

FORECASTING THE POLITICAL BEHAVIOR OF LEADERS
WITH THE VERBS IN CONTEXT SYSTEM
OF OPERATIONAL CODE ANALYSIS*

By

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INTRODUCTION

Operational code analysis emerged as a leadership assessment tool after World War II in response to the puzzle of Soviet negotiating behavior and the escalation of U.S.-Soviet relations into a cold war. The prototypical studies by Leites (1951, 1953) at the RAND Corporation identified the operational code of the Soviet politburo as the *beliefs about the exercise of political power* in the Bolshevik ideology, which reflected motivational biases in Lenin's character and Russian political culture. He argued that these beliefs accounted for Soviet negotiating strategy and tactics in dealing with the West at the end of World War II over such issues as German reunification, economic recovery in Europe, and a general peace settlement with Germany, Italy, and Japan.

This manual contains systematic procedures developed since the RAND project for identifying a leader's operational code and inferring likely patterns of leadership behavior at different levels of decision. Depending on the level of decision, a leader's behavior is defined as a single move, as a sequence of tactics, or as a strategy regarding different outcomes. As a single move, it is the leader's set of behaviors at a particular time in response to stimuli and circumstances. Tactically, it is the leader's likely sequence of moves over time. Strategically, it is the leader's series of tactics directed toward different outcomes. These three perspectives on leadership behavior address a leader's *choice propensities* for particular moves, *shift propensities* between different types of tactics, and *diagnostic propensities* for different solution strategies in different policy domains.

In order to employ operational code analysis as a method of assessing leadership behavior, it is desirable to know something about its evolution and previous applications. It is also important to be aware of how the techniques for identifying beliefs and drawing inferences about behavior have developed. These topics are discussed briefly below before turning to the task of forecasting behavior from operational code beliefs. First, there is a summary of the evolution of operational code analysis and the development of the Verbs in Context System (VICS) of content analysis for retrieving and analyzing a leader's operational code beliefs. Second, there is a set of examples that illustrate how to analyze a leader's operational code and estimate likely behavior at different levels of decision.

Overall, the manual is organized so that a leadership analyst can acquire a working knowledge of how to interpret and apply the contents of a leader's operational code in order to: (a) predict choice propensities in a given policy domain; (b) detect shift propensities over time; (c) identify diagnostic propensities for strategic interaction across policy domains.

What is Operational Code Analysis?

Operational code analysis is an approach to the study of political leaders that may focus narrowly on a set of political beliefs or more broadly on a set of beliefs embedded in the personality of a leader or originating from the cultural matrix of a society. While Leites (1953) employed the broader view of operational code analysis that incorporated cognition, character, and culture, his approach was modified in later applications. George (1969) argued that a leader's operational code should be identified simply as a political belief system in which some elements (philosophical beliefs) guide the leader's diagnosis of the context for action and others (instrumental beliefs) prescribe the most effective strategy and tactics in achieving goals.

While George recommended that political scientists limit their efforts to the study of beliefs, which “can be inferred or postulated by the investigator on the basis of the kinds of data, observational opportunities, and methods generally available to political scientists,” he clearly anticipated studies that would link cognition and character:

“[I]t is one of the attractive features of the operational code construct for behaviorally-inclined political scientists that it can serve as a useful ‘bridge’ or ‘link’ to psychodynamic interpretations of unconscious dimensions of belief systems and their role in behavior under different conditions... Thus, once an actor's approach to political calculation has been formulated by the researcher, he can proceed—if he so wishes and is able to do so—to relate some of the beliefs in question to other motivational variables of a psychodynamic character” (George 1969, pp. 195-196).

As summarized below, the subsequent evolution of operational code analysis followed the course anticipated by George, focusing initially on beliefs and then on motivational variables.

How Has Operational Code Analysis Evolved as a Leadership Assessment Tool?

In the 1970s, operational code studies focused on the *philosophical* and *instrumental* beliefs of leaders, identified as the “answers” to the ten questions posed by George (1969), which appear in Figure 1. Holsti (1977) answered these questions with the development of a typology of belief systems, which he suggested were ideal types of operational codes. Both George and Holsti were guided in their thinking by *cognitive consistency theory*, which assumed that a leader's operational code beliefs were internally consistent with one another and that a leader's decisions were consistent with these beliefs. Specifically, they argued that a leader's philosophical beliefs about the nature of the political universe acted as a “master belief,” which influenced the contents of the remaining philosophical and instrumental beliefs.

The Philosophical Beliefs in an Operational Code

- P-1. What is the “essential” nature of political life? Is the political universe essentially one of harmony or conflict? What is the fundamental character of one’s political opponents?
- P-2. What are the prospects for the eventual realization of one’s fundamental 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-3. Is the political future predictable? In what sense and to what extent?
- P-4. How much “control” or “mastery” can one have over historical development? What is one’s role in “moving” and “shaping” history in the desired direction?
- P-5. What is the role of “chance” in human affairs and in historical development?

The Instrumental Beliefs in an Operational Code

- I-1. What is the best approach for selecting goals or objectives for political action?
- I-2. How are the goals of action pursued most effectively?
- I-3. How are the risks of political action calculated, controlled, and accepted?
- I-4. What is the best “timing” of action to advance one’s interests?
- I-5. What is the utility and role of different means for advancing one’s interests?

Figure 1. George’s Ten Questions About Operational Code Beliefs

Holsti (1977) employed the assumption of a master belief in the construction of his operational code typology. He speculated that the leader’s beliefs about the nature and source of conflict in the political universe were the basis for other philosophical beliefs about the prospects for realizing fundamental goals, the predictability of the political future, the leader’s control over historical development, and the role of chance. In turn, these philosophical beliefs influenced the instrumental beliefs of the leader

regarding the most effective strategy and tactics, the optimum approach to the calculation and management of risks, and the utility and timing of employing different means to protect or achieve political objectives.

For example, a leader who believes that political conflict is a permanent feature of the political universe is likely to be relatively pessimistic about the prospects for achieving fundamental political values, view the political future as less predictable, believe that control over historical development is relatively low, and assign a higher role to chance in political affairs. On the other hand, a leader who views conflict as temporary is likely to be more optimistic about realizing goals, more confident in the predictability of the future, believe in greater control over historical development, and assign less importance to chance.

According to the logic of cognitive consistency theory, these differences in the diagnosis of the political universe should lead to different prescriptions for political action. The first leader's pessimism is likely to be accompanied by beliefs that strategy should be limited in its goals, tactics should be flexible, the calculation and control of risks should be cautious and conservative, and force should be a last resort as a means to achieve political ends. The second leader's optimism is more likely to generate beliefs in grand strategic goals, relatively inflexible tactics, long-shot calculations in the assessment of risks, and the utility of force as a tool of statecraft.

The six types of operational code belief systems in Figure 2 represent this kind of reasoning with the pessimists lumped together in the lower left-hand quadrant as Types D, E, and F. While they differ over the sources of conflict—individual (D), society (E), international system (F)—they share common beliefs about the its permanence and the corresponding implications for the remaining philosophical and instrumental beliefs (Walker 1983). The remaining types of belief systems (A, B, C) share the optimism derived from the master belief that conflict is temporary. However, they disagree over the source of conflict: individual misperceptions (A), pathological societal institutions (B), or the anarchical organization of the international system (C). These latter differences dispose them toward some disagreement over the remaining philosophical and instrumental beliefs.

High
nAff
(Essential A likeness)

<u>TYPE A</u>	<u>TYPE C</u>
<p>Conflict is temporary, caused by human misunderstanding and miscommunication. A "conflict spiral," based upon misperception and impulsive responses, is the major danger of war. Opponents are often influenced by nonrational conditions, but tend to respond in kind to conciliation and firmness. Optimism is warranted, based upon a leader's ability and willingness to shape historical development. The future is relatively predictable, and control over it is possible. Establish goals within a framework that emphasizes shared interests. Pursue broadly international goals incrementally with flexible strategies that control risks by avoiding escalation and acting quickly when conciliation opportunities arise. Emphasize resources that establish a climate for negotiation and compromise and avoid the early use of force.</p> <p>Preference Order: Settle>Deadlock>Dominate>Submit</p>	<p>Conflict is temporary; it is possible to restructure the state system to reflect the latent harmony of interests. The source of conflict is the anarchical state system, which permits a variety of causes to produce war. Opponents vary in nature, goals, and responses to conciliation and firmness. One should be pessimistic about goals unless the state system is changed, because predictability and control over historical development is low under anarchy. Establish optimal goals vigorously within a comprehensive framework. Pursue shared goals, but control risks by limiting means rather than ends. Act quickly when conciliation opportunities arise and delay escalatory actions whenever possible; other resources than military capabilities are useful.</p> <p>Preference Order: Settle>Dominate>Deadlock>Submit</p>
<p>Nuclear Self</p> <p>Preference Order: Dominate>Settle>Deadlock>Submit</p> <p>Conflict is permanent, caused by human nature (D); nationalism (E), or international anarchy (F). Power disequilibria are major dangers of war. Opponents may vary, and responses to conciliation or firmness are uncertain. Optimism declines over the long run and in the short run depends upon the quality of leadership and a power equilibrium. Predictability is limited, as is control over historical development. Seek limited goals flexibly with moderate means. Use military force if the opponent and circumstances require it, but only as a final resource.</p>	<p>High nAch (Ideals)</p> <p>Preference Order: Dominate>Deadlock>Settle>Submit</p> <p>Conflict is temporary, caused by warlike states; miscalculation and appeasement are the major causes of war. Opponents are rational and deterrable. Optimism is warranted regarding realization of goals. The political future is relatively predictable, and control over historical development is possible. One should seek optimal goals vigorously within a comprehensive framework. Control risks by limiting means rather than ends. Any tactic and resource may be appropriate, including the use of force when it offers prospects for large gains with limited risk.</p>
<u>TYPE DEF</u>	<u>TYPE B</u>

(Ambition)
High
nPow

Figure 2. Contents of the Holsti Operational Code Typology*

*Instrumental beliefs are in bold, and philosophical beliefs are not.

Holsti theorized that these internally consistent belief systems remain relatively stable over time and across policy domains for the leaders who hold them. However, both George and Holsti realized that the Bolshevik belief system and the Holsti typology did not exhaust the rich variety and cognitive complexity of political leaders. They may have master beliefs that differ in degree as well as in kind regarding the stability and source of conflict in the political universe. Moreover, not all leaders have a single, well-defined set of operational code beliefs, and leaders may change their beliefs over time (George 1969; Holsti 1977).

Research into the operational codes of several leaders in the 1980s and 1990s has validated this forecast. The results from several studies indicate that a leader's operational code beliefs are likely to contain elements from more than one of Holsti's types and vary at least in degree over time and for different issue areas in the political universe (Walker and Falkowski 1984; Walker, Schafer and Young 1998, 1999; Schafer, Young, and Walker 1995; Crichlow 1998; Walker and Schafer 2000; Schafer and Crichlow 2000; Marfleet 2000; Dille 2000). As representations of reality, philosophical beliefs are more prone to fluctuation by domain and over time in response to changes in context (Walker, Schafer, and Young 1998; Schafer and Crichlow forthcoming). A leader's instrumental beliefs are less volatile, making the internal consistency between philosophical and instrumental beliefs difficult to maintain (Walker, Schafer, and Young 1998, 1999).

What is the Link Between Beliefs and Motivations?

One explanation for the relative stability of instrumental beliefs is that they are partly expressions of the leader's identity in the form of motivational biases rather than simply the products of lessons learned from changing experiences in the political universe. This explanation is consistent with the broader formulation of operational code analysis associated with Leites (1951, 1953). George recognized this link explicitly in his discussion of the relationship between beliefs and character in the Bolshevik operational code:

The maxims of political strategy that comprise the "operational code" take on the character of *rules of conduct* held out for good Bolsheviks and *norms of behavior* that, ideally, are internalized by the individual who thereby acquires a new and different character structure—that of the reliable, "hard-core" Bolshevik. In the terminology of modern ego psychology, the individual who succeeds in internalizing this preferred character structure thereby accomplishes an "identity transformation" (George 1969, p. 194. Italics George's).

This link between beliefs and character was also recognized by Holsti (1977) who was agnostic about whether individuals acquired their operational code beliefs by virtue of socialization into a particular political role or were drawn to a role by a subtle process of self-selection based on the compatibility of the individual's personality traits and the operational code beliefs associated with the role.

In a re-analysis of the Holsti typology, Walker (1983) found that the four types in Figure 2 differed in the motivational imagery associated with them. Type A's beliefs contained images of affiliation while the beliefs for Type DEF expressed images of power. The other two types shared an image of achievement while differing in their images of power (Type B) and affiliation (Type C). The four quadrants in Figure 2 represent not only the ideal types of belief systems in the Holsti typology but also a two-dimensional simplification of what is really a three-dimensional personality structure in which the beliefs are embedded in a motivational foundation established by the needs for power, affiliation, and achievement emanating from the nuclear self (Winter and Stewart 1977 ;Walker 1983; Kohut 1971, 1977, 1984; Walker in Elman and Elman under review).

In the application of these belief systems to real leaders, Walker and Falkowski (1984a, 1984b) found that the operational code beliefs of U.S. presidents and secretaries of state contained the motivational imagery regarding the needs for power, affiliation, and achievement attributed to them by other analysts. Their belief systems were hybrids containing beliefs that were not internally consistent with any one of the ideal types in Holsti's typology of operational codes. The relative frequency of beliefs from each type of belief system tended to correlate with independent measures of their motivational imagery. The findings support the interpretation that leaders are "structured individuals" whose needs for power, affiliation, and achievement are related to their belief systems in theoretically and empirically consistent patterns (Walker and Falkowski 1984a, 1984b; see also Walker in Elman and Elman under review).

These results re-enforced the Leites (1953) hypothesis, noted later by George (1969), that character and cognition were linked. The cognitive scripts for political action in the leader's operational code beliefs may also be character prescriptions that express the identity of the leader as an actor in the political universe. If so, then the operational code beliefs of political leaders are not merely diagnostic aids for processing information from the social environment. They also include internalized prescriptions that act as causal mechanisms of political action by virtue of their normative power to express such motivations as the needs for power, affiliation, and achievement (Walker 1983).

How Do Beliefs and Motivations Form a Coherent Personality?

Seen in this dual perspective and without the assumption of internal cognitive consistency, the cognitive and motivational elements of a leader's operational code nonetheless form a coherent personality. As George and Holsti speculated and as the studies cited above have confirmed, however, this personality may be rather complex and engage different "states of mind" in different domains of the political universe. Thus, the typology of operational codes in Figure 2 may co-exist in the same leader and become aroused differentially, depending on the domain in which s/he is engaged and the cues from that environment (Walker 1995; Walker, Schafer and Young 1998, 1999).

This perspective suggests that the empirical task of mapping a leader's operational code beliefs should proceed from the "bottom up" by aggregating targeted beliefs about particular issues in different domains of political action rather than from the "top down" as deductions from an idealized typology of operational code belief systems. Any generalizations about a leader's general operational code will depend on whether and to what extent his/her beliefs regarding self and others are consistent across domains and over time. In turn, predicting a leader's behavior from operational code beliefs will require careful attention to scope conditions that specify the level of generalization on which the prediction is based. The Verbs In Context System of content analysis was developed as part of a "bottom up" strategy to identify a leader's operational code beliefs and make contingent forecasts of his/her likely strategies, tactics, and moves.

THE VERBS IN CONTEXT SYSTEM

The Verbs in Context System draws inferences about a leader's operational code from public sources—speeches, interviews or other public statements by the individual. The most relevant source for the systematic prediction of the state's behavior is probably the public speech. It is a theoretical assumption of operational code analysis that a leader's public behavior is constrained by his public image and that, over time, his public actions will consistently match his public beliefs. This assumption seems counter-intuitive, because it seems not to allow for the possibilities of impression management and deception strategies by the leader in public utterances. While it is possible for a leader's beliefs and behavior to be at odds for short (and perhaps crucial) periods, the opposite is the norm. This principle of cognitive consistency theory is based on the general bounded rationality axiom that individuals act rationally (make behavioral choices) based on what they believe, and the corollary that others in a social situation expect them to do so.

What is the VICS Method?

The VICS method of content analysis is a set of techniques for retrieving belief patterns from a leader's public statements and drawing inferences about public behavior that are compatible with these beliefs (Walker, Schafer and Young 1998, 1999). To the extent that a particular leader is in control of the state's behavior or to the extent that a leader's beliefs are shared by those individuals with the power to act on behalf of the state, these inferences become predictions about a state's behavior. While the retrieval unit is the public statement, the recording unit is the "utterance," which is each verb in the statement and the corresponding parts of speech associated with each verb—the subject and object (if it is a transitive verb) or the subject and predicate nominative or adjective (if it is an intransitive verb). As Figure 3 illustrates, the VICS method extracts values for six attributes for each recording unit (verb) and its surrounding context: *subject, verb category, domain of politics, tense of the verb, intended target, and context.*

STEPS IN THE VERBS IN CONTEXT SYSTEM

1. IDENTIFY THE SUBJECT AS

SELF OR OTHER

2. IDENTIFY THE TENSE OF THE TRANSITIVE VERB AS

PAST PRESENT FUTURE

AND IDENTIFY THE CATEGORY OF THE VERB AS

POSITIVE (+) OR NEGATIVE (-)

APPEAL, SUPPORT (+1) OPPOSE, RESIST (-1)

WORDS OR OR

PROMISE BENEFITS (+2) THREATEN COSTS (-2)

DEEDS REWARDS (+3) PUNISHMENTS (-3)

3. IDENTIFY THE DOMAIN AS

DOMESTIC OR FOREIGN

4. IDENTIFY TARGET AND PLACE IN CONTEXT

AN EXAMPLE

A quote taken from President Carter's January 4, 1980 address to the nation: "Massive Soviet military forces have invaded the small, non-aligned, sovereign nation of Afghanistan..."

1. **Subject.** The subject is "Massive Soviet military forces" which is coded as other, that is, the speaker is not referring to his or her self or his or her state.

2. **Tense and Category.** The verb phrase "have invaded" is in the past tense and is a negative deed coded, therefore, as punish.

3. **Domain.** The action involves an actor (Soviet military forces) external to the speaker's state (the United States); therefore, the domain is foreign.

4. **Target and Context.** The action is directed toward Afghanistan; therefore, the target is coded as Afghanistan. In addition, we designate a context: Soviet-Afghanistan-conflict-1979-88.

The **complete data line** for this statement is: other -3 foreign past afghanistan soviet-afghanistan-conflict-1979-88.

Figure 3. Steps in the Verbs in Context System for Coding Verbs

“Self” or “other” designates whether the speaker or some other actor is the subject of the verb. The verb is categorized in its tense as either a positive (+) or negative (-) intransitive verb or a positive (+) or negative (-) transitive verb. If it is a transitive verb, it is categorized further as representing either a cooperative (+) or conflictual (-) behavior that takes the form of a word or a deed. Positive transitive deeds are coded as Rewards (+3) while negative transitive deeds are coded as Punishments (-3). Positive transitive words are coded as either Promises (+2) or Appeal/Support (+1), while negative transitive words are coded as either Threats (-2) or Oppose/Resist (-1).

Verbs that do not fit into one of these categories or which do not have a political context (i.e., do not deal with a policy domain or are not directed toward a political target) are coded as Neutral (0) and discarded. The remainder describes the leader’s beliefs about the intended or imagined exercise of power by self and others regarding the political issues raised in the public statement. They are also the basis for drawing inferences about subsequent behavior by the leader’s government. Predictions based on these inferences can be very general or rather specific, depending on the variety of policy domains and issue areas and the volume of attributes available to be coded from the universe of public statements.

How Are VICS Indices Calculated and Interpreted?

These predictions are inferred from four kinds of indices constructed from the balance, central tendency, proportion, and dispersion of verb attributions in these sources. For example, the *balance* between the frequencies of positive (+) and negative (-) verbs attributed to “others” in public statements indicates the leader’s beliefs about the cooperative or conflictual nature of politics and image of others in the political universe. The same calculation for verbs attributed to “self” indicates the strategic orientation (cooperation or conflict) of the speaker toward others in the political universe.

Assigning weights to the same verb categories and multiplying them by their frequencies measures the intensity of positive and negative attributions by self and others. The *central tendencies* of these weighted self and other attributions, respectively, are indicators of the leader’s beliefs about effective tactics and the prospects for realizing political values. These four indices summarize at the most general level of aggregation the leader’s diagnostic propensities regarding the nature of the political universe and the prospects for success, plus the leader’s choice propensities for effective strategies and tactics. The calculation and interpretation of these indices is fairly straightforward and summarized below.

* * * * *

P-1. NATURE OF THE POLITICAL UNIVERSE (Hostile/Friendly)

HOSTILE				FRIENDLY		
VERY	DEFINITELY	SOMEWHAT	MIXED	SOMEWHAT	DEFINITELY	VERY
-.75	-.50	-.25	0.0	+.25	+.50	+.75

I-1. DIRECTION OF STRATEGY (Conflict/Cooperation)

CONFLICT				COOPERATION		
VERY	DEFINITELY	SOMEWHAT	MIXED	SOMEWHAT	DEFINITELY	VERY
-.75	-.50	-.25	0.0	+.25	+.50	+.75

* * * * *

The balance indices for the nature of the political universe (P-1) and strategic direction (I-1) vary between –1.0 (e.g., Extremely Hostile for P-1) and +1.0 (e.g., Extremely Friendly for P-1), calculated by subtracting the number of negative verbs from the number of positive verbs and dividing the result by the total number of negative and positive verbs. The sidebar above illustrates the remaining range of values associated with each index and the remaining descriptors used to anchor and interpret the scores. A particular score is anchored to an interpretation based on the distance between the score and the nearest descriptor.

For example, a score of -.21 is anchored to the descriptor, “Somewhat Hostile,” on the nature of the political universe scale for P-1, because it is closest to -.25 on the continuum of possible balance scores. A score of +.41 is anchored to the descriptor “Definitely Cooperative” on the strategic orientation scale for I-1, because it is closest to +.50 on the continuum of possible scores. The interpretation of these two scores for a leader takes the form, “*S/he believes that the political universe is somewhat hostile, and s/he also believes that a definitely cooperation-oriented direction is the best strategy in this universe.*”

The central tendency indices for the leader’s beliefs about the prospects for realizing political values (P-2) and his/her beliefs about the intensity of tactics (I-2) also vary between –1.0 (e.g., Extremely Pessimistic) and +1.0 (e.g., Extremely Optimistic). The indices are calculated by multiplying each verb by the scale values associated with its coding category, summing the results, then calculating the average (mean) score and dividing it by three. The sidebar below shows the remaining range of values and descriptors for these two indices, which anchor the scores with an interpretation. The interpretation rule for the (P-2) and (I-2) indices is the same as for the (P-1) and (I-1) indices: assign the descriptor that is closest to the score.

* * * * *

P-2. REALIZATION OF POLITICAL VALUES (Pessimism/Optimism)

PESSIMISTIC				OPTIMISTIC		
VERY	DEFINITELY	SOMEWHAT	MIXED	SOMEWHAT	DEFINITELY	VERY
-.75	-.50	-.25	0.0	+.25	+.50	+.75

I-2. INTENSITY OF TACTICS (Conflict/Cooperation)

CONFLICT				COOPERATION		
VERY	DEFINITELY	SOMEWHAT	MIXED	SOMEWHAT	DEFINITELY	VERY
-.75	-.50	-.25	0.0	+.25	+.50	+.75

* * * * *

For example, if a leader's P-2 score is -.31, then s/he is "Somewhat Pessimistic" about the prospects for realizing fundamental political goals. An I-2 score of +.27 would indicate that s/he believes in "Somewhat Cooperative" tactics. The interpretation of these two scores for a leader takes the form, *"S/he believes that the prospects for realizing fundamental political goals is somewhat pessimistic, and s/he also believes that somewhat cooperative tactics are best under this condition."*

A series of *proportion* indices measure the leader's beliefs regarding control over historical development and the relative utility of different ways of exercising political power. The number of self or other attributions as a percentage of the total number of self and other attributions varies between 0.0 (Very Low) and 1.0 (Very High). This index measures the locus of control attributed to self (P-4a) over historical development while the number of other attributions as a percentage of the total number of self and other attributions (or 1 minus 4a) is the locus of control (P-4b) attributed to others. As in the case of the balance and central tendency indices, the actual scores for a leader are anchored with a descriptor that is closest to its value. *So a leader with a P-4a score of .53 would believe that s/he has a Medium degree of control over historical development while also attributing a Medium level of control (P-4b = .47) to others in the political universe.*

* * * * *

P-4. CONTROL OVER HISTORICAL DEVELOPMENT (Very Low/Very High)

CONTROL			CONTROL		
VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	
0.0	.25	.50	.75	1.0	

* * * * *

The same basic logic applies for calculating and interpreting the utility of means indices. With six categories for the exercise of political power rather than two categories

for the locus of historical control, however, the “Medium” proportion of equal utility for each one is .16 (1.0/6) instead of .50 (1.0/2). Proportions that exceed or fail to reach that level are assigned higher or lower descriptors of utility. Although this index can vary between 0.0 and 1.0, it is relatively unlikely with six categories that the upper boundary will be reached, and so .32 is defined as the descriptor in the sidebar below for a “Very High” proportion—twice the expected proportion when each category is equally useful. The interpretation of the utility of means scores can take two forms. They can be analyzed proportionately or simply by their descriptors.

So, for example, a leader with percentage scores of Reward (.20) + Promise (.17) + Appeal/Support (.34) + Oppose/Resist (.16) + Threat (.06) + Punish (.07) = 1.0 believes the following about the utility of means in his/her political universe. *Appeals and expressions of Support (.34) are about twice as useful as statements of Opposition/Resistance (.16) or Promises (.17), which are over twice as useful as Threats (.06) or Punishments (.07), and finally, Rewards (.20) are approximately three times as useful as Threats (.06) or Punishments (.07).* It is also possible to make inferences from the descriptors rather than the scores. *A leader with these scores believes that the comparative utility of Appeal/Support statements is “Very High,” the comparative utility of Rewards is “High,” the comparative utility of Promises and expressions of Opposition/Resistance is “Medium,” and the comparative utility of Threats and Punishments is “Low.”*

* * * * *

I-5. UTILITY OF MEANS (Very Low/Very High)

A. COOPERATIVE MEANS: APPEAL/SUPPORT, PROMISE, REWARD

UTILITY					UTILITY
VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	
0.0	.08	.16	.24	.32	

B. CONFLICT MEANS: OPPOSE/RESIST, THREATEN, PUNISH

UTILITY					UTILITY
VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	
0.0	.08	.16	.24	.32	

* * * * *

There are four indices that take into account the *dispersion* of verbs across the six categories for the exercise of political power. Two are the predictability of the political future and risk orientation. Both of them employ a measure of dispersion, the Index of Qualitative Variation, which assesses the variation in the distribution of observations among the six categories for self and others. Calculated separately for self and other attributions, the IQV score is subtracted from 1.0 to estimate the predictability of the political future (predictability of others’ behavior) and one’s own risk orientation (the predictability of one’s own behavior). The higher the estimates from these calculations,

respectively, the more predictable is the political future and one's own risk orientation. *For example, a leader's beliefs with scores of .08 for P-3 and .03 for I-3 attributes very low predictability to others and to self.*

* * * * *

P-3. PREDICTABILITY OF POLITICAL FUTURE (Very Low/Very High)

PREDICTABILITY				PREDICTABILITY
VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH
0.0	.25	.50	.75	1.0

I-3. RISK ORIENTATION (Very Low/Very High)

RISK AVERSE				RISK ACCEPTANT
VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH
0.0	.25	.50	.75	1.0

* * * * *

Interpretation of these scores is enhanced by the indices for two related indices of the importance of 'timing': flexibility in shifting between different kinds of tactics as a risk management technique. These indices are calculated by subtracting the absolute value of the balance index for cooperation/conflict and words/deeds from one. *For example, a leader's beliefs with scores of .57 and .53 for shifts between cooperation/conflict and words/deeds, respectively, manages the very low predictability of the political future by attributing a risk orientation of medium flexibility in both cooperation/conflict and words/deeds to him/her self.*

* * * * *

I-4. FLEXIBILITY OF TACTICS (Very Low/Very High)

A. BETWEEN COOPERATION AND CONFLICT

FLEXIBILITY				FLEXIBILITY
VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH
0.0	.25	.50	.75	1.0

B. BETWEEN WORDS AND DEEDS

FLEXIBILITY				FLEXIBILITY
VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH
0.0	.25	.50	.75	1.0

* * * * *

Finally, there is an index for the role of chance, which takes into account the predictability of the political future and the degree of control over historical development. It is calculated by multiplying the leader's scores for the latter two beliefs and subtracting the product from one. The logic of the index is that the higher the predictability of the political future and the greater the leader's belief in his/her ability to control historical development, the less the role of chance. It is interpreted the same way as the other indices that incorporate measures of dispersion into their formulae. The higher the score, the greater the role of chance. *For example, a leader with an index of .96 attributes a Very High role to chance.*

* * * * *

P-5. ROLE OF CHANCE (Very Low/Very High)

CHANCE					CHANCE
VERY LOW		LOW	MEDIUM	HIGH	VERY HIGH
0.0		.25	.50	.75	1.0

* * * * *

Collectively, the VICS indices provide information about a leader's diagnostic, choice, and shift propensities *regarding the exercise of power* in different political contexts. Operational code analysis defines politics as a strategic interaction game, in which the beliefs by each player about the nature of the political universe and the most effective strategies and tactics in this universe determine choices about the exercise of power by the players and the ensuing outcomes of strategic interaction episodes between them.

PREDICTING DECISIONS AND OUTCOMES

A "prediction" is defined formally here as a hypothesis with two parts: one or more *antecedent conditions* prior to the behavior and a *forecast consequent* of the behavior. In order to make a logically coherent prediction, the antecedent(s) must precede or occur simultaneously with the consequent (McGaw and Watson 1976). The antecedent conditions are the basis on which the consequent is forecast. For an outside observer to predict outcomes from operational code analysis, it is necessary to know what each player in a two-person game believes about self and other.

In order to predict what just *one* of the players will decide, however, it is only necessary to know what s/he believes about "self" and "other," i.e., the "subjective game" that s/he is playing (Maoz 1990). And because the indices calculated from the "other" attributions for the first two philosophical beliefs have the same formulae as the indices for the first two instrumental beliefs calculated from "self" attributions, one player's operational code has diagnostic indices for instrumental beliefs attributed to "other." In addition, the index for "other's" control over historical development is logically one minus self's control over historical development: if self's control = self attributions/(self

+ other attributions), then other's control is $(1 - \text{self attributions}) / (\text{self} + \text{other attributions})$.

With these six indices, therefore, it is possible to construct features of the "subjective game" that "self" is playing with "other" from the set of public statements by one player. This conclusion is exactly true in the limiting case when "other" is just one player in a two-player political universe for which "self" and "other" attributions are indexed. It becomes less true the more that "self" and "other" attributions are combined into indices across several other players in a larger political universe. Consequently, any predictions about decisions and outcomes for subjective games generated from the following analysis of operational code indices needs to be qualified by the level of aggregation for their calculation and interpretation.

What Can Operational Code Analysis Predict?

In the evolution of operational code analysis as a research program, predictions and explanations of a leader's behavior has shifted over the years from a focus on (1) negotiation style (Leites 1951, 1953), to (2) foreign policy orientations (George 1969, 1979; Holsti 1970, 1977), to (3) conflict management and crisis bargaining (Walker 1977; Hoagland and Walker 1979; Walker, Schafer, and Young 1998, 1999), to (4) strategic interaction in world politics (Walker in Elman and Elman under review). It is possible to make predictions about all of these phenomena, which are subsumed here under the general rubric of strategic interaction. The rationale that links them is the definition of "behavior" as an increasingly complex phenomenon and the use of an analytical perspective that shifts from the observation of static behavior at a single moment in time to the dynamic observations of a sequence of behaviors over time by a single actor, and finally, to a strategic perspective that observes interactions between actors over time. A set of behaviors constitutes one or more *moves* by one actor, a sequence of contingent moves between actors is a *tactic*, and a set of tactics is a *strategy* (Snyder and Diesing 1977).

Levels of Interaction

*Stages of an Episode:	Cooperation/Mixed/Conflict Outcomes	
(Static)	**CO,CO/CO,CF/CF,CO/CF,CF	
(Dynamic)	D,D/D,E/E,D/E,E	
*Restructuring Strategy:	Cooperation	Conflict
	NON-ZERO-SUM	<-----> ZERO-SUM
*Initial Solution Strategy:	Non-Zero-Sum	Zero-Sum
	APPEASEMENT	COERCIVE DIPLOMACY
	ASSURANCE	BRINKMANSHIP

* * * * *

Levels of Decision

*Strategy:	Appeasement	Assurance	Coercive Diplomacy	Brinkmanship
	APPEASE	REWARD	COMPEL	EXPLOIT
	BLUFF	DETER	PUNISH	BULLY
*Tactic:	Appease/Bluff/Reward/Deter/Compel/Punish/Exploit/Bully			
(Dynamic)	**DED	EED	DDD	DEE
(Static)	COCFCO/CFCFCO/COCOCO/COCFCF/CFCOCO/CFCFCF/COCOFC/CFCOCF			
*Moves:	Cooperation	Mixed	Conflict	
	REWARD	REWARD	OPPOSE	
	PROMISE	PROMISE	THREATEN	
	APPEAL	APPEAL	PUNISH	
		OPPOSE		
		THREATEN		
		PUNISH		
*Behavior:	Reward / Promise / Support / Oppose / Threaten / Punish			
	**COOP	COOP	COOP	CONF
	DEED	WORD	WORD	WORD

*Nominal definitions are in lower case; corresponding operational definitions are in UPPER CASE. **CO = Cooperation Strategy; CF = Conflict Strategy; D = De-Escalatory Move; E = Escalatory Move; the first and third moves in each tactical sequence are the actor's, while the intervening move is the target's. "Escalatory" and "De-Escalatory" are properties attributed to behaviors by reference to the actor's own previous move. The Behavior categories and different kinds of words and deeds are from the Verbs in Context (VICS) scoring system.

Figure 4. Levels of Interaction and Decision in a Strategic Interaction Episode.

These shifting analytical horizons are depicted in Figure 4, which defines behavior in its most primitive form as “events” constituted by words or deeds attributed to self or other (McClelland and Hoggard 1969; Hermann 1971). Properties of these words or deeds define them as acts with valences (\pm) indicating the act as either cooperation (+) or conflict (-) behavior. Moves are classified as either cooperative, mixed, or conflictual, depending on whether their behavioral elements contain words or deeds with positive (+), mixed (\pm), or negative (-) valences. The boundaries of a move are set by a shift in the identity of the actor performing the behaviors within an event series. In a two-actor event chronology, therefore, a set of behaviors attributed to Actor B constitutes a move that begins when B’s behavior interrupts a stream of behavior by Actor A and ends with A’s interruption of B’s behavior.

These behaviors can be analyzed *statically* as moves exchanged between A and B in terms of their valence and intensity (see Walker, Schafer and Young 1999). They can also be analyzed *dynamically* as movements, i.e., as acts of Escalation (E) or De-escalation (D) from the position defined by the actor’s previous move in the event chronology. No matter what kind of move precedes them, cooperative moves are de-escalatory while conflict moves are escalatory. Mixed moves are escalatory when they follow a cooperative move and de-escalatory when they follow a conflict move. When one mixed move follows another, the latter is classified as the opposite of the former.

A sequence of three moves defines a tactic by one actor toward another, in which the first and third moves in the sequence are attributed to “self” while the intervening move is attributed to “other.” In turn, these tactical sequences create one of the following four outcomes that define the relationship of “self” to “other.” For example, the Appease (DED) tactic in Figure 4 creates a submission relationship (D,E) between Actor A and Actor B by virtue of the sequence of moves that terminates with A selecting a de-escalatory move following an escalatory move by B in response to A’s de-escalatory initiative. When the other tactical sequences in Figure 4 are also analyzed in terms of their outcomes, they generate relationships of domination (E,D), settlement (D,D), and deadlock (E,E) between self and other.

These tactics are analyzed further as strategies at the next level of decision by reference to whether the outcome between self and other is symmetrical or not. The two asymmetrical tactics leading to the submission outcome (DE) of self to other are grouped as Appeasement strategies in Figure 4, and the two tactics leading to the domination outcome (ED) of self over other are classified as Brinkmanship strategies. The tactics that generate the symmetrical outcomes of settlement (DD) or deadlock (EE) are subdivided into Assurance and Coercive Diplomacy strategies by reference to the de-escalatory or escalatory move that initiates each tactic.

In turn, these strategies are grouped into non-zero-sum and zero-sum solution strategies by reference to the likely preferences for different outcomes attributed to Actors A and B from the risk orientations associated with their respective tactics. The tactics associated with the appeasement and assurance strategies imply an initial

preference for cooperation leading to a settlement outcome (D,D), plus a willingness to risk an unfavorable submission outcome (D,E) for “self.” The tactics employed in coercive diplomacy and brinkmanship strategies indicate an initial preference for conflict leading to a domination outcome (E,D) that favors “self,” plus a willingness to risk a deadlock outcome (E,E).

During the course of their strategic interactions, it is possible for either actor to shift between cooperation and conflict strategies, leading to different outcomes at different stages of a strategic interaction episode (see Figure 4). An event chronology may contain several strategic interaction episodes. By definition, a strategic interaction episode terminates with an equilibrium in which the outcome created by the intersection of their respective strategies is not changed by the next move in the event chronology (Walker under review; see also Brams 1994).

How Do You Predict Behavior in the Case of a Single Leader?

Operational code analysis makes predictions about an actor’s behavior defined by the levels of decision framework in Figure 4. The predictions are based on matching elements of the leader’s operational code regarding beliefs about effective moves, tactics, and strategies with the corresponding levels of decision and interaction in Figure 4. The belief template for mapping the interface between beliefs and behavior is an expanded version of the Holsti typology of belief systems in Figure 2. Where Holsti assumed consistency between philosophical and instrumental beliefs, however, the present analysis allows for instrumental beliefs to be independent from philosophical beliefs.

Taking each set of instrumental beliefs (I) and pairing them not only with the corresponding philosophical beliefs (P) in the Holsti typology but with the others as well, there are a total of sixteen types of belief “systems” possible in Figure 3. Holsti’s four pairs are as follows: A(I) w. A(P), B(I) w. B(P), C(I) w. C(P), DEF(I) w. DEF(P). The twelve additional hybrids are: A(I) w. DEF(P), A(I) w. B(P), A(I) w. C(P), DEF(I) w. B(P), DEF(I) w. C(P), DEF(I) w. A(P), B(I) w. C(P), B(I) w. A(P), B(I) w. DEF(P), C(I) w. A(P), C(I) w. DEF(P), C(I) w. B(P). Collectively, these combinations of beliefs map different definitions of the “self-in-situation” in which different levels of decision are made. In Figure 5 are the moves, tactics, and strategies from Figure 2 associated with the instrumental beliefs in the Holsti typology for the belief system in each quadrant.

The VICS indices locate the “self-in-situation” coordinates of a leader’s operational code within the template in Figure 5. Three indices of instrumental beliefs are used to place the “self” in one of the four quadrants associated with Holsti’s four types of belief systems. They are the strategic (I-1) and tactical (I-2) indices plus self’s locus of historical control (P-4a) index. They are mapped on the axes formed by the power, affiliation, and achievement imagery in the Holsti typology of belief systems. Strategic and tactical indices with negative valences are plotted on the power axis while those with positive valences are plotted on the affiliation axis. The index for the locus of control is plotted along the achievement axis.

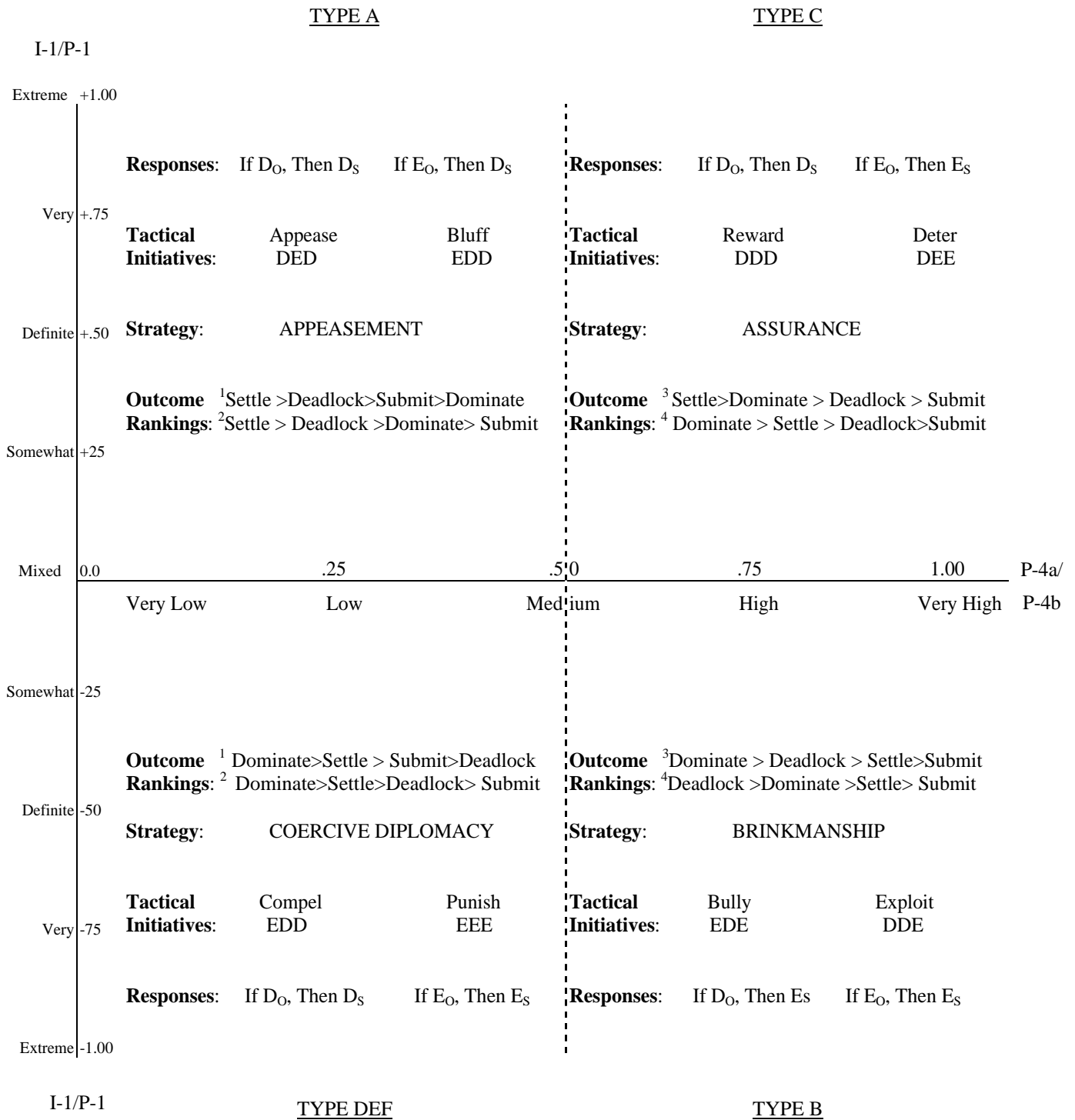


FIGURE 5. Prediction Template for Different Levels of Decision by Key VICs Indices

¹ When VICs locus-of-control index is < .25.

² When VICs locus-of-control index is between .25 and .50.

³ When VICs locus-of-control index is between .50 and .75.

⁴ When VICs locus-of-control index is > .75.

The association of nPow with conflict (-), nAff with cooperation (+), and nAch with greater control over outcomes is consistent with previous research on the cognitive and behavioral correlates of these motivations (Winter and Stewart 1977). The intersection of the locus-of-control index for self (P-4a) with the other two indices determines the leader's location in one of the four quadrants in Figure 5. The verbal interpretation of the leader's scores should resemble more closely the instrumental beliefs for the Holsti ideal type located in this quadrant than the instrumental beliefs for the other types.

The indices for the philosophical beliefs of this leader may or may not be located in the same quadrant as the indices for his/her instrumental beliefs. The indices for the nature of the political universe (P-1) and prospects for the realization of political values (P-2) are plotted on the power or affiliation axes, and other's locus-of-control (P-4b) index is plotted on the achievement axis. They locate "other" in the political universe. The following example is based on the examples used to illustrate the calculation and interpretation of VICS indices in the previous section of this manual. Those scores are from a speech by U.S. Secretary of State Dean Rusk and are reproduced along with their interpretations in Table 1.

Table 1. A Sample Operational Code Profile for Secretary of State Dean Rusk*

<u>Diagnostic Propensities</u>		<u>Score</u>	<u>Interpretation</u>
P-1.	Nature of the Political Universe	-.21	Somewhat Hostile
P-2.	Realization of Political Values	-.31	Somewhat Pessimistic
P-3.	Predictability of Political Future	.08	Very Low Predictability
P-4.	Control over Historical Development		
	a. Self's Control	.53	Medium Control
	b. Other's Control	.47	Medium Control
P-5.	Role of Chance	.96	Very High Role
<u>Choice & Shift Propensities</u>		<u>Score</u>	<u>Interpretation</u>
I-1.	Strategic Approach to Goals	+.41	Definitely Cooperative
I-2.	Tactical Pursuit of Goals	+.27	Somewhat Cooperative
I-3.	Risk Orientation	.03	Very Low Predictability
I-4.	Timing of Action		
	a. Cooperation/Conflict	.57	Medium Flexibility
	b. Words/Deeds	.53	Medium Flexibility
I-5.	Utility of Means		
	a. Reward	.20	High Utility
	b. Promise	.17	Medium Utility
	c. Appeal/Support	.34	Very High Utility
	d. Oppose/Resist	.16	Medium Utility
	e. Threaten	.06	Low Utility
	f. Punish	.07	Low Utility

*Source: Speech at the Annual Meeting of the American Historical Association, Washington, DC, December 30, 1961.

According to the data in Table 1, the leader's instrumental beliefs indicate the following choice and shift propensities. Rusk believes in a definitely friendly strategy in his/her approach to political goals and believes in somewhat cooperative tactics to pursue them. He has an approach to the calculation and control of risk characterized overall by a very low score. This risk-averse orientation is marked by a propensity at a medium level to shift flexibly *both* between conflict and cooperation *and* between words and deeds. When this leader's scores for I-1 and I-2 are plotted against the score for self's control over historical development (P-4a), the coordinates indicate that Mr. Rusk locates "self" in the Type C quadrant of the template in Figure 5.

The Secretary of State's scores for philosophical beliefs show a leader with the following diagnostic propensities: the political universe is somewhat hostile, and he is somewhat pessimistic about the prospects for realizing fundamental political values. He views the political future as very low in predictability, believes that he has a medium level of control over historical development, and attributes a very high role to chance. When this leader's scores for P-1 and P-2 are plotted against the score for other's locus-of-control (P-4b), the coordinates indicate that Rusk's view of "other" falls close to the center of the template in the Type DEF quadrant of Figure 5.

Once a leader's self-image is located in one of the four quadrants with these scores, it is possible to make some behavioral predictions with different levels of confidence about tactics and strategies shared with other leaders whose self-images fall into the same quadrant. These predictions are based on their shared preferences for cooperation or conflict as the dominant strategy and a shared sense of the degree of control over historical development.

Leaders in the Type A quadrant with a relatively friendly strategic orientation and a relatively low sense of historical control are likely to exhibit choice and shift propensities that favor the tactics of Appease and Bluff associated with an Appeasement strategy. *The more cooperative the tactical intensity index and the lower the locus of historical control index, the higher the confidence level for this prediction.*

Leaders in the Type C quadrant with a relatively friendly strategic orientation and a relatively high sense of historical control are likely to exhibit choice and shift propensities that favor the tactics of Reward and Deter associated with an Assurance strategy. *The more intense the tactical cooperation index and the lower the locus of historical control index, the higher the confidence level for this prediction.*

Leaders in the Type DEF quadrant with a relatively hostile strategic orientation and a relatively low sense of historical control are likely to exhibit choice and shift propensities that favor the tactics of Compel and Punish associated with a Coercive Diplomacy strategy. *The more intense the tactical*

conflict index and the higher the locus of historical control index, the higher the confidence level for this prediction.

Leaders in the Type B quadrant with a relatively hostile strategic orientation and a relatively high sense of historical control are likely to exhibit choice and shift propensities that favor the tactics of Bully and Exploit associated with a Brinkmanship strategy. *The more intense the tactical conflict index and the higher the locus of control index, the higher the confidence level for this prediction.*

These predictions are forecasts of likely deviations from the norm of reciprocity expected as a response to a stimulus. It refers to the mix of other behavior that accompanies the elements of the response that match the stimulus and represents movement along a continuum of escalation and de-escalation defined by an actor's own previous move. Depending on the amount of information available from public statements, it is possible to refine these predictions and raise further the confidence level for a particular leader in three ways.

First, it is desirable to use the additional information about risk orientation and shift propensities from Rusk's profile to qualify or strengthen the confidence level of the predictions. In the example from Table 1, the predictions for a leader in the Type C quadrant are choice propensities to use Reward and Deter tactics as part of an Assurance strategy. However, the leader's Medium (.53) level of control over historical development, Very Low (.03) orientation toward taking risks, and Medium (.57 & .53) propensities to shift tactics makes it relatively likely s/he will use other tactics, too. Because the tactical intensity score is Somewhat Cooperative rather than Mixed, the tactical shift is likely to be toward a strategy of Appeasement.

Second, if there is sufficient available information, these refinements are subject to further qualifications. It may be possible to partition the observations by time, domain, issue area, and target and then recalculate the VICS indices. The effect of disaggregation is to narrow the scope of the prediction to apply to certain times regarding a particular issue toward a specified target. As the following example reveals, this effort may or may not significantly refine the predictions. While there are differences in the VICS indices that reach the level of *statistical* significance, not all of them may attain the status of *policy* significance.

In a study of President Jimmy Carter's operational code (Walker, Schafer, and Young 1998), the results indicate that the elements of Carter's belief system remained relatively stable over time for much of his Administration. No statistically significant changes in the VICS indices occurred for his general operational code until after the Soviet invasion of Afghanistan (see Table 2). Even then, the key VICS indices that locate Mr. Carter in the Type C quadrant (I-1 and I-2) did not change enough to move him unequivocally to a different quadrant; however, the key indices that summarize the nature of the political universe (P-1 and P-2) did clearly shift in the direction of the Type DEF quadrant.

Table 2. President Jimmy Carter's General Operational Code, 1977-79 vs. 1980*

<u>Diagnostic Propensities</u>		<u>1977-79</u>	<u>1980</u>	<u>p**</u>
P-1.	Nature of the Political Universe	+.68 (Very Friendly)	+.06 (Mixed)	.00
P-2.	Realization of Political Values	+.51 (Definitely Optimistic)	+.05 (Mixed)	.01
P-3.	Predictability of Political Future	.37 (Low)	.34 (Low)	.38
P-4.	Control over Historical Development			
	a. Self's Control	.65 (High)	.75 (High)	.18
	b. Other's Control	.35 (Low)	.25 (Low)	.18
P-5.	Role of Chance	.75 (High)	.74 (High)	.41
<u>Choice & Shift Propensities</u>				
I-1.	Strategic Approach to Goals	+.86 (Extremely Friendly)	+.73 (Very Friendly)	.03
I-2.	Tactical Pursuit of Goals	+.59 (Definitely Cooperative)	+.57	.37
I-3.	Risk Orientation	.36 (Low)	.30 (Low)	.26
I-4.	Timing of Action			
	a. Cooperation/Conflict	.14 (Low)	.27 (Low)	.03
	b. Words/Deeds	.57 (Medium)	.79 (High)	.02
I-5.	Utility of Means			
	a. Reward	.33 (V.High)	.40 (V.High)	.25
	b. Promise	.45 (V.High)	.45 (V.High)	.45
	c. Appeal/Support	.14 (Medium)	.02 (V.Low)	.01
	d. Oppose/Resist	.00 (V.Low)	.01 (V.Low)	.08
	e. Threaten	.01 (V.Low)	.00 (V.Low)	.17
	f. Punish	.06 (Low)	.11 (Low)	.07

*Source: Walker, Schafer, and Young (1998) **p = 1-tailed F-test for diff. of means

The effect of the Soviet invasion of Afghanistan on Carter's operational code toward the Soviet Union was more dramatic, shifting Carter's beliefs about Soviet-American relations into different quadrants of the operational code template. Shifts in the key VICS indices for Carter's diagnostic propensities from cooperation to conflict plus a change in the balance of control over historical development relocated Soviet-American relations. The data in Table 3 show that Mr. Carter's view of the Soviet Union shifted from an extremely friendly orientation to a somewhat hostile orientation. This shift was accompanied by a decrease in the cooperation of his strategic and tactical choice propensities toward the USSR and a strong increase in his propensities to shift between conflict and cooperation and between words and deeds.

Third, it is possible to use the interaction of preferences attributed to self and other in the four quadrants to make predictions about solution strategies pursued by Mr. Carter. While statistically significant, a comparison of the key VICS indices for "self" and "other" in Carter's general operational code for 1977-79 v. 1980 does not generate different orientations toward solution strategies, tactics and moves because Carter's images of "self" and "other" do not change quadrants. However, when Carter's self/other attributions for the Soviet-American relations domain are disaggregated from his general operational code, both "self" and "other" do change quadrants. The United States shifts in Figure 5 from Type C to Type A and the USSR moves from Type A to Type B because of the big change in the locus of control indices (P-4) for the USA and USSR and the change in the valence of the P-1 and P-2 Indices from friendly (+) to hostile (-). This re-alignment generates a new set of predictions about the moves, tactics and solution strategies by the Carter Administration toward the Soviet Union in 1980.

Table 3. Key VICS Indices of Carter's USSR Operational Code, 1977-79 v. 1980*

<u>Diagnostic Propensities</u>		<u>1977-79**</u>	<u>1980***</u>
P-1.	Nature of the Political Universe	+.94 (Extremely Friendly)	-.19 (Somewhat Hostile)
P-2.	Realization of Political Values	+.86 (Very Optimistic)	-.17 (Somewhat Pessimistic)
P-4.	Control Over Historical Development		
	a. Self's Control	.59 (Medium)	.37 (Low)
	b. Other's Control	.41 (Medium)	.63 (High)
Other's Predicted Quadrant Type		A	B
 <u>Choice & Shift Propensities</u>			
I-1.	Strategic Approach to Goals	+1.0 (Extremely Coop)	+.64 (Very Coop)
I-2.	Tactical Pursuit of Goals	+ .77 (Very Coop)	+.55 (Definitely Coop)
I-4.	Flexibility in Timing of Action		
	a. Conflict/Cooperation	.00 (Very Low)	.64 (High)
	b. Words/Deeds	.37 (Low)	.62 (Medium)
Self's Predicted Quadrant Type		C	A

*Source: Walker, Schafer, and Young (1998) and the data set for this source

**VICS index calculated across speeches for pre-Soviet invasion period

***VICS index calculated across speeches for post-Soviet invasion period

The sidebar below contains the different strategic interaction matrices embedded for “self” and “other” in Carter’s operational code toward the USSR before and after the Soviet invasion of Afghanistan. Each of the cells in the matrices represents the possible states of affairs between the USA and the USSR in each time period: mutual cooperation (CO,CO), mutual conflict (CF,CF), and the two mixed possibilities where the USA either dominates (CF,CO) or submits (CO,CF). Given the intersection of the outcome rankings for each party (4 = highest....1 = lowest) associated with their respective locations in the cells of the strategic matrices, it is possible to generate predictions of their solution strategies. Lacking are the corresponding strategic matrices from the Soviet operational code necessary to predict the actual outcome of their interactions. Therefore, only the predictions for the USA’s solution strategies are summarized below, based on the “subjective” games in Carter’s operational code (Maoz 1990).

* * * * *

	USSR	
	CO	CF
USA	CO	4, 4 1,2
	CF	3,1 2,3

USA-USSR, 1977-79

	USSR	
	CO	CF
USA	CO	4,2 1,4
	CF	2,1 3,3

USA-USSR, 1980

* * * * *

The predictions in Figure 5 are for a shift from Reward and Deter tactics by the United States toward Appease and Bluff tactics. Because the “submit” outcome for the USA is ranked last, the shift in strategy from Assurance to Appeasement is not complete. Carter’s locus-of-control (P-4a) index does not decrease to a low enough level to infer that submission is ranked ahead of domination. Nevertheless, there are some important differences in the solution strategies associated with each outcome in the two strategic matrices. Because Carter attributes mutual cooperation (CO,CO) as the highest-ranked outcome for the 1977-79 matrix, all of the possible “initial” states lead to a solution strategy of mutual cooperation (4,4).

The reasoning is as follows, based on positing each of the four cells as the “initial” state of US-Soviet relations and reasoning “backward” from the other possibilities under the assumptions of alternating moves within the matrix (see Brams 1994, pp. 27-34). The actors are Self (S) and Other (O) with the four cells (States) in alternating order and either Self or Other moving from the postulated “initial” state. The forecast is the “end” state (Survivor) predicted from the “initial” state and the order of play under the assumption that each actor wants to maximize his preferences by either staying in the “initial” state or moving to a more desirable outcome (Brams 1994).

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
USA Starts:	<u>4,4</u>	→	3,1	→	2,3	→	1,2
Survivor:	4,4		4,4		4,4		4,4

Actors/States:	O1		S2		O3		S4
USSR Starts:	<u>4,4</u>	→	1,2	→	2,3	→	3,1
Survivor:	4,4		4,4		4,4		4,4

* * * * *

This sidebar indicates that the “initial” state is also the underlined “end” state for the USA-USSR strategic matrix in 1977-79. Both the USA and USSR prefer to “stay,” i.e., “→||” in the initial state rather than “move,” i.e., “→” to the next state. This inference is intuitively clear because both actors rank highest the postulated “initial” state of mutual cooperation (4,4). Reasoning backward from the fourth possible state (cell) also shows that when either actor has the next choice, “move” is preferred over “stay” until the (4,4) outcome is reached by cycling back to the “initial” state. Each player is confident that the other will not “stay” in a cell that is advantageous to them along the way because of the greater payoff (4,4) further along the path.

By extension, if one of the other cells in this matrix is postulated as the “initial” state, the “end” state under these other three antecedent conditions is still mutual cooperation (4,4). *In other words, because Jimmy Carter believed in 1977-79 that mutual cooperation was the optimum outcome preferred by both the USA and USSR, the forecast is that he would risk moving to submission (1,2) when deadlock (2,3) was either the “initial” state or encountered on the path of strategic interaction, and he would not “stay” when domination (3,1) was either the “initial” state or encountered in his “subjective” game with the USSR.*

In contrast, the “end” states of strategic equilibria for Carter’s 1980 “subjective” game with the USSR following the Soviet invasion of Afghanistan do vary and depend both on the “initial” state and the order of play. The 1980 analysis is summarized in the four sidebars below, which break down the analysis by the four possible “initial” states and the order of play.

The first sidebar shows that if mutual cooperation (4,2) is the “initial” state and if the USA has the next move, then Carter will choose to “stay.” If the USSR makes the next move from this “initial” state, then the next “end” state is deadlock (3,3). *In other words, the forecast under these antecedent conditions is that Carter will neither “stay” at a submission outcome (1,4) nor move to a domination outcome (2,1).*

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
USA Starts:	<u>4,2</u>	→	2,1	→	3,3	→	1,4
Survivor:	4,2		3,3		3,3		1,4
Actors/States:	O1		S2		O3		S4
USSR Starts:	4,2	→	1,4	→	<u>3,3</u>	→	2,1
Survivor:	3,3		3,3		3,3		4,2

* * * * *

In the next sidebar, the USSR will choose to “stay” when the “initial” state is submission by the USA (1,4). However, the USA will “move” to a deadlock outcome (3,3), an “end” state that is a stable equilibrium and avoids both domination and submission by the USA.

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
USA Starts:	1,4	→	<u>3,3</u>	→	2,1	→	4,2
Survivor:	3,3		3,3		2,1		1,4
Actors/States:	O1		S2		O3		S4
USSR Starts:	<u>1,4</u>	→	4,2	→	2,1	→	3,3
Survivor:	1,4		4,2		3,3		3,3

* * * * *

If the “initial” state is deadlock (3,3), the USA will “stay” to avoid the submission outcome. Carter believes that the USSR will also probably choose “stay” because the forecast is for cycling back to the “initial” (3,3) state (see also Brams 1994). This prediction is represented in the next sidebar below, which includes the “c” notation to indicate that it is based on the cycling analysis for the forecast of the USSR’s behavior in this interaction sequence.

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
USA Starts:	<u>3,3</u>	→	1,4	→	4,2	→	2,1
Survivor:	3,3		1,4		4,2		3,3
Actors/States:	O1		S2		O3		S4
USSR Starts:	<u>3,3</u>	→ c	2,1	→	4,2	→	1,4
Survivor:	3,3		3,3		3,3		3,3

* * * * *

Finally, when the “initial” state is domination by the USA, then deadlock is the prediction for the “end” state no matter who has the next move.

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
USA Starts:	2,1	→	4,2	→	1,4	→	<u>3,3</u>
Survivor:	3,3		3,3		3,3		3,3
Actors/States:	O1		S2		O3		S4
USSR Starts:	2,1	→	<u>3,3</u>	→	1,4	→	4,2
Survivor:	3,3		3,3		1,4		4,2

* * * * *

Overall, when a leader defines the “subjective” game between self and other as between states with Type A and Type B operational codes, respectively, s/he is likely to choose tactics and strategies leading to deadlock unless the index for control over historical development alters their respective rankings for different political outcomes (see Figure 5). *This prediction does not rule out the forecast that when deadlock occurs, the Type A leader is likely to adopt tactical de-escalatory initiatives to try and break the deadlock. A Type A leader is more likely to risk domination by an Appease tactic than risk more conflict by choosing an escalatory initiative. If the latter is chosen, then it is likely to be a Bluff.*

How Do You Predict Behavioral Differences Between Leaders?

A comparison of the VICS indices for two different leaders can reveal points of agreement and disagreement about the nature of the political universe and the most effective moves, tactics, and strategies for realizing political goals. Such comparisons can reveal what the possible effects of a change in leaders within or between states might be. To illustrate these possibilities, let us consider the results of a comparative study of two Israeli leaders, Rabin and Peres, during two different decades, 1974-1977 and 1992-

1995 (Crichlow 1998). The two leaders of the Labor Party in Israel exhibited different operational codes in the earlier decade and moved toward convergence in the later decade.

Rabin and Peres viewed the political universe as definitely hostile and with different degrees of pessimism in the early 1970s. While Peres was not significantly more pessimistic than Rabin, he was significantly less confident about the ability to control historical development (Crichlow 1998). This difference in diagnostic propensities located the two leaders in different quadrants of the political universe for this time period. Moreover, a statistically significant “self” difference in strategic choice propensities in the earlier decade (Crichlow 1998) bolsters the different predictions for moves, tactics, and strategies by the two leaders during the 1970s. These differences are summarized in Table 4, plus the predictions for each leader are plotted for Figure 5.

In contrast, the remaining data in Table 4 indicate that the diagnostic propensities of the two leaders converged during the early 1990s. They agreed that the nature of the political universe was a mixture of friendly and hostile forces, shared a mixture of optimism and pessimism about the realization of political goals, and were highly confident in their ability to control historical development. Their strategic and tactical choice propensities also converged in a definitely cooperative orientation. While both leaders shifted their views of the political universe, Peres shifted his strategic and tactical orientations toward agreement with Rabin who exhibited relatively little change across the decades (Crichlow 1998).

Table 4. Key VICS Indices for Israeli Leaders Rabin and Peres, 1970s vs. 1990s*

<u>Diagnostic Propensities</u>		<u>1970s**</u>		<u>1990s**</u>	
		<u>Rabin</u>	<u>Peres</u>	<u>Rabin</u>	<u>Peres</u>
P-1.	Nature of the Political Universe	-.48 (Definite)	-.60	+.04 (Mixed)	-.06
P-2.	Realization of Political Values	-.36 (Somewhat)	-.47 (Definite)	-.05 (Mixed)	-.03
P-4.	Control over Historical Development				
	a. Self's Control	.69 (High)	.39 (Medium)	.72 (High)	.66
	b. Other's Control	.31 (Low)	.61 (Medium)	.28 (Low)	.34
Other's Predicted Quadrant Type		DEF	B	A or DEF	
 <u>Choice & Shift Propensities</u>					
I-1.	Strategic Approach to Goals	+.71 (Very)	+.34 (Somewhat)	+.53 (Definite)	+.68 (Very)
I-2.	Tactical Pursuit of Goals	+.47 (Definite)	+.11 (Mixed)	+.40 (Definite)	+.40
I-4.	Flexibility in Timing of Action				
	a. Conflict/Cooperation	.28 (Low)	.79 (Very)	.44 (Medium)	.34 (Low)
	b. Words/Deeds	.74 (High)	.93 (Very High)	.82 (High)	.70
Self's Predicted Quadrant Type		C	A	C	C

Source: Crichlow (1998).

**VICS indices are mean scores.

The strategic interaction matrices associated with each leader's operational code in the 1970s are in the sidebar below.

* * * * *

OTHER				OTHER			
		CO	CF			CO	CF
ISRAEL	CO	4,3	1,4	ISRAEL	CO	4,2	1,4
	CF	3,1	2,2		CF	2,1	3,3
RABIN, 1970s				PERES, 1970s			

* * * * *

In the 1970s, Peres' strategic interaction matrix was the same as Carter's "subjective" game toward the USSR following the Soviet invasion of Afghanistan. His philosophical beliefs diagnosed a political universe represented in the Type B quadrant while his instrumental beliefs located himself in the quadrant associated with a Type A operational code. Rabin's general operational code during the 1970s diagnosed a political universe represented in the Type DEF quadrant and revealed choice propensities located in the Type C quadrant (see Table 4 and Figure 5).

Since the 1970s "subjective" game in Peres' operational code has already been analyzed in the Carter example, the following sidebars focus on Rabin's strategic matrix under different assumptions about the "initial" state of relations between Israel and "Other." The predictions below represent the general strategic interaction orientations of the Israeli leader without differentiating among "others," e.g., the USA, Egypt, Jordan. They do not make forecasts about Israeli moves toward different countries, but they may capture elements in the vision of "grand strategy" associated with Israeli foreign policy during the 1970s. Rabin's operational code predicts that if the "initial" state is mutual cooperation (4,3), then Israel and "Other" will choose to "stay"—Israel because it is their highest ranked preference—"Other" because Israel cannot be stopped from cycling back.

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
Israel Starts:	<u>4,3</u>	→	3,1	→	2,2	→	1,4
Survivor:	4,3		2,2		2,2		1,4
Actors/States:	O1		S2		O3		S4
Other Starts:	<u>4,3</u>	→ c	1,4	→	2,2	→	3,1
Survivor:	4,3		4,3		4,3		4,3

* * * * *

As the next sidebar shows, if the “initial” state is Israel’s submission to “Other,” (1,4), then “Other” will choose to “stay” at it highest ranking outcome. Israel’s choice propensity is to “move” to a deadlock (2,2) outcome as the “end” state.

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
Israel Starts:	1,4	→	<u>2,2</u>	→	3,1	→	4,3
Survivor:	2,2		2,2		3,1		1,4
Actors/States:	O1		S2		O3		S4
Other Starts:	<u>1,4</u>	→	4,3	→	3,1	→	2,2
Survivor:	1,4		4,3		2,2		2,2

* * * * *

If the “initial” state is deadlock (2,2), then the next sidebar predicts that it is also the “end” state in Rabin’s strategic matrix no matter who has the next move.

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
Israel Starts:	<u>2,2</u>	→	1,4	→	4,3	→	3,1
Survivor:	2,2		1,4		4,3		2,2
Actors/States:	O1		S2		O3		S4
Other Starts:	<u>2,2</u>	→	3,1	→	4,3	→	1,4
Survivor:	2,2		3,1		1,4		2,2

* * * * *

This forecast shows the dilemma of Israeli relations in a political universe that is perceived as hostile and viewed with pessimism.

As the next sidebar reveals, Rabin’s preferred solution strategy for this dilemma is to move from an initial state of Israeli domination to a mutual cooperation outcome. This strategy is a crucial difference between Rabin and Peres during the 1970s—the solution strategy represented in the latter’s “subjective” game is deadlock rather than mutual cooperation.

* * * * *

Actors/States:	S/1		O/2		S/3		O/4
Israel Starts:	3,1	→	<u>4,3</u>	→	1,4	→	2,2
Survivor:	4,3		4,3		2,2		2,2
Actors/States:	O1		S2		O3		S4
Other Starts:	3,1	→	<u>2,2</u>	→	1,4	→	4,3
Survivor:	2,2		2,2		1,4		4,3

* * * * *

During the 1990s, the operational codes of the two Israeli leaders converged regarding the locus of control over historical development, their instrumental beliefs, and the corresponding preferences for different political outcomes: Settlement > Domination > Deadlock > Submission. Both leaders also shared a mixed view of the political universe with Rabin's strategic image of "Other" as slightly friendly and Peres' view as slightly hostile. Although the latter indices are located in different quadrants, the differences are not statistically significant (Crichlow 1998). The strategic matrices below model the intersections of their common choice propensities and the slight difference in their diagnostic propensities. If they did not occur by chance, would these differences make a difference in solution strategies?

* * * * *

		OTHER				OTHER	
		CO	CF			CO	CF
ISRAEL	CO	4,4	1,2	ISRAEL	CO	4,3	1,4
	CF	3,1	2,3		CF	3,1	2,2
RABIN, 1990s				PERES, 1990s			

* * * * *

If Rabin believed that both Israel and "Other" ranked mutual cooperation as the highest strategic outcome, then his "subjective" game would be the same as the one in Jimmy Carter's general operational code prior to the Soviet invasion of Afghanistan. As we have already demonstrated, this game leads to an outcome of mutual cooperation (4,4), no matter which possible outcome is stipulated as the "initial" state and no matter who has the next move. On the other hand, if Peres believed that "Other" ranked the domination of Israel as the highest strategic outcome, then his "subjective" game would be the same as Rabin's during the 1970s. As we have already demonstrated, this game

leads to deadlock as the “end” state for all “initial” states except for Israel’s domination of “Other” (3,1). Under that antecedent condition, Peres would be prepared to “move” to mutual cooperation only if Israel has the next turn. If “Other” has the next move, then he would “stay” at deadlock as the “end” state.

Because the VICS indices for P-1 and P-2 place the two Israeli leaders in the “Mixed” range between Type DEF and Type A images of the political universe, Rabin and Peres are probably ambivalent about their “true” beliefs regarding “Other.” This ambivalence leads to an indeterminate forecast of their solution strategies. They could (a) both converge completely on either the Rabin or the Peres strategic matrix for the 1990s depicted above, or (b) split with each adopting their respective matrices, or (c) switch between them. In Rabin’s case, he could vacillate between his 1970s and 1990s solution strategies of “negotiating from strength” and “building trust” in dealing with others in the political universe. While Peres did shift clearly from his 1970s solution strategy to one or the other of Rabin’s 1990s solution strategies--it is not clear to which one.

How Do You Apply and Test These Predictions?

The application of predictions from an operational code profile is at once a relatively simple and a relatively complex task. *No matter which of the following levels of complexity adopted in making forecasts, it is necessary for the leadership analyst to supply the subsequent observations of behavior and make the judgment about whether the observed behavior matches the behavior that was forecast in the prediction.*

Level 1. Single Case Predictions. It is possible simply to calculate the VICS indices for a particular leader, e.g., Secretary of State Dean Rusk, and extrapolate a narrative profile of his operational code in the future tense that translates his VICS indices into a forecast of his general diagnostic, choice, and shift propensities. The following text illustrates this kind of forecast, organized as “answers” in the future tense to George’s (1969) ten questions in Figure 1 and based on the VICS indices in his 1961 speech before the American Historical Association (see Table 1):

Based on his philosophical beliefs, Dean Rusk will have a propensity to diagnose the political universe as somewhat hostile, be somewhat pessimistic regarding the realization of political values, view the predictability of the political future as very low, believe that he has a medium level of control over historical development, and attribute a very high role to chance.

Based on his instrumental beliefs, Dean Rusk will have a propensity to choose a definitely cooperative strategy in the political universe and implement it with somewhat cooperative tactics. He will be very low in his

orientation toward accepting risk and will manage risk by being moderately flexible in his propensity to shift between conflict and cooperation and between words and deeds in executing his strategy and tactics. He has a very high propensity to choose appeals and support statements, a high propensity to choose rewards, a medium propensity to choose promises or expressions of opposition or resistance, and a low propensity to choose threats and punishments.

Level 2. Comparative Case Predictions It is possible to compare the operational codes of one or more leaders over time and predict corresponding similarities or differences in behavior. We have demonstrated these possibilities first with the comparative analysis of President Jimmy Carter's general operational code profile in Table 2. Scanning this table, it is easy to identify statistically significant changes in the philosophical and instrumental elements of his operational code that forecast changes in his diagnostic, choice, and shift propensities. These changes can then be formulated as a narrative text in the future tense, as illustrated above in the case of Dean Rusk, to make forecasts about changes in his behavior. The same logic can be applied to two leaders in the same time period and also for each one over time. The preceding comparisons of Israeli leaders Rabin and Peres in Table 4 are examples of this kind of analysis.

Level 3. Two-Sided Dynamic Interaction Predictions. Finally, It is possible to combine the VICS scores for philosophical and instrumental beliefs and make predictions about a leader's tactical initiatives over time and his/her solution strategies for strategic interaction episodes between "self" and "other." Collectively, the Key VICS indices take into account both the dispositions of the leader (I-1, I-2, P-4a) and important features of the context for decision (P-1, P-2, P-4b) to reach a *definition of the self-in-situation*.

The changing locations of the self-images of Carter, Rabin, and Peres across the quadrants of the template in Figure 5 lead to predictions about propensities for different interaction sequences in the form of tactical initiatives. The sidebar examples of Carter's strategic interaction matrices in the domain of Soviet-American relations and the "subjective" games in the general operational codes of Rabin and Peres make predictions about solution strategies. They are based on the antecedent conditions specified by the VICS indices that locate *both* self *and* other in their respective quadrants of the prediction template in Figure 5. In order to test these forecasts, three other antecedent conditions also need to be specified by the analyst: What is the "initial" state of relations between "self" and "other"? What is the order of play? Is cycling permitted in the relations between self and other (Brams 1994)?

CONCLUSION

It should be clear from these examples that operational code analysis is capable of making both simple and more complex predictions of a leader's behavior. Depending on the skills of the analyst and the available information, it is possible to make simple forecasts based on the leader's scores for the VICS indices or employ a more sophisticated analytical strategy in making refined forecasts that employ both the VICS indices and different levels of decision within a strategic interaction framework.

The VICS system of operational code analysis employs variants of the sixteen models of strategic interaction represented in Figure 5. These forecasting models are derived from the Holsti typology of belief systems and are mutually exclusive and exhaustive of the possible combinations of the key philosophical and instrumental beliefs: P-1, P-2, P-4a, P-4b, I-1, and I-2. Derived from these models are predictions about choice propensities for moves at the lowest level of decision, shift propensities at the tactical level of decision, and diagnostic propensities for different solution strategies at the highest level of decision.

No matter what level of decision the leadership analyst chooses to forecast, it is important to keep some cautions in mind about the validity of these predictions. They take the form of several comparisons that are desirable to make when it is feasible to do so. Some of them are possible within the framework of operational code analysis while others require additional resources.

1. Compare the VICS indices for a leader based on public statements with VICS indices from private sources and with predictions about the leader from other sources, e.g., forecasts from other personality profiling methods, or qualitative interpretations based on biographical analysis.
2. Compare the VICS indices for the leader with the same indices for advisors and others in the government to see if there is a consensus. This step is particularly important if there is doubt about whether the sources for the original analysis represent the views of a single leader or the prevailing view within a government.
3. Compare the VICS indices from public and private sources for different policy domains, issue areas, and targets in order to refine the predictions for moves, tactics and strategies. Use tests of statistical significance as criteria for determining how likely differences in VICS indices could have occurred by chance.
4. Compare the predictions from an operational code analysis against rival predictive models, e.g., models of foreign policy decision-making that emphasize other domestic or external variables than the ones captured by the VICS indices. They could be forecasts from geographic area experts or from other schools of international relations theory.

All of these comparisons are potentially useful in assessing whether operational code forecasts are consistent with other evidence and reside within the mainstream of conventional wisdom. When the forecasts are outside an existing consensus, or when there is no consensus from the application of different kinds of forecasting tools, then the operational code predictions should be treated with caution. However, it is under precisely these conditions that operational code forecasts may also turn out to be most useful in avoiding unpleasant surprises and taking advantage of unexpected opportunities created by the otherwise unanticipated behavior of the leader or state under study.

REFERENCES

- Brams, S. (1994) *Theory of Moves*. New York: Cambridge University Press.
- Crichlow, S. (1998) "Idealism or Pragmatism? An Operational Code Analysis of Yitzhak Rabin and Shimon Peres." *Political Psychology*, 19: 683-706.
- Dille, B. (2000) "The Prepared and Spontaneous Remarks of Presidents Reagan and Bush: A Validity Comparison for At-A-Distance Measurements." *Political Psychology*, No. 3: forthcoming.
- George, A. (1969) "The 'Operational Code': A Neglected Approach to the Study of Political Leaders and Decision Making." *International Studies Quarterly*, 23: 190-222.
- George, A. (1979) "The Causal Nexus Between Cognitive Beliefs and Decision-Making Behavior: the 'Operational Code'." Pp. 95-124 in *Psychological Models in International Politics*, edited by L. Falkowski. Boulder, CO: Westview Press.
- Hermann, C. (1971) "What Is A Foreign Policy Event?" Pp. 295-321 in *Comparative Foreign Policy*, edited by W. Hanrieder. New York: David McKay.
- Hoagland, S. and Walker, S. (1979) "Operational Codes and Crisis Outcomes," Pp. 125-168 in *Psychological Models in International Politics*, edited by L. Falkowski. Boulder, CO: Westview Press.
- Holsti, O. (1970) "The Operational Code Approach to the Study of Political Leaders: John Foster Dulles' Philosophical and Instrumental Beliefs. *Canadian Journal of Political Science*, 3: 123-157.
- Holsti, O. (1977) "The 'Operational Code' as an Approach to the Analysis of Belief Systems." *Final Report to the National Science Foundation*, Grant No. SOC 75-14368. Duke University.
- Kohut, H. (1971) *The Analysis of the Self*. New York: International Universities Press.
- Kohut, H. (1977) *The Restoration of the Self*. New York: International Universities Press.
- Kohut, H. (1984) *How Does Psychoanalysis Cure?* Edited by A. Goldberg with the collaboration of P. Stepansky. Chicago, IL: University of Chicago.
- Leites, N. (1951) *The Operational Code of the Politburo*. New York: McGraw-Hill.
- Leites, N. (1953) *A Study of Bolshevism*. New York: Free Press.

Maoz, Z. (1990) *National Choices and International Processes*. New York: Cambridge University Press.

Marfleet, G. (2000) "The Operational Code of John F. Kennedy During the Cuban Missile Crisis: A Comparison of Public and Private Remarks." *Political Psychology*, No. 3: forthcoming.

McClelland, C. and Hoggard, G. (1969) "Conflict Patterns Among Nations," Pp. 711-724 in *International Politics and Foreign Policy*, edited by J. Rosenau. Second Edition. New York: Free Press.

McGaw, D. and Watson, G. (1976) *Political and Social Inquiry*. New York: John Wiley. & Sons.

Schafer, M. and Crichlow, S. (2000) "Bill Clinton's Operational Code as Measured by Spontaneous and Prepared Remarks." *Political Psychology*, No. 3: forthcoming.

Schafer, M., Young, M., and Walker, S. (1995) U.S. Presidents as Conflict Managers: The Operational Codes of George Bush and Bill Clinton." Presented at the Annual Meeting of the International Society of Political Psychology, Vancouver, BC.

Walker, S. (1977) "The Interface Between Beliefs and Behavior: Henry Kissinger's Operational Code and the Vietnam War." *Journal of Conflict Resolution*, 21: 129-168.

Walker, S. (1983) "The Motivational Foundations of Political Belief Systems: A Re-Analysis of the Operational Construct." *International Studies Quarterly*, 27: 179-201.

Walker, S. (1995) "Psychodynamic Processes and Framing Effects in Foreign Policy Decision-Making: Woodrow Wilson's Operational Code." *Political Psychology*, 16: 697-717.

Walker, S. (under review) "A Cautionary Tale: Operational Code Analysis as a Scientific Research Program." In *Progress in International Relations Theory: Metrics and Methods of Scientific Change*, edited by C. Elman and M. Elman.

Walker, S. and Schafer, M. (forthcoming) "The Political Universe of Lyndon B. Johnson and His Advisors." *Political Psychology*, No. 3: forthcoming.

Walker, S. and Falkowski, L. (1984a) "The Operational Codes of U.S. Presidents and Secretaries of State." *Political Psychology*, 5: 237-266.

Walker, S. and Falkowski, L. (1984b) "The Belief Systems and Crisis Behavior of U.S. Leaders." Presented at the Annual Meeting of the International Society of Political Psychology, Toronto, Canada.

Walker, S., Schafer, M., and Young, M. (1998) "Systematic Procedures for Operational Code Analysis: Measuring and Modeling Jimmy Carter's Operational Code." *International Studies Quarterly*, 42: 175-190.

Walker, S., Schafer, M. and Young, M. (1999) "Presidential Operational Codes and the Management of Foreign Policy Conflicts." *Journal of Conflict Resolution*, 43: 610-625.

Winter, D. and Stewart, A. (1977) "Content Analysis as a Technique for Assessing Political Leaders." Pp. 28-61 in *A Psychological Examination of Political Leaders*, edited by M. Hermann. New York: Free Press.