains one major policy despite the apparent difficulties

associated with it - without giving serious consideration to the other main alternatives - and which alters the payoff/reward structure to modify the environment.

The other component theory of search related to the adaptive rational model is mating theory. It suggests that firms have a tendency to develop policy alternatives independently of problems, and, then apply these solutions to problems that arise later. The Government had a pre-determined solution to the problem of the North. For them the only question of alternatives involved "alternative companies" - which one would proceed with the type of development the Government felt was necessary to solving the province's economic and the North's socio-economic problems.

With a behavior-style so fixed, the two major premises of mating theory must be viewed carefully. The first postulates that search behavior is based on the linking of two processes - problems seeking alternatives and alternatives seeking problems. This would seem at first glance to fit the process under discussion. Here was a situation involving a socially and economically under-developed area of the province whose large natural resource potential, if properly exploited, might prove capable to overcoming these inadequacies. According to Cyert and March the decision-maker will resolve the problem by matching problems with alternatives. The Government recognized the parameters of the problem but they did not search for alternatives. It was an obvious situation and a simple solution - a large scale pulp and paper products complex. Roblin's refusal to review other forms of resource development indicates that to the Government, the former was the most

expedient and advantageous solution. The general model and "mating theory" on the other hand assume that the decision-maker will at least conduct a search based on different alternatives. The Government did not.

The second premise assumes alternatives are developed independently of a problem and quite often are distinct from the problem to which they are applied. The proposed concept for Northern development was a specific solution - it was not divorced from the problem. Government decision-making behavior was opposite to that hypothesized in theory.

The adaptive rational model's two component theories of search were not validated by the CFI case material. The problem for both was their inability to account for the Government's single policy alternative - private development. Problemistic and sequential theory did account for the Government's inconsistent search behavior for information and the modifications to its proposal when criticisms warranted it. It did not however logically explain the Government's retention of the one alternative despite all the problems associated with it. Nor could it explain why the Government did not institute a sequential search of other alternatives. Similarly, mating theory's concept of problems seeking solutions and vice-versa could not explain the Government's 'one solution for one problem' behavior. The general hypothesis of a sequential search based on Simon's satisficing principle was not from the evidence validated either.

Before the adaptive rational theory's next hypothesis is discussed relative to the CFI decision problem, the condition of uncertainty must

be noted. Given that a decision-maker does not have perfect information about his environment in certain instances, uncertainty becomes a problem. Cyert and March suggest that uncertainty avoidance is accomplished by adopting decision rules that are designed to encourage short-run solutions and by avoiding situations where predication of future events is necessary. Subject to these parameters they hypothesize, decisions are directly related to a few parameters whose values are constantly assessed by restricting the environment to ensure control and predictability. In short, decision-makers reduce the level of uncertainty as much as possible.

When the Conservatives were elected, they had campaigned on the platform that economic development of the province was essential. Suggestions were made that an Industrial Development Bank was needed to stimulate growth. Growth had to be in sectors other than agriculture, Manitoba's primary source of income. Committed to this goal, the Conservatives organized the machinery to bring about the change. In 1958 "An Act to Further the Economic Development of the Province by Encouraging the Growth of Business" was passed in the Legislature. As part of the Act, the Government established the Manitoba Development Authority with a special "Fund" to assist business undertakings. The Fund was designed to provide financial assistance to four categories of businesses: manufacturing enterprises already established or to be established; the tourist industry; the community development corporations, and; operators of such other businesses as the Board
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might designate from time to time.

While the Government encouraged broad economic development, it also sought specific alternatives. In the North pulp and paper development was the specific alternative. Other resource development was secondary, and, mining which had been the prime source of revenue for many years fell into this category. The importance placed on this project was reflected in Roblin's refusal to Premium Iron Ores Ltd. and in the Government's subsequent position that it would grant mineral rights to Vita-Mayer, only if a pulp and paper mill were built as well. So determined was their desire for this project that they tried to make a mining company into a paper company and a paper company into a mining company.

In the CFI decision process did the Government's behavior reflect the hypotheses advanced by Cyert and March? From the evidence we find a situation in which decisions were being made but without reference to the information available. The Government did have a "few parameters" as suggested in the hypothesis. These parameters included: a purpose - Northern development; a project - a pulp and paper industry; the necessary resources - forests, hydro and water and finally; a political policy. Assessment of the various values associated with these parameters however did not occur constantly. The need for Northern development was quite lucid. Its value to the development of the province as a whole was described in both social and economic terms and, throughout this period studies were constantly being carried out to assess its impact. These studies, however, were specific in nature and dealt with only pulp and paper.

Instead of promoting economic development on a broad basis and reviewing the benefits other developments might bring, the Government lost sight of its original objective. In one sense this could be interpreted as a move by a decision-maker to reduce the number of parameters from which a decision could be made. This would support Cyert and March's theory of restricting the environment to ensure control and predictability. However, only by examining it from this perspective does this behavior support the hypothesis. The Government's disregard for the other proposals would not have jeopardized the situation by making it more complicated. These projects were other solutions to overcoming the total problem of Northern underdevelopment.

Behavior like this could only mean other factors not included in Cyert and March's hypothesis must have been present. The model as stated is weak in that it does not account for the Government's refusal to review its alternatives, to reassess its position in view of the seemingly unattainable value it had placed on the project and, the continuation of the level of uncertainty associated with the proposal when other alternatives if implemented could have reduced this substantially. The existence of this unexplained factors suggest that the model is not specific enough to deal with such deviations in exhibited behavior.

The nature of the project itself also illustrates that the notion of constant evaluation of this particular value did not occur as suggested. A specific value had been attached to this project, but the value did not change as the quantity of non-supportive data grew.

For example, when the marketability of the product became uncertain and the costs of the project escalated, two factors not included in the original estimates, no reassessment occurred. Also the refusal of most companies to even investigate the project and the criticism raised by other Government departments, indicated that something was wrong. Therefore the Government's refusal to re-evaluate the significance that it had attached to the project has to be accounted for in some other way. Faced with the evidence, the model's hypothesis would seem to be false (or disconfirmed).

Ironically one area in which the Government's behavior pattern did match the model's, it was not fully cognizant of all the information. The Government knew the potential of its hydro resources and could easily monitor its value. Similarly, water requirements for the plan were known and assessed. But it was with timber resources that the Government did not know the true value. It was assumed that the necessary resources to supply the project were available and consequently it attached a value to a resource of unknown quantity. The quality of the timber resources indicated a sufficient base for use but the amount available had not yet been properly determined. Only after the project had been placed in Receivership was the quantity available actually verified. The Conservative Government's value assessment had been based on the estimates it had received from the various studies conducted throughout the years. This behavior however was due more in part to its enthusiasm and optimism about the project than the notion posited by Cyert and March.

During this time the Government had also placed a political value on the project because it knew the affect such a development would have on the electorate. This was one of the reasons for the Government's determined efforts to have a pulp and paper industry built in the North. Roblin liked to announce these types of developments at the Conservative Party's annual meeting. It was a way to attract the electorate's attention and Roblin, a knowledgeable political actor, knew how to take complete advantage of this kind of opportunity. Only this parameter was monitored in the manner posited by the model's expectation.

The other factor in the hypothesis was the notion of restricting the environment to ensure control and predictability. The Government did act in a similar manner by seeking only a pulp and paper complex but it was not for the purpose assumed in the hypothesis. By seeking only the latter type of development, it restricted the number of decisions processes it would be involved in. It could then presumably devote greater attention to the decision process involving a pulp and paper mill without worrying about other types of resource development. In doing so however, the Government exposed itself to an unfamiliar environment. It had no previous experience with pulp and paper companies. Furthermore it had to rely on the advice of consulting companies which it did not have any previous basis for comparison. What in fact the Government did was to become involved in a situation in which it did not have any control or the ability to predict future events. Cyert and March's hypothesis does not account for this behavior.

The next hypothesis postulates that organizational learning

processes are subject to successful or unsuccessful experiences and that consistent failure to meet a certain level of aspiration will result in a reduction of that level. The Government's expectation that a viable pulp and paper mill could be built in the North remained constant during its search. Even with the industry's almost universal refusal to become involved, it persisted in its efforts. Unsuccessful negotiations with at least two different groups did not change their attitude to the project. Indeed, as Grose became more involved, he reached the point where he felt that he was an expert in the field and, as a result his personal expectations even rose despite the repeated failures to attract anyone.

Government behavior did not reveal the process Cyert and March suggest in their hypothesis. Goal adaptation is a function of three factors: one, previous goals of an organization; two, experience as a result of previous goals and; three, experience of similar organizations with their previous goals. This implies that an organization's goals are subject to change depending upon certain conditions in its environment. The Government's choice of a specific alternative to Northern development was in an area where it did not have previous experience nor goals to use as a means of comparison. The Government could draw on neighbouring Saskatchewan's experience, but here too was a provincial government that had just entered this area of resource development. The Government set a specific objective from which it did not budge, despite the evidence of the immediate information to the contrary. In this situation Cyert and March's decision-maker

would have made adjustments in his level of expectation. Therefore some other factors must have been dominant to cause the Government not to react in this way.

Adaptation of attention rules is a function whereby an organization learns to respond to some data while neglecting other information. The Government's decision-makers displayed a behavior pattern similar to the second process of this hypothesis. The Government's response to the various types of information was dependent on its supportive nature. If the information suggested that their position was correct, it was used. The Government had established this pattern quite early in the decision process when Grose failed to respond to the criticisms of other departments in what could only be viewed as a proper and responsible manner expected of a government official. When confronted with the Treasury Department's critique of the ADL Report (1960) Grose attacked the analysis saying it was based on "a lack of knowledge of the economics of resource development particularly the forests products industry." ²⁶

On the other hand, Grose would use any information that tended to support the forest products concept. For example in 1965, Grose replied to the Norwegian group stating that the Stadler-Hurter company had found newsprint production to be favourable, when in fact the report which took four days to compile only indicated the possibility.

Throughout the CFI decision process, this pattern was the norm but not for the reasons suggested by the latter concept. The Government's tendency to use only supportive data was not related to the notion that organizations deal with immediate problems through the use of particular

information. Their use of selective data was based only on maintaining the CFI concept and in fact their behavior created the opposite affect. By using selective information the Government prolonged the decision process rather than solving it.

Similarly, the Government never did find a successive search pattern as suggested by the last phase of the organizational learning concept. Various methods were employed, personal contact, blanket mailing campaigns, and advertising in the leading trade journals, but none had proven successful. In fact the Government was still in the process of trying to devise new ways to attract companies when the Swiss Company Monoca A. G. appeared on the scene. So unsuccessful had the other methods been, that it quickly dropped its normal investigative procedures and started negotiations immediately with Monoca.

Beginning in the late 1950's, the Government, based on the conclusions of several studies, had felt that an integrated forestry complex could be built in the North. Seven years later this expectation had not changed. The Government had changed its opinion on how to attract the development and what incentives would have to be used, but it had not changed its expectation level despite the repeated setbacks encountered. This behavior is inconsistent to Cyert and March's hypothesis in which they feel that expectations will be lowered if a decision-maker encounters repeated failures to attain a certain level of expectation.

The adaptive model's basic premise that decision-makers make

choices on the satisficing of a certain level of expectation rather than on utility maximization would appear at first glance to fit the behavior exhibited by the Government. The Government had an expectation - a northern forestry complex which they preceded to try to attain and, eventually did. However, the model also hypothesizes that if a decision-maker does not attain this expectation immediately, he will lower his aspiration level and try to match the various alternatives to this new level. The decision-maker will repeat this procedure until he finds an alternative and an expectation level that matches. The behavior of the Government did not reflect this hypothesis. The Government did have a specific level of expectation at the beginning but unlike Cyert and March's hypothesis this level of expectation did not change. Its approach in trying to attain this desired level changed, examples of which are seen in the additional incentives offered, the government's attitude to equity participation and finally its willingness to loan up to \$100 million to encourage investment in the North. But its expectation or objective did not. What factors could have been so dominant to make it maintain such a rigid objective? It is with this question in mind we turn our attention to the last model in this analysis.

THE COGNITIVE PROCESSING MODEL AND THE CFI DECISION PROCESS

The idea that political man acts in a purposive way when making decisions is a traditional concept in political science. "This notion" Alexander George states, "has long served as the basis for interpreting and accounting for political action by means of the so-called rational

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 hypothesis." It does not however take into account peculiarities in behavior that often arise when individuals are faced with atypical situations. Rational theories of decision-making stereotype situations to specific pattern processes. But a social being is as one writer suggests, a

"Full-bodied individual living partly in a world of reality and partly in a world of make-believe, beset by conflicts and inner contradictions, ...moved by forces of which he has little knowledge, and by aspirations which are beyond his reach, by turn confused and despairing, selfish and altruistic; in short, a complex human being."

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Therefore, he can not be expected to fall neatly into such defined situations when he himself is subject to so many different influences. Behavioral decision-making theory attempts to explain human behavior based on these processes.

The CFI decision process was marked by the singular determination of the Government to bring development to the North. This development, a personal goal of Roblin's, was from the outset viewed as an immediate priority of the newly elected Conservative government. In the 1958 election campaign, the Conservatives had attacked the lack of economic development taking place under the Liberal-Progressive government of Campbell. And during the 1962 election, proper resource management had become a major policy in the Conservative government's bid for re-election. In the Conservative's Talking Points for PC Speakers and Workers it stated:

"When the Roblin Government assumed power in 1958 many of the natural resources of the province -- forest, fish and minerals -- were not being managed in such a way that they would be of maximum value to the province as a whole while providing a maximum of income to local residents ... The proper management of the forest resources will, in the long run, provide increased income and employment opportunities for local people."

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For Roblin, proper management and utilization meant industries with "an
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enduring base from which society could benefit". This goal would suggest a policy with long term objectives. But Roblin was a political actor and politicians do not win elections based on successful policy results some twenty years in the future. The question that arises is whether or not the Government decision-makers displayed the behavior pattern predicted by the cognitive model's first hypothesis in relation to a goal that clearly involved long term results.

As early as 1959 the Government reviewed a proposal involving the development of Northern resources. Premium Iron Ores Ltd. had submitted a proposal to the MDA "seeking approval for large-scale prospecting and investigation in the North which, if results were affirmative, would
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lead to a definite agreement with the Government." The Government rejected the initial offer and proposed to the company an alternative involving exclusive exploration rights to a large tract of land north of 57° subject to a commitment from the company to develop a pulp and paper project in the Sipiwesk area. In late 1960, after the mining company had rejected this offer, the Directorate of the MDA began to seriously consider what incentives would be required to attract a wood

products company.

As a guide, the Directorate used the July 1960, ADL study "Recommended Measures to Attract a Forest Products Industry to Northern Manitoba". A distinct pattern of behavior was beginning to emerge very early in the CFI decision process. The Government in trying to achieve its overall goal began to focus primarily on the forestry aspect of northern development. Such a tendency was noted by Merton in bureaucracies where the roles of an individual was considered an important variable. These actions Merton suggested often resulted in "...a tendency in bureaucracies for the means intended originally to serve the attainment of the organization's goals to acquire special salience and importance and, ultimately, to displace the original objectives."³² With an overall goal requiring a long planning and implementation time to be successful, a review of the government's behavior from the evidence would suggest a marked tendency to follow the pattern predicted by the cognitive model's first hypothesis and Merton's observations.

Throughout the decision process including its negotiations with the Monoca people, the Government attacked the problem on a day to day basis. The Government was aware of the unstable market conditions that dictated the need for new pulp and paper developments and the lead time necessary to bring such projects on line. It was also aware that ADL was not completely competent in this field, and from evidence available it chose to use ADL's time projection as a basis for action. Yet these inconsistencies did not deter the Government, and its behavior in subsequent events exhibited similar tendencies. Talks with the Vita-Mayer company

progressed on a basis of responding to that companies immediate concerns. All meetings with the company followed the same pattern, but when the company did submit a comprehensive proposal that did not include a pulp mill, the Government reacted by still insisting on the construction of a pulp mill. It would not give up the concept, it had to be included in the present plan or the plan was not acceptable.

After negotiations with the Italian company had broken down there was no reassessment of its overall goal vis-a-vis the integrated forestry project. Instead Grose continued to concentrate on this one particular aspect to the virtual exclusion of other possibilities. Soon after the Vita-Mayer failure, the Government through Grose began to court a consortium of companies primarily from Norway. Again the familiar pattern occurred with the Government responding quickly to Paus and Paus's specific concerns about the project. But despite these efforts, talks with the Norwegians also failed. Their place then was taken by Mayo Holdings Limited, of British Columbia and Grose started to concentrate his efforts here. Within several months though, the Government informed Mayo that their proposals were unacceptable and instead signed a Letter of Intent with Monoca A.G., a Swiss company it had been negotiating with for three days.

From the evidence detailed above, the Government's behavior would indicated that the cognitive theory's first hypothesis is correct. The question is what psychological processes can account for this behavior pattern. Because both Roblin and Grose were committed to the idea that the North's forestry potential could be exploited, this indicates the

existence of a firm belief set (i.e., a major pulp and paper mill can be located in the North) in both their inference structures. The presence³³ of this belief was exhibited by Roblin as far back as 1958 and with³⁴ Grose even earlier.

Evidence also points to the fact that their respective belief sets were value based. We know that Roblin during the 1958 election had campaigned on this issue and, Grose who had left the government service in 1957 probably did so because of the lack of progress by the Campbell Government in resource development. Also their assumptions were based on the incomplete studies of ADL, yet even in 1963 when it was still uncertain whether there was enough wood in the area, they still³⁵ insisted on the construction of a pulp mill. This behavior supports the model's assertion that the strength of a value inference is not dependent on supportive facts, and in such a situation, value inferences can be dominant in a decision-maker's inference structure irrespective of the factual data.

Another factor that influenced the Government's decision-making behavior was the condition of uncertainty that existed. The project was in an area of resource development that is high risk. Not only was the Government unsure of the forest resources on hand, but marketing of forests products was subject to fluctation. Grose himself outlined the ambiguous variables involved in his reply to criticism from the Treasury Department's Research Branch.

"It is fully understood that the present world plant capacity exceeds the world pulp and paper market. Everyone connected with industry, however, realizes

that with the present rate of growth in the pulp and paper field, additional capacity will be needed. Historically the demand for paper products has followed a smooth upward curve, while production capacity has followed a stair step curve. This is understandable when it is realized that a new plant requires a number of years, approximately four or five, from the planning stage to full production and that each new plant places a large tonnage on the market ... the pulp and paper operator generally does not make his expansion plans or plans for new plant construction known until these plans have been completed and plant engineering studies carried out. Other companies not knowing of existing plans, make plans of their own and, when it seems that the demand for product will soon exceed capacity, a number of new or expanded operations will be put under way. A number of plants, therefore, will come into production at about the same time, placing a large tonnage on the market. At this time, the capacity again exceeds the demand and the cycle is repeated. The industry is now in the state where plans are being made for new capacity and therefore the timing is right for Northern Manitoba to be included in these plans."

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In situations of this nature decision-makers will according to the respective theories of Steinbruner, Cyert and March "avoid uncertainty by operating on the environment directly -- to bring it more under control and thus render it more predictable." ³⁷ The two principal actors in the CFI Affair, Roblin and Grose demonstrated this notion but it did not help to bring the situation "under more control and thus render it more predictable." However their behavior did indicate that contrary to the fundamental proposition of the basic rational model, man does not act rationally in every decision situation.

Evidence shows that the Government had adopted a single objective in its quest for Northern development. This conclusion is based partly on Grose and Roblin's commitment to this objective and their consistent

refusal, over a number of years, to consider other forms of development until this commitment was met. Witness the premier's testimony to the Commission identifying the type of projects he felt were not satisfactory. "Hot house flower production and other such projects lacked an enduring
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base from which society could benefit," he stated. As a result of this subjective prioritization, only certain projects were in the Government's (i.e. Roblin's) view, satisfactory to meet this goal. In principle it was concerned about the North's total well being, but in reality its courses of action were limited because a forestry complex had received a high priority and this priority was not revised relative to other goals.

Grose's role first as Deputy-Minister then General Manager was presumably to promote and encourage all possibilities. However, it was later recommended that he spend all of his time pursuing the pulp and paper complex. In fact Grose's behavior was so defined that he would devote almost all his time to one company to the virtual exclusion of any other interested companies. This may be attributed to the small number of interested companies throughout the years, but it still remains that this single objective had become so dominant that it too became even more sharply focused.

The cognitive model's second hypothesis suggests that "decision-makers will tend to focus on a single objective and will tend to ignore, deny or somehow avoid recognizing any conflict in information relevant to that objective". The hypothesis's first assertion is borne out by the actions of the Government as discussed above. And it has already been noted that Grose and Roblin's attitude toward the project was

value based. To account for this simplified processing system, the cognitive model subscribes to the concept of consistency, (a notion that accounts for a decision-maker's biases or predisposition on an issue). On this point, there is considerable confirming evidence from other studies. Donohew and Tipton argue that an individual will avoid conflict and maintain a steady state by resisting information that does not support his current image of reality and by seeking concurring information that does.³⁹ Mischel also argues that cognitive consistency is enhanced by selective attention to new information which permits it to be integrated into existing belief structures.⁴⁰ Holsti suggests that

"equally important is the structure of the belief system which along with its component images, is in continued interaction with new information. The impact of this information depends upon the degree to which the structure of the belief system is open or closed."

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And Axelrod stated "information which is discrepant with previous beliefs tends to be perceived as less informed and less fair."⁴² Was there a similar pattern of behavior in the CFI decision process?

At the beginning of the CFI affair, the consultant's studies received by the Government were optimistic in their conclusions about the North's future. At this time the concept was only a proposal and detailed studies were lacking, hence little or no contradictory information was available. As the Government began to establish its priorities, greater attention was focused on the forestry concept and

with it the need for more information.

Aside from the lack of interest shown in the concept by Canadian and American companies, the Government's first critical reports on the proposed project were generated internally. Both the Treasury Department and the Department of Municipal Affairs were critical of the 1960 ADL findings and recommendations. Grose responded to the Treasury Department's critique by suggesting that it was founded on a lack of knowledge regarding the forests products industry; that they did not understand the essence of the memorandum; and that they assumed that the Government would bear the higher portion of costs which was untrue. Similarly when the Deputy Minister of Municipal Affairs was critical of the proposed tax concessions, Grose persisted in advancing these concessions despite two memos from the former indicating his opposition. Grose himself set the tone for future Government actions when he indicated⁴³ to his Minister that no efforts should be spared in attaining this goal. Included in these efforts was either the conscious or unconscious refusal to recognize negative information.

Once this pattern had been set, it reoccurred frequently. During the negotiations with Vita-Mayer company Grose dismissed the company's negative information by furnishing studies supporting the Government's⁴⁴ contention that the project was viable. Cost figures were also⁴⁵ interchanged to make the project more attractive and in the end these promotional figures became the basis for the Government's negotiations. In 1966 as criticism of CFI project mounted Roblin refused to answer questions that were intended to throw light on the operations of the Fund.

He dismissed them by indicating that he had no knowledge of the matter, an approach used by individuals who are psychologically uncomfortable about a particular situation. In such situations Festinger posits that "when dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance."⁴⁷ Roblin by this time had become quite uncomfortable about the whole matter.

Besides Grose's refusal to accept the validity of feasibility studies commissioned by different interested companies and Roblin's timely displays of forgetfulness, other warning signs were dismissed, ignored or avoided. For example, when the Government hastily signed the Letter of Intent with Monoca it did so without the benefit of expert advice (i.e. legal, technical, etc.) a move that no Government normally takes. In doing so it ignored the strict conditions it had laid down when negotiating a deal with the J. R. Simplot of Pocatello, Idaho for a fertilizer complex. Here the Government had placed extreme importance on the company's proven managerial, financial and technical capabilities before it agreed to precede with the project.⁴⁸ But with Monoca, in place of these stringent requirements Roblin, Grose et al, accepted without questioning the verbal assurances of the Monoca representative, Reiser. Even after the project began the Government continued to ignore new signs that something was wrong.

In 1968 Grose almost unilaterally helped increase the scope of the project both physically and financially despite the company's poor performance until that time. When K. G. MacMillan, Treasurer of the MDF

found certain irregularities in the purchase of logging equipment in 1967, his reward was demotion. Instead of taking steps to protect itself, the Fund (through Grose) chose to comply to the demands of CFI not to interfere with its affairs. "It was also clear warning to the Staff of the Fund that the relationship with CFI and any other criticism of its conduct would be determined solely by Mr. Grose and was not to be a concern of others,"⁴⁹

In July 1968, the Department of Mines and Natural Resources became concerned about the ability of the timber reserves, to sustain a planned increase in production. Grose forwarded the memo to Zeigler of ADL, who dismissed its substance by referring to the conservative attitude of the forestry people and their lack of knowledge in this field.⁵⁰ Even visible evidence was left unheeded. When George Kennedy inspected the construction site in June 1968 and found that almost no work had been done, Grose did nothing to rectify the matter. "From Kennedy's memo the message was abundantly clear that loan advances were running far ahead of construction, a situation crying aloud for investigation."⁵¹ During this same period Walter Newman, Attorney for the Fund became aware of a "no-arms length relationship" between two CFI companies. His concern for the affect this might have on the Fund's position did not seem to disturb Grose, who also was aware of the arrangement.⁵²

Throughout the entire CFI affair the Government had received information that clearly argued against the viability of the project. The Government chose to ignore public criticism, inter-departmental concerns, private industry's lack of interest, negative feasibility

studies, the mysterious nature of Monoca and its principles, and the unethical business practices exhibited by CFI. Any of these indicators should have been sufficient to warn the Government that it was and did make a wrong and costly decision.

The acceptance of this information would have created problems of inconsistency for Roblin and especially Grose whose association with the concept was daily. Feathers, in a series of experiments found a tendency among subjects to bias the evaluation of information in a positive direction. "This effect has appeared in a tendency (a) for the receiver of a communication to evaluate the source of the communication positively and (b) for persons to recall more arguments they agreed with⁵³ than arguments they disagreed with." These postivity biases Feathers noted, have also been found by other researchers.

Indeed Rosenberg has recently referred to the individual's

need to so construct 'reality' as to emphasize hopeful prospects, a psychological need toward wish fulfillment that may interfere with the arousal of inconsistency and the restoration of consistency. Earlier Rosenberg and Abelson (1960) had spoken of a tendency "to maximize expected gain and to minimize expected loss."

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And Joseph de Rivera also supported this notion

...we do not view the person as having a hierarchy of values and making his choice by selecting the alternatives that meets his highest value. On the contrary, the person mobilizes his interests to support an end, and the commitment to that end decides what will be valued.

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The Government in its effort to meet its goal displayed a postivity bias. Both Grose and Roblin can be categorized in the mode posited by the model's second hypothesis from the evidence available.

The next aspect of the cognitive model's hypotheses involved the use of impossibility inferences. The assertion that "Decision-makers will tend to rely upon impossibility inferences" does not from the evidence available seem applicable. One important reason for this was due to the lack of rival policy groups. Northern development was the responsibility of only one group and there was no need to make inference assessments for competing alternatives. "The nature of the impossibility inference," Steinbruner states "is the identification of some simple reason or some limited piece of evidence which is used for disqualifying an entire set of inferences which would otherwise become relevant." 56 Equally important was the nature of the operative belief structure. In the CFI decision process there was but one governing attitude 'that the project was viable' under private development. The dismissal of the other alternatives was not due to the CFI decision-makers assigning an impossibility inference to them but rather the absence of the key element in the total project (i.e. the pulp and paper plant).

In a decision-making process an individual may encounter situations where value based expectations are not in equilibrium with the immediate environment. Steinbruner suggests that a decision-maker will use transformational inferences to bring the two into harmony while avoiding making an adjustment to his principal objective. Milton Rokeach describes an attitude "as a relatively enduring organization of beliefs about an

object or situation predisposing one to respond in some preferential manner."⁵⁷ If a change took place, it would mean a change in one's

predisposition. Therefore, Rokeach suggests a change would involve

"...either a change in the organization or structure of beliefs or a change in the content of one or more of the beliefs entering into the

attitude organization."⁵⁸ These kind of changes would involve large amounts of cognitive processing, therefore, the mind subject to its three operating constraints will adopt transformational inferences to reduce the processing load.

The main actors in the CFI affair maintained a firm image of the North's forestry potential for seven years despite various setbacks. An important point to recall is that this expectation was value based but much of the factual information generated by the environment was not always consistent with this particular expectation. To do so, it is reasonable to assume that some mechanisms was invoked by the Ego to retain this inference set. The use of transformational inferences would logically explain the different actors' persistent belief in the concept's viability. Is there evidence to support this hypothesis?

To address this problem several points must be noted: the principle of internal consistency in the belief structure is valid; that there was a large body of empirical evidence that argued against the concept and; the strong beliefs exhibited by the Government's decision-makers in this regards. Several clues do point to the use of this inference process. The acknowledgement by Government decision-makers of difficulties in conjunction with their consistent and optimistic attitude that it could be done is

one source of evidence. Another clue involved the gradual change in the Government's position vis-a-vis public versus private forms of participation in the proposed project.

One indication that there were difficulties in attaining this goal came from Grose. When the Government had received the 1958 ADL study which had predicted a forest products industry in the North within two or three years, it adopted this time projection. However, Grose two years later pessimistically recommended to his Minister that "we should spare no efforts in getting this firm to locate in Northern Manitoba."⁵⁹

At another point, after accepting the challenge of the Minister of Industry and Commerce to promote faster development, the Chairman of the Fund stated "we accept your challenge but I must warn you that if you want us to do this job - and I agree it must be done - you must make more of Rex Grose's time available to the Fund. He is the key ..."⁶⁰

Walter Newman in his testimony to the Commission felt the Province had to accommodate Kasser and Reiser because it was "going along with them or letting the North go."⁶¹ Roblin during a debate in the House typified the optimistic yet "not know how its going to be accomplished" attitude that had characterized the Government's long search for a developer: "...for forty long years this forest was empty, no pulp and paper mill up there; it'll remain that way for the next forty unless you get out and do something about it."⁶²

While displaying this ambiguous attitude, its philosophy on incentives to attract a developer to the North changed. The Government still

retained the belief that the project was viable but not under the premises originally adopted. Faced with factual evidence that clearly indicated the project may not in the foreseeable future proceed via private industry, the Government began to reassess and change the financial parameters of the proposed project.

Initially the Government's position vis-a-vis incentives was not unusual. It included cheap power, low stumpage rates and favourable ground rent charges with the expectation that the plant would be built by private enterprise.⁶³ No consideration was given to government equity⁶⁴ or a Crown Corporation. In 1960, the mood began to change when the Government received ADL's 1960 Report.⁶⁵ The MDA Directorate approved the ADL Recommended incentives. The new incentives included: even lower stumpage rates; all fire protection costs borne by the Government; exclusive rights of approximately 10,000 sq. miles for up to 50 years; financial support for townsite planning and; reduced power rates over an extended period.⁶⁶

In 1962 Gurney Evans informed the Premier that Saskatchewan was offering better incentives and to begin with "they were prepared to loan up to 60% of the "financial program" to a maximum of \$36 million."⁶⁷ In 1963 the Committee on Manitoba's Economic Future Report (COMEF) released its recommendations. The Government sponsored study stated in part:

"...To make such an investment attractive Government must be prepared to grant substantially larger reserved timber areas than in other parts of the Province for longer periods; provide power at reasonable cost; provide water without charge;

establish special reduced stumpage and ground rental rates; assist in the construction of roads in timber areas; provide fire protection; provide assistance in townsite development and community development facilities."

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The Government was in competition and incentives had become the magic key that would lead Manitoba to the fore.

By 1964 even these incentives were insufficient. Grose in a letter to pulp and paper companies spelled out the new concessions: 60% long term financing at 6- $\frac{1}{2}$ % from the Fund, 20% from bank loans and 20% owner equity; a free hydro transmission line with a seven year contract at the lowest rates in the country; townsite development would be paid by the Government under a formula of \$180 for each resident employee; no realty or business tax; plus the lowest stumpage charges, an aerial photographic inventory and preferred cutting rights for 20 years renewable for the same. In July 1965 the Government launched an advertising campaign indicating that it was prepared to provide the MDF with \$100 million to promote industrial development. And by September 1965, the Government agreed to provide financial assistance through the MDF to Monoca A.G., 86% of the total investment required for an integrated forestry project at The Pas. In seven years the Government's position had changed from insisting on private development to almost complete financial support. But during this time its objective never changed, only the means to attaining it.

This behavior by the Government illustrates the use of transformational inferences. They had remained optimistic despite the numerous dead-ends

encountered. When it became apparent that the original guidelines were not sufficient, the mind was faced with a dilemma - a value based expectation that was not in harmony with factual information from the immediate environment. This unbalanced situation dominated the entire search process and caused consistency problems in the belief structure of the Government's decision-makers. The Ego's response was to incorporate the factual anomalies into its value system by redefining its values in relation to the overall objective. The "...redefinition of values to avoid self-contradiction" Lane suggests "is a standard escape from illogicality",⁷⁰ and this provides a way of removing the inconsistency pressure exerted by contradictory information generated by the situation in question. Similarly Steinbruner suggests, "it was a way of making the pertinent belief structure immune to disconfirming empirical information."⁷¹ This same inference mechanism was invoked by Grose and Roblin during the search process to maintain their firm belief that the project would succeed - but by yet to be determined means.

As a final test of the cognitive model applicability to this decision problem, its last hypothesis suggests a tendency that decision-makers should be aware of. What affect does shared values have on a group's consensus and decisions? The hypothesis suggests "decision-makers will seek concurring information from other like-minded individuals to support their own belief structures." Complimenting this, is Janis's hypothesis which suggests "members of any small cohesive group tend to maintain esprit de corps by unconsciously developing a number of shared illusions and related norms that interfere with critical thinking and reality

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testing." The salient point posited by the two hypothesis is the possible influence such a situation may have on a decision process.

There are numerous examples of group decision-making resulting in failure. Vietnam, the Bay of Pigs, the Columbia River Treaty, Canada's oil policy and, the forestry complex at The Pas are but a few examples. To Janis, such decisions are the product of "groupthink" which "refers to a deterioration of mental efficiency, reality testing, and moral judgment that results from in-group pressures." 73 While discussing American foreign policy failures (Vietnam, the Bay of Pigs) Janis pointed out:

"Each of these decisions was a group product, issuing from a series of meetings of a small body of government officials and advisors who constituted a cohesive group. And in each instance, the members of the policy-making group made incredibly gross miscalculations about both the protocol and moral consequences of their decisions."

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The decision to accept the Monoca offer was made by a Cabinet group and as later events revealed, an unfortunate one. While this study has been primarily concerned with the events leading up to the actual decision, the tangentially of Janis's hypothesis can provide an additional perspective in analyzing the CFI decision group's behavior.

Formally the membership of the CFI decision group consisted of a committee of Cabinet defined as the Directorate of the MDA. Grose's unique role in the Government's search made him privy to this Cabinet Committee unlike the other members of the MDA Board. 75 Actively Roblin and Grose and to some extent Evans were the driving force behind the

concept. Roblin and Grose displayed similar characteristics and attitudes and therefore it was natural for an axis to form between the two that would dominate the group's opinions and actions.

Roblin was a man concerned with the future of Manitoba. In this respect he was like his grandfather - a man with visions and hopes for his province. He held a great admiration for the former Premier, so much so that he kept his grandfather's chair in his office. His grandfather had never hesitated for a moment to use the power of government to further develop Manitoba and Duff Roblin governed in the same manner. "He thought nothing of using the public purse to develop the province but he was constantly frustrated by the 'black reaction' (the rural small c conservatives) to his progressive Legislation." ⁷⁶

Roblin pioneered welfare programs between the Federal Government and the Province - a formula that the Federal Government later used in its negotiations with the other provinces. He forced the consolidation of the province's school units - using political blackmail in the form of lower government grants if the rural school districts did not go along. Post-secondary education was a high priority. Both the University of Winnipeg and Brandon University were given degree granting status and money was lavishly poured into the Province's three institutions of higher learning. He felt that Manitoba had a natural advantage in that more secondary industry was located here than elsewhere in the West. An advantage that could be built on, thus making Manitoba a "have province":

"For Roblin industrial development became an obsession in a time when the "have not provinces" were competing with each other during a boom period. In conferences with the Federal Government Roblin was a standout, promoting the interests of Manitoba with the weak Pearson Government."

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As Premier, he had pronounced ideas, was distainful with people that disagreed with him. He was the absolute boss in Cabinet meetings and for the most part decided Government policy himself. Often Deputy-Ministers were invited to the Cabinet meetings because he had more faith in their abilities than their Ministers. Grose was one of these men.

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While Roblin had the necessary political skills and power, Grose possessed the administrative and background knowledge, plus the salesmanship qualities required to bring an integrated forestry complex to Northern Manitoba. The two men each big thinkers, bolstered and complimented one another. Grose, a bit of a flim-flam man, who had bought a \$3000 desk for his office in the Power Building and Roblin a grandstander who used the annual Conservative Party dinner at the Marlborough Hotel to announce new projects. Roblin often joked about Grose's flimflamery style - but they had a strong relationship because of their intense mutual desire to make the project succeed. And it was this relationship that dominated the CFI decision group and process.

Evidence shows that Roblin was well aware of the many criticisms the project had encountered, especially from his other Deputy-Ministers. The fact that he did not pay attention to their views but relied upon Grose's collaborative advice validates the cognitive model's last hypothesis. Grose's on-going contact with Zeigler of ADL was probably

due to the same tendency. All reports produced by Zeigler supported the concept and Grose relied upon these when making his sales pitch. When incentives were first introduced Grose submitted them to his fellow Deputy-Ministers for their comments. However when the comments were anything but supportive, Grose did not seek their advice on future proposals. In fact, when the Government met with Monoca, Grose was the only civil servant present to offer advice - a tendency for groups subject to "groupthink" who do not want to be exposed to other types of opinion that does not support the group consensus. During the search this tendency dominated, thus allowing the operative belief structure of the decision-makers to maintain an expectation based on simplicity and consistency.

While the above tendency can influence the information seeking behavior of decision-makers, the root cause of this tendency, a specific expectation can have other affects. As in his Cabinet meetings, Roblin probably held sway over the Directorate of the MDA because of his authoritarian style. In such situations Janis suggests an authoritarian leader will have much to do with the shaping of the group's consensus.⁸⁰ If this assumption is correct then the decision group owed not only its status but its goal to Roblin. In view of this, Janis also states "government policy-makers, like most executives in other organizations, hesitate to object to a policy if they think their forthright stand might damage their personal status and political effectiveness."⁸¹ The overall acquiescence of the other Cabinet members to Roblin's goal is therefore logical despite some evidence that other views were expressed.

In a similar situation Halperin found

"the desire to remain involved and effective also leads officials whose influence depends largely on the confidence of the President to faithfully execute his decisions and to take stands which they believe he would want them to take. Acheson describes in his memoirs the care he took to maintain the confidence of the President. Neustadt reports that Dulles was equally motivated...."

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The evidence from the CFI material also supports this hypothesis.

In Roblin's expectation for the North, two factors predominated. One, the idea of an integrated forestry complex and two, the idea that the project must be developed by private enterprise. It was under these conditions the decision group functioned. Such a condition however does allow for some deviation noted above and Evans's behavior fits this anomaly. On several occasions in memos to the Premier he mentioned the possibility of public ownership, but he tempered these suggestions by still advocating faith in Roblin's position:

"From the above you will see that I believe private interests can be found to undertake these ventures. At the same time I realize the importance of moving ahead on these projects and if we are unable to interest private enterprise I will bring forward suggestions regarding the possible operation of these projects by Crown Companies or under a leasing operation to private companies and a definite plan."

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This deviance has been noted in other decision groups and is allowed if it does not challenge the fundamental assumptions under which the group

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operates. These fundamental assumptions of the CFI concept were not challenged and Evan's suggestions were never seriously advanced nor

considered.

Roblin and Grose's behavior validated the theory of decision-makers seeking supportive information and this was a primary reason for the forestry concept's longevity despite seven years of frustration. By the time the Monoca offer was presented to the government, any chance of the decision group acting rationally, had long since disappeared.

FOOTNOTES

1

The reader should remember that the notion of search is an important concept in the basic rational and adaptive rational models of decision-making.

2

Province of Manitoba, Report of the Commission of Inquiry into The Pas Forestry and Industrial Complex at The Pas, Manitoba, (Winnipeg: The Queen's Printer, 1974). For stylistic purposes Report of the Commission of Inquiry into The Pas Forestry and Industrial Complex at The Pas, Manitoba will hereafter be referred to as Report.

3

Nick Hills, "The Churchill Forest Industries Scandal", in Political Corruption in Canada: Cases, Causes and Cures, by Kenneth M. Gibbons and Donald C. Rowat (Toronto: McClelland and Steward Ltd., 1976), p. 107.

4

There seems to be some problem establishing an exact date in which the Monoca proposal was actually accepted. Either September 28 or 29 has been suggested with the 29th as the most logical date. For a detailed discussion on this point see Report, vol. 1, pp.163-178.

5

Report, vol. 1, pp.92-93.

6

Duff Roblin Transcript, August 17, 1971, pp.154-155. See also Report, vol. 1, p.93.

7

Arthur D. Little Inc., is an internationally known American consulting firm, with headquarters in Cambridge Massachusetts. The company has been recognized as a leader in its field for more than fifty years.

8

Report, vol. 1, p.81.

9

Exhibit 7, p.18.

10

Report, vol. 1, p.109.

11
Exhibit 4617, p.5.

12
Exhibit 4607, p.4.

13
On two occasions in 1964, the Dept. of Industry and Commerce engineered a large publicity campaign. The first, in February involved the sending of ADL's report on "The Feasibility of Locating a Pulp Mill at The Pas" to a large number of pulp and paper companies in North America, the U.K., France, Italy, Scandinavia and Japan. Similarly in August the department promoted the "Arnot Project" by sending this proposal to a large number of companies in Europe and Japan. In both instances, the response was largely negative with most companies failing even to respond.

14
Report, vol. 1, pp.135-136.

15
John D. Steinbruner, "The Mind and Milieu of Policy-Makers: A Case Study of the MLF," (unpublished Ph.D. dissertation, Massachusetts Institute of Technology, 1968) p.228.

16
As quoted from the Report, vol. 1, p.95.

17
Exhibit 167B, p.3. See also Report, vol. 1, pp.104-105.

18
Report, vol. 1, p.104.

19
Ibid., p.105.

20
Steinbruner, op. cit., p.228.

21
Exhibit 18. See also Report, vol. 1, p.140.

22
Report, vol. 1, p.93.

23
Duff Roblin Transcript July 7, 1971, p.95. See also Report, vol. 1, p.97.

24

Report, vol. 1, p.118. See also Exhibit 4615, p.8.

25

Duff Roblin Transcript, July 7, 1971, p.96A. See also Report, vol. 1, p.59. Gurney Evans, Roblin's Minister of Industry and Commerce suggested on a number of occasions the possibility of either equity participation or crown corporations, but these suggestions did not gain much support in the early stages of the decision process.

26

Exhibit 10, p.1. See also Report, vol. 1, p.110.

27

Alexander Z. George, "Comments on Opinions, Personality, and Political Behavior", American Political Science Review, vol.52 (1958), p.21.

28

Fred I. Greenstein, "Political Psychology: A Pluralistic Universe," in Handbook of Political Psychology, edited by Jeanne N. Knutson (San Francisco: Jossey-Bass Publishers, 1973), p.448.

29

Talking Points for PC Speakers and Workers, Provincial Election, 196 , Speakers Handbook #7, Mines and Natural Resources.

30

Report, vol. 1, p.94.

31

Ibid., vol. 1, p.104.

32

Edwin J. Thomas, "Role Theory, Personality and the Individual", in Handbook of Personality and Research, edited by E. F. Borgatta and P. Lambert (Chicago: Rand McNally, 1968), p.700. See R. K. Merton's "Bureaucratic Structure and Personality", Social Forces, 1940, vol. 18, pp.560-568.

33

See for example the MDA minutes of October 30, 1959 and September 30, 1960, Exhibit 167B.

34

Grose's close association with the project dates back to 1956, when as Deputy-Minister of Industry and Commerce, his department commissioned ADL to conduct a study on the North's potential.

35

Report, vol. 1, p.124.

36

Exhibit 7, pp.2-3. See also Report, vol. 1, pp.110-111.

37

Steinbruner, op. cit., p.322.

38

Report, vol. 1, p.94.

39

Lewis Donohew and Leonard Tipton, "A Conceptual Model of Information Seeking, Avoiding, and Processing", in New Models for Mass Communication Research, ed. by Peter Clarke (Beverly Hills: Sage Publications, 1973), p.244. See also S. Feldman, ed. Cognitive Consistency (New York: Academic Press, 1966) and; R. P. Abelson et al, eds., Theories of Cognitive Consistency: A Sourcebook (Chicago: Rand McNally, 1968).

40

Walter Mischel, "Toward a Cognitive Social Learning Reconceptualization of Personality", Psychological Review, vol. 80 (1973), p.268. See also the numerous studies Mischel refers to in his article to support his argument.

41

Ole R. Holsti, "Cognitive Dynamics and Images of the Enemy", in Image and Reality in World Politics, ed. by J. C. Farrell and A.P. Smith (New York: Columbia University Press, 1968), p.19.

42

Robert A. Axelrod, "Schema Theory: An Information Processing Model of Perception and Cognition," American Political Science Review, vol. 6 (1973), p.6.

43

Report, vol. 1, p.118.

44

Ibid., vol. 1, p.125.

45

Ibid., vol. 1, p.137.

46

Ibid., vol. 2, pp.408-410.

47

Leon Festinger, A Theory of Cognitive Dissonance, (Stanford: Stanford University Press, 1970), p.3.

48

For a detailed report see Report, vol. 1, pp.180-182.

49

Report, vol. 2, p.446.

50

Ibid., vol. 2, p.700. See also Exhibit 1271.

51

Ibid., vol. 2, p.785.

52

See vol. 3, pp.827-829 of Report.

53

N. T. Feathers, "Organization and Discrepancy in Cognitive Structures," Psychological Review, vol. 16 (1971), p.369.

54

Ibid.

55

Joseph H. de Rivera, The Psychological Dimension of Foreign Policy, (Columbus: Charles E. Merrill Publishing Co., 1968), p.120.

56

Steinbruner, op. cit., p.477.

57

Milton Rokeach, "Attitude Change and Behavioral Change," Public Opinion Quarterly, vol. 30 (1966), p.530.

58

Ibid.

59

Report, vol. 1, p.118. See also Exhibit 4615.

60

As quoted in Report, vol. 1, p.132. See also Exhibit 16.1.

61

Report, vol. 5, p.1587.

62

Debates of the Legislature of Manitoba, Dec. 15, 1966, p.253. See also Report, vol. 5, p.1620.

63

Report, vol. 1, p.89. These concessions were based on a 1954 Government Study titled "Report Containing Information on The Possibilities of Establishing a Pulp and Paper Mill at Grand Rapids." The incentives were considered to be normal for a Government trying to attract a pulp and paper company.

64

Ibid., vol. 1, p.95.

65

"Recommended Measures to Attract a Forest Products Industry to Northern Manitoba." ADL Report, 1960.

66

Report, vol. 1, pp.107-108.

67

Ibid., vol. 1, p.126.

68

Ibid., vol. 1, p.129.

69

Ibid., vol. 1, p.139.

70

Robert E. Lane, "Patterns of Political Belief," in The Handbook of Political Psychology, ed. by Jeanne N. Knutson (San Francisco: Jossey-Bass Publishers, 1973), p.120.

71

Steinbruner, op. cit., p.476.

72

Irving L. Janis, Victims of Groupthink (Boston; Houghton Mifflin Company, 1972), pp.35-36.

73

Ibid., p.9.

74

Ibid., p.14.

75

See Report, vol. 1, p.101 for the membership list. Also the

Statutes of Manitoba, 1959, c.15, "An Act to Facilitate and Economic Development of the Province".

76

Interview with civil servant in Roblin's Administration, March 3, 1976.

77

Ibid.

78

Ibid.

79

Ibid.

80

Janis, op. cit., p.73.

81

Ibid., p.33.

82

Morton H. Halperin, Bureaucratic Politics and Foreign Policy, (Washington: The Brookings Institution, 1974), pp.91-92.

83

Exhibit 19. See also Report, vol. 1, p.141.

84

See Janis's discussion of "conformity pressures", pp.119-122 for a detailed discussion of this behavior.

CONCLUSIONS

The purpose of this study was to present to the interested reader an analysis of a Government decision process from three theoretical perspectives. To do so, three models which incorporated the case study method were used. The decision process involved an area of special concern to the Government, that of resource development and specifically, that of utilization of Manitoba's northern forest potential.

The three models of decision-making were: 1) the basic rational theory of decision-making; 2) the adaptive rational theory of decision-making, and; 3) a cognitive processing theory of individual decision-making. The first model assumed that the decision-maker has perfect information, he knows all the alternatives and he chooses the alternative with the maximum benefit. The second model suggests that man does not seek to maximize his utility but rather will choose the first alternative that meets a minimum level of expectation. The last model suggests that decisions are based on the attainment of expectations derived from preconceived attitudes or beliefs an individual has about his environment.

The CFI decision process was marked by uncertainty. At no time during the search process was there sufficient information to proceed positively toward bringing a forestry complex to Northern Manitoba. On the contrary, there was available ample information that argued against the project's viability at that time. The Government however persisted in trying to attract a developer. From the study three factors were found to dominate this search process: the condition of uncertainty; the presence of incomplete information and; a fixed

attitude displayed by the decision-makers.

Evidence analyzed revealed that the Government did not act in a manner suggested by the "basic rational model". It did not have perfect information for the decision process and the Government utilized only data that supported its position. The Government also failed to investigate other alternatives and the benefits that might accrue from them thus improving its decision performance. Therefore, it could not rank various options vis-a-vis each other, nor make a decision based on the best alternative. The Government's behavior suggests contrary to the hypothesis generated by the "basic rational model" that it did not act rational in this situation. Therefore this implies that Government decision-makers do not always use the traditionally assumed method when making decisions.

The "adaptive rational theory" unlike the first model does not posit the concept of perfect information. Instead it suggests that decision-makers operate under uncertainty, a condition that the CFI decision-makers had to contend with. The model also states that alternatives are reviewed sequentially until one meets a desired level of expectation. Implicit in this theory is the concept of search, a notion that evidence revealed did not occur in the posited manner in the CFI affair. Only one alternative was ever considered - a privately developed forestry complex. No other alternatives were considered and the Government did not lower its expectation level despite the numerous failures it encountered. Evidence also showed the Government did not reduce the level of uncertainty, rather by pursuing the one

alternative, it exposed itself to greater uncertainty. Nor did the Government "learn" from its unsuccessful attempts. Overall the Government did not act in the "satisficing mode" hypothesized by Cyert and March's model.

Of the five hypotheses posited by the "cognitive processing model" the Government decision group and more specifically Roblin and Grose did display the behavior tendencies suggested with one expectation. By setting an immediate priority on the project the Government introduced a time restriction on the project. Negotiations with interested companies were conducted on this basis. Almost full attention would be given to that company until negotiations failed at which time the Government would actively court the next one in the same manner. In the quest for economic development the Government had only one objective and it refused to accept any conflicting information to the objective. The Government did have other opportunities but it refused to pursue them.

The cognitive model suggested the use of "impossibility inferences" by decision-makers and it was here that the CFI decision-makers did not display the behavior posited by the model. This anomaly in their behavior was due however to the lack of competing alternatives from rival policy groups. The CFI decision-makers did use transformational inferences as evidenced by their maintenance of the original objective in conjunction with their changing ideas about incentives and the Government's role in the project. Finally, the Roblin and Grose decision group did display the tendency to seek supportive information from other like-minded individuals and decisions were made in this atmosphere.

The applicability of the three models to the decision process has been mirrored by the effectiveness of their individual hypotheses in providing a logical explanation for the exhibited behavior. In this regard several factors have from the evidence been established. These are the condition of uncertainty, the presence of incomplete information and, the fixed attitude displayed by the Government. In applying each model to the decision process, the basic rational model failed to account for the presence of any of these factors. In doing so, the model's fundamental assumption that decisions are the result of a process of maximization was invalidated. The basic rational model's inability to account for the presence of these factors is due to its broad generality. By assuming decisions are always made under perfect conditions, the model can not explain the affect of deviations from this norm. Therefore in decision situations such as the one under consideration and that governments are often exposed to, the model's applicability is inadequate to explain the behavior of the decision-makers.

In the case of the adaptive rational model, the model correctly hypothesized the presence of incomplete information and the condition of uncertainty. However based on these assumptions the model also suggested that decisions are a result of expectations and alternatives being matched. Similar to the former model, this assumes that alternatives are generated - a behavior pattern the material reviewed did not happen. And like the former model the presence of unexplained factors (only one in this case) left the analysis incomplete. Because the CFI decision-makers displayed such a firm commitment to a specific goal,

they were not able to sequentially review other alternatives, even though other alternatives existed. In a situation where such deep commitment was evident, the adaptive rational model's ability like the former model's, was limited in this type of situation.

Unlike the first two theories, the cognitive model did account for the three factors. In this case, the explanations were based on several fundamental propositions of psychology. The usefulness of this approach is seen in the manner in which the cognitive model views the decision-making group - as a group of individuals. It also takes into account the peculiarities of these individuals and the affect that these deviations can have on the decision-making process. The important aspect of this model is its emphasis on the individual's information processing system. Using this as its central concept, the model logically explained the system of information processing, the limitations placed on this processing system, the establishment of belief sets and inference hierarchies, and finally the manner in which the mind reacts to new environmental stimuli. The end result of these explanations was a model that was clearly more applicable to the decision problem being analyzed.

In conclusion, the foregoing study has shown that the CFI decision group and in particular Roblin and Grose were influenced by belief structures that had been established independently of the majority of information generated from the decision situation. Data, which others saw as important and as the evidence revealed was not correctly utilized. In order to counter these factual anomalies, Roblin and Grose employed

perceptual mental blocks to the information they were uncomfortable with. The result of these actions probably strengthened their existing belief structures to which they were committed. In the end this led to their hasty decision to accept the Monoca offer, the only offer which satisfied all the requirements of their expectations for the North.

It was these psychological processes operating in the Government milieu that produced the CFI policy decision. If it were not for the determination of Roblin and Grose despite the countless failures, the disproportionate amount of opposing information, the public criticism to the plan and, the uncertainty involved, the concept would have failed to be implemented.

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