N-1273-AF

November 1979

PERCEPTION AND STRATEGIC WARNING

Edmund Brunner, Jr.

A Rand Note
prepared for the
United States Air Force

Rand
SANTA MONICA, CA. 90406

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Published by The Rand Corporation

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PREFACE

This note was prepared as part of a study of "The Role of Strategic Warning in Conflict Management" conducted within Rand's Project AIR FORCE research program. It presents a survey, using cases based on historical record, of the problems inherent in perceptions by the national leadership of a state of strategic warning of possible attack on the United States.

SUMMARY

In this note strategic warning is regarded as a perception occurring in the minds of the persons in the nation's top leadership posts that an opponent may launch a nuclear attack upon the United States. Because the only opponent now likely to take this action is the USSR, an examination is made of the reasons that might impel it to do so. A survey is made of the preparatory events in the USSR that would be related to the way in which war might begin. The chain between events observable by our intelligence apparatus and response by U.S. leadership is traced. The processes of evaluation of the evidence and leadership decisionmaking are examined in some detail and are illustrated with historical cases from World War I into the 1970s. Various factors influencing this process include the power of fixed ideas, informational failures, deception, value systems of the protagonists, and the dangers inherent in the dynamics of group decisionmaking. An example of successful perception of strategic warning and response (Cuba, 1962) is discussed. The conclusion is that strategic warning is of value in various ways and that it can possibly, though not certainly, be obtained.

CONTENTS

PREFACE iii

SUMMARY v

Section
I. INTRODUCTION 1

II. THE GENESIS OF WAR 3

III. PREPARATORY EVENTS IN THE USSR 6

IV. INFORMATION COLLECTION, TRANSMISSION, AND DISSEMINATION ... 11

V. EVALUATION AND DECISION 13
The Fateful Power of Fixed Ideas 13
Turkey, World War I 13
The USSR, World War II 14
Other Examples 16
Informational Failures 18
Deception 22
Value Systems 24
The Dangers of Groupthink 26
A Case of Successful Crisis Decisionmaking 29

VI. CONCLUSIONS 32

BIBLIOGRAPHY 35

I. INTRODUCTION

Strategic warning has been defined as "notification that the enemy has probably made the decision to attack but that decision may be tentative, conditional, or revocable, and in any case the attack has not yet been initiated."* For the requisite notification to be given, the leadership of the hostile nation must have arrived at the decision to attack and caused activities to occur that the adversary intelligence services may observe. The evidence provided by these activities must in fact be observed and transmitted to appropriate authorities of the latter nation. The immediate recipients of the information will consist of officials of the intelligence apparatus who will subject the information to analysis and decide what parts of it are appropriate and relevant for presentation to the national leadership. In the United States this includes the President and such advisors as he may select. The record of crisis situations shows that these individuals will analyze for themselves what information is made available to them and then decide upon some course of action. In the case of strategic warning of possible attack, the crucial component of the chronology is perception. In fact, the definition of strategic warning may be amended by noting that it consists of an event or a perception occurring in the minds of the people constituting the nation's top leadership that attack may come. All other steps in the chain may be forged and in place, but unless this perception occurs there is no strategic warning.

Strategic warning is usually thought of as warning of nuclear attack directed at the integral land mass of a country. However, other sorts of attacks might deserve the kudos of strategic warning--for instance an attempt by conventional means to sink all our aircraft carriers simultaneously, or an attempt by several Cuban divisions to invade Puerto Rico, or the movement of Soviet troops across NATO

*This definition appears in an internal Rand paper by Victor G. Jackson.

or Mid-Eastern frontiers. This note will be mainly concerned with the examination of the problem of strategic warning of possible Soviet nuclear attack on the United States. Is such warning possible? How can it be obtained, and in timely fashion? In what ways is the securing of strategic warning related to the genesis of the war, to the motives inducing the Soviet Union to attack? Could Soviet deception foreclose perception on the part of our leadership that attack would be forthcoming? Might our leadership be falsely induced to believe that an attack would occur when none was intended? Might the USSR attack because its leadership believed that the U.S. leadership had, falsely or not, perceived a condition of strategic warning? Histories of crises and wars provide some useful evidence on such questions, but the arguments must also rest upon speculation and inference since the case file of actual nuclear confrontation is as yet rather small.

II. THE GENESIS OF WAR

Why would the USSR initiate a nuclear war against the United States? The USSR might do so (a) because it had decided to conquer us sooner or later and to wage war to achieve this end, or (b) because the progression of events in a serious crisis induces it to attack this country, or (c) because of the collective madness or sheer beastliness of some or all Politburo members, or (d) accident.

In the years after Khrushchev assumed Soviet leadership, ideas of coexistence and nonmilitary competition between the superpowers arose. But acquisition of strategic superiority by the Soviet Union would raise the possibility of its preemptive attack upon the United States and recall the fact that in the days of U.S. nuclear monopoly there were suggestions that the United States launch a preemptive attack upon the USSR. That the USSR might attempt to achieve world hegemony by ridding itself of its chief rival as an effective power would not be a surprising act in the view held by some responsible U.S. civilian and military officials. Indeed this view has been expressed quite often since World War II in both official U.S. government documents and in public statements. It derives from observations, which may be correct, about the imperatives of Communist ideology and rests on the assumption that the Soviet leadership would use war as an instrument to attain the aim of global dominance. In this view there is also the implicit assumption that the initiation of nuclear war on the United States would result from rational calculation, from a Soviet viewpoint, of cost and gain on the part of Soviet leaders. It is thought that they would use their strategic forces to eliminate our land-based deterrent forces and ride out the riposte, if any, accepting whatever losses were entailed, and going on to "win" with superior war fighting capabilities.

This notion of war initiation requires that the USSR attain a high state of political, economic, and military readiness such that no further arrangements for attack on the United States would have to be made. The USSR would have made political and diplomatic moves,

would have completed economic preparations, would have conditioned and prepared its population, and, finally, would have brought all its armed forces into full readiness for combat. Soviet deception would probably play an important role. For instance, the factor of time could be used for deceptive purposes. As we shall see below, U.S. intelligence would discern many Soviet preparations for war and might bring a perception of strategic warning to our leaders. But this perception would diminish and quite possibly disappear as weeks and months went by without attack--which would subsequently come as the undetected and undetectable bolt out of the blue, and for which only minimal tactical warning would be received. The requirement for this strategy would be the maintenance of a high state of readiness over a prolonged period.

This manner of war initiation seems quite unlikely (though not inconceivable). It appears more probable that a Soviet nuclear attack upon the United States would constitute the ultimate step of a process requiring a few months, weeks, or at the least several days to unfold. The genesis of this process would rest in a severe political crisis and confrontation between the superpowers because their vital interests were involved. Numbers of scenarios have been written describing such crises occurring over West Berlin, NATO Europe, Cuba, and the Mid-East.

It is easy to imagine that forthcoming energy shortages in the USSR may place it into competition with the U.S. over Mid-East oil and that this competition may become noneconomic and military in nature. In such a case the progression of events could run beyond the clash of conventional forces into the use of nuclear weapons. The outbreak of combat between the conventional forces of the United States and the Soviet Union would in itself constitute strategic warning or induce a state of mind in the two leaderships predisposing them to the perception that the enemy may have made a "tentative, conditional, or revocable" decision to initiate nuclear attack of the homeland. The strength of this perception would be a function of the kinds and degrees of observable actions occurring in the enemy country. One of the gravest dangers of such a crisis, of course, lies in the fact that each leadership might come to believe that the other leadership had arrived at the perception of strategic warning and that, accordingly, preemption was an attractive, or possibly the best, or least miserable, alternative.

Another reason why the USSR might launch nuclear attack upon the United States would rest in the possibility of madness, rage, or complete irrationality, by anybody's definition, on the part of some or all Politburo members. Included here would be the case in which the General Secretary and a small group of his associates were threatened with ouster from power by another leadership clique of hawkish disposition and would resort to war on the United States to maintain dominance in the Politburo. In the event of war stemming from mental aberration, the probability is good that a rather short time would elapse between the decision to attack the United States and the moment when the attack occurred. The time available for U.S. observation of preparations, for evaluating the evidence, and for decision would be short.

For the sake of completeness, I mention, but will not further discuss, the case of accidental or Strangelovian genesis of nuclear attack unintended by the Soviet leadership. In this event no strategic warning would be possible and U.S. response would have to be based on tactical warning that the attack was in progress.

III. PREPARATORY EVENTS IN THE USSR

If the USSR decided to wage nuclear war against the United States to eliminate it as a rival or to resolve a confrontation based on preserving its vital interests, it would have to take certain preparatory measures. Even in the case of an attack decision stemming from irrationality and anger, it is conceivable that preparations might be made and some of these would be observable by U.S. intelligence.

Much information on U.S. intelligence sources is now available to the public. In recent years numerous books, Congressional hearings, and media articles have discussed intelligence obtained from agents, military attachés, communications monitoring, and reconnaissance photography from both aircraft and satellites. NASA publications and *National Geographic Magazine* have provided the interested reader with a good appreciation of the capabilities of photo intelligence. In addition, the intelligence community obtains useful information from businessmen, foreign service personnel, scientists, members of exchange groups, reporters, tourists, and other open sources. If access to the USSR were gradually or suddenly denied to Western, especially U.S., visitors, this would in itself constitute interesting evidence that all was not well.*

What sorts of events preparatory for war might the United States observe going on with the USSR among its armed forces wherever stationed, and in its international affairs? We can perhaps sort some of these out in terms of lead times. Those of a long-run character would include economic preparations. For example, imports of food, fuel, important ores, metals and machinery, and certain semimanufactured and finished goods could increase significantly. In consequence Soviet merchant marine movements and possibly railroad traffic patterns would be altered. These events might be correlated with new or revised trade agreements

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*One might ponder the meaning of an abrupt cancellation of the Olympic games scheduled for Moscow in 1980. On the other hand, what better time for a surprise nuclear attack?

with other countries. Signs of stockpiling by both industry and the military would appear, but it seems reasonable that investment in new plant and equipment and residential housing would slow down substantially. Why put it at risk if nuclear war is intended? The resources thus saved could better be used for armaments. Note that satellite photography can easily detect construction in residential and industrial facilities and changes in the rate thereof. A radical and sustained diminution in the rate of investment would, in combination with other indicators, be quite an ominous sign.

Apparently peaceful Soviet diplomatic moves could in some contexts constitute an indicator. Reasonableness in reaching a SALT II--SALT n agreement and in other matters might make one suspicious, say, if combined with a Sino-Soviet trade, friendship, and nonaggression treaty. It is easy to remember the somewhat similar Ribbentrop-Stalin pact cynically entered into by Hitler with the USSR shortly before he attacked Poland and started World War II.

Ranging from long to short lead times are activities in the military area. Stockpiling by the Directorate of Rear Services and by the Civil Defense organization of the Ministry of Defense would have to gain momentum well in advance of the outbreak of war. The ground forces' understrength divisions would be brought up to full manning. In addition, theater and front headquarters, features of the wartime but not the peacetime Ground Forces, would be established. Soviet doctrine provides that if the homeland is attacked by air, Tactical Aviation units of the Air Force will come under the control of Air Defense (PVO) commanders.

In the few weeks before War Day it is likely that contacts between combat units, depots, factories, and MOD Hq. would increase. Bringing all arms, especially strategic ones, up to full readiness would intensify operation and maintenance activities and would necessarily cause increased involvement by weapons producers. Especially easy to observe would be activities at naval shipyards and bases. One would expect naval units, especially SSBNs, to be at sea to the maximum extent possible.

In the short term, as zero hour approached, the Soviet leadership would take to secure bunkers, and an airborne command post would be activated. If all the foregoing events were to occur, and if the USSR's civil defense measures were put in force--entailing the evacuation of millions of urban inhabitants to the countryside--the U.S. leadership should have the basis for strategic warning.

What requires some thinking about is the relationship between the causes of Soviet nuclear attack upon the United States and the length of the strategic warning time associated with each. We postulated three origins (excluding accident) for such an attack: (a) desire for world hegemony by putting the United States out of the running; (b) severe political crises involving vital interests; and (c) madness, insanity, or anger on the part of Politburo members.

In whichever one of these three causes the attack lay, as zero hour approached events of the following sorts would occur and would perhaps be observable: (List is exemplary, not all-inclusive.)

- o SSBNs would be at sea, on station or en route.
- o Naval surface units ditto and in redeployed patterns.
- o Undermanned Ground Force divisions would be brought up to strength.
- o Increased rail, air, truck, and communications traffic between combat units and Hqs, depots, factories.
- o Organizational and personnel changes in the military.
- o Political leadership to safe locations outside of Moscow.
- o Activation of airborne command post.
- o Intense activity by naval ship and air ASW units.
- o Activation of civil defense system.

This combination of observed events should provide firm evidence inducing a perception by U.S. leaders that we were soon to be attacked. Even in Case (c), presumably entailing the least time between Politburo decision and the attack, several of the events noted above would occur and would probably provide 2 or 3 days' warning. As one moves back to Case (b), it is apparent that the existence of a severe political crisis in itself provides strategic warning. Soviet nuclear attack

might arise directly from the crisis or as a result of a conventional war emanating from the crisis. In the latter case strategic warning becomes even stronger, especially as U.S. leaders must be aware that Soviet leaders may believe that they have perceived strategic warning of U.S. nuclear attack and must thus preempt. In any case, political crises provide a greater period of strategic warning (if perceptions are attuned). The USSR would probably be making arrangements over a longer period, and the United States might observe such as the following:

- Increased military maintenance and logistics arrangements to bring all forces to readiness with consequent changes in traffic movements.
- Increased imports and decreased exports of fuel and foods.
- Increased civilian and military stockpiling activities.
- More widespread civil defense exercises and in greater numbers.
- Military mobilization and redeployments.
- Cut off of visitors--scientists, exchange groups, businessmen, and tourists.
- Changes in activities of Soviet satellites.
- Signing of treaties--i.e., Sino-Soviet friendship treaty.

This combination of events in conjunction with severe political crises might well provide sufficient evidence to U.S. leaders for a judgment that a state of strategic warning existed.

It is Case (a)--deliberate attempt at world hegemony--that could provide the greatest period of strategic warning and would probably also be the most difficult to perceive. Some of the events associated with such a Soviet plan are noted below:

- Trade agreements to assure supplies of vital materials over a long term, plus a series of friendship and non-aggression treaties with countries useful to the USSR.
- Diminution and gradual cessation of investment in new factories, residences, hydro-electric dams, etc.

- Increase in civil defense activities including shelter construction and provision of transport for workers to be dispersed to the countryside.

Whether or not the evidence provided by the kinds of events noted above would in fact be transmitted to the U.S. leadership and induce the perception of strategic warning in their minds is not a completely open-or-shut question. There are hazards along the trail.

IV. INFORMATION COLLECTION, TRANSMISSION, AND DISSEMINATION

One component of the physical and chronological chain between a Soviet decision to make war against the United States with nuclear weapons and the response of the U.S. leadership consists of the process of information collection and transmission. Details about the operation of the various types of intelligence sources and the communications links between them and Washington are not available for discussion. However, one can make some deductions concerning their workings from observation of civilian space, legal, and commercial activities.

The interval between observation of an event and receipt in Washington of information concerning it can range from zero (real-time reporting) to days, weeks, or months. From the case of the recent discovery of Soviet combat troops in Cuba, it appears that the interval can occasionally be measured in years. Real-time reporting is a common feature of manned space activities. Information from human sources on the earth takes rather longer. Time is often required to write a report or for a traveler to return and be debriefed. Cables may be delayed in transmission. In nearly all instances time is spent on processing--that is, on decoding messages or on creation and interpretation of photographic prints, for example. Additional time is then required for the dissemination of information to appropriate recipients within the intelligence apparatus for their evaluation and analysis, which also absorbs time. An information filtering process occurs within intelligence agencies (on occasion with deplorable results) before presentation of final reports to the National Command Authority.

At this juncture it may happen that the need arises for more or better or more frequent information or for somewhat different kinds of information. New collection requirements reflecting altered priorities are formulated and sent to the collection agencies. This may well involve facing up to difficult tradeoffs. For example, increased speed of collection may restrict the scope or variety of information

obtained. Securing more information of a given type and more frequent coverage often mean sacrificing the collection of other important data.

The sections to follow deal with questions of even greater criticality than the collection problem to the matter of strategic warning. Our concern is with the behavior of the human beings who must decide on the basis of the evidence received whether the Soviet leadership has made the decision--tentative, conditional, revocable, or not--to initiate a nuclear war against the United States.

V. EVALUATION AND DECISION

In the following discussion the purpose is that of exploring the conditions of failure or success in the achievement of strategic warning. The historical record of crises and wars contains considerable pertinent material about human behavior in time of stress. The crucial element is the behavior of the persons constituting the top leadership, loosely equivalent in the United States to the National Command Authority. Also of importance of course are the actions of the personnel of the intelligence community, which is the immediate source of the evidence with which the leadership must decide whether or not it perceives a state of strategic warning to exist. The characteristics of individual and group behavior discussed below pertain to both the intelligence and the leadership levels. Each characteristic is treated by means of examples.

THE FATEFUL POWER OF FIXED IDEAS

Turkey, World War I

In August 1914 at the time of the outbreak of World War I, the German navy had only two warships in the Mediterranean, the powerful battle cruiser *Goeben* and the light cruiser *Breslau*. The British and French had very strong naval forces in the Mediterranean, including 16 battleships and numerous cruisers and destroyers. One of their missions was to protect the transit from North Africa to France of three French army divisions, totaling 80,000 men of the Colonial Corps, badly needed on the front against the invading Germans. The British and French Admiralties had the fixed idea that the two German ships would prey on the French transports, sinking as many as possible before escaping through the Straits of Gibraltar to the Atlantic. The Allies ascribed a military purpose to the German warships. But the Germans had something else in mind--a political purpose, which was to secure an alliance with Turkey as a counter to the Russian membership in the Triple Entente with England and France and to force Turkey into war with Russia. This was obviously important because of Turkey's

position astride the Dardanelles. For some time the Turks had been vacillating between alliance with Britain and alliance with Germany. Partly because of Britain's arrogant behavior toward her, Turkey did in fact form an alliance with Germany on August 3, 1914. However, Turkey failed to honor the pledge then given to Germany to declare war on Russia, and the German Admiralty then ordered the *Goeben* and the *Breslau* to proceed to Constantinople.

These ships eluded the Allied navies (intent on preventing their escape westward) and arrived in Constantinople on August 10 and nominally became Turkish possessions. The German officers and crew, however, still controlled them and in October raided Russian Black Sea ports. This action caused Russia to declare war on Turkey, followed by Britain and France. Although Turkey had wished to disavow its responsibility for the Black Sea raid, it was unable to do so as its capital, the government and the Sultan were all hostage to the guns of the German ships. Commenting on this situation much later, Winston Churchill admitted "more slaughter, more misery, and more ruin than has ever before been borne within the compass of a ship." According to Barbara Tuchman, "the cutting off of Russia with all its consequences, the vain and sanguinary tragedy of Gallipoli, the diversion of Allied strength in the campaigns of Mesopotamia, Suez, and Palestine, the ultimate breakup of the Ottoman Empire, the subsequent history of the Middle East, followed from the voyage of the *Goeben*."

These events stemmed from the unshakable conviction in the minds of British and French leaders that the two German warships would simply attack French transports before escaping to the Atlantic.

The USSR, World War II

At 3:00 a.m. on the 22nd of June, 1941, large German forces invaded the USSR. The Soviet armies on the western frontiers of the USSR, which had been gradually increased in strength since 1939, were almost totally unprepared. Many officers and men were routinely on leave. Bridges were not mined. Tanks were lined up in long rows in parking areas and were only partially fueled. In addition, according to Luftwaffe flyers who could hardly believe their eyes, "row after row

of planes stood lined up as if on parade." The German forces destroyed much of this materiel in a matter of hours and drove 400 miles into the Soviet Union within four weeks.

For many months before the German invasion the Soviet intelligence services had been aware that Germany was preparing to attack the USSR. In fact agent Richard Sorge on May 15 reported to Moscow from Tokyo the exact date of attack. His information was confirmed about two weeks later by agent Alexander Rado from Switzerland. Rado had excellent sources within the German High Command from whom he obtained not only the date of attack but the exact German order of battle, naming particular army groups and their objectives. In addition, during the year before the invasion, Stalin had personally received several warnings of German intentions from the U.S. and British governments. In early May, the anti-Nazi Count Friederich von der Schulenburg, German ambassador in Moscow, undertook the risky action of providing Soviet officials information that Hitler intended war but might be amenable to appeasement. In addition to the foregoing, ominous events were occurring that were quite observable. These included the cessation in March of German industrial exports to the USSR, the movement of troops toward its frontiers, numerous air reconnaissance missions over Soviet territory beginning in February, a rapid increase in the numbers of German spies apprehended by the NKVD, and the departure of German and Italian diplomatic wives from Moscow in late May and the first of June. By early June there was some apparent concern in Soviet leadership circles. On June 3 the Supreme Military Council, chaired by Marshall Timoshenko, met to vote on a draft warning concerning the imminent danger of war to be sent to the army's political commissars. Malenkov attacked the wording of the draft, stating that it was formulated in "primitive terms as though we were going to war tomorrow." Stalin agreed, and the warning was never sent. On the night of June 21 a deserter from the German army informed the Russians at 10:00 p.m. of the next day's attack. This information reached Stalin in three hours but he didn't believe it. He ordered that the informer be shot.

How could all this have happened so? It appears that skillful German use of deception played a significant role. Military movements toward the Soviet frontier and activities in the region were, the Germans informed Moscow, simply a cover-up for their intended invasion of Great Britain. More important was Hitler's ruse, reinforcing a strong preconception of Stalin's, to the effect that any issues arising between Germany and the Soviet Union could be settled by negotiation. As a corollary, Stalin had the fixed idea that any German military move against the USSR would be preceded by an ultimatum from Hitler. Stalin was quite convinced that the period required for negotiation would postpone combat and give the USSR time to prepare. Thus he was careful not to provoke Hitler. He also felt that Allied warnings were simply provocations designed to embroil the USSR in a war with Germany, thus relieving the military pressure in Western Europe.

Barton Whaley* states a number of hypotheses that Stalin could have had concerning Hitler's intent: (1) that Hitler would attack the USSR regardless of its diplomatic or military anticipations, (2) Hitler did not intend war but would use military demonstration as a bluff to obtain concessions, (3) Hitler was simply protecting his frontier while conducting the invasion of Britain, (4) Hitler expected a Soviet attack and was thus going to preempt, and (5) Hitler would attack if the USSR failed to meet the conditions of a forthcoming ultimatum. Stalin firmly embraced the ultimatum hypothesis. According to Whaley, "Stalin erred in attributing to his opponent his own complex yet basically rational view of Russo-German relations. The Soviet intelligence services had delivered the true signals in abundance and with speed, but these were unavailing given Stalin's faulty hypothesis about the probable course of German action." From this ensued the debacle on the Soviet Union's western frontiers.

Other Examples

Numerous other examples could be cited in which the strong preconceptions or fixed ideas of intelligence personnel and policymakers

*_Codeword Barbarossa_, MIT Press, Cambridge, 1973.

were instrumental in causing them to suffer military surprise at the hands of an opponent. Most readers are familiar with the case of Pearl Harbor from the work of Roberta Wohlstetter and others, a case that should have been an enduring lesson to intelligence analysts and political leaders. Yet major surprises continued to occur. Two of these are of special interest: (a) the Korean War, which began in June 1950 and in which the Chinese intervened in October; and (b) the Yom Kippur War of October 1973.

With respect to Korea there had been ample warning of impending trouble for six months or more before the North Koreans attacked, yet the U.S. Administration failed to respond. At least two preconceptions brought about this failure. According to Alexander George and Richard Smoke, within the Truman Administration "the North Korean communists were seen as being under the direct control of the Soviet Union. Hence, so the logic of interpretation proceeded, an allout North Korean move was unlikely, since it would create the risk of a general war for which the Soviets were not yet prepared." In addition it was held that the North Korean army was too weak to take on South Korea, and the defensive capabilities of the latter were overestimated. Further surprise was experienced in the autumn when Chinese armies attacked the U.N. forces. In September Secretary of State Acheson listed several reasons why Chinese intervention was unlikely, and the view was that unless the Soviet Union had decided on global war, any Chinese military action in Korea was "improbable." At the Wake Island conference on October 15, General MacArthur concurred. About three days later the Chinese entered the fray with results that were disastrous for the U.N. forces. The stubborn U.S. view of the improbability of Chinese entry into the war was maintained not only in face of intelligence indications to the contrary but also in spite of repeated and precise Chinese warning to the United States that its troops must not cross the 38th parallel.

The case of the Yom Kippur War is startling because Israel's very existence may depend upon its government's accurate perception of strategic warning. The disaster threatening Israel in 1973 stemmed partly from an attitude of arrogance and complacency (a result of the Six Day

War) in high places that affected the intelligence services but principally from what came to be called "the conception." The conception consisted of two assumptions: (a) Egypt would not initiate a war until her Air Force was capable of deep strikes neutralizing the Israeli Air Force, and (b) Syria would never go to war unless Egypt first did so. Since Egyptian air power was not then nor any time soon sufficient for the counterforce task, no war was about to ensue. In addition, the Director of Intelligence "guaranteed" the government leadership sufficient warning of an allout attack to allow time for mobilizing the reserves upon which the military depended. Thus extensive Egyptian and Syrian military preparations were dismissed as maneuvers and defensive moves. Contrary interpretations were ignored because they did not fit into the pattern of "the conception," and until a few hours before Egypt and Syria attacked "the high command and the political leaders did not realize that a general war was about to break out" (Shlaim, 1976). This lack of realization was reinforced by deceptive Arab moves--acceptance of Kissinger peace initiatives in September, planted stories about the deterioration of Soviet equipment supplied in earlier years, etc.--which still further reduced any ambiguities in the intelligence appraisal that no war was about to begin.

The power of a fixed idea is such that it forecloses consideration of alternative explanations. Questions are not asked and doubts are left unexpressed. Cognitive consistency is maintained, and a range of hypotheses concerning what an opponent has in mind remain unexplored.

INFORMATIONAL FAILURES

The quantity of intelligence information and misinformation received daily, especially during times of crisis, is enormous. A frequent complaint among intelligence analysts is that they cannot properly handle and evaluate all the incoming data and put it to good use in the reports they prepare. And decisionmakers at the top levels of government

cannot cope with the volume of finished intelligence reports forwarded to them by the intelligence apparatus.* A filtering process is thus necessary. The analyst discards some of the data made available to him by the collection system. The directors of intelligence screen the materials prepared by their staffs and select from them what will be presented in finished form to the political leaders. At all levels the selection of what information to accept and what to discard is determined by a complex of factors, such as: the international climate and the national political situation; individual and group characteristics, psychology, and stores of knowledge; and the concepts and theories, or cognitive structures, of the individuals concerned. Obviously there are occasions when crucial information is disregarded or suppressed.

There are other causes of informational failures. The security classification system for intelligence data creates rigid compartmentalization.† Many analysts do not have access to data that would be of considerable value to them and this is true even of some persons in important posts, including high level military commanders. On occasion too much reliance is placed on a single source of intelligence. At times the heads of state and their cabinet officers or other close associates do not make available to the intelligence community valuable knowledge obtained from contact with foreign leaders and their associates. This happens because the information is regarded as too sensitive or because of ignorance of the nature of intelligence, or simply through neglect. And finally, it can happen that the NCA level, in communicating with combat commanders, simply fails to make itself clear.

A few brief examples will indicate information failure at lower levels in the hierarchy, or failures that have resulted from other causes. Among the cases of interest is that of the raid conducted by British Commonwealth forces in August 1942 on the German-held port

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*It is noteworthy, however, that in periods of crisis Presidents and Prime Ministers often require that even raw intelligence material be presented to them and that they then use it to act as their own intelligence analysts.

†I estimate that there may be from 150 to 200 separate security classifications, each requiring possession of particular clearances.

of Dieppe. This operation turned out to be an unmitigated disaster, entailing very heavy losses of men, ships, and equipment. The losses were sustained because the intelligence staff gravely underestimated the strength of the German defenses. One of the staff members, Major Reginald Unwin, was unconvinced by the data available from photography, agents, and other sources and warned that the defenses could be much stronger than pictured by the official intelligence estimates, which he refused to sign. He produced contrary estimates, most of which were ignored or deleted from the materials forwarded to the planners.

Another serious informational failure occurred within the Israeli intelligence community just before the outbreak of the Yom Kippur War on October 6, 1973. On the 5th of October, intelligence headquarters issued a report stating that although Egyptian and Syrian military dispositions showed "apparent" signs of offensive intent, no change had taken place in the Egyptian view that their forces could not prevail against the Israelis and that accordingly the probability that Egypt would initiate war was low. As a result Prime Minister Golda Meir and Defense Minister Moshe Dayan concluded that full mobilization was not yet necessary. It was thus most unfortunate that the Israeli intelligence authorities had suppressed the contradictory views of young Lieutenant Benjamin Siman-Tov who warned in two reports that the Egyptian and Syrian military moves camouflaged the final preparations for allout war. According to Ari Shlaim, "Siman-Tov's reports got no further than the senior intelligence officer in the Southern Command, Lieutenant Colonel David Geddaliah. Geddaliah's reports to GHQ in Tel-Aviv contained no trace of Siman-Tov's dissenting conclusions. He had 'erased' the penetrating questions which were apt to raise doubts about the nonoffensive intentions of the Egyptians because 'they stood in contradiction to Headquarter's evaluation that an exercise was taking place in Egypt.'"

In some instances valuable opinions appear simply to be lost to conscious appraisal in the flurry of events. For example, among the Pearl Harbor failures the following items are of interest. On January 24, 1941, Secretary of the Navy Frank Knox wrote to the Secretary of War that "if war eventuates with Japan, it is believed easily possible

that hostilities would be initiated by a surprise attack upon the Fleet or the Naval Base at Pearl Harbor." On February 1 Admiral Kimmel in Hawaii wrote to the Chief of Naval Operations (Stark) that "I feel a surprise attack (submarine, air, or combined) on Pearl Harbor is a possibility." And on October 16, 1941 the CNO advised Fleet Commander that the Japanese might attack "in any direction." This phrase makes one wonder why U.S. air reconnaissance in those days was flown in only the southern quadrants of the compass around Hawaii and not from the northern, from which, of course, the Japanese launched their fatal attack.

At times too much reliance is placed upon a single type of intelligence to the exclusion of other forms of data essential to forming an accurate appraisal. Before the Dieppe raid the British placed too much faith in the photography of Dieppe and environs. It failed to reveal strong defenses emplaced in caves of the cliffs. Before the Normandy landings by the Allies, the Germans depended too heavily on communications intelligence. The Allies had cleverly used their communications net to create strong army units based in England. These units were hypothetical except in the minds of the Germans who wasted time and resources and misdeployed troops.

This form of intelligence--Magic--was heavily relied upon before Pearl Harbor. But nowhere in the decoded messages was there any indication that Pearl Harbor was to be the object of the attack. More attention to the history of the Japanese and their patterns of thought and the current economic situation might possibly have been rewarding. Of course, people familiar with such subject matter would have benefited and have been more productive had they had access to Magic. But its distribution was very limited--even the Chief of Intelligence of the Pacific Fleet was not given this material. In fact nowhere, not even in Washington, was all the pertinent evidence from all sources assembled and evaluated. Even when the NCA level has perceived that trouble is brewing, informational failure can occur in communications to operational forces. This may happen because the sender of the message assumes that the receiver knows as much background as he himself does. Thus on November 27, 1941 a message from Washington to General

Short in Hawaii advised him to expect hostile action at any time. By "hostile action" the sender meant attack by Japanese forces, but General Short construed the phrase to refer to sabotage by persons in Hawaii. Washington assumed that Short was aware of the overall political and military situation and that he was routinely receiving Magic--which in fact he was not.

It is clear that military failure can result from informational failure. The filtering process may prevent the leadership from receiving vital data. Compartmentalization, for security and other reasons, blocks the flow of essential intelligence. The lack of an eclectic center in which all relevant information is assessed may mean that an accurate conception of an opponent's activities cannot be constructed. And finally, incomplete and imprecise communication from the NCA level to operational military commands can result in the failure of the latter to take necessary action.

DECEPTION

There is no doubt that deception in times of crisis and warfare is as old as the human race. In his work *Strategem*, Barton Whaley concluded from his survey of many instances of deception that it is a very successful technique. It is probably most successful when the perpetrator is aware of and takes advantage of the fixed ideas and preconceptions of his opponent. A major case in point is Hitler's deception of Stalin concerning Barbarossa, the German invasion of the USSR. The Germans used various themes: (a) their military buildup in the eastern areas near Soviet frontiers was only a part of preparation for the invasion of Britain; (b) it was a deception practiced against the British leading them to believe that the Germans would move east, not cross channel; (c) the German units were simply training out of range of British bombers and recce aircraft; (d) the German invasion of England was imminent, as indicated by the publication in the press of an article to this effect by Goebbels--for which "leak" he was publicly put in "disgrace." Whaley mentions various other strategems. The most important of all, however, may have been the rumors instigated by the German Foreign Ministry in mid-May 1941

that German moves in the east resulted from Soviet actions, but that Russo-German negotiations on issues were still possible. Some rumors, all of which were made certain to reach Moscow, were to the effect that Hitler had certain specific demands to be made on Stalin. All of this disinformation was designed to reinforce Stalin's firm hypothesis that Hitler would present him with an ultimatum before any attack occurred and that a series of negotiations would begin. As we know, there never was an ultimatum and the German attack against the unprepared Soviet troops came as a complete surprise.

The successful use of deception by the Arabs before the Yom Kippur War has already been noted. Before the Pearl Harbor attack the decoded Magic messages received after November 26, 1941 made it clear that Japan had decided to go to war with the United States but wished to deceive the United States by stating that it desired negotiations to continue. The British established the "Double Cross Committee" in World War II and conducted numbers of successful deceptions. By the mid-point of the war, Double X had gained complete control of the German spy system in England and during the preparations for Overlord (the Allied plan for invading the continent) fed the system considerable plausible disinformation causing misallocation of German defensive strength.

The USSR conducted a particularly striking but fortunately unsuccessful attempt at deception against the United States at the time of the Cuban missile crisis in 1962. On September 6, at President Kennedy's request, Ted Sorensen visited Dobrynin, then as now the Soviet ambassador to the United States. During the conversation Dobrynin assured Sorensen several times that all Soviet military moves in Cuba were purely defensive and did not represent any threat to the security of the United States. At the time of the interview, however, 42 Soviet I/MRBMs were in ships, en route to Cuba. On September 11, the USSR issued a statement that it had powerful nuclear rockets in its own territory, that it had no need to base missiles elsewhere and specifically not in Cuba, and that all its moves there were purely defensive and posed no threat to the United States. Finally Khrushchev sent a message to Kennedy saying that no missile capable of reaching the United States would be placed in Cuba. But by the time this message reached him Kennedy had

already learned (October 14) that it was completely false as the U-2 photographs then showed the Soviet I/MRBMs being emplaced in Cuba. On October 14 also, Khrushchev assured Foy Kohler, the new U.S. ambassador in Moscow, that the Soviet activity in Cuba was defensive. On October 16 Foreign Minister Gromyko visited the President and after complaining about U.S. attitudes regarding the Cuban situation read from his notes: "As to Soviet assistance to Cuba, I have been instructed to make it clear, as the Soviet Government has already done, that such assistance pursued solely the purpose of contributing to the defense capabilities of Cuba and to the development of its peaceful economy--training by Soviet specialists of Cuban nationals in handling defense armaments was by no means offensive. If it were otherwise, the Soviet Government would have never become involved in rendering such assistance."

Deception is difficult to counter. The United States was successful in 1962 because it possessed incontrovertible evidence that the USSR was attempting to deceive it about Soviet intentions in Cuba. The USSR in 1941 and Israel in 1973 were unsuccessful in countering deception because of their adherence to fixed ideas. Decisionmakers "should be suspicious if they hold a position in which elements that are not logically connected support the same conclusion" (Jervis, 1968). They should also determine in advance what evidence would support or deny their theories, what their expectations are, and, conversely, what would surprise them.

VALUE SYSTEMS

Although fixed ideas and strong preconceptions can have a pernicious influence, it is also true that if intelligence analysts and political leaders lack *any* cognitive framework it would be impossible for them to cope with the massive information flows confronting them. It would be impossible to know what to do with the many thousands of bits of evidence, to assess their meaning, and to draw conclusions. As Klaus Knorr observes, "intelligence officers naturally approach their task with *a set of expectations* of likely patterns of behavior," which represents "the distillate of years of experience." He continues,

stating that "professional experience gained through intensive and prolonged study of Soviet behavior in many situations, and especially crises, will lead to a set of expectations that, having withstood the test of previous estimates or having been modified as a result of them, should form a solid basis for intelligence."

This is hopeful stuff and indeed is unassailable. It is important, nevertheless, *whose* set of expectations is controlling. We can contrast Winston Churchill with Neville Chamberlain. In the years of Hitler's rise to power and the progressive rearmament of Germany, both men had access to essentially the same evidence. Year after year Churchill urged Britain and France to awaken from their slumbers and prepare for the onslaught that his set of expectations led him to foresee. But Chamberlain's set of expectations, operating with the same informational inputs, led him to proclaim "peace in our time." Hugh Trevor-Roper has an explanation: "Brought up as a business man, successful in municipal politics, [Chamberlain's] outlook was entirely parochial. Educated Conservative aristocrats like Churchill, Eden, and Cranbourne, whose families had long been used to political responsibility, had seen revolution and revolutionary leaders before, in their own history, and understood them correctly; but the Chamberlains, who had run from radical imperialism to timid conservatism in a generation of life in Birmingham, had no such understanding of history or the world: to them the scope of human politics was limited by their own parochial horizons, and Neville Chamberlain could not believe that Hitler was fundamentally different from himself. If Chamberlain wanted peace, so must Hitler." In other words, Churchill understood Hitler's value system very well but Chamberlain did not and assumed it was the same as his.

Chamberlain's error is very common and was committed by U.S. political leaders regarding Japan in the 1930s and almost until the time of Pearl Harbor. The United States and the United Kingdom had put an embargo on raw materials, including oil shipments to Japan, because of its warring activities in China and Southeast Asia. We did not believe that the embargo and other Allied actions would lead Japan to war. The United States was too big, too powerful militarily and economically.

Japan must know, therefore, that it could not hope to win against us. This was an assessment with which the Japanese leadership agreed, but they felt that unless the economic stranglehold were broken Japan would gradually decline into the status of a minor nation. A blow against the United States resulting in a negotiated peace ensuring Japan's vital economic interests was the answer. The long-term costs of not attacking the United States would exceed the short-term costs of doing so. But according to Roberta Wohlstetter, "our own standards, as we have observed them in military and State Department documents, reckoned the risks to the Japanese as too large, and therefore not likely to be taken. They were too large but they were going to be taken. And we missed this apparently illogical connection because we did not include in our reckoning any consideration of the alternative of 'gradual exhaustion' and the danger of encirclement and defeat without having struck a single blow."

In the two cases just cited, England in the 1930s and the United States in the period leading to Pearl Harbor, the value systems of those in power were fundamentally different from those of their opponents in Germany and Japan. This was also true of the U.S. assessment of the likelihood of China's intervention in the Korean War. In all three cases the British and American leaders made the assumption that their opponents' value systems and the consequent logic of decision were the same as their own. Thus "overlooking the possibility that the enemy might not follow a similar train of thought, they failed to cross the conceptual boundaries that separated them from their opponent" (Ben-Zvi, 1976).

THE DANGERS OF GROUPTHINK

In a fascinating volume, *Victims of Groupthink*, Irving Janis explores the reasons for failures of group decisionmaking. One of the cases he uses is that of the Bay of Pigs, an incident occurring in the early days of the Kennedy administration. About a year earlier, the Eisenhower administration had authorized the training and arming of a Cuban exile army of liberation under the aegis of the CIA. Kennedy inherited this project and after enthusiastic pushing for it by the

CIA and with the written endorsement of the JCS and the verbal endorsement of Secretaries Rusk and McNamara, the President reluctantly gave the go signal. A well-remembered fiasco ensued.

Janis is careful to point out that there is no necessary link between group decisionmaking and a disastrous result but simply that there are dynamics in the process that can lead to such a result. A main element is the esprit de corps that an elite group can develop. We happy few, we band of brothers, noble and ethical, can do no wrong. The stronger this feeling is, the less the likelihood of critical and independent thinking. Included in the Bay of Pigs group besides Kennedy, Rusk, and McNamara were Robert Kennedy, McGeorge Bundy, Douglas Dillon (Treasury Secretary), Allen Dulles, and Richard Bissell of the CIA, Thomas Munn, A. A. Berle, Jr., and Paul Nitze of State, and Arthur Schlesinger, Jr. and Richard Goodwin of the White House Staff. This group, assisted at times by the JCS, was certainly composed of men of intelligence and sophistication. It thought that the planned operation was diplomatically acceptable (i.e., purportedly with no U.S. involvement) and would most likely succeed. Yet it turned out to be a debacle. Theodore Sorensen wrote "that so great a gap between concept and actuality should exist at so high a level on so dangerous a matter reflected a shocking number of errors in the whole decisionmaking process--errors which permitted bureaucratic momentum to govern instead of policy leadership."

The group proceeded on the basis of several false assumptions. The first was that no one will know that the United States was responsible for the invasion by Cuban patriots bent on overthrowing Castro. In answer to Kennedy's questions on this point, Dulles and Bissell assured him that the whole world would believe that the Cuban patriots, only they, were behind the operation and responsible for it. In actuality much was known and appeared in the press indicating otherwise. A week before the invasion Kennedy exclaimed "I can't believe what I'm reading. Castro doesn't need agents over here. All he has to do is read our papers. It's all laid out for him"--including "secret" details of U.S. military training camps in Guatemala.

Another assumption was that the Cuban air force and army were too weak to repel the invaders. This was based on CIA assertions, and Kennedy and his advisors did not pursue their questions far enough to discover that completely contrary information was available from other intelligence agencies. Castro's air force overwhelmed the old and ineffective U.S. B-26s that were supposed to destroy it. The Cuban planes shot down half the B-26s, bombed the invading troops, and prevented ships carrying ammunition and supplies from arriving. Castro's army turned out to be large and of excellent quality, and well-equipped. It was also assumed that the morale of the brigade of Cuban exiles was excellent and that they expected no aid from U.S. ground troops. In fact many of the exiles were discontented and mutinied, and the leaders of the mutiny were imprisoned by the CIA in the Guatemalan jungle. In addition, the CIA led members of the invading force to believe that the United States was committed to aiding them with its own troops. Most crucial of all was the group's assumption that the invasion would touch off a substantial uprising by the population in Cuba, which would then oust Castro. This assumption was based on statements by Dulles and Bissell that were contrary to the assessments made by intelligence experts within the Agency and within the State Department. Finally it was assumed that even if the invaders failed to establish a new government in Cuba, they could retreat to the Escambray Mountains to the east and join forces with the anti-Castro guerillas. However, nobody in the White House group realized that the distance between these mountains and the Bay of Pigs was 80 miles across a hopeless tangle of swamp and jungle. No one had looked at a map.

What happened? How could a brilliant group of men at the head of the U.S. government fail? The accounts of Sorensen, Schlesinger, Hilsman, and others reveal several reasons. Schlesinger observed that "our meetings took place in a curious atmosphere of assumed consensus." Sorenson stated that "no strong voice of opposition was raised in any of the key meetings, and no realistic alternatives were presented." One reason for this was that the group developed a sense of invulnerability. Said Robert Kennedy "it seemed that,

with John Kennedy leading us and with all the talent he had assembled, nothing could stop us." A tremendous feeling of group cohesiveness developed that brought with it the illusion of unanimity. The members were reluctant to ask tough questions or to appear to be dissidents. Within the State Department, but not at group meetings in the Cabinet Room, Rusk asked his staff questions that raised doubts. Although Schlesinger wrote a memorandum outlining his objections to the proposed operation for Kennedy and Rusk, he failed to raise his voice in group meetings. He later wrote: "in the months after the Bay of Pigs I bitterly reproached myself for having kept so silent during those crucial discussions in the Cabinet Room, though my feelings of guilt were tempered by the knowledge that a course of objection would have accomplished very little save to gain me a name as a nuisance. I can only explain my failure to do more than raise a few timid questions by reporting that one's impulse to blow the whistle on this nonsense was simply undone by the circumstances of the discussion."

In summing up features of groupthink, Janis notes other elements than those just mentioned, the esprit de corps, illusion of shared unanimity, the sense of invulnerability, and the tendency to leave doubts unexpressed. These features, of course, contribute to others, such as: the failure to examine alternatives; the failure to consult professional staffs and outside opinions; career fears of some group members; their reluctance to appear as outsiders; ignoring of evidence contrary to group opinion; insufficient awareness of bureaucratic sabotage; desire to support the leader; the propensity of underlings not to contradict their superiors who, indeed, tend to suppress "adverse" information; and finally, pressure from self-appointed "mind-guards" on potential recidivists.

A CASE OF SUCCESSFUL CRISIS DECISIONMAKING

About 1-1/2 years after the Bay of Pigs debacle, the U.S. leadership was confronted by the crisis engendered by the Soviet emplacement of nuclear medium and intermediate range (up to 2,000 miles or so) missiles in Cuba. The history of this crisis is well known and will not be reviewed here. Many of the people on the White House Executive

Committee handling this crisis had also been members of the group that made the Bay of Pigs decision; however, they had learned their lessons from the earlier affair. After it had ended, President Kennedy established a commission of inquiry to determine the reasons for the failure and the knowledge thus gained was applied to the modus operandi of the Excom.

In the first place, no feeling of shared unanimity was ever allowed to develop. The bureaucracy was not allowed to get out of control. Cabinet members and others were instructed to view the problem as a whole and not simply that portion of it pertaining to their organizations. The JCS was subjected to rigid questioning by determined civilians who refused to be overawed by the military chieftains. The opinions of underlings in the governmental hierarchy were firmly solicited and opinions contrary to those of their superiors were obtained. Many alternative solutions were developed and the costs and gains, political and military, were carefully assessed both for long and short term time horizons. Outsiders were brought to Excom meetings and encouraged to speak. In contrast to the earlier crisis, there was indeed a continuous search for information. The President purposely absented himself from some Excom meetings lest his presence and his views inhibit the behavior of others. A Devil's Advocate, Robert Kennedy, was appointed and was singularly effective in forcing the Excom to consider the consequence of its proposals and to relinquish a number of them--for example, surprise attack on Cuba. In fact, the U.S. leadership was careful to allow the men in the Kremlin time to consider the possibilities at each step of the way and was also very careful to avoid the appearance of humiliating them. Before the final decision was reached, all alternatives were reexamined. The final decision was accompanied by detailed provisions for its execution and contingency plans were developed to cope to the extent possible with unexpected events.

All the foregoing measures foreclosed the dangers to which decisionmakers are subject. The unceasing search for alternative solutions and their appraisal in terms of Soviet and other national value systems, and the use of a skillful Devil's Advocate, prevented any

fixed idea from arising and controlling the minds of the U.S. leadership. The provisions made for obtaining freely expressed opinions from within the group, from subordinate officials, and from outside experts insured against informational failures. The rapid flow of accurate information from the intelligence community and the acumen with which the consumers (Excom) interacted with the community prevented the Soviet Union from achieving success in their attempt at deception. The give-and-take atmosphere for discussion and the subordination of protocol and rank to national interest averted the danger of groupthink.

In the autumn of 1962 the U.S. leaders did arrive at a perception of strategic warning and took actions such that nuclear war did not occur.

VI. CONCLUSIONS

This discussion has tacitly assumed that strategic warning is valuable and worth the cost of obtaining it if possible. There are several reasons for believing in the value of strategic warning. The Cuban missile crisis illustrates a major benefit, that of persuading an opponent to reverse his conditional decision to attack. On September 11, 1962 the USSR stated that any military action with respect to Cuba would result in nuclear war--thus providing us with strategic warning. Yet our naval movements around Cuba and the imposition of the blockade brought no nuclear response because of the skillful policies pursued by Excom. In addition, the U.S. leadership avoided an overreaction by this country. Furthermore, the perception of strategic warning allows preparations to be made that cannot be continuously put into effect for a long period. Aircraft cannot be perpetually kept in a state of airborne alert and populations cannot be evacuated from cities for long periods of time. Finally, a realization of a state of strategic warning allows maximum advantage to be taken of tactical warning. If the Israelis had perceived in October 1973 that the Arabs were about to attack, they would have responded much more efficiently to the tactical warning provided by observation of Arab forward movement of aircraft, troops, and armor.

Can strategic warning be obtained? I believe there is a good possibility, not a certainty, that it can. The USSR would probably have to make a wide range of preparations prior to initiating nuclear war on the United States, preparations and activities that would be impossible to sustain over a long time period. An intelligent appraisal of the state of the world and of U.S-Soviet relationships would provide a background against which to judge ominous events--the cessation of capital investment, a maximum deployment of SSBNs, and especially the activation of the massive Soviet civil defense system resulting in the evacuation from cities of tens of millions of people and many production facilities.

Much depends on the behavior of the human beings in the intelligence mechanism and in positions of national leadership. There is a

need to know our opponents and their value systems and patterns of thought, of deciding what is normal and what is not, what is predictable and what is not. Our sets of expectations, our cognitive frameworks, need constant updating so we can evaluate the changing stream of incoming evidence. The chances for deception and surprise can at least be diminished and the chances for the perception of strategic warning be raised by systematic attention to measures for avoiding information failures and the evils of groupthink, for encouraging genuine Devil's Advocates and independent thinkers, and the expression of alternative and probably unpopular views.

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