

**CORRELATES AND DIMENSIONS OF  
THE "OPERATIONAL CODE" BELIEF SYSTEMS:  
EMPIRICAL FINDINGS FROM  
A SURVEY OF CANADIAN FOREIGN SERVICE OFFICERS\***

Herbert S. Yee

The concept of "operational code", first proposed by Nathan Leites (1951) and further developed by Alexander George (1969) and Ole Holsti (1976a), refers to the two sets of "philosophical" and "instrumental" beliefs concerning, among others, the nature of the political universe, the direction and control of historical development, and the calculation and control of risks. The original version of the operational code by Leites was derived from his interpretation of the Bolshevik approach to politics and decision-making. George revises Leites' version and classifies a political leader's or an actor's beliefs into ten categories of questions (five for each of the two sets of philosophical and instrumental beliefs) which, according to one critic (Holsti, 1970), address the essential and fundamental beliefs of an actor. However, George's ten categories of beliefs have not been operationalized, and, thus, studies applying the operational code approach have been largely confined to case studies of individual political leaders (Holsti, 1970; McLellan, 1971; Anderson, 1973; Gutierrez, 1973; Tweraser, 1973; Lawrence, 1975; Johnson, 1977; Walker, 1977). Furthermore, the highly abstract questions suggested by George are open to widely different interpretations. As a result, most of the studies are descriptive in approach and hardly comparable; they are suggestive and eclectic rather than focused and cumulative (Holsti,

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1976b). Nevertheless, the George version remains the most commonly used by researchers applying the operational code approach.

In an effort to improve the operational code approach, George and Holsti (1974) have attempted to enlarge and modify the earlier George version. The result is a broader and more specific version of the operational code. By supplying coding guidelines, Holsti (1976a) has operationalized the beliefs through the technique of quantitative content analysis. The present study adapts the Holsti version to the Canadian context, with some significant modifications. The most important difference between the Holsti version of the operational code and the one adopted here is the scale of measurement. The present paper has attempted to operationalize the operational code beliefs by conceptualizing each belief in a continuum, thus, rendering it measurable by a seven point differential scale. In contrast, Holsti does not conceive each belief in a continuum; neither does he suggest any standard differential measuring scale. There are also some important differences in terms of the contents of beliefs. In many cases, the modifications are necessary or desirable for applying Holsti's version, originally conceptualized for content analysis, to the technique of questionnaire survey used in this study.

After the pre-tests of the questionnaire, some of the overly general and abstract questions were eliminated. The pre-tests were conducted prior to the mailing of the questionnaires. The author interviewed a number of Ottawa-based Canadian foreign service officers and invited their comments and suggestions on the contents and wording of the questions. The questionnaire was also pre-tested by asking some of my colleagues and graduate students to actually fill out the questionnaires. Despite the strenuous efforts to designing and drafting the questionnaire, the researcher was aware of the limitations of the method. For example, because of the lack of a feedback mechanism in a questionnaire survey of this kind, we were not sure whether the questions had been interpreted correctly by the respondents; the validity of their answers was thus highly suspect.

Moreover, beliefs loaded with heavy political or economic jargon,

which was generally vague and ambiguous to policy-makers, were also deleted. In general, complicated items from the Holsti framework were simplified (admittedly at the risk of over-simplification) for the sake of clarity. Finally, questions with low reliability were dropped. The split-half reliability test was applied to all questions in the survey questionnaire. The completed questionnaires were randomly divided into two groups. The percent difference in medians in each scale from the two groups was regarded as a measure of unreliability; reliability was 1 minus this percent difference. Only beliefs with split-half reliability equal to or greater than 0.90 were included for data analysis. As a result, a total of thirty beliefs (eighteen philosophical beliefs and twelve instrumental beliefs) were included for the purpose of analysis in this paper.

The present study attempts to investigate the interrelationships among the operational code beliefs by the technique of correlation analysis; dimensions of the beliefs are then delineated by factor analysis. Moreover, by considering the operational code beliefs as dependent variables, it attempts to examine the effects of environment and role on one's beliefs or perceptions. Due to the lack of appropriate literature on systematic applications of the operational code approach,<sup>(1)</sup> data analysis in the present paper relies heavily on inductive rather than deductive reasoning. The manner in which George's original ten categories of beliefs have been modified and adapted to the format of survey questionnaire is illustrated as follows:

#### *Philosophical Beliefs*

1. What is the "essential" nature of the political universe? What is the nature of the contemporary international system? What is the fundamental character of one's political opponents and/or of other significant political actors?
  - P<sub>1a</sub> - Is politics basically conflictual or harmonious? (conflictual - harmonious)<sup>(2)</sup>
  - P<sub>1b</sub> - On balance, do you view conflict as a zero-sum situation (i. e., one actor's gain is another's loss) or as a non-zero-sum situation (i. e., both parties may gain, or may lose)? (zero-sum - non-zero-sum)
  - P<sub>1c</sub> - Do you view conflict as functional in historical development

- and progress, or is it dysfunctional? (functional – dysfunctional)
- P<sub>1d</sub> – Is the international system basically conflictual or harmonious? (conflictual – harmonious)
- P<sub>1e</sub> – Is conflict in the international system inevitable, or avoidable? (inevitable – avoidable)
- P<sub>1f</sub> – Is the contemporary international system bi-polarized or multi-polarized? (bi-polarity – multi-polarity)
- P<sub>1g</sub> – Do you agree that world peace could be achieved by: (a) Narrowing the gap between the rich and the poor countries? (b) Maintaining good personal relations among world leaders? (c) Transforming the existing structure and functioning of the system by designing a new world order? (strongly agree – strongly disagree)<sup>31</sup>
- P<sub>1h</sub> – In terms of international influence, what is the nature of the U.S. fundamental foreign policy goals? (aggressive – status quo)
- P<sub>1i</sub> – What are the major sources of the U.S. foreign policies? Are they initiated by internal needs and dispositions, or primarily responses to external or situational constraints? (internal needs – external constraints)
- P<sub>1j</sub> – Are the United States' foreign actions made by intuition, or by precise calculation? (intuition – precise calculation)
2. What are the prospects for the eventual realization of one's fundamental political values and aspirations? Can one be optimistic, or must one be pessimistic on this score; and in what respects the one and/or the other?
- P<sub>2a</sub> – In terms of international influence, what is the nature of Canada's fundamental foreign policy goals? (aggressive – status quo)
- P<sub>2b</sub> – What are the major sources of Canada's foreign policies? Are they initiated by internal needs and dispositions, or primarily responses to external or situational constraints? (internal needs – external constraints)
- P<sub>2c</sub> – In general, will Canada play a more (or less) important international role in the future? (more important – less important)
- P<sub>2d</sub> – Are you optimistic or pessimistic regarding the prospects for the realization of the following Canadian foreign policy goals: (a) Fostering economic growth? (b) Safeguarding sovereignty and independence? (c) Working for peace and security? (d) Promoting social justice? (e) Enhancing the quality of life? (f) Ensuring a harmonious natural environment? (optimistic – pessimistic)<sup>41</sup>

3. Is the political future predictable? In what sense and to what extent? What is the role of chance in human affairs and history?<sup>(5)</sup>
  - P<sub>3a</sub> — Is politics characterized by uncertainty, or is it more or less predictable? (unpredictable — predictable)
  - P<sub>3b</sub> — Are the direction and final outcome of the major historical developments predictable? (unpredictable — predictable)
  - P<sub>3c</sub> — Are specific short-term policy outcomes predictable? (unpredictable — predictable)
4. How much "control" or "mastery" can one have over historical development?
  - P<sub>4</sub> — Should one make foreign policies by intuition, or by precise calculation? (intuition — precise calculation)

*Instrumental Beliefs*

1. What is the best approach for selecting goals or objectives of political action?
  - I<sub>1a</sub> — Should foreign policy goals be worked out within an overall comprehensive framework, or by separating issues and dealing with each one on its own term (i.e., piecemeal approach)? (comprehensive — piecemeal)
  - I<sub>1b</sub> — Should one select optimal goals, or is it better to settle for those that seem more attainable in the prevailing circumstances? (optimal goals — attainable goals)
  - I<sub>1c</sub> — Are foreign policy goals *compatible* (i.e., they are linked in such a way that achievement of one will ensure, enhance, or at least not harm the prospects for success in others), or *incompatible* (i.e., the vigorous pursuit of one goal may retard or even jeopardize the achievement of others)? (compatible — incompatible)
2. How are the goals of political action pursued most effectively?
  - I<sub>2a</sub> — In dealing with foreign policy problems, should one adopt an *incremental* approach by emphasizing the value of limited gains on various parts of the problem, or adopt a *blitzkrieg* strategy by committing a decisive and full-scale effort to deal with the problem? (incremental — blitzkrieg)
  - I<sub>2b</sub> — In general, which action is preferable for achieving Canada's foreign policy goals? (bilateral — multilateral)
3. How are the risks of political action calculated, controlled, and accepted?
  - I<sub>3a</sub> — Should one calculate the risks of policies within a comprehensive framework in relation to all of one's goals and aspirations, or should one do so by assessing the risks solely in terms of the specific tactics that may be pursued in a given situation? (comprehensive — specific)

- I<sub>3b</sub> – When Canada is confronted with high-risk policies, should Canada take the initiative or adopt the tactic of wait-and-see? (take initiative – wait-and-see)
- I<sub>3c</sub> – Do you agree with the following statement: Certain circumstances make high-risk policies conceivably advisable? (strongly agree – strongly disagree)
- I<sub>3d</sub> – Is it safe for a small power to pursue major foreign policy objectives or goals at the expense of a major power? (very safe – overly risky)
4. What is the best “timing” of action to advance one’s interests?
- I<sub>4</sub> – Is the “timing” of action important for the success or failure of one’s long-term, fundamental goals? Is the “timing” of action important for the success or failure of specific undertakings? (very unimportant – very important)<sup>67</sup>
5. What is the utility and role of different means for advancing one’s interests? What resources can one draw upon in an effort to advance one’s interests?
- I<sub>5a</sub> – What is the utility of different means for advancing one’s interests? (ends justify means – means consistent with ideals)
- I<sub>5b</sub> – What are the key resources that constitute politically relevant power in world politics? Is power best conceived strictly in a military sense, or in a broader definition to include economic, diplomatic and other resources? (military capability – broader perspective)

Findings reported in this paper are based on data from a questionnaire survey of foreign service officers (FSO) in Canada’s Department of External Affairs (DEA). Studies applying the operational code approach have so far been confined to case studies of a limited number of top level decision-makers. Although some scholars have focused on investigating the beliefs and attitudes of larger samples of politicians (Putman, 1973), few have been primarily concerned with belief systems of bureaucrats. Recent studies have demonstrated the impact of bureaucratic politics on the process of decision-making (Allison, 1971; Allison and Halperin, 1972); Canadian diplomats, in particular, are highly influential in formulating and implementing their country’s foreign policies. The literature on Canadian diplomacy is voluminous, yet scholarly work on bureaucratic beliefs and attitudes is scarce. The present study is one of the latest attempts to fill this gap.<sup>71</sup> The survey was conducted by the

author himself during the spring and summer of 1977. Questionnaires were sent to a random sample of 200 FSO serving abroad and 200 Ottawa-based FSO. A total of ninety-two respondents (a response rate of 23%) completed and returned the questionnaires. Thirty-eight (41.3%) of the respondents were stationed abroad, while fifty-four (58.7%) were serving in Ottawa when the survey was conducted.<sup>18</sup> Foreign service officers of different ranks were well represented. About half of the respondents were junior officers; one quarter were mid-career officers; and another quarter were senior diplomats, serving either as ambassadors abroad or division heads in the DEA in Ottawa. The proportion of respondents corresponded approximately to the population of FSO; only the senior diplomats were slightly over-represented.

According to comments and suggestions from both the respondents and non-respondents (about 15% of the non-respondents replied but declined to participate in the survey), the relatively low response rate could be explained by (1) the highly abstract and sometimes over-simplified questions which some FSO had difficulties in answering; (2) the prevailing negative attitudes among FSO towards questionnaire surveys conducted by the academia; and (3) the lack of strong evidence demonstrating policy relevance of the research project. The response rate, however, may be regarded as satisfactory when compared to research of similar kind. In a survey of political elite attitudes, a response rate as low as 16.7% was reported (Modelski, 1970). In any case, the problems of non-response bias may not be severe due to the very nature of the present study. This paper does not intend to generalize about the belief systems of the population based on data from 23% of the sample, an attempt which will no doubt be jeopardized by the low response rate. It seems reasonable to assume that the effects of non-respondent bias would be much less serious on changing the underlying interrelationships among the belief systems, which is the primary concern of this study.

## CORRELATES OF OPERATIONAL CODE BELIEF SYSTEMS

Results from correlation analysis indicate some interrelationships among the beliefs. However, not all operational code beliefs are significantly related to each other; most of the correlations are in general weak. In fact, the striking picture of the correlation matrix is the lack of relationships among many, if not most, of the beliefs (see Table 1). More significantly, perhaps, is the lack of "core" beliefs which may affect or constrain the range of responses to other questions that compose the operational code; instead, small "clusters" of beliefs were found consisting of three or four beliefs. According to Converse (1964), a belief system is defined as "a configuration of ideas and attitudes in which the elements are bound together by some form of constraint or functional interdependence." The above findings raise serious questions about the basic conceptual assumption of the operational code approach that there are systematic linkages between beliefs and thus threaten the utility of the construct as a way of describing belief systems. The findings also cast doubt on current efforts toward developing a typology of operational code belief systems by assuming that within one's system of beliefs there is a hierarchy that ranges from the most important to the least important beliefs (Holsti, 1977).

Table 1 presents the product-moment correlation coefficients of the thirty operational code beliefs. It shows small "clusters" of beliefs with significant correlations (at the 0.05 level) between each other. It is interesting to note that most of these clusters of beliefs constitute both philosophical and instrumental beliefs, suggesting interdependence between the two sets of beliefs. This finding has illustrated the structuring complexity of the operational code belief system; it raises questions about the criteria that artificially distinguish the philosophical and instrumental beliefs. Moreover, it casts doubt on the validity of the conceptual construct and suggests that there may be some other basic values or primordial beliefs which structure the system and that should be included. Attempts to explain political behavior by the operational code



construct are therefore bound to be partial and incomplete. Notwithstanding the above limitations, there are some revealing linkages among the beliefs. It is not the author's intention, however, to list all the significant correlations; only those with relatively strong linkages (i.e., with correlation coefficients, or "r", equal to or greater than .30) are cited selectively below.<sup>9)</sup>

It is obvious that one's belief about the nature of politics is expected to be related to one's belief about the nature of the international system. Indeed, when a person perceives political life as basically conflictual he tends to perceive the international system as basically conflictual ( $r = .37$ ).<sup>10)</sup> Less obviously, perhaps, is the relationship between one's belief about the role of conflict in historical development and one's belief about the prospect of achieving world peace. The correlation ( $r = .35$ ) suggests that when a person perceives that conflict is functional in historical development he is likely to be more optimistic about world peace. Even more subtle is the relationship between one's belief about world peace and the preferred tactics for advancing one's interests; people who believe that means employed in pursuing policy goals should be consistent with one's ideals are likely to be more optimistic about the conditions for attaining world peace ( $r = -.33$ ). Optimism about achieving world peace could probably be explained by one's confidence in international negotiations. A person's beliefs in the functional role of conflict in historical development and the flexibility of employing different means for advancing interests (*vis-à-vis* the rigid "hawk" stand of "ends-justify-means") apparently imply a strong belief in possible accomplishments through negotiations. It is thus not surprising to find the above two beliefs related to the belief about conditions for world peace.

It is interesting to know how a foreign service officer's images of the United States, Canada's predominant neighbour, are related to his other operational code beliefs. As one may expect, an officer who perceives that the nature of Canada's fundamental foreign policy goals is to maintain the status quo is likely to perceive similar U.S. interests to maintain the status quo ( $r = .31$ ). This tends to confirm a hypothesis suggested by perception studies that actors who find themselves having

shared interests with other actors have a tendency to over-estimate the degree of common interest involved (Jervis, 1969). Furthermore, an officer's perception of the United States foreign policy making process is associated with his belief about the predictability of politics; that is, one who believes that politics is more or less predictable tends to perceive that the U.S. foreign policies are made by precise calculation rather than by intuitive thinking ( $r = .38$ ). Apparently, there is a strong tendency for people to assimilate incoming information and to form new images such as that of other actors consistent to pre-existing images (Jervis, 1976: 117).

A distinctive structure of interdependence apparently exists in the area of one's beliefs concerning the eventual realization of fundamental goals and aspirations. Foreign service officers who perceive a less important international role for Canada in the future tend to be pessimistic regarding the prospects for the realization of Canadian foreign policy goals ( $r = .50$ ) and appear to be satisfied with maintaining the status quo ( $r = .37$ ). Furthermore, people who are pessimistic about the realization of policy goals are likely to perceive the incompatibility among goals ( $r = .32$ ), warning that vigorous pursuit of one goal may retard or even jeopardize the achievement of others.

A similar distinctive structure of interdependence also appears to exist in beliefs concerning the predictability of politics and historical developments. When a person believes that the direction and final outcome of major historical developments are predictable, he is more likely to believe that politics is more or less predictable ( $r = .38$ ). A person who believes in the predictability of history also seems to have more confidence in controlling historical development by precise calculation while formulating foreign policies ( $r = .33$ ); strategically he prefers bilateral over multilateral actions in pursuing foreign policy goals ( $r = -.29$ ), assuming probably one can have a better control over the outcome of bilateral actions than multilateral actions.

It is somewhat surprising, however, to find a much less distinctive structure of interdependence among beliefs concerning risk calculation. Nevertheless, there is a fairly strong relationship between risk assessment

and the willingness to take risks ( $r = .39$ ). People who believe that one should assess the risks of foreign policies within a comprehensive framework in relation to all of one's goals and aspirations seem to have more confidence in coping with risks and tend to agree that certain circumstances make high-risk policies conceivably advisable; conversely, people who believe that one should assess policy risks solely in terms of the specific tactics that may be pursued in a given situation tend to be more cautious and think that one should avoid high-risk policies under all circumstances.

### DIMENSIONS OF OPERATIONAL CODE BELIEF SYSTEMS

By using the technique of principal-component factor analysis, this section attempts to delineate the major dimensions of the operational code belief systems. Table 2 presents the rotated factor matrix using the varimax orthogonal rotation.<sup>11</sup> The varimax rotation delineates eleven distinctive factors or dimensions of the operational code construct: (1) optimism/pessimism, (2) policy strategy and tactics, (3) risks calculation, (4) compatibility of goals, (5) U.S. policy calculation, (6) timing of actions, (7) nature of politics, (8) nature of conflict, (9) control of undertakings, (10) control of history, and (11) small power strategy. The presence of eleven, rather than two or three, distinctive factors clearly suggests that the operational code is multi-dimensional; the lack of dominant factors (none of the factors accounts for more than ten percent of the variance) supports our earlier conclusion about the lack of "core" beliefs in the operational code construct. A closer look at the variable loadings on each factor will certainly reveal some important theoretical implications.

#### 1. *Optimism/pessimism*

The three inter-related philosophical beliefs concerning the nature of Canada's fundamental foreign policy goals, prospects for the eventual realization of her foreign policy goals, and aspirations of Canada playing

an important international role all have significant loadings on this dimension (see Table 2, .66, .65 and .46 for P<sub>2a</sub>, P<sub>2c</sub> and P<sub>2d</sub> respectively, which correspond to the above three beliefs).<sup>12</sup> Beliefs which have lower but significant loadings on this dimension are a person's image of the nature of U.S. foreign policy goals (.40) and his preferred tactic in pursuing policy goals by bilateral or multilateral actions (-.31). Apparently, a person's optimistic/pessimistic outlook must have some effects on his perceptions of other actors' intent and his own belief about the best tactics in pursuing desirable goals.

## 2. *Policy strategy and tactic*

Both the belief about the best approach for selecting goals and the belief about the most effective action in pursuing those goals have high loadings on this factor (.57 and -.52 respectively). People who are satisfied with settling for attainable goals seem to adopt an incremental approach in pursuing those goals; on the other hand, people who suggest that one should select optimal goals tend to adopt a blitzkrieg strategy by committing a decisive and full-scale effort to pursue their objectives. The belief about the best tactic when one is confronted with high-risk policies (i.e., whether one should take the initiative or adopt the tactic of wait-and-see) also has significant loading (.45) on this dimension. Furthermore, it is interesting to find that beliefs concerning the structure of the international system and the conditions for world peace have significant loadings on this factor (-.32 and .36 respectively). This suggests that a person tends to perceive some interrelationships between the structure of the global system, conditions leading to world peace, and the appropriate strategies and tactics for the realization of world peace and other objectives.

## 3. *Risks calculation*

The two beliefs which have the highest loadings on this factor are the beliefs about the appropriate approach (comprehensive vis-à-vis specific) to assess the risks of policies (.64) and the permissibility of high-risk policies (.60). It is interesting to find that both a person's perception

of the major sources of his own country's foreign policies and his perception of other country's (i.e., the United States) policy sources have significant loadings on this "risks calculation" dimension (.38 and .43 respectively). The positive signs of the factor loadings suggest that one tends to be more specific in assessing the risks of policies and more cautious in employing high-risk policies when one believes that the major sources of country's foreign policies are primarily responses to external or situational constraints.

#### 4. *Compatibility of goals*

The belief about the compatibility of foreign policy goals (i.e., whether the achievement of one goal will enhance or jeopardize the prospects for success in others) stands out as the dominant variable in this factor as indicated by its high loading (.69). With lower but significant factor loadings on this dimension are one's optimistic/pessimistic attitude towards the realization of foreign policy goals (.39) and one's belief about the predictability of the political universe (.42). Underlying this dimension is an important theoretical implication suggesting that people who believe in the uncertainty of the political universe tend to perceive the incompatibility of policy goals and are likely to be pessimistic about the realization of those goals.

#### 5. *U.S. Policy calculation*

This factor is best characterized by one's image of the United States policy formulation process (intuitive thinking vis-à-vis precise calculation) as suggested by the high loading (.74) of this variable. Other variables which could be categorized under this dimension are one's perception regarding the inevitability/avoidability of conflict in the international system and a person's preferred tactics for advancing his own country's interests as indicated by the significant loadings of these two variables on the factor (.50 and .41 respectively). Underlying this dimension is the implication that one who believes that conflict in the international system could be avoided by a flexible and compromising strategy of fully utilizing available means tends to perceive that a major actor such

as the United States could pursue its goals successfully by following such a strategy with precise policy calculations.

#### 6. *Timing of actions*

This is a unique factor in the sense that the only variable which has high loading on the dimension is the importance of "timing" of actions for the success of foreign policy goals or specific undertakings. Indeed, its factor loading of .79 is the highest in the factor matrix (Table 2). The only other variable which has somewhat significant loading (.30) on the dimension is one's belief about one's own country's foreign policy sources; its positive factor loading suggests that a person who perceives external constraints as the major sources of foreign policies tends to regard the "timing" of actions as important for the success of policy objectives. One plausible explanation may be that an actor tends to be more cautious about the "right" time (e.g. to "seize the hour") for responding to external affairs when he perceives that policies are largely constrained by external situations.

#### 7. *Nature of politics*

Amongst the six variables which have significant loadings on this factor, the beliefs about the conflictual/harmonious nature of politics and that of the international system have the highest loadings (.53 and .74 respectively). Variables which have lower but nevertheless significant factor loadings are the following beliefs: P<sub>1c</sub> — the functional or dysfunctional role of conflict in historical development (.30); P<sub>3a</sub> — the predictability of politics (-.32); P<sub>3b</sub> — the predictability of major historical developments (-.33); and I<sub>2b</sub> — the preference for bilateral or multi-lateral approach to pursuing foreign policy goals (.36). Apparently, a person's fundamental belief about the nature of the political universe has pervasive effects on some important components of both philosophical and instrumental beliefs. The generally low factor loadings of the above variables, however, do not warrant the decision of choosing one's belief about the nature of politics as the "master belief" of the operational code construct (Holsti, 1977).

8. *Nature of conflict*

Like factor 6 (“timing” of actions), this could be regarded as a unique factor. One’s perception of conflict situation (zero-sum vis-à-vis non zero-sum) is the dominant variable in this dimension as indicated by its high loading (.68). The only other variable which has significant loading (.43) on the factor is a person’s instrumental belief about the preferred tactics for advancing one’s interests. The positive factor loadings of the two variables suggest that people who view conflict as basically a non-zero-sum situation tend to think<sup>1</sup> that one should employ means consistent with one’s ideals for international bargainings and negotiations.

9. *Control of undertakings*

The special feature of this dimension is the lack of dominant variables; none of the four variables categorized in the dimension has significant factor loading exceeding .50. Nevertheless, this factor is obviously characterized by the belief about the predictability of specific short-term policy outcomes and one’s confidence in various undertakings to achieve world peace as indicated by their factor loadings (.48 and -.46 respectively). It is interesting to note that factor loadings are also significant in beliefs about the role of conflict in historical development (-.39) and the tactics to tackle high-risk policies (.40). The configuration of beliefs composing this factor suggests that people who perceive a functional role for conflict in history tend to have more confidence in men’s power and capability to control the outcomes of specific policy undertakings, to achieve world peace under favourable conditions, and to wait for the most opportune time to tackle high-risk policies.

10. *Control of history*

Unlike the preceding factor, this dimension is dominated, as indicated by their respective loadings, by the two closely related variables, namely, the perception of the direction and final outcome of major historical developments (.47) and the belief about policy calculation

(.75). The presence of only two variables in this dimension has important theoretical implications. It suggests that a political leader's attitudes and strategies toward policy formulation could be partly explained and predicted by his philosophical belief about one's role in "moving" history, as demonstrated by a recent study on Henry Kissinger's operational code (Walker, 1977).

#### 11. *Small power strategy*

The last factor is characterized by the high loading (-.60) of one's belief about policy strategy for a small power to pursue policy objectives under the dominant influence of a major or super power. The other two variables which have significant loadings on this dimension are the perception of the functional role of conflict in historical development (.37) and the belief about the best approach in selecting policy goals (.41). By considering the above three variable collectively, this dimension implies that people who regard conflict as dysfunctional in historical progress tend to believe that a small power could avoid direct confrontation with a major power by a cautious and piecemeal approach in selecting its policy objectives (i.e., by separating policy issues and dealing with each one on its own term).

### ENVIRONMENT, ROLE, AND PERCEPTIONS

Students of political leaders generally agree that an actor's images are subject to influence by the environment or stimuli and his role in the decision-making hierarchy. But they differ widely on how and the degree to which an actor's beliefs are affected by his role and his working environment. In his study of presidential styles, Barber (1968) observes that personality formation is a long, developmental process, subject to change during one's life time. Barber suggests, however, that the major elements of a leader's style and personality are exhibited during his first independent political success, when he emerges as a mature young adult. Results from a comparative case study (Johnson, 1977) on Senator



Frank Church's operational code during the two different periods (in 1956 and 1972 respectively) tend to support Barber's hypothesis. The Church example suggests that the fundamental beliefs of the operational code may develop early in the career and endure with a few exceptions. Many of Church's 1972 instrumental beliefs, however, appear to be a product of the Vietnam experience and the thawing of the Cold War. Lyon and Leyton Brown (1977) go even further, drawing conclusions from interviewing data on Canadian elite images of the international system they suggest that images are strongly influenced by the environment and roles with which the individual is currently affiliated. Other studies by scholars in international relations (Rosenau, 1968; Jervis, 1969, 1976) have also noted the impact of past and immediate experience on a leader's perceptions and behavior.

Results from the present study support the contention that an actor's beliefs and perceptions are substantially influenced by the environment and his role in the organizational unit. For the purpose of examining the impact of environment on a foreign service officer's perceptions, the respondents are divided into two groups, namely, those stationed abroad and those serving in Ottawa. Some of the important different perceptions between the two groups of respondents are cited as follows. Officers serving abroad, for example, as compared to those Ottawa-based, are more likely (by a ratio of three to two) to perceive conflict as a non-zero-sum situation playing a functional role in historical development and progress. From their experience in dealing with foreign diplomats, FSO serving abroad probably realize, more than their counterparts in Ottawa, the importance of negotiation (a non-zero-sum game) in solving international conflict. Moreover, FSO serving abroad seem to have somewhat more confidence in predicting politics and policy outcomes of specific undertakings; they are also more optimistic about the realization of Canadian foreign policy goals, particularly the prospects for safeguarding Canadian sovereignty and independence and the aspirations of enhancing the quality of life for all Canadians. This, taken collectively, suggests that FSO serving abroad are characterized by their generally liberal and progressive outlook as compared to their more con-

servative and pragmatic colleagues in Ottawa. This could probably be explained partly by their different perceptions of the major sources of Canada's foreign policies. About two-thirds of Canadian diplomats serving abroad perceive internal needs and dispositions as essential motivations behind Canadian foreign policy initiatives while only slightly more than one-third of those Ottawa-based diplomats think so; in fact, about half of the FSO serving in Ottawa believe that Canadian foreign policies are primarily responses to external or situational constraints. Confidence in one's own capabilities and policy initiatives, such as that possessed by a majority of Canadian diplomats serving abroad, certainly contributes to one's optimism in negotiations and eventual realization of policy objectives.

No less significant is the impact of role on an actor's perceptions. The respondents, for example, are almost evenly split on the conditions for achieving world peace. However, the percentage of junior foreign service officers who agree that world peace can be achieved under the prescribed conditions, particularly through the effort to narrow the gap between the rich and the poor countries, is much higher than that of the mid-career and senior diplomats (by a ratio of two to one). In addition, a much larger portion of junior FSO (about 50%) tend to perceive that the direction and final outcome of the major historical developments are more or less predictable; less than one-third of those mid-career and senior diplomats believe in the predictability of history. The belief in human capability in predicting or "moving" history corresponds to a prevailing attitude among two-thirds of the junior officers toward formulating policies by precise calculations; about half of the mid-career officers and somewhat less than half of the senior diplomats would choose this strategy. Moreover, about 55% of the junior officers prefer bilateral action in pursuing Canadian foreign policy goals while only one-third of the senior diplomats would choose such an action; the majority of the mid-career and senior officers tend to prefer a mixed or multi-lateral approach to foreign policy actions. Finally, more than 60% of the junior officers perceive internal needs as the major sources of Canada's foreign policies; an almost equal percentage of senior officers regard their

own country's foreign policies as primarily responses to external or situational constraints (about 20% of the FSO in all ranks perceive a mixed policy sources). The senior diplomats' perceptions of external constraints on Canadian foreign policies probably explain their generally conservative and pragmatic outlook in pursuing Canadian objectives.

## CONCLUSION

Relying on data from a questionnaire survey of Canadian foreign service officers, the present study has explored the interrelationships among beliefs and the dimensions of the operational code construct. The results only partially support the general assumption prevailing in the cognitive approach literature that collectively an actor's beliefs are related to each other; the findings have also failed to indicate any discernible hierarchy of beliefs in the operational code construct. The multidimensional features of the code suggest that it is not composed of a single set of interdependent variables, but "clusters" of interdependent variables unrelated to each other. The lack of "core" or "master" beliefs connecting or constraining other beliefs in the construct does not, of course, necessarily preclude the presence of "core" beliefs among the various dimensions. Some of the beliefs such as the nature of politics and the international system, the nature of conflict, compatibility of goals, timing of actions, and risk assessment could be regarded as "core" beliefs in their respective dimensions. In addition, it is possible that some of the operational code beliefs are indeed "core" beliefs that may influence other primordial beliefs or basic values excluding from the conceptual construct.

The substantial impact of role and environment on perceptions, as indicated by the results of this study, supports the contention that an actor's operational code is best understood by investigating his more complete, evolving record over the years rather than reliance on an examination of a single period (Johnson, 1977). One must also be cautious

in assuming direct linkages between beliefs and actions in foreign policy because of the unstable nature of the belief systems and the generally subtle and indirect role of beliefs in policy making (Holsti, 1976b). In short, we should not regard an operational code as a panacea: its explanatory and predictive power for the subject's decision-making behavior may not be overwhelming (George, 1975).

A probably more fruitful and logical area for exploration is to examine the linkages between a person's operational code beliefs and his attitude toward specific foreign policy issues. In pursuing such an effort, the researcher included a number of questions concerning American-Canadian relations on the survey questionnaire. The respondents were requested to indicate in a seven-point scale whether they agree or disagree with the following statements: (1) Canada's national interests should be essentially similar to those of the United States; (2) foreign policy independence is an illusion in contemporary world politics; (3) relations of interdependence are the situations within which weaker powers must normally operate; and (4) we are so dependent on the American economy that we cannot afford to try to influence American foreign policies by publicly opposing them.

Results suggest that Canadian foreign service officers who favour an incremental and pragmatic approach to dealing with foreign policy issues tend to agree that Canada's national interests should be essentially similar to those of the United States; conversely, officers who would prefer a more aggressive and decisive strategy are likely to disagree. The product-moment correlation coefficient ( $r = .34$ ) suggests that the above linkage is quite strong. Equally strong relationships have been found between a person's concept of independent foreign policy and his philosophical belief about policy calculation ( $r = .32$ ) and instrumental belief about small power policy strategy ( $r = -.40$ ). The nature of the relationships implies that people who believe that one should make foreign policies by precise calculations and that it is safe for a small power to pursue foreign policy objectives at the expense of a major power are likely to opt for an independent foreign policy for Canadians. It is important, perhaps, to note that there is a fairly strong and signifi-

cant relationship ( $r = -.35$ ) between an officer's perception of Canadian foreign policy sources and his concept of interdependence in the contemporary international system; in general officers who believe that Canada's foreign policies are initiated by internal needs rather than responses to external constraints are more skeptical about the proposition that ties of interdependence guarantee feeble powers such as Canada against arbitrary actions by the strong (e.g., the United States). Finally, officers who believe in a more aggressive Canadian foreign policy and conceive power in world politics from a broader perspective are likely to have more confidence in Canada's capability to oppose publicly American foreign policies (product-moment correlations are  $-.27$  and  $.27$  respectively).

The reader may have noted that all the above beliefs which have significant effect on a Canadian foreign service officer's attitudes toward American-Canadian relations are components of different dimensions in the operational code construct. This suggests that one's attitudes or concepts regarding a particular policy domain are subject to influence by various dimensions of the construct; the nature of the policy issues is the major determinant of how and the extent to which a person's concepts are linked to his operational code beliefs. Conceptually, this suggests that it may be worthwhile to explore the linkages between beliefs of the operational code and the concepts related to a particular policy domain; the bridge between the operational code and cognitive mapping approaches (Axelord, 1976) may thus be meaningfully established. Only then we shall feel more confident in exploring the nexus between operational code beliefs and choice processes or other forms of political behavior.

Table 1: PRODUCT-MOMENT CORRELATION COEFFICIENT OF OPERATIONAL CODE BELIEF SYSTEMS (N=92)\*

	$P_{1a}$	$P_{1b}$	$P_{1c}$	$P_{1d}$	$P_{1e}$	$P_{1f}$	$P_{1g}$	$P_{1h}$	$P_{1i}$	$P_{1j}$	$P_{2a}$	$P_{2c}$	$P_{2d}$	$P_{3a}$	$P_{3b}$	$P_{3c}$	$P_{4}$	$I_{1a}$	$I_{1b}$	$I_{1c}$	$I_{2a}$	$I_{2b}$	$I_{2c}$	$I_{3a}$	$I_{3b}$	$I_{3c}$	$I_{3d}$	$I_4$	$I_{5a}$	
$P_{1a}$																														
$P_{1b}$	<u>-.21</u>																													
$P_{1c}$	<u>-.21</u>	<u>-.05</u>																												
$P_{1d}$	<u>-.37</u>	<u>-.09</u>	<u>.21</u>																											
$P_{1e}$	<u>.17</u>	<u>.05</u>	<u>.78</u>	<u>.08</u>																										
$P_{1f}$	<u>.10</u>	<u>.15</u>	<u>-.05</u>	<u>.13</u>	<u>.16</u>																									
$P_{1g}$	<u>.08</u>	<u>-.11</u>	<u>.35</u>	<u>-.04</u>	<u>.10</u>	<u>.16</u>																								
$P_{1h}$	<u>-.06</u>	<u>.09</u>	<u>-.10</u>	<u>.05</u>	<u>-.15</u>	<u>-.04</u>	<u>-.11</u>																							
$P_{1i}$	<u>.10</u>	<u>.00</u>	<u>.13</u>	<u>-.01</u>	<u>.08</u>	<u>-.08</u>	<u>-.06</u>	<u>.14</u>																						
$P_{1j}$	<u>.04</u>	<u>.00</u>	<u>-.04</u>	<u>-.06</u>	<u>-.22</u>	<u>-.07</u>	<u>-.20</u>	<u>-.16</u>	<u>.14</u>																					
$P_{2a}$	<u>-.00</u>	<u>.09</u>	<u>.04</u>	<u>-.03</u>	<u>.04</u>	<u>-.05</u>	<u>-.31</u>	<u>-.02</u>	<u>.09</u>																					
$P_{2c}$	<u>-.02</u>	<u>.08</u>	<u>.08</u>	<u>-.01</u>	<u>.06</u>	<u>.04</u>	<u>.01</u>	<u>.07</u>	<u>.18</u>	<u>.06</u>	<u>.12</u>																			
$P_{2d}$	<u>.04</u>	<u>.00</u>	<u>.20</u>	<u>-.07</u>	<u>.10</u>	<u>-.07</u>	<u>.17</u>	<u>.19</u>	<u>.17</u>	<u>.01</u>	<u>.37</u>	<u>.00</u>																		
$P_{3a}$	<u>.06</u>	<u>-.16</u>	<u>.27</u>	<u>-.08</u>	<u>.05</u>	<u>-.07</u>	<u>.23</u>	<u>-.03</u>	<u>-.20</u>	<u>-.02</u>	<u>.32</u>	<u>.07</u>	<u>.50</u>																	
$P_{3b}$	<u>-.11</u>	<u>-.02</u>	<u>-.23</u>	<u>-.23</u>	<u>-.03</u>	<u>-.32</u>	<u>-.20</u>	<u>.05</u>	<u>.04</u>	<u>.38</u>	<u>.19</u>	<u>-.04</u>	<u>.01</u>	<u>.13</u>																
$P_{3c}$	<u>-.08</u>	<u>.09</u>	<u>-.20</u>	<u>-.12</u>	<u>.10</u>	<u>.00</u>	<u>-.17</u>	<u>.07</u>	<u>-.12</u>	<u>.03</u>	<u>-.03</u>	<u>.05</u>	<u>.00</u>	<u>-.01</u>	<u>.05</u>	<u>.06</u>														
$P_{4}$	<u>-.17</u>	<u>.13</u>	<u>.13</u>	<u>.04</u>	<u>.12</u>	<u>.19</u>	<u>-.23</u>	<u>.10</u>	<u>.07</u>	<u>-.15</u>	<u>-.19</u>	<u>-.23</u>	<u>.11</u>	<u>-.33</u>	<u>-.05</u>															
$I_{1a}$	<u>-.04</u>	<u>.06</u>	<u>.15</u>	<u>-.09</u>	<u>-.02</u>	<u>.16</u>	<u>.08</u>	<u>.16</u>	<u>.03</u>	<u>.07</u>	<u>-.09</u>	<u>-.03</u>	<u>.21</u>	<u>-.08</u>	<u>-.01</u>	<u>.04</u>	<u>.02</u>													
$I_{1b}$	<u>.03</u>	<u>.09</u>	<u>.06</u>	<u>-.06</u>	<u>-.08</u>	<u>-.21</u>	<u>.11</u>	<u>.17</u>	<u>.19</u>	<u>-.13</u>	<u>.14</u>	<u>.16</u>	<u>.05</u>	<u>-.16</u>	<u>-.18</u>	<u>-.02</u>	<u>.09</u>	<u>-.06</u>	<u>.19</u>											
$I_{1c}$	<u>.03</u>	<u>.08</u>	<u>.17</u>	<u>-.17</u>	<u>.05</u>	<u>.06</u>	<u>-.14</u>	<u>.06</u>	<u>-.11</u>	<u>-.15</u>	<u>.03</u>	<u>.11</u>	<u>.04</u>	<u>.01</u>	<u>.09</u>	<u>.13</u>	<u>-.16</u>	<u>-.08</u>	<u>.13</u>	<u>-.23</u>										
$I_{2a}$	<u>.18</u>	<u>.08</u>	<u>.09</u>	<u>.17</u>	<u>.14</u>	<u>.13</u>	<u>.04</u>	<u>.13</u>	<u>.05</u>	<u>-.14</u>	<u>-.12</u>	<u>-.05</u>	<u>-.20</u>	<u>-.19</u>	<u>-.22</u>	<u>.04</u>	<u>.16</u>	<u>-.14</u>	<u>-.01</u>	<u>.10</u>	<u>-.08</u>									
$I_{2b}$	<u>-.05</u>	<u>-.03</u>	<u>-.07</u>	<u>-.09</u>	<u>-.10</u>	<u>-.04</u>	<u>-.06</u>	<u>.00</u>	<u>.14</u>	<u>.16</u>	<u>-.12</u>	<u>-.03</u>	<u>.01</u>	<u>-.06</u>	<u>-.12</u>	<u>-.15</u>	<u>.10</u>	<u>.10</u>	<u>.10</u>	<u>.15</u>	<u>.15</u>	<u>-.09</u>								
$I_{2c}$	<u>-.22</u>	<u>.15</u>	<u>.04</u>	<u>.11</u>	<u>.23</u>	<u>.06</u>	<u>.16</u>	<u>.13</u>	<u>-.05</u>	<u>.22</u>	<u>.07</u>	<u>.18</u>	<u>.04</u>	<u>-.04</u>	<u>-.01</u>	<u>.19</u>	<u>.10</u>	<u>.10</u>	<u>.26</u>	<u>.04</u>	<u>-.15</u>	<u>.06</u>	<u>.01</u>							
$I_{3a}$	<u>.03</u>	<u>-.21</u>	<u>.10</u>	<u>.04</u>	<u>.11</u>	<u>.07</u>	<u>.06</u>	<u>.16</u>	<u>.13</u>	<u>-.05</u>	<u>.22</u>	<u>.07</u>	<u>.18</u>	<u>.04</u>	<u>-.04</u>	<u>-.01</u>	<u>.19</u>	<u>.10</u>	<u>.10</u>	<u>.26</u>	<u>.04</u>	<u>-.15</u>	<u>.06</u>	<u>.01</u>						
$I_{3b}$	<u>-.08</u>	<u>-.07</u>	<u>.24</u>	<u>-.02</u>	<u>.16</u>	<u>-.07</u>	<u>.09</u>	<u>.15</u>	<u>.03</u>	<u>-.17</u>	<u>.22</u>	<u>.12</u>	<u>.13</u>	<u>-.23</u>	<u>.11</u>	<u>.08</u>	<u>-.08</u>	<u>-.07</u>	<u>.08</u>	<u>-.15</u>	<u>.04</u>	<u>.08</u>	<u>-.20</u>	<u>.05</u>	<u>.01</u>					
$I_{3c}$	<u>.05</u>	<u>.01</u>	<u>.16</u>	<u>.04</u>	<u>.17</u>	<u>.04</u>	<u>.12</u>	<u>.04</u>	<u>.15</u>	<u>.11</u>	<u>.04</u>	<u>.16</u>	<u>.04</u>	<u>-.16</u>	<u>.10</u>	<u>.04</u>	<u>-.16</u>	<u>.10</u>	<u>.04</u>	<u>-.16</u>	<u>.10</u>	<u>.04</u>	<u>-.16</u>	<u>.10</u>	<u>.04</u>	<u>-.16</u>	<u>.10</u>	<u>.04</u>	<u>-.16</u>	<u>.10</u>
$I_{5a}$	<u>.00</u>	<u>.23</u>	<u>-.04</u>	<u>.03</u>	<u>.10</u>	<u>-.02</u>	<u>-.23</u>	<u>.06</u>	<u>-.03</u>	<u>.20</u>	<u>.13</u>	<u>-.09</u>	<u>-.05</u>	<u>-.22</u>	<u>.05</u>	<u>.03</u>	<u>.10</u>	<u>.13</u>	<u>.13</u>	<u>.07</u>	<u>-.06</u>	<u>-.04</u>	<u>.00</u>	<u>.10</u>	<u>.03</u>	<u>.10</u>	<u>.03</u>	<u>.10</u>	<u>.03</u>	<u>.10</u>
$I_{5b}$	<u>.06</u>	<u>.31</u>	<u>.06</u>	<u>.11</u>	<u>.24</u>	<u>-.12</u>	<u>-.19</u>	<u>-.07</u>	<u>-.02</u>	<u>.11</u>	<u>-.17</u>	<u>.01</u>	<u>-.18</u>	<u>-.23</u>	<u>.00</u>	<u>-.02</u>	<u>.09</u>	<u>-.19</u>	<u>-.08</u>	<u>.00</u>	<u>-.04</u>	<u>.15</u>	<u>-.21</u>	<u>-.08</u>	<u>-.17</u>	<u>-.10</u>	<u>-.32</u>	<u>.11</u>		

\* Correlation coefficients significant at the 0.05 level are underlined; a two-tail significant test has been applied. For abbreviations see the listing of beliefs in the previous section.

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Table 2: DIMENSIONS OF OPERATIONAL CODE BELIEF SYSTEMS  
(Varimax rotated factor matrix: N=92)

	Optimism/ Pessimism	Policy Strategy and Tactic	Risks Calculation	Compatibility of goals	U.S. Policy Calculation	Timing of Actions
P <sub>1a</sub>	-.02	-.02	-.01	.04	.11	.04
P <sub>1b</sub>	.02	.00	-.07	-.04	.00	-.01
P <sub>1c</sub>	.10	-.01	.10	.21	.16	.14
P <sub>1d</sub>	.03	-.05	.00	-.13	-.17	.04
P <sub>1e</sub>	.01	-.06	-.09	.11	<u>.50</u>	-.29
P <sub>1f</sub>	-.20	<u>-.32</u>	-.01	.19	-.04	-.05
P <sub>1g</sub>	.05	<u>.36</u>	-.14	.17	-.09	.05
P <sub>1h</sub>	<u>.40*</u>	.27	-.06	-.09	-.24	.10
P <sub>1i</sub>	-.19	.05	<u>.43</u>	-.06	.04	.21
P <sub>1j</sub>	.03	-.15	.14	-.19	<u>.74</u>	.15
P <sub>2a</sub>	<u>.66</u>	.08	.17	-.04	.06	-.02
P <sub>2b</sub>	.11	.06	<u>.38</u>	.20	.04	<u>.30</u>
P <sub>2c</sub>	<u>.65</u>	-.02	-.21	.14	.07	-.10
P <sub>2d</sub>	<u>.46</u>	-.24	-.12	<u>.39</u>	-.02	.04
P <sub>3a</sub>	.17	-.17	-.01	<u>-.42</u>	.21	.03
P <sub>3b</sub>	.18	-.12	-.15	-.22	-.09	-.15
P <sub>3c</sub>	.00	.05	-.12	.09	.02	.07
P <sub>4</sub>	-.05	.02	-.03	-.09	.13	-.03
I <sub>1a</sub>	.11	.10	.24	.11	-.09	.11
I <sub>1b</sub>	.09	<u>.57</u>	.23	.15	-.09	.01
I <sub>1c</sub>	.06	-.04	-.11	<u>.69</u>	-.04	.11
I <sub>2a</sub>	.09	<u>-.52</u>	.12	.12	.06	.01
I <sub>2b</sub>	<u>-.31</u>	.11	-.02	.13	.04	-.21
I <sub>3a</sub>	.06	-.08	<u>.64</u>	-.09	-.07	-.16
I <sub>3b</sub>	.24	<u>.45</u>	.06	.02	.00	-.11
I <sub>3c</sub>	-.02	.08	<u>.60</u>	-.13	.19	-.21
I <sub>3d</sub>	.00	.14	.10	.07	-.14	.04
I <sub>4</sub>	-.03	-.01	-.06	.10	.05	<u>.79</u>
I <sub>5a</sub>	.08	.08	.01	-.04	<u>.41</u>	.16
I <sub>5b</sub>	-.26	-.08	-.14	-.04	-.13	.28
Eigenvalue	2.90	2.59	2.20	2.18	1.87	1.67
Percent of Variance	9.7	8.6	7.3	7.3	6.2	5.6

\* Loadings equal to or greater than 0.30 are underlined.

Cont'd -

Table 2: Cont'd

	Nature of Politics	Nature of Conflict	Control of Undertakings	Control of History	Small Power Strategy
P <sub>1a</sub>	<u>.53</u>	-.17	.07	-.14	.11
P <sub>1b</sub>	-.13	<u>.68</u>	.02	.06	.09
P <sub>1c</sub>	<u>.30</u>	-.01	<u>-.39</u>	-.13	<u>.37</u>
P <sub>1d</sub>	<u>.74</u>	-.01	-.12	.09	-.06
P <sub>1e</sub>	.20	.05	-.29	.10	.13
P <sub>1f</sub>	.20	.24	-.04	.25	.10
P <sub>1g</sub>	.01	-.22	<u>-.46</u>	-.23	.27
P <sub>1h</sub>	-.03	.12	.01	.17	-.08
P <sub>1i</sub>	.05	.07	-.06	.02	.14
P <sub>1j</sub>	-.19	-.02	.09	.07	.12
P <sub>2a</sub>	-.01	.07	.08	.06	-.03
P <sub>2b</sub>	.03	-.02	.03	-.07	-.14
P <sub>2c</sub>	.01	-.04	-.04	-.16	.20
P <sub>2d</sub>	-.06	-.26	-.19	-.23	.19
P <sub>3a</sub>	<u>-.32</u>	-.21	.21	.14	-.06
P <sub>3b</sub>	<u>-.33</u>	-.03	.16	<u>.47</u>	.07
P <sub>3c</sub>	-.03	.04	<u>-.48</u>	-.03	.06
P <sub>4</sub>	-.05	.09	-.01	<u>.75</u>	-.04
I <sub>1a</sub>	-.11	-.02	-.02	.06	<u>.41</u>
I <sub>1b</sub>	-.03	.14	.14	-.01	.14
I <sub>1c</sub>	-.06	-.07	.11	-.09	.01
I <sub>2a</sub>	-.01	.00	.12	.00	.24
I <sub>2b</sub>	<u>.36</u>	.16	.07	-.19	-.03
I <sub>3a</sub>	-.13	-.01	-.05	-.11	.07
I <sub>3b</sub>	.12	-.29	<u>.40</u>	.02	-.04
I <sub>3c</sub>	.14	-.24	-.09	.05	-.12
I <sub>3d</sub>	-.11	-.08	-.03	.04	<u>-.60</u>
I <sub>4</sub>	.03	.02	.01	-.09	.07
I <sub>5a</sub>	.12	<u>.43</u>	.20	.07	-.26
I <sub>5b</sub>	.19	.23	.21	.15	.05
Eigenvalue	1.51	1.33	1.31	1.29	1.08
Percent of Variance	5.0	4.4	4.4	4.3	3.6



## Notes

- (1) One outstanding exception is the recent effort by Holsti (1977) to develop a typology of operational code belief systems. Holsti, however, has not hypothesized linkages between all beliefs; neither has he hypothesized possible dimensions of the belief systems.
- (2) The parenthesis indicates the continuum of the question; it ranges from point 1 (i.e., the left end of the scale) to point 7 (i.e., the right end of the scale).
- (3) The score for this belief is obtained from the average score of three separate questions concerning the three different conditions for world peace respectively. This is justified on the ground that results from the three separate questions concerning world peace are strongly interrelated (correlation coefficients equal to or greater than .50); similarly, other questions addressing different aspects of largely identical beliefs have been combined and averaged.
- (4) The score for this belief is obtained from the average score of six separate scales addressing the six policy goals respectively. These policy goals were announced officially by the Trudeau government in 1970 as guidelines for Canadian foreign policies. See *Foreign Policy for Canadians*, published by the Department of External Affairs, Ottawa, 1970.
- (5) The fifth category of philosophical beliefs (i.e., the last question concerning about the role of chance in human affairs and history) originally suggested by George is re-classified and subsumed under the third category.
- (6) The score for this belief is obtained from the average score of two separate questions concerning the importance of timing for long-term goals and specific undertakings respectively.
- (7) Another recent study on Canadian elite images was conducted in 1976 by Peter Lyon and his associates (1977).
- (8) The initial questionnaires to Ottawa-based FSO were followed up by a second mailing of questionnaires; there were no follow-up mailings of questionnaires to FSO serving abroad due to insufficient research funds. This explains the discrepancy of response rate between Ottawa-based FSO and those serving abroad. Insufficient follow-up mailings of questionnaires also partly account for the over-all low response rate.
- (9) For attitudinal studies of this kind, with a sample size close to one hundred, linkages with correlation coefficient equal to or greater than 0.30 could be considered as strong.
- (10) This relationship could be stated reversely: when one perceives political life as basically harmonious one tends to perceive the in-

ternational system as basically harmonious. For the sake of simplicity, however, the following discussion on correlations, with few exceptions, indicates only one end of the scale.

- (11) The "varimax" criterion centers on simplifying the columns of a factor matrix; it is equivalent to maximizing the variance of the squared loadings in each column. Factor patterns produced by the technique of oblique rotations are similar to those produced by the varimax orthogonal rotations. This is due to insignificant correlations among factors. This paper thus presents only matrix from varimax orthogonal rotation.
- (12) Loadings equal to or greater than 0.30 are generally considered as significant and hence reported in this paper.
- (13) Admittedly, this is not the best research strategy for investigating the impact of environment and role on a person's perceptions; more reliable and valid results would be obtained by examining the *same* individuals over several periods of time while working under different environments and roles. Results from the present research strategy are likely contaminated by variables other than environment and role. The generation gap, for example, rather than the role variable may explain better the different perceptions and beliefs between the senior and junior diplomats. Nevertheless, results from the present study suggest that one should not ignore the impact of environment and role while applying the operational code approach to the study of an actor's perceptions and political behavior.

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# 「オペレーショナル・コード」

## 信念体系の相関と次元

——カナダ外務省職員を通しての実証研究——

〈要 約〉

ハーバート S. イー

本研究は「オペレーショナル・コード」という信念体系の相関と次元を探るものである。「オペレーショナル・コード」という概念は、初めにNathan Leitesが提起し、次いでAlexander George and Ole Holstiが精緻化したものである。この概念は「哲学的」および「手段的」な二組の信念を指し、とりわけ、政治の本質、史的発展の方向、そして世界政治の特徴について人が持つ本質的かつ根本的な信念のことである。筆者は、上述の信念のカテゴリーを操作化し、特に調査目的に沿ういくつかの異なる測定尺度を構成して、1977年夏にカナダ外務省職員（無作為抽出法で400人）に対する質問紙調査で用いた。この態度調査から得られたデータは、解釈のために相関分析法と因子分析法を用いて分析された。分析結果において、多くの信念間に有意な相関がなかったことや、また有意なものでも弱い相関しかなかったことは、オペレーショナル・コードという構成概念において、ある信念群に影響や制約を与えたりするような、なんらかの「核」となる信念群が存在していなかったことを示唆している。このことは、更に因子分析が描写したコードの多次元的特性によっても確認されている。最後に本研究では、信念を従属変数群として考察すると、個人のオペレーショナル・コードは、部署におけるその個人の役割や労働環境に影響されやす

いこと、また信念を独立変数群として考察すると、個人のオペレーショナル・コードの様々な次元が特定の政策問題に対するその個人の態度の大まかな予測変数群として用いられることを見出した。