Crisis Decisionmaking:
A Cognitive Institutional Approach

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Abstract

This study, which is part of a research program on Crisis Management in the Baltic Sea Region and Eurpe (*CM Europe*), probes the plausibility of integrating convergent elements of cognitive and neo-institutional theory to develop systematic research strategies suitable for use in dissecting, analyzing, and comparing historical cases of crisis decisionmaking. Particular emphasis is placed on the structure and dynamics of the small groups which figure prominently in crisis decisionmaking in a wide variety of cultures and institutional settings. The main empirical contribution of the study is a detailed reconstruction of Swedish decisionmaking and communication processes during the acute phase of the Chernobyl Fallout Crisis of 1986. The case study draws upon archival materials, official documents and reports, mass media coverage, previous social science research, and interviews with crisis participants. The Chernobyl case is dissected into a series of eight distinct decision occasions which arose during the crisis. Three decision occasions in which small groups played an important role are then subjected to further scrutiny, making use of a procedure for small group process diagnosis developed in the dissertation. The case findings are placed in comparative perspective making use of results from a pilot study of group decisionmaking in the U.S. Bay of Pigs fiasco of 1961 and a number of parallel studies from the *CM Europe* 'case bank.' This study concludes with a discussion of theoretical implications and potential lessons for practice.

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Chapter 1:
Introduction

In the midst of a crisis triggered by the assassination of a head of government, Walt Whitman penned the famous poem 'Oh Captain, My Captain'.[1] The verse, honoring the slain U.S. President Abraham Lincoln, invokes one of the great metaphors of political literature. Whitman compares the body politic to a ship, the national leader to the master of the vessel. Contemporary political scientists are fond of metaphors too. For example, James Rosenau compares politics to the weather (and political science to meteorology) in his massive work *Turbulence in World Politics* (1992:7-9). If the ebbs and flows of politics are like the ebbs and flows of wind and water and the state like a ship, then crises must be the great storms of political life, the hurricanes, tornadoes, and tidal waves which may wreak destruction but also may clear the air, breaking up logjams and deadlocks, and paving the way for change.

Attending to the stream of breaking news presented by the mass media, it is difficult to avoid the impression that these storms occur more and more frequently. Ironically, there is reason to believe that modern society, despite its impressive technological capabilities, is becoming increasingly crisis prone. Governments are asked not only to cope with their traditional responsibilities for maintaining national security and public order and with the havoc chronically wreaked by the forces of nature, but also with new types of acute challenges to public health and welfare arising from the diffusion of large scale technologies across globalized and interconnected societies (Buzan, 1991; Keohane and Nye, 1977; 1987; Crocker and Hampson, eds. 1996). Making matters more difficult for those responsible for coping with crisis, there has been a revolution of rising expectations on the part of political elites, the mass media, and the public at large (Blumler and Gurevitch, 1995:4). Politicians and bureaucrats are increasingly held responsible for events which would have been attributed to fate or 'acts of god' in the past (Bovens and 't Hart, 1996:12, 82). These challenges must be faced in domestic and international environments characterized by mounting interdependence, complexity, jurisdictional overlap and in many cases, heightened turbulence and unpredictability ('t Hart, Stern, and Sundelius, 1998: 207-210). Conventional modes of coping are often questioned and in many cases new ways of handling acute policy problems must be devised.

While it is obvious that the intensity of crisis proneness varies greatly in

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[1]   The poem is included in the anthology *Leaves of Grass*. (Philadelphia: David McKay, ca.1900).

different parts of the world, even the most cursory scan of the newspaper headlines reveals that even those parts of the world which had previously been seen as relatively less crisis-prone are not immune from the emergence of dramatic, upsetting, and terrifying events. To take one example, Japan – long perceived as an island of stability – has in recent years experienced a series of 'unthinkable' or 'unspeakable' events ranging from terror attacks in the subway system and aircraft hijackings, through political corruption scandals and assassinations of public officials, to catastrophic earthquakes and devastating economic downturns.

Even relatively peaceful and well organized Sweden has faced a significant number of comparable events during the last twenty five years. Sweden too has been forced to mourn a murdered head of government; Prime Minister Olof Palme was assassinated in 1986. Other critical events include the occupation of the West German Embassy by foreign terrorists in 1975, the stranding of a Soviet submarine in the Karlskrona archipelago in 1981, numerous politically charged submarine hunts and scandals, the radioactive contamination of large areas of the country arising from the Chernobyl nuclear accident, and the sinking of the M.S. Estonia ferry in 1994. In addition, there have been a substantial number of other challenging contingencies such as mass refugee arrivals on the island of Gotland, the JAS fighter crashes, the deadly fires aboard the Scandinavian Star and in the Gothenburg discotheque, the BSE ('Mad Cow disease') scare, the violent feud between the Hells Angels and Banditos motorcycle gangs, the toxic contamination of Hallandsås, and the list goes on…

Each of the incidents mentioned (and many left unmentioned) has its own unique situational and contextual features. Yet they also have much in common. They are situations which were seen, admittedly to somewhat varying degrees, as representing departures from governmental business as usual. These were non-routine decision problems which pushed the coping capacity of government to the limit, under the watchful eyes and sharp pens of the mass media. In each of these cases, responsible decisionmakers at various positions and levels of government perceived threats to the basic values they are sworn to uphold or to their future viability and effectiveness as leading public officials. Finally, each case was characterized by perceptions of situational volatility and urgency which compressed the time frame for policy development and choice.[2] Each of these 'improbable' crises developed a momentum of its own which placed decisionmakers under heavy stress and forced them to decide and act under uncertain conditions or risk losing their opportunities to intervene in the course of rapidly moving events. This dissertation focuses on the challenge of dealing with just such acute, and often relatively unexpected, political events.

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[2] These basic elements – perceptions of threat, urgency, and uncertainty – comprise the definition of crises submitted by Rosenthal, 't Hart, and Charles (1989:10). See below for a more detailed discussion of alternative crisis definitions.

1. Why study crisis?

There are a number of compelling reasons for scholars to attend to the phenomenon of coping with crises. These fall into two basic categories: intrinsic importance and observational leverage. *Intrinsic importance* refers to the nature of the crisis phenomenon itself. Crises are dramatic events which often stimulate the curiosity of laymen and practitioners as well as of scholars. As such, the level of human interest is high – crises tend to be associated with compelling stories of political actors rising to the occasion or being overwhelmed by the stresses and demands of dealing with these situations. More importantly, crises are associated with high impact events, consequential choices, and thorny political and ethical dilemmas. By definition, crises involve situations where cherished national, organizational, and personal values are at stake. Furthermore, such events often cast a long shadow in the sense that they may profoundly effect political perceptions and choices for years or decades to come. The eminent political scientists King, Keohane, and Verba (1994:15) have recently argued that a research project should pose a question which is "important in the real world" (cf. Van Evera, undated: 54). Inquiries into the mechanics of crisis decisionmaking are easily justifiable in these terms.

The onset of a policy crisis and its ensuing time restrictions on decisionmaking and implementation often place strict limitations on the acquisition of new governmental capabilities and the feasible re-allocation of existing ones. These characteristics have a number of implications. Since high stakes are involved and it is not possible to 'rewind' the situation and remake inadequate decisions, there are good reasons for decisionmakers to take all feasible precautions to ensure that decisions are made as effectively as possible the first time around. The study of past cases of crisis decisionmaking and the derivation of lessons (both positive and negative) promises to contribute, at least marginally and indirectly, to helping decisionmakers and planners prepare to meet the challenges of future crises (cf. George, 1993; Brecher, 1993; 1999:252; Haney, 1997:113; Lepgold, 1998:47, 61.)

Observational leverage: Scholars interested in other aspects of political life might well raise the objection that crises are unusual, atypical, and thus a distraction from understanding more fundamental political processes. From this perspective, a competitive relationship between crisis studies and other types of political studies is asserted. However, this view does not survive close scrutiny. It is at least equally plausible to see studies of crises and 'normal politics' as complementary. Arguably, crises should be seen as more intense and rapidly paced forms of more general political/administrative decisionmaking processes. For example, Snyder and Diesing (1977:4) suggest that the underlying tensions which drive international relations are brought sharply into focus in crisis situations: "The policy choice between coercing or conciliating adversaries,

which is a perennial and central dilemma in policy, even in ordinary times, comes to a head in crisis and urgently demands resolution. Thus a crisis distills many of the elements that make up the essence of politics in the international system." The controversial Weimar political theorist Carl Schmitt (1996) argues in similar terms that the most profound insights into the nature of sovereignty and the political predicament are likely to be yielded through study of the politics of the extraordinary. Thus, the study of politics 'on the edge' may be able to provide us with more general insights into the nature of political behavior.

To this, the critic might object that the political 'heat' and pace associated with crises makes them difficult to study. On one level, there is some merit to this argument. It is true that crises are often controversial, which may motivate actors to conceal or misrepresent their activities. Similarly, the secrecy traditionally maintained around decisionmaking in national security crises is a significant obstacle to the researcher, and one which may inhibit access to documentary evidence for long periods of time.

However, it is also true that crises generate a high degree of public, political, journalistic, and scholarly interest. This interest generally produces a countervailing effect. Actors will be called upon to account for their behavior; professional observers of politics will focus their attention on the crisis. These effects intensify the 'coverage' of the crisis events and may provide invaluable resources for the researcher.

Pace too is a double edged sword. On the one hand, events move so rapidly in crisis situations that it may be difficult to capture all of the significant nuances, some of which may not be as well documented as other types of political events. On the other hand, the rapid pace of crisis decisionmaking may, ironically, make certain things easier to see than in 'slower' forms of politics. Those interested in portraying growth processes in the plant kingdom are often frustrated by the slow pace of change which may baffle the naked eye, particularly where the dynamics of growth and change are of interest. Here, time lapse photography comes to the rescue of the botanist. The infinitesimally incremental changes in a plant as a bud forms and then becomes a flower can thus be compressed into a matter of seconds or minutes. Sped up, these growth processes become perceptible in the short term and thus more amenable to observation. Counter-intuitively, increasing the 'speed' can make certain processes more, rather than less, visible. Certain decisional and administrative processes which may fade into the background at normal speed, may well stand out vividly at the faster pace of crisis situations (Rosenthal, 't Hart, and Charles, 1989:7).

2. Crisis studies: Approaches and definitions

It is virtually impossible to open a newspaper or watch the television news today without seeing some problem or issue described as a crisis. Policymakers

and academics are equally fond of the term because of its evocative and provocative connotations. However, the widespread use (or overuse) of the term suggests that a rigorous specification is necessary if the notion is to generate anything other than confusion. First of all, it should be noted that like security (c.f. Buzan, 1991: Buzan, Waever, and de Wilde, 1997:35-42) crisis demands an explicit referent if the concept is to have meaning. A crisis situation is experienced by someone or something: an individual[3] , a group[4] , an organization[5] , a society[6], or a state. Alternatively crisis situations may simultaneously threaten actors bound up in a bilateral relationship or a system (a coherent and relatively integrated network of relationships) such as a regional sub-system or the international system at large. In the social sciences, work has been done using virtually all of these referents.

C. F. Hermann (1972, 1989:359) suggests that three broad approaches focusing on alternative levels of analysis may be distinguished within the international relations field: systemic (in which the stability of the international order is seen as at risk), actor-confrontation (two or more actors engaged in conflictual communication and crisis bargaining), and decisionmaking (focuses on processes within a state or other actor). To that tripartite division should be added an emerging fourth approach – the political symbolic approach – which focuses attention on the manipulation of symbols, rituals, and power in crisis communication. Among the leading scholars who have contributed to the systemic approach is McClelland (1972). Among the authors who have contributed to the development of the actor-confrontation perspective are Williams (1976), Snyder & Diesing (1977), Lebow (1981), George, ed. (1991), Brecher (1993) and Richardson (1994). 't Hart (1993) is an exemplar of the developing political-symbolic perspective (c.f. Lasswell, 1948; Edelman, 1988; Bryder, 1998:66).

This study is primarily grounded in the *decisionmaking* mode of crisis study. The referents of such crises are the decisionmakers who take responsibility for coping with a given problem. As C.F. Hermann suggests in his (1989: 360)

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[3] Habermas (1973/1976: 1) submits that the medical uses of the term as relating to the biological organism (most commonly the human individual) emerged prior to incorporation into the social sciences: "In that context it refers to the phase of an illness in which it is decided whether or not the organism's self-healing powers are sufficient for recovery."

[4] An influential discussion on the functioning of groups in crisis is to be found in Janis (1982). Janis' work may be interpreted as exploring the tension between decision group coping with threat through psycho-social defense mechanisms, which rely upon and protect group cohesion, and the kind of rationalistic critical thinking and 'quality' decision process thought to maximize the possibility of defending the wider values (e.g. national or corporate) to which the group is ostensibly dedicated. See also 't Hart (1991/94) and chapters three, four, and six of this study.

[5] A parallel crisis concept has worked its way into the related fields of organizational psychology and management. See e.g. Mitroff and et al, 1993.

[6] See e.g. Habermas (1973/76)

review of the crisis studies literature within the field of international relations, this mode:

> …examine[s] the task of reaching and implementing choice within a single government or other policymaking unit. The members of a government perceive, not always correctly, the emergence of an acute situation that can cause them, or their policy, harm. The individual and organizational means of coping with the crisis problem becomes the object of study.

Hermann's own (1963, 1972:13) definition of decisionmaking crisis stands out as a seminal contribution to the development of this tradition:

> Specifically, a crisis is a situation that (1) threatens high priority goals of the decision unit, (2) restricts the amount of time available before the decision is transformed, and (3) surprises the members of the decision unit by its occurrence.

Several preliminary comments about this definition are in order. First of all, it should be noted that this conceptualization derives from *subjective* perceptions of the involved decisionmakers. The analyst's task is to "interpret the situation as it is perceived by the decision makers" (Hermann, 1972: 13)[7].

In an early reformulation of this definition, O. Holsti (1972:9) replaced Hermann's object of threat (high priority *goals*) with the more precise formulation "important values". In a later reformulation, the ICB[8] scholars further refined, deepened, and narrowed several components of the definition:

> Viewed from the perspective of a state, a crisis is a situation with three necessary and sufficient conditions, deriving from a change in its external or internal environment. All three are perceptions held by the highest level decision-makers:
>
> (1) *a threat to basic values*, with a simultaneous or subsequent awareness of
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> (2) *a finite time for response*, and of the
>
> (3) *high probability of involvement in military hostilities* (Wilkenfeld et al., 1988:2). [emphasis original]

For the time being, let us disregard stipulation number three and instead look more closely at the conceptualization of basic values. These authors submit that

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[7] This position is the result of an interest in investigating the effect of crisis on decisionmaking processes. Note that from the point of view of critical social theory, one may more easily address the issue of whether a given issue subjectively judged a crisis by participants *should* have been allocated that status. Similarly one may ask whether another problem *should* have been accorded crisis gravity. For example, Habermas (1973/76: 4) takes the position that societal crises may be identified independently of participant perceptions.

[8] International Crisis Behavior Project

basic values encompasses two clusters of values: "core values" and "high priority values". Core values are closely associated with the state itself, irrespective of the particular government in power – such as "survival of a state and its population, the avoidance of grave damage through war" (Wilkenfeld et al, 1988: 3). High priority values "derive from ideological or material interests as defined by decisionmakers at the time of a specific crisis" (Wilkenfeld et al., 1988: 3). These latter values may include decisionmakers' concern for their reputations and their ability to remain in power. Thus political considerations as seen as a potential object of threat and thus a source of crisis stress for decisionmakers.

A point worthy of notice is that the ICB definition discards Hermann's surprise (Holsti's unanticipation) criteria. Those scholars (1988: 2), chose to eliminate surprise on the grounds that it was difficult to operationalize, noting that Hermann himself subsequently distanced himself from this aspect of the definition. However, even if one rejects this criterion on pragmatic grounds and as an unnecessarily limiting condition, one should keep in mind that to the extent that a particular crisis problem is not anticipated, and thus there is a relatively low level of psychological and organizational planning and preparedness, a correspondingly greater degree of improvisation will be required in making crisis decisions. As a result, non-anticipation – ceteris paribus – is likely to be associated with heightened individual and institutional stress.

Like the ICB scholars, Rosenthal, 't Hart, and Charles (1989:9-10) emphasize threat to fundamental values (as well as norms) and time pressure. They also choose to de-emphasize surprise. However, unlike the ICB scholars, these scholars propose making uncertainty one of the definitional criteria for distinguishing crisis situations, arguing that surprise (operationalization issues aside) is only one of many factors which can increase the level of stress-inducing uncertainties in crisis situations. As a result, they (1989: 10) submit the following definition of crisis: "…a serious threat to the basic structures or the fundamental values and norms of a social system which – under time pressure and highly uncertain circumstances – necessitates making critical decisions".[9]

Let us pause for a moment in order to consider the level of generality at which this discussion has been located. Hermann's definition, while obviously created with the state and possibly international organizations in mind, is clearly applicable to other types of organizations, such as provincial, state (as in a federal system), or city governments, as explicitly stated in the seminal (e.g. 1963: 67) article. A number of other scholars have asserted that non-governmental organizations like corporations and non-profit organizations can legitimately be conceived of as potentially crisis prone (Slatter, 1984; Mitroff & Kilmann,

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[9] A disadvantage of this formulation is the use of the adjective 'critical' which risks introducing an element of tautology into the definition. For example, the *Oxford Reference Dictionary* (1996:338) one of two possibly relevant usages of critical is "of or at a crisis, involving risk or suspense". The other usage, only slightly less problematic is "decisive, crucial".

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1985; Mitroff et al, 1993) . Even the ICB conceptualization (points 1 and 2) appears potentially adaptable if one redefines basic values in a manner appropriate to other potential referents.

A second observation about generality has to do with the nature of the threat to basic values. Nothing in the Hermann definition restricts crises to the military security issue area or threats from other states. Thus the Hermann definition of decisionmaking crisis is considerably broader than the ICB definition which is tailored to the state as referent, and military security threats from other states as a source of threat to basic values. It appears that a synthetic definition is in order, if one is maintain the generality of the Hermann definition while incorporating some of the refinements visible in the Holsti, ICB and Rosenthal, 't Hart and Charles definitions.

Having established the preceding foundations, a synthetic definition of decisionmaking crisis may be submitted:

A decisionmaking crisis is a situation, deriving from a change in the external or internal environment of a collectivity, characterized by three necessary and sufficient perceptions on the part of the responsible decisionmakers:

   1. A threat to basic values
   2. Urgency
   3. Uncertainty

This general definition may then be further modified in order to more closely specify the parameters required for the emergence of crisis within a given issue area.

The issue area with which a given crisis situation is associated depends upon an interpretation of the particular nature of the threat and the basic values threatened. As far as the international relations field is concerned, the issue area which has dominated studies of decisionmaking crisis (and the closely related actor-confrontation mode) has been military security[10]. The term military-security crisis embraces those situations which threaten basic values through perceptions of a heightened risk of military violence. Similarly, some scholars have argued that an economic crisis, for example, entails short term and rapidly emerging threats to material and political values (Brecher, 1977; Maruyama, 1990:2; Angel, 1991; Stern and Sundelius; 1997). Such crises might include situations such as resource shortages, dramatic price hikes (for buyers) or collapses (for sellers) in a situation of extreme economic dependence upon the resource or product in question. The currency crises which have repeatedly beset

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[10] Among the many studies focused on this issue area are: Allison (1971), Hermann (1972), Snyder & Diesing (1977), Lebow (1981), Oneal (1982), Wilkenfeld et al. (1988) and George (1991), Richardson (1994), and Haney (1997).

European, Asian, and Latin American countries during the 1990s are good examples of economic crises which could meet the definition set out above, as are the oil shocks of the 1970s. An interesting hybrid crisis situation emerges when the imposition of economic sanctions against an 'aggressor' creates an economic crisis for that country or its trading partners. The US trade sanctions and oil embargo against Japan ultimately triggered an economic/military crisis and played a major role in provoking the attack on Pearl Harbor in 1941 (Craig & George, 1995:209-210; Baldwin, 1985:165-174). The cases of Serbia and Iraq in the 1990s are good illustrations of this type of hybrid.

Relatively little attention has been devoted to the notion of environmental crisis from a decisionmaking perspective. While the term is frequently employed in political and scholarly debate, relatively little conceptual development specifically targeted at this issue area appears to have been done. Often, environmental problems looming on the horizon (such as climate change and ozone depletion) are described as crises, when in fact they do not appear to exhibit the short term intensity of crisis as defined above. It could be argued that these problems represent potential environmental crises (or longer term environmental security issues), rather than the actualized crisis phenomena under study here. It is a limited subset of environmental issues which are compatible with this study's conceptualization.

Maintaining the synthetic definition of crisis submitted above, environmental crises should exhibit decisionmaker perceptions of threat to basic values, urgency, and uncertainty. In order to identify a subset of crises as "environmental" attention is directed at the nature of the basic values threatened. It may be argued that a distinguishing feature of environmental crises is a threat to biological values or to the human habitat. Threats to biological values would include direct and acute threats to human health (such as highly contagious diseases), threats to essential resources which support life in human eco-systems (e.g. air, water supply and food production[11]), and acute threats to the integrity of valued non-human eco-systems or local/global biological diversity.

It may also be useful to distinguish between first and second order environmental crises. It is possible to identify a number of contemporary cases where the top political leadership of an affected country may initially regard an acute environmental problem as a largely technocratic matter to be left to the experts, or as the responsibility of local or state/provincial decisionmakers. However, public opinion, mass media pressure, and political initiatives on the part of opposition groups may create a political escalation process which raises the issue to (second order) crisis levels of threat for these central decisionmakers. The Bush administration's response to the 1989 Exxon-Valdez oil spill may be interpreted in this fashion. President Bush was reportedly initially reluctant to

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[11] See Macrae and Zwi (1992) for a study of food security in the context of African political conflicts.

federalize the spill, preferring to leave the clean up in the hands of Alaskan state and local officials, the Alyeska oil consortium, and the Exxon corporation. However, following four days of intensive and shocking mass media coverage of the catastrophic spill and sustained criticism of the clean up operation and the inaction on the part of the federal government, Bush responded to public and political pressure and federalized the spill. Overall crisis management responsibility was delegated to a cabinet secretary (Davidson, 1990: passim and 96-97). As will be seen below, a similar pattern emerges in the Swedish response to Chernobyl.

As in other kinds of crises, the perception of urgency is key in environmental crises. One potential source of time pressure derives from the *window of opportunity* phenomenon. In many types of situations exhibiting mounting threat to biological values, a timely and effective intervention may serve to avert or mitigate the consequences of the threat factor. For example, using a potential epidemic as an illustration, timely diagnosis of the situation and decisive action – isolation of carriers, widespread distribution of an appropriate vaccine, etc. – promises to minimize the negative effects of the episode[12]. However, if the window of opportunity is missed, disaster may be the result. Note that this kind of reasoning may often be applicable to situations of rapid contamination such as oil spills or nuclear accidents[13] where timely interventions such as cleanups or evacuations may serve to prevent or minimize the harm done by the incident. Like other types of crises, environmental crises are often exacerbated by uncertainties of various kinds regarding the nature of the natural or technical processes involved, the effectiveness and possible side effects of potential intervention measures, and the severity of the threats posed to the health of human beings and eco-systems at risk.

3. Empirical puzzles

Crises often are associated with dramatic behavior on the part of participants. In fact, crises frequently generate behaviors which may seem out of character or puzzling and which seem difficult to understand on the basis of cursory analysis. While militarized conflicts have been most commonly studied by students of political science and international relations interested in crisis decisionmaking, they are obviously not the only situations which test the psychological and organizational capacities of decisionmakers and yield dramatic

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[12] For a historical account of the ravages of influenza pandemics in the U.S., see Henig (1992). Henig (1992:28-31) reports shocking death tolls; the 1918 Spanish flu left close to 200,000 dead in the U.S. alone and an estimated 20 million dead worldwide. The 1957 Asian flu killed 70,000 while the 1968 Hong Kong flu led to 28,000 US deaths.

[13] Among the best known nuclear accidents are the Windscale (GB, 1957), Harrisburg, (USA, 1979) and the Chernobyl (USSR, 1986) incidents.

and often puzzling responses. As has noted above, major industrial accidents – as well as natural disasters, terrorism, and large scale disturbances of public order such as riots – may pose similar challenges to decisionmakers (Dror, 1986, 1988:255-259; Comfort, ed. 1988; Rosenthal, 't Hart, and Charles, 1989:11-12).

The catastrophic explosion and fire which occurred in April of 1986 at little known nuclear power station near Pripyat, Ukraine, in what was then part of the Soviet Union, posed just such a challenge. Chernobyl, the site of this accident, has since become a household word. On site and in the adjacent areas, a 'battle' was fought to attempt to mitigate the damage, to control the fire and protect the adjacent reactors, and to prevent the core meltdown from developing into the dreaded 'China Syndrome' in which a molten reactor core bores its way into the earth, contaminating water tables and causing extensive environmental damage (Medvedev, 1990; Read, 1993:284)

Like many forms of crisis, the consequences of the Chernobyl nuclear accident spilled over national boundaries. Radiation released in the accident was lifted up to the sky via a plume of smoke from the fire and transported across the European continent by the air currents. Due to an unfortunate combination of geography and meteorology, one of the countries most seriously affected was Sweden. Swedish officials were forced to operate under heavy stress in order to monitor and diagnose the situation, assess psychological and physiological risks, and develop action guidelines for public authorities and the public at large. Popular and mass media perceptions of an inadequate crisis response on the part of the authorities led to a severe 'second order' legitimacy crisis.

How did Swedish officials initially respond to the radioactive contamination? The first major decision of the crisis was to call an alert at the Forsmark nuclear power station roughly two hour's drive north of Stockholm. After three hours of measurement activity, a dramatic decision was taken. Some 800 persons were evacuated from the power plant and the local nuclear emergency plan was put into effect. At first glance, the Swedes – often depicted as a level-headed people – seem to have behaved oddly. Why would one evacuate a *Swedish* nuclear power plant in response to the Chernobyl nuclear accident?

As fears of a major Swedish nuclear accident mounted in Stockholm, regulators at the Nuclear Power Inspectorate (SKI) formed a crisis group in order to monitor the situation. At the helm of this group was the Director General of the agency. Some five hours into the crisis, Director General Olof Hörmander took a potentially fateful conditional decision to shut down the Forsmark reactors despite skepticism by the SKI inspectors on site. The SKI ultimatum was issued over the vehement objections of the Forsmark chief who viewed the measure as unnecessary and potentially dangerous in its consequences. Minutes after it was given, this order was rescinded. Why was this apparently questionable order given? What caused the rapid reconsideration?

Once it became clear that Forsmark was not the culprit and that radiation

from the Chernobyl nuclear accident had contaminated large areas of the country, a host of new problems arose. One of the most acute was to assess the seriousness of the contamination, the prognosis for further fallout, and the consequences for Swedish society. Directing an inter-agency crisis team was the leadership of the Radiological Protection Institute (SSI), with Director General Gunnar Bengtsson playing the starring role. Bengtsson and his organization issued prognoses and recommendations based on relatively optimistic assessments, which placed the agency in the position of having to incrementally revise the assessments and inform the public that the consequences were more severe than initially expected.

This is particularly puzzling in light of the fact that the SSI information policy, as explicated in a report issued less than a year prior to the crisis, emphasized the importance of avoiding contradictory signals (i.e. "It is not dangerous but here is how you can protect yourself") and giving the impression that official spokespeople are providing the public with rosy scenarios (SSI, 1995:20). Just such contradictory signals and overly optimistic prognoses combined with other difficulties with radioactive risk communication in Sweden, gravely undermined the credibility of the agency and its spokespersons. Why then did SSI fall prey to credibility traps which had been recently identified and emphasized in the agency's own literature?

Sweden is a country with a long tradition of supporting the development of international law and its practical application in international relations. Why did the Swedish leadership choose not to attempt to seek compensation from the USSR via international legal action, an alternative which was in fact considered but ultimately discarded?

Deprived of information regarding the psychological and organizational context in which these decisions were taken, it is difficult to understand the judgements made and the choices taken. In fact, without attending to such factors, it is tempting to make extremely negative evaluations of a number of aspects of the crisis response. Some of these actions may well seem understandable, and perhaps even prudent, in light of the information available to the actors at the time. As scholars of decisionmaking have pointed out (Janis & Mann, 1977; George, 1980; Janis, 1989:14-16; Vertzberger, 1990:10-21), it is imperative to consider the various constraints upon decisionmaking in order to fully appreciate the predicament of policymaking, constraints which are often at their most constricting in crisis situations. We will return to these empirical puzzles below.

4. Crisis and complexity

If it is true that as a category of events (and as specific high stakes historical incidents) crises are worthy of study, the question of *how* to study them remains. Some approaches to crisis analysis (e.g. Snyder and Diesing, 1977:33-182; Leng,

1987; c.f. Achen and Snidal, 1989; Morrow, 1994:180-186; 1997:17-29) drawing heavily upon rational choice or game theory are geared towards explaining choices concerning the mix of cooperative and conflictual behaviors in strategic interaction and/or patterns of escalation and de-escalation of tension among the 'players'. For such purposes, it may be useful to strip away extraneous contextual and situational information in the hopes of identifying essential and recurring dynamics and equilibrium. One common approach is to compare an empirical sequences of interactions to games described in general terms in the literature (i.e. 'Chicken', prisoners' dilemma, Stag Hunt etc.) in an attempt to identify the pattern which best captures the central bargaining dynamics exhibited (Mintz, 1997).

While such parsimonious accounts of crises may be useful, even essential, for some research purposes, it should be recognized this analytical tactic does pose great risks. It is very easy to unintentionally do violence to the nuances of case and context and draw misleading analytical conclusions or lessons (Bates et al, 1998:11-12, 17-18). In particular, if such analysis is not accompanied by an empirically intensive exercise in process tracing, the apparent congruence of case and game may well turn out to be spurious – the key actors may well have perceived particular moves (their own or those of the 'adversary') very differently than the post-hoc analyst (c.f. George, 1979:105-119; George and McKeown, 1985:29-41). In other words, the actors may have understood themselves to have been playing very different games than those attributed to them by scholars (Hollis and Smith, 1990:128, 135-142; Tsebelis, 1990:7; Mor, 1993:17-22, Green and Shapiro, 1994:5-7; Stein and Welch, 1997:67-68).

Furthermore, the choice of analytical approach and the degree of complexity necessary for a practically adequate account of the phenomenon in question depends to a high degree on the nature of the research questions posed (Sayer, 1992:69-71). Snyder and Diesing (1977:181) argue that simple games (such as those described by 2 X 2 matrices) are particularly useful for analyzing actor-confrontation crises because they "go directly to the heart of the crisis bargaining problem, the choice between accommodation and coercion".[14] However, if one shifts the focus to studying decisonmaking and problem coping there are strong arguments in favor of taking a different approach. As Voss and Dorsey (1992:22) put it, "Generally, the more serious problems in international relations are ill-structured, meaning that the problems do not have agreed-upon solutions, have many constraints and even some goals that are not stated at the outset of the solving process, and procedures of solution may not be established." In the worlds of ill-structured foreign and public policy problems, 'the heart of the crisis' is often elusive, as we will see (c.f. Voss, 1998:11-14).

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[14] To their credit, Snyder and Diesing (1977: chapters 4 and 5) complement their formal bargaining analysis with psychologically informed and empirically grounded analyses of information processing and decisionmaking.

In their pioneering work which helped to launch an enduring research program on foreign policy decisionmaking, Snyder Bruck and Sapin (1963:6) posed questions which are as current today as when they were first formulated more than thirty-five years ago:

> How do structural and process factors determine policy and action decisions? How do tasks, problems, and situations affect who will be involved in a decision, structure of the decisional unit, and the modes of arriving at choices? Interest in these interrelations is age old; yet we do not have a set of propositions or hypotheses that embrace the significant elements on each side of the equation.

In fact, contemporary scholars in this tradition continue to wrestle with much the same fundamental questions (cf. Mefford, 1987:221-22; Hudson, 1995:224-226; Haney, 1995, 1997: 19-22; Ripley, 1993, 1995:86, 95-96).

Snyder and his associates argued that the most promising way of coming to grips with this research problem was to draw on the conceptual arsenal of a wide range of social science disciplines including anthropology, sociology, psychology and political science. In particular, they emphasized the potential insights to be found in cognitive psychology and organizational theory:

> It is difficult to see how we can account for specific actions and for continuities of policies without trying to discover how their operating environment is perceived by those responsible for choices, how particular situations are structured, what values and norms are applied to certain kinds of problems, what matters are selected for attention, and how their past experience conditions present responses (Snyder, Bruck, and Sapin, 1963:5).

Opening up the so-called black box does raise serious difficulties for the researcher which should be recognized even by those sympathetic to the challenge posed by Snyder and his collaborators. In fact, having opened the box and facing the empirical complexities of crisis episodes, the analyst might well feel that the black box he or she has unwittingly opened must have been previously owned by Pandora. Major policy crises are by definition highly complex events. Let us briefly consider 5 types of complexity commonly associated with crisis episodes: political, institutional, temporal, informational, and problem complexity.

Political complexity: As already noted, crises entail threat to one or more key values. In practice, the 'or more' is the rule rather than the exception. For example, coping with a hostage-taking such as the 1975 occupation of the West German Embassy in Stockholm (Hansen, 1998) or the more recent Lima Hostage crisis (Ullberg, 1997) entails balancing long term imperatives such as deterring future episodes and legal accountability with the short term interest in protecting the lives of hostages and those who would be put at risk in the event of a military

or para-military rescue operation. Value complexity and conflict are considerable sources of stress in crisis situations (George, 1980: 28-29; Janis and Mann, 1977; Farnham, 1997:14, 27-36) and fully capturing them is a challenge to the post-facto analyst. Counter-intuitively, such stress may arise not only from coping with threat, but also with potentially fleeting opportunities (Janis, 1989:83.84; Rosenthal, 't Hart, Charles, 1989:13) arising during crisis situations.

Second, crises tend to engage or affect multiple actors and stakeholders – both public and private. Crises are of high salience not only to governments, but also to political oppositions and a variety of societal actors including mass media. Not only public sector, but also private sector actors may play an important role or see key interests affected by crises. The 1992 Swedish currency crisis (Stern and Sundelius, 1997; Sundelius and Stern, 1998; Theorell, 1998) profoundly concerned the coalition government, the opposition, the leadership of the Swedish national bank, and financial actors large and small – down to individual mortgage holders whose variable rates skyrocketed as a result of the currency turbulence. Thus the political complexity associated with crisis situations is considerable (Peterson, 1996:4-7).[15]

A closely related issue is *institutional complexity*. Even if one restricts the field of view to the public sector, relaxing the state-as-unitary-actor assumption (Purkitt, Powell, & Dyson, 1987:203-205) reveals that a large number of organizational actors (Allison, 1971:67-100, 144-181; Steinbruner, 1974) and administrative levels ('t Hart, Rosenthal, and Kouzmin, 1993) are likely to be engaged in crisis situations. This institutional complexity generally has both horizontal and vertical dimensions. The horizontal dimension concerns multiple agencies at the same level of government who may perceive themselves to have a stake in the crisis problem at hand. For example, foreign policy issues in the United States may well be perceived as concerning not only the Department of State, but also 'rival' departments such as Defense, Commerce, Energy, intelligence agencies such as the CIA and NSA, and other institutions such as the Joint-Chiefs of Staff, the National Security Council staff, and relevant Congressional committees (George, 1980; Prados, 1991).

The vertical dimension of institutional complexity focuses on the potential involvement of actors across levels of government. Many crises begin at the local level, where an often uneven process of political-administrative escalation commences. For example, crises provoked by acts of terrorism and natural/ industrial accidents often begin in a specified geographic location and administrative jurisdiction before 'upscaling' into national or international crises. For example, the response to the 1998 terror bombings of U.S. embassies in Nairobi and Dar es Salaam began with local police and rescue operations in those capital cities, but rapidly came to be seen as acute policy problems also in

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[15] See Karlsson (1995; 1998) for studies of party political behavior during the 1952 Catalina/DC-3 crisis.

Washington, D.C., Khartoum, and Kabul. Or, to draw on the main case of this study, the Chernobyl nuclear accident began with the explosion on site in the Ukraine and then spread all over the continent. For Sweden, the crisis was triggered in Uppsala county as a possible local nuclear mishap. Ultimately, the crisis would engage governmental actors at local, (sub-national) regional, national, European (EFTA/EC) and even international (e.g. IAEA, WHO) levels.

As Rosenthal et al (1989:437) observe:

> Different actors hold different perceptions stemming from differences in tasks, jurisdictions, education, geographical location, level of preparedness, and other political and administrative considerations. Consequently decision makers and agencies are drawn into a crisis at different moments, from different points of view, and with different purposes.

Thus both horizontal and vertical forms of institutional complexity may have profound crisis upon crisis decisionmaking and communication processes.

Another problem for the analyst is *temporal complexity*. Every crisis takes place at a specific historical juncture. Here too, there are at least two dimensions – diachronic and synchronic. From a diachronic perspective, it is clear that virtually all issues have a pre-history of some kind. Crisis perception and behavior will be affected by prior experience, or lack thereof, with the issue in question. For example, Bynander (1998b) argues convincingly that the management of the Swedish Hårsfjärden crisis of 1982 was hampered by over-learning and inadequate analogical reasoning based upon the experience of the 1981 Whiskey on the Rocks case. Psycho-organizational dispositions and, thus, preparedness are dependent in large measure upon the issue pre-history (Jervis, 1976; Neustadt and May, 1986:91-110; Lebow, 1981:335; Vertzberger, 1990:298). Thus a nuanced understanding of the historical context is imperative. Similarly, the analyst must also be attentive to the sequential development of the crisis itself. As will be discussed further in chapter 2, crises tend to exhibit a high degree of path dependency. It is imperative to reconstruct crisis decisionmaking in a fashion which enables the analyst to document 'what they knew and when they knew it' and maintain a sensitivity to the ways in which decisionmaking in the early stages of a crisis enables and constrains the possibilities for action later on.

Temporal complexity also has an important synchronic dimension. Crisis perception and behavior is heavily affected not only by what has happened in the past, but also by the present. In other words, the nature of the current political context is highly salient. For example, the extent to which a particular issue is prioritized and treated as a crisis will also be influenced by the current agenda. It is not uncommon for multiple crises to occur simultaneously (Snyder, Bruck, and Sapin, 1963:59; Williams, 1976:197). A dramatic example is the synchronicity between Watergate and the 1973 Middle East alert crisis. Similarly

the 1998 Embassy bombings coincided with a particularly acute phase of Clinton's on-going sex scandal, provoking some cynical observers to suggest that the aggressive response to the terror bombings might have been partly politically motivated. Synchronous issues may effect each other through a number of inter-related psychological and organizational mechanisms which will be discussed further in chapters two and seven of this study.

A fourth type of complexity is what could be labeled *informational complexity*. From the decisionmaking perspective, crises revolve to a considerable extent around informational issues (Brecher, 1974; George, 1980; Vertzberger, 1990, Ripley, 1993). Paradoxically, twin and opposite information problems beset crisis copers (and those who wish to study them). These are information shortage and overload – phenomena heavily emphasized in the literature on cognitive processing. Information shortage is a very common problem in crisis situations, and one greatly exacerbated by the time pressure which is generally thought to be a defining feature of decisionmaking crises. Consequential decisions must be taken and potentially crucial information regarding the nature of the problem, the motivations, capabilities, and dispositions of actors and stakeholders, the technical merits and demerits of alternative courses of action etc. may be lacking. Thus information shortages contribute to the stress inducing uncertainties (Rosenthal et al, 1989:463-464) associated with crisis situations.

Ironically, an equally debilitating problem can be informational overload. Once the vast intelligence and expert resources of a modern government are brought to bear on a particular issue deemed a crisis, a vast quantity of raw and processed 'intelligence' is generated. Without mechanisms for coping with this heightened flow of information, decisionmakers may become paralyzed or undiscriminatingly attentive to idiosyncratic nuggets of information which may unduly affect their judgements (Holsti, 1972; Lebow, 1981: 268-270; Purkitt, Powell, and Dyson, 1987:218-219).

An important aspect of this problematic which tends to be exacerbated by information gaps, overload, and politico-technical complexity is risk assessment (Vertzberger, 1997). In crisis, to an even greater extent than in most other political situations, decision makers are forced to make such assessments under very difficult conditions. The fact that such assessments are often made with regard to relatively ill-structured problems and in the face of persistent uncertainty with regard to key parameters and outcome probabilities leads Dror (1986, 1988:260-261) to refer to such determinations as 'fuzzy gambles'.

A fifth type of complexity, and one which cuts across the others in large measure, is *problem complexity*. Problem complexity refers to the fact that not only is the notion of a unitary state actor an analytical fiction, but so is the notion of a unitary or even dominant crisis problem. As they are experienced by participants – as opposed to the recollections of laymen and certain analysts – crises tend to consist of a series of more or less urgent problems to be dealt with

simultaneously or sequentially during a given period of time. For example, the Embassy Bombings crisis of 1998 (triggered by simultaneous attacks against the U.S. missions in Kenya and Tanzania) may be seen as consisting of a cluster of acute problems.[16] A partial list might include:

a) conducting rescue operations on site in Kenya and Tanzania. Should the operations be conducted by local, U.S., or third party (i.e. Israeli) search and rescue teams?

b) investigating the crime scenes and mobilizing intelligence agencies to establish what has happened and the nature of the current and future threats.

c) coordinating with the host governments and dealing with complex sovereignty issues

d) heightening security at these and other potential target locations

e) considering possible retaliatory measures (i.e. cruise missile strikes)

f) defending the decision to bomb targets in Afghanistan and the Sudan against domestic and international criticism.

Thus, if the analyst seeks to comprehend the stress-inducing decisionmaking and communication predicament posed by complex and acute policy problems such as this one, it is essential to employ a methodology that does not oversimplify and homogenize the crisis beyond recognition (c.f. Rosenthal et al, 1989:467-468).

   To sum up this discussion, it should now be obvious that crisis situations are characterized by at least five different types of complexities. These complexities pose serious empirical and conceptual challengers to scholars wishing to study crisis decisionmaking. On the one hand, it is essential to avoid gross oversimplification and stylized abstraction which may lead to analytical caricatures of the historical events in question. On the other hand, it is also imperative that researcher avoid losing her or himself in the fascinating details of the case and lose sight of the 'big picture' – the aspects of the case likely to be of more general interest to the academic and policy communities (Goldmann, 1996:412; Green & Shapiro, 1994:191). How can this difficult balancing act be accomplished? In this study, a cognitive-institutional analytical strategy – more properly a nested pair of analytical strategies – will be developed and deployed empirically as a means of coping with, if not necessarily resolving, these twin dilemmas.

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[16] For an overview of the Embassy Bombings crisis, see CNN interactive's news coverage from Aug.7-20, 1998 on the world wide web.

5. Purpose

1. To develop analytical strategies designed to facilitate the analysis of crisis decisionmaking from a cognitive-institutional perspective.

The barriers to entry into a problem realm such as crisis decisionmaking are extremely high for practitioners, students, and professional academics alike. Achieving a reasonably sophisticated understanding of the manner in which crisis problems are constructed and coping capacities brought to bear in institutional settings requires a major investment of time and intellectual effort hopefully leading to the penetration of several 'hostile' disciplines, articulation of a synthetic research design and management of inevitable difficulties such as operationalization, data limitations, and historical ambiguity.

In light of the 'barriers to entry' problem, a major aim of the study is to develop analytical frameworks which capture to a significant degree the insights identifiable in the multi-disciplinary discourses relevant to the study of foreign policy decisionmaking in general and crisis decisionmaking in particular. The combination of a 'new institutional' approach to the study of political organization emphasizing concepts such as roles, rules, norms, and procedures (e.g. March & Olsen, 1989:51; Katzenstein, ed. 1996:5-6; c.f. Powell & DiMaggio eds., 1991) with complementary approaches drawn from cognitive and social psychology (e.g. schema theory, analogical reasoning, and group dynamics) promises to yield heightened insight into the interplay among individual, group, and organizational variables (and the wider socio-political context) in collective decisionmaking.[17]

The analytical strategies based on the cognitive-institutional approach are intended to be somewhat more open-ended than previous contributions such as the decision tree approach employed in the Mershon Decision Units Project (M. Hermann, C.F. Hermann & Hagen, 1987:327, 331, 334; M. Hermann & C.F. Hermann, 1989:370, 371; Stewart, M. Hermann, and C.F. Hermann, 1989:47; C.F. Hermann, 1994). They are meant to emphasize interpretive guidance rather than the constraints of a series of binary choices. They are designed to alert the analyst to the possible relevance of an array of psychological and organizational 'nuts and bolts' to borrow Elster's (1989:3, 5-10) homey phrase – which may be interacting to produce complex crisis behaviors and outcomes. It is both an advantage and a limitation of this approach that it leaves a greater degree of responsibility for interpretation and integration of findings across levels of analysis to the case analyst.[18] Analytical strategies for the

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[17] In this ambition, the author will follow the lead of scholars such as Snyder et al (1963), Steinbruner (1974), George (1980), Tetlock (1985), Hermann & Hermann (1989), and Vertzberger (1990).

[18] The approach is similar in many respects to the question-based comparative research design for groupthink analysis presented in 't Hart (1990/94: 210-12) and the six step framework for analogical explanation set out by Khong (1992.22).

disaggregation of historical crises into a series of specific decision occasions and for the study of group decisionmaking will be developed in this study.

Dissecting crisis decisionmaking: In disaggregating a crisis into a set of decision occasions, particular attention is devoted to tracing political-administrative escalation and de-escalation processes. Where does a particular crisis come from, how is it triggered? At what point or points do relevant participants located at various sites in the system under study perceive themselves to be facing an acute problem? In this fashion, crisis problems can be traced through the political-administrative system over time.

Complementing other attempts which focus on identifying choice points and policy authorization asking 'who commits the state?' (Hermann and Hermann, 1989:362; Stewart, Hermann, and Hermann, 1989:41), the scheme presented in chapter four of this study will focus on key pre-choice processes which structure choice through complex, though subtle, mutually influencing relationships. Among these are inter-relationships among processes of problem formulation, decision unit formation and change, development of policy alternatives, and value probing/goal-setting processes. All of these intertwined processes are closely linked to institutional variables such as norms, rules, procedures, and role constellations as well as distributions of power and status within complex organizational environments.[19]

Analyzing small group decisionmaking: Dissecting a crisis according to the strategy outlined in the previous paragraph generates a number of crucial decision occasions and an account of how those decisions were made. It is common in crisis situations for many of the most important decisions to be made in or shaped by small group deliberations (Hermann, 1963: 70; Janis, 1982, Haney, 1995:99). A rigorous multi-step framework of inquiry into the structure and dynamics of small group decisions will be developed in chapter three . The framework culminates in the identification of a set of basic group interaction patterns drawn from the rich but disparate literatures in social psychology and political science. The group interaction patterns are generated by particular combinations of cohesion, conflict, and group structural properties (such as the stage of group development and the character of group norms. Newgroup syndrome (Stern and Sundelius, 1994:103, c.f. Longley and Pruitt, 1980:87), a group interaction pattern which has received relatively little attention in the political psychology literature is treated extensively in chapter four, which also contains an empirical application of the small group analysis procedure. This analytical procedure is intended to facilitate comparative empirical analyses of how small groups shape policymaking in various organizational and political-cultural contexts.

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[19] See Stern and Sundelius (1992) and Stern (1993) for preliminary versions of this framework.

2. *To probe the plausibility and heuristic value of these analytical frameworks through an empirically intensive case study of crisis decisionmaking in the Swedish cultural-institutional context .*

These analytical frameworks will be employed in constructing an historically intensive case study of a relatively recent, high profile, international crisis involving Sweden: the 1986 Chernobyl Fallout Crisis.[20] The case study will attempt to reconstruct the institutionally embedded and path-dependent decision processes which result in particular policy actions and international interactions. This is a demanding and time consuming process, but one which will result in a strong case for the indispensability of attending to individual and collective problem representations (frames) and temporal (sequential and synchronous) effects in order to develop a sophisticated understanding of the dynamics of crisis decisionmaking. Behaviors, such as those described above, which may seem anomalous or 'irrational' to the casual observer often become understandable once reembedded in their respective micro-historical and cognitive-institutional contexts (c.f. Jervis, 1989:484; Tsebelis, 1990:7-11, 235-246). Thus it is hoped that applying these analytical frameworks to the case will contribute to solving the empirical puzzles identified above. Making use of the theoretical perspectives described above will serve to focus and illuminate the case study. In addition, the empirical findings promise to shed light on contested issues in the crisis literature and to contribute to conceptual refinement in this sub-field. In addition, the case findings will be examined with an eye to identifying potential lessons which may be of use in preparing for the challenge of future crises. The relationship between case studies of this kind and theory development will be discussed more extensively and in more explicitly methodological terms in the following section.

6. Research design and sources

The problems of empirical and theoretical complexity confronting the analyst interested in deploying a cognitive-institutional strategy for the analysis of crisis decisionmaking have already been noted. This strategy was briefly outlined above and will be more fully explicated in the following chapter. This section will describe the research design of this study and take up some methodological issues which should be addressed prior to delving more deeply into issues of conceptualization, operationalization, and empirical research.

Empirical research design

As has been described above, the main empirical endeavor of this dissertation is

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[20] The criteria for the selection of this case are discussed in the following section.

an in-depth case study of The Swedish Chernobyl Fallout Crisis reported in chapters five and six. The Chernobyl case study includes applications of both the cognitive-institutional strategy for crisis dissection developed in chapter two and of the small group analysis procedure outlined in chapter three. The following discussion focuses on the research design with regard to the Chernobyl case study. [21]

The bulk of the empirical contribution of this study is thus the analysis of a single empirical case. Can such a case study contribute to the broader social scientific knowledge and theory-building exercise and if so, how? First of all, it should be noted that the Chernobyl case is one characterized by a high degree of 'intrinsic significance' (King, Keohane, and Verba, 1994:15). The case represents a pivotal event in the highly politicized debate over the future of the Swedish nuclear power industry, the Swedish-Soviet relationship, and Swedish participation in regional and global regimes for the regulation of nuclear power, radiological protection, and trade in foodstuffs. As such, it is a highly salient historical episode worthy of close examination in its own right.

Second, despite the salience of the Chernobyl Fallout crisis, the case study is conducted not as a study of a singular event but rather as a member of a broader conceptual category of situations: decisionmaking crises. As such, it is in a number of key respects comparable with other crises fulfilling the criteria of the definition which has been adopted above – perceptions of threat to basic values, urgency, and uncertainty. Thus it has been selected on the basis of an explicit typological conceptualization (c.f. George and Bennett, 1997:4-5; Hermann, 1972:14, Ragin, 1987:35) and with the goal of contributing to theory development (see below). More specifically, the case was selected as an example of a transnational, civil (in the sense of non-military) environmental crisis – a sub-class of crises which have rarely been studied from a decisionmaking perspective and which are occupying an increasingly prominent place in contemporary contingency planning in many countries (ÖCB, 1998; 1999; 't Hart, Stern, and Sundelius, 1998:207-210).

It should also be noted that the analysis of the case has not been conducted in an ad hoc fashion. Rather, it has been conducted on the basis of explicitly articulated and systematic strategies of inquiry. Thus, theoretical constructs and previous research findings are consciously deployed as a way of illuminating the case. This use of case studies has often been described as an 'interpretive case study' (Lijphart, 1971:692) or a disciplined-configurative case study to use Eckstein's rather awkward terminology (1975:99-104).

Third, the case study is intended to provide an opportunity for conceptual

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[21] A supplementary case study, a pilot study using secondary sources in a preliminary application of the small group analysis procedure to the U.S. decisionmaking with regard to the Bay of Pigs fiasco of 1961, is also included as part of chapter four.

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assessment and refinement – combining elements of the heuristic and plausibility probe variants of the case study (Eckstein, 1975:104-8, 108-113). Phenomena manifested in the case may be conceptualized or reconceptualized in general terms; potential causal processes, patterns, or mechanisms may be identified (Elster, 1990; McKeown, 1999: 185-186). Propositions or hypotheses suitable for assessment in future research – such as those identifying relationships among variables – may be generated on the basis of observations from the particular case (Collier, 1991:13; King, Keohane and Verba, 1994, Ragin, 1994: 84-85). Alternatively, as has been discussed above in the section on purposes, the case study provides an opportunity to assess the plausibility and potential fruitfulness of the analytical frameworks developed in this dissertation. In Eckstein's words:

> Plausibility means here something more than a belief in potential validity plain and simple…it also means something less than actual validity, for which rigorous testing is required. In essence, plausibility probes involve attempts to determine whether potential validity may reasonably be considered great enough to warrant the pains and costs of testing…

The Chernobyl case has *not* been selected as a crucial case or a 'tough test' with the potential to confirm or disconfirm a particular theory (Eckstein, 1975:113-123). Rather, the intention is to apply the cognitive-institutional dissection strategy developed in chapter two and the small group analytical procedure developed in chapters three and four to an empirical reconstruction of a case and take stock of the results (Layder, 1993: 69-70, 149-150).

The reader should also keep in mind that, as has been suggested above, describing an historical experience as complex as the Chernobyl Fallout as a single 'case' is somewhat misleading. Dissecting the crisis in the manner described in chapters two and three enables the analyst to increase the number of observations, enabling meaningful intra-case comparison. According to King, Keohane and Verba (1994:218):

> …it may be possible even within a single conventionally labeled "case study" to observe many separate implications of our theory. Indeed a single case often involves multiple measures of the key variables; hence by our definition , it contains multiple observations.

Thus, it is possible to compare and contrast the observations of the eight decision problems documented and analyzed in chapter five. Similarly one may compare and contrast the three instances of small group decisionmaking during the Chernobyl crisis described in chapter six with each other (and with the account of the Bay of Pigs group decisionmaking from chapter four).

Finally, although just a single primary case study – in the conventional sense of the term – is reported in this dissertation, that case has been prepared as an entry into an on-going 'case bank', a collection of studies designed in order to

facilitate structured, focused comparison (George, 1979; cf. Ragin, 1987:chapter 3). Thus the case study has been prepared with the goal of comparative analysis and cumulative generalization in mind. Some of the benefits of comparative analysis will be reaped in the concluding chapter which emphasizes the findings from the Chernobyl Fallout case and to a lesser extent the Bay of Pigs pilot case from chapter four, but also draws heavily upon reference cases documented in the literature. Particularly useful for this purpose are the studies produced within the CM Baltic Sea Area Project which will be briefly described in the following section.

Project CM Baltic Sea Area (CM Baltic)

This dissertation has been completed in close collaboration with a broader research program headed by Bengt Sundelius of Uppsala University and applying the cognitive-institutional crisis analysis procedure elaborated in chapter two to a substantial number of crisis cases drawn from various countries and policy sectors. These studies have been prepared and reported in a fashion conducive to structured, focused comparison in order to facilitate the cumulation of empirically grounded generalized knowledge of crisis management potentially relevant to scholars and practitioners alike. Case studies drawn from the national experience of Canada, Denmark, Estonia, Finland, France, Iceland, Latvia, New Zealand, Peru, Poland, Spain, and Sweden have been completed or are now being finalized. To date, eighteen of these studies have been published (Sundelius, Stern, and Bynander, 1997; Stern and Bynander, eds. 1998; Stern and Norhstedt, eds. 1999).[22] National analyst teams composed of junior and senior scholars as well as academically oriented practitioners and policy analysts are currently working on developing national case banks in Estonia, Latvia, Poland, and Sweden, under the close supervision of Bengt Sundelius and myself. A current inventory of the CM Baltic Project Case Bank is included as an appendix.

Sources

The study relies primarily upon qualitative interpretive methods aimed at developing a rich portrayal of the inter-subjective reality constructed by crisis participants. Data has been gathered through multiple sources including archival materials (culled primarily from the joint-SSI/SKI archive on Chernobyl), contemporary notes provided by participants or their colleagues, news reports drawn from both print and broadcast media, government and citizen commission

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[22] Roughly a dozen more studies have been completed but not yet published and are available upon request from Project CM Baltic, the Swedish Institute of International Affairs, Lilla Nygatan 23, Box 1253, S111 82 Stockholm, Sweden.

studies, previous journalistic and scholarly works, participant symposia, and interviews with participants.[23]

A broad range of archival sources have been made available for this study. Particularly helpful was access to the joint-archive on the Chernobyl incident kept in the basement of the SSI agency in Stockholm. Unfortunately, due to the hectic nature of the crisis and post-crisis situation, documentation of the crisis decisionmaking was done sporadically and in a haphazard fashion. The archives are not complete and there are substantial irregularities associated with the registration and cataloguing of documents which made the archive relatively difficult to use.[24]

The archival materials proved particularly useful in tracking high and low level inter-agency and inter-ministerial communication. Very helpful information regarding the emerging political and bureaupolitical situations were gleaned from this source. In addition, individual documents and personal notes were made available to the author on an ad hoc basis by interviewed crisis participants from SSI, SKI, and the Forsmark nuclear power station. Among other very useful sources was the internal Forsmark post-mortem report prepared immediately following the crisis by senior plant official Rune Nilsson, and the SKI Director General Hörmander's personal hand-written notes on the crisis decisionmaking during day one of the crisis.

Official publications

With regard to official publications on the case, two types of sources are particularly worthy of note. The first is parliamentary publications of various kinds. Useful materials related to the crisis have been assembled by parliamentary committees. These include testimony of senior government officials including Energy Minster Dahl. In addition a number of parliamentary questions were submitted by opposition politicians – both the questions and responses are documented in the parliamentary record. A major debate was held on May 12, 1986 roughly two weeks into the crisis. That debate provides insights into the extreme political sensitivity of the nuclear power issue in Sweden at that time.

In the aftermath of the crisis, several commissions examined the implications of the incident from various perspectives. One commission (Svensson et al, 1986) focused on the implications of the Chernobyl accident for the Swedish nuclear energy program and the pace of the planned denuclearization policy. A

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[23] A symposium on crisis management and nuclear accidents took place in March of 1993. Many, though far from all, of the relevant practitioners from the Chernobyl crisis participated. In addition to personal notes taken by the author at the time, proceedings of the symposium have been published (Stephenson, Landahl, and Ritchie eds., 1993).

[24] For an evaluation of the state of the SSI archive's collection of materials related to the Chernobyl crisis, see Hans Ramstedt's memo of August 5, 1986 – especially pages 5 and 6.

second blue ribbon panel, under the auspices of the standing accident commission of inquiry (Statens Haverikommission) published two reports on the response to Chernobyl focusing on crisis management and crisis communication. The preliminary report (1986) closely documents the pre-crisis mandates of the various institutional actors and provides relatively detailed accounts of their crisis behavior. This proved an extremely useful source, although again one which must be used with care as there is some risk that the organizational accounts (largely provided by the agencies themselves) may be somewhat self-serving or white-washed. The final report focused on crisis communication, mass media, and public information activities and provides a point of departure for assessing the information/ legitimacy crisis which occurred in the wake of the Chernobyl fallout.

A wide variety of journalistic sources have been consulted as a source of potential insight into the crisis decisionmaking and the domestic and international political contexts. In addition to analysis of news clippings from the major Stockholm daily newspapers (Dagens Nyheter and Svenska Dagbladet), coverage in regional newspapers was also consulted.[25] In addition, translations of print and broadcast media coverage collated by the Foreign Broadcast Information Service FBIS were consulted. This provided relatively good access to broad spectrum coverage on the incident. It is clear that considerable care must be used in employing journalistic sources which at least occasionally contain inaccuracies or reflect the biases of the author or of the sources providing the author with information.

Another type of pseudo-journalistic source which proved very useful for the study was personnel newsletters from organizations such as SSI (*SSI Nytt*) and the Forsmark nuclear power station (*Forsmark Kuriren*). These provided valuable information not only about the crisis, but also about the pre-crisis organizational and personal contexts. Biographical sketches of and published interviews with key figures often provided useful clues for interpreting crisis behavior.

Journalist Eric Sjöquist and former deputy Director of the SKI Thomas Eckered wrote a relatively qualified journalistic account of the Chernobyl nuclear accident emphasizing the Swedish perspective. The work has advantages and disadvantages. It is very clearly a 'quick and dirty' product, hastily assembled in the aftermath of the incident. Long passages from other sources are reproduced and stylistically the work leaves much to be desired. Their sources are unevenly documented and other sources contest some aspects of their account. On the positive side, contemporary interviews with several key participants including Gunnar Bengtsson are reproduced verbatim – material which proved particularly useful. On the whole, the fact that the book was published in 1986 – the same

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[25] The Forsmark nuclear power station information office generously provided access to their clipping files which including coverage both friendly and hostile to their own organization.

year as the crisis – lends some credibility to the source as chronologically proximate to the events analyzed.

Social Science Scholarship

There are a number of high quality scholarly works on Sweden and the Chernobyl fallout crisis from a social science perspective. The bulk of them have focused on three aspects: regional public administration (e.g. Amnå & Norhstedt, 1987), information and mass communication (e.g. Norhstedt, 1991), perception of risk among elite and mass publics (e.g. Sjöberg, 1986; Westerståhl and Johansson, 1987; Drotz Sjöberg, 1993) and impact on indigenous populations (Beach, 1990a &b). In particular, the works by Amnå, Norhstedt and associates have been extremely useful in covering the crisis communication problematic and issues of local-regional crisis management.

In addition, there are works on the broader Chernobyl accident and consequences which feature accounts (in varying degrees of detail) of events in Sweden (Bailey, 1989; Segerståhl, ed., 1991). In the case of the former work, the account is very superficial , apparently heavily based on translations of official publications, and rife with errors. Segerståhl's work is far more substantial and extremely useful in its broad gauged comparative assessment of the response to the Chernobyl accident in a number of countries and from several analytical perspectives. To the author's knowledge, there is no published in-depth analysis of the Swedish response to the fallout from Chernobyl from a decisionmaking perspective.

Memoirs

The Chernobyl nuclear accident took place in 1986, just over a dozen years ago. As a result (and in light of Swedish political/publishing culture) relatively few memoirs of key political and administrative officials involved in the response to Chernobyl are available.[26] The most important available memoir is the Chernobyl diary published by then SSI information chief Sven Löfveberg (1986) under the clever title *En Strålande Vår* (A radiant spring). Löfveberg left his position at the agency shortly after the crisis (apparently in part due to friction with the general director which came to a head in the aftermath of the Chernobyl nuclear accident). This source provides a contemporaneous and 'behind the scenes' account of the decisionmaking from a qualified and well-placed observer and proved a useful complement to the other sources employed. Particular care

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[26] For example, former Prime Minister Invgar Carlsson is presently engaged in the task for preparing his own memoirs, which were not made available to this author. Carlsson declined the author's request for an interview, citing a wish to postpone interviews on this topic until after the relevant sections of the memoir have been processed by him.

was taken with this source to look for signs of bias deriving from interpersonal conflict.

Interviews and symposium

Indispensable information regarding decisionmaking processes – which unfortunately tend to be poorly documented in the archival and journalistic records – was gleaned through interviewing crisis participants.[27] Interviews were conducted during the mid-1990s – roughly a decade subsequent to the events in question. As has often been noted in the methodological literature (and explained by psychological research on memory) recollections of events at such temporal distance must be treated with great care. Cross-checking of accounts (with other interviewees, with archival and journalistic material etc) is essential if one is to be able to assess the plausibility of information generated. Where accounts differ, basic principles of source criticism and common sense have been applied in order to assess competing accounts. Particular emphasis has been placed upon considering sources for contemporaneousness (to what extent was the source in question produced in close temporal proximity to the events?), bias (to what extent did the author(s) have incentives to distort the account for personal, organizational, or political motives?), and centrality (to what extent did the author(s) participate in or have privileged access to observations of the events described?).[28]

Where the balance among competing accounts has been so close as to make it impossible for the author to make a judgment, the conflict has been noted in text commentary or in footnotes. It should also be pointed out that many interviewees consulted contemporaneous notes, diaries, etc as an aid to recollection, a procedure which would tend to increase the credibility of their accounts, *ceteris paribus*. In addition to individual interviewing, the author had the opportunity to attend a symposium on crisis management and nuclear accidents held in Sweden in 1993 and which de facto focused heavily on the Chernobyl experience. Several key actors from the Chernobyl crisis made presentations. Others were present in the working group sessions and /or participated in discussions from the audience. The documentation from this symposium also served as a useful complement to more conventional types of source materials.

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[27] See the bibliography for a list of interviewed participants.

[28] These criteria are inspired by Torstendahl (1966: 92-103) and Dahl (1967) and usefully illustrated in practice by Teorell (1998:41-44).

7. Overview of the study

This introductory chapter will conclude with an overview of the dissertation. Chapter two presents the cognitive institutional approach, with an emphasis on the complementarity of cognitive theory and some variants of the 'new institutionalism'. The discussion culminates in a four step analytical procedure which may be employed in the dissection of particular empirical cases of crisis decisionmaking. This procedure is also helpful in identifying the so-called decisionmaking unit, or more commonly, units that grapple with the multiple policy problems of which the crisis under examination is composed.

Chapter three focuses on one type of decisionmaking (or advisory) unit – the small group – which commonly plays a prominent role in crisis situations. When crisis dissection reveals that one or more small groups have made or significantly shaped crucial decisions, the analyst may wish to open another 'black box' and examine the decisionmaking process taking place within these strategically located small groups. Small groups are seen as micro-institutions, typically embedded in and linked to wider institutional contexts, and developing their own structures and dynamics – both of which may profoundly affect information processing , communication, and decisionmaking within and beyond the group setting. The six step analytical procedure developed in the chapter culminates in the presentation of a diagnostic set of seven group interaction patterns which can be used to identify relevant group dynamics in specific historical cases.

Chapter four looks more closely at one of the small group interaction patterns in the diagnostic set – newgroup syndrome – which has been previously neglected in the crisis decisionmaking literature. The plausibility of the notion is probed empirically by reopening a classic case well documented in the foreign policy analysis literature – The Bay of Pigs Fiasco of 1961. The empirical analysis of small group processes during that case is structured according to the six step procedure developed in chapter three and thus should also be seen as a 'pilot' application of that procedure paving the way for the more empirically intensive effort described in chapter six.

Chapters five and six present empirical studies of the Swedish Chernobyl Fallout Crisis of 1986. In chapter five, the crisis dissection procedure from chapter two is used to disaggregate that crisis into a series of eight distinct decision problems. In chapter six, the six step analytical procedure from chapter three is applied to three instances of small group decisionmaking during the Chernobyl crisis.

The dissertation concludes with Chapter seven, which summarizes findings, presents theoretical implications and practical results of the cognitive institutional and small group case analyses, and revisits the empirical puzzles identified above. In addition, a detailed day-by-day narrative describing the Swedish response to Chernobyl, and placing it in a broader European and global context, is supplied as an appendix.

Part I

From Theory to Empirical Analysis

Chapter 2:

Cognitive-Institutional Crisis Analysis

It was argued in the introduction to this dissertation that decisionmaking crises are generally characterized by considerable degrees and multiple forms of complexity. For the would-be analyst, the challenge, then, is to find means of coping with this contextual and situational complexity which steer safely between the twin pitfalls of gross oversimplification and getting lost in the potentially bewildering mass of empirical detail which confronts the case researcher. It was suggested that combining elements of psychology and organizational theory might be conducive to formulating an approach for dealing with this dilemma. In this chapter, just such a cognitive-institutional analytical strategy for contextual process analysis (George, 1979a & b; 1997:50) suitable for use in reconstructing, dissecting, comparing and generalizing from cases of crisis decisionmaking is developed. The chapter is organized around the following three questions:

1. Why take a cognitive-institutional approach to the study of crisis decisionmaking?
2. What is a cognitive-institutional approach to the study of crisis decisionmaking?
3. How is a cognitive-institutional crisis analysis conducted?

1. Why take a cognitive-institutional approach to the study of crisis decisionmaking?

- Point of departure: 'state of the art' conceptions of individual, group, and organizational behavior

Individuals, groups, and organizations occupy center stage when crises occur (Hermann, 1963:66; George, 1980:11; Vertzberger, 1990:chs. 3 and 4). It is these smaller scale entities which act, singly or in tandem with others, in the name of the state (c.f. Morgenthau, 1948). As has been argued by many scholars working in the foreign policy decisionmaking tradition (e.g. Snyder, Bruck, and Sapin, 1963; Allison, 1971:265-267; Brecher 1974:6; 1993:42-51), the analyst must attend to the ways in which such actors perceive, communicate, decide, and (inter)-act, if she or he is to understand crisis behavior.

While alternative paradigms[1] for viewing individual and collective behavior may be found in the relevant multi-disciplinary discourses, two complementary bodies of knowledge stand out as both 'state of the art' and as fruitful heuristic bases for constructing a method for crisis decision analyses.[2] These are the research programs associated with the cognitive revolution in psychology (Nisbett & Ross, 1980:5; Gardner, 1987; Markus and Zajonc, 1985; Fiske and Taylor, 1991:1-19) and largely convergent 'neo-institutional' movements in sociology, economics, and, political science.[3] Since these research programs have produced impressive results, crisis research can benefit greatly from making use of them.

- Empirically warranted via previous laboratory, field, and historical research

Each of these research programs has inspired a large body of empirical research. This research has taken a variety of forms including laboratory, field, and historical work. Most prominent, particularly when it comes to psychological research, has been laboratory studies. These studies are characterized by quantification and a degree of experimental control which is rarely available in the social sciences. As a result, the internal validity of these studies tends to be very high, providing a solid (though admittedly by no means iron-clad) empirical warrant to the theoretical underpinnings of the approach. However, laboratory studies can always be criticized for problems with external validity (Lebow and Stein, 1993:114-115; Levy, 1997:39-41). Just because a particular pattern, effect, bias or similar phenomenon appears in the laboratory under artificial conditions does not necessarily mean that the findings hold in so called 'natural' settings. Fortunately, laboratory research has been complemented with field and historical studies (i.e. Jervis, 1976; Vandenbroucke, 1984; Larson, 1985; Khong, 1992; Peterson, 1996, Farnham, 1997) which have demonstrated that many laboratory findings do indeed appear to hold in natural settings as well. The kind of empirical work conducted in this and similar studies is intended as a further probe of the external validity of cognitive-institutional research.

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[1] Rational choice (e.g. Morrow, 1994; 1997; cf. Green and Shapiro, 1994) is one such alternative. See Mintz and Geva eds. (1997) for a recent assessment of the relative achievements and potentials of the rational choice and cognitive paradigms. Critical constructivism (e.g. Berger & Luckman, 1966; Weldes, 1996; 1998:212-225; Buzan, Waever & De Wilde, 1998) is another.

[2] This interdisciplinary synthetic approach has a good pedigree in the field of foreign policy analysis. For example, Snyder, Bruck, and Sapin (1963:7) called for "The combination of psychological and sociological levels of analysis" more than thirty-five years ago. See also Tetlock (1985a:331-332) and Ripley (1995:89-90).

[3] While these bodies of knowledge tend to be treated separately, it is clear that they share common intellectual roots. The most obvious link is the work of the so called Carnegie School (most notably Herbert Simon and James March) which was a key influence on the development of both of these research programs.

• Appropriate level of abstraction and potential for intervention

In the previous chapter, it was argued that a key challenge for crisis researchers is to cope with the complexity of crisis phenomena. While *ceteris paribus,* simpler and more parsimonious approaches are more appealing, it is critical that the most important causal mechanisms and processes driving political behavior are not excluded (George and Smoke, 1974:503). In other words, the criterion of parsimony means that the simplest approach (or explanation) which "captures the essence of what is going on" (Green & Shapiro, 1994:191) is preferable. While 'messy' in comparison to elegant models of rational choice or strategic interaction, cognitive-institutionalism provides substantial leverage for both taming the empirical complexity particular cases and for identifying key dynamics and processes driving crisis behavior, dynamics and processes often excluded by rational choice perspectives (Stein and Welch, 1997:67-68).

From a more prescriptive perspective, Alexander George (1993:107-114) criticized large portions of the discourse on international relations for an excessively high level of abstraction and a lack of attention to potentially manipulable variables bearing upon international outcomes. While macro-variables such as the configuration and/or mode of operation of the international political or economic systems are certainly worthy of study (Waltz, 1979; Keohane, ed. 1986; Wallerstein, 1996; Hobden and Wynn Jones, 1998), they tend to be beyond the reach of researchers and practitioners in the sense that they are not easily manipulable. George argues that more attention to variables which can potentially be manipulated has been long overdue.

Cognitive-institutional research points to some features of human mental processes, communication and organization which may potentially be changed in response to research findings and which could contribute, at least marginally, to the improvement of decisionmaking processes in future crises. (Awareness of pathological patterns of perception, communication, and organization promises to help reduce the frequency and or severity of their occurrence in the future (c.f. Janis & Mann, 1977; Janis, 1982: 260-276; George, 1980:12). This type of research aims at heightening the degree of self-awareness of practitioners and encouraging a more reflective stance for practitioners and analysts alike (Schön, 1983). Thus, cognitive-institutional crisis analysis aims simultaneously for scientific and potentially policy relevant results.

2. What is a cognitive-institutional approach?

This section will introduce some of the central ideas from the cognitive revolution and the neo-institutional movement which have shaped this study. Each research program will be treated in turn followed by a brief over-arching discussion of the implications for crisis research.

The Cognitive Revolution

• Emphasis on subjectivity and representation

One of the distinctive features of the cognitive revolution is its emphasis on subjectivity, or representation, as it generally labeled in this tradition. The simplistic stimulus-response S-R models associated with the behaviorist paradigm associated with B.F.: Skinner are replaced by the more sophisticated and subjectively-oriented stimulus-representation-response S-R-R model (Gardner, 1987; Fiske and Taylor, 1991:8). This shift recognizes the fundamental nature of interpretation as a moderator of human behavior. In other words, human beings (and by extension human collectives) do not respond directly to an objectively constituted environment, but rather think and act upon their image or representation of that environment (c.f. Sprout & Sprout, 1972; Snyder et al 1963; Rosati, 1995:49-54). Thus, in order to understand human behavior one must reconstruct the subjectively constituted interpretations of context and situation which produced that behavior (c.f. Hollis and Smith, 1990:68-91). For example, if one is to understand why the USS Vincennes shot down an Iranian airbus carrying civilian passengers in July of 1998, one must look at a number of factors – such as a prior incident in which another vessel (the USS Stark) was gravely damaged in an Iranian attack, the pattern of ongoing hostilities in the gulf, intelligence reports of Iranian fighter presence in the area, simultaneous firefights with Iranian surface craft – which led the Captain Rogers and his technicians to mis-identify the airbus as a hostile F-14 about to fire upon the Vincennes.[4] In response to their perception of the situation, the Vincenne's leadership acted reasonably; tragically their representation of the situation was flawed. Thus attending to subjectivity and problem representation is essential for studying crisis decisionmaking.

• Beliefs, expectations, and 'agenda' shape perception

While perception and interpretation are complex processes, they are not impossible to study. In other words, the question of 'why did this actor interpret the world in this particular fashion (and not in a plausible alternative way) at this particular point in time' is a legitimate one. Research suggests that prior experience – codified in terms of a system of stored representations – heavily impacts on interpretation (c.f. Fiske and Taylor, 1991:14) . Similarly, expectations are highly significant. Under conditions of ambiguity one tends to 'see' what one expects to occur (Bruner, 1957; Jervis, 1976:144-154).

For example, in the absence of hard information, some decisionmakers and observers of the Oklahoma City bombing initially operated from the assumption that Islamic Fundamentalist terrorists were responsible. Why was this the case?

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[4] For an account of these events from Washington's perspective, see Crowe (1993:203-209).

First of all, the recent experience of the World Trade Center bombing, which was the work of such a group, was available and vivid. Second, domestic groups were not expected to conduct operations on this scale on US soil. As it turned out, these assumptions and expectations proved incorrect – the culprits were U.S. associated with an extremist 'militia' organization.

Similarly, individuals tend to be attentive to a certain 'set' of issues while ignoring others (Bruner, 1957; Jervis, 1976:203-205) . What is on one's mind, the content of the cognitive 'agenda' at any given time, heavily effects monitoring and sorting of signals from the environment and their interpretation. This selectivity points to the second highly distinctive feature of the cognitive revolution: recognition of the limitations of the human ability to acquire and process information.

• Limited information processing capacity: heuristics and shortcuts

While the human mind is capable of great intellectual feats, it is beset with great limitations when it comes to monitoring and analyzing highly complex physical and social environments (Nisbett and Ross, 1980:15-16; Vertzberger, 1990:111-113; Purkitt, 1992:221-224; Hamilton, Devine, and Ostrom, 1994:3-4). Most important are the twin limitations of information overload and deficiency. One the one hand, individuals are constantly bombarded with stimuli to such an extent that the stream threatens to overwhelm the human capacity to absorb and make use of the incoming information. As a result, it is necessary to selectively monitor the environment and 'tune out' a much of the incoming information in order to reserve the capacity to attend to the most pressing issues at any given time. The cognitive agenda-setting noted above is a key part of this endeavor. Of course, even the most skillful cognitive managers are liable to miss important information from time to time.

On the other hand, even when an issue is identified as important and attention is devoted to it, crucial information may be missing or uncertain (Steinbruner, 1974; George, 1980; Dror, 1988:260-261). As a result, it is often necessary to 'go beyond the information given' (Higgens and Bargh, 1987; Khong, 1992:28) in order to interpret the world and make necessary judgements and decisions. Our cognitive structures – schemas, scripts, analogies, metaphors etc – often enable us to do so by drawing upon encoded experience or other types of heuristics. However, research findings indicate that this is often done in a sloppy or haphazard fashion due to a number of biases and other questionable patterns of information processing (Nisbett & Ross, 1980:15-16; Kahneman, Slovic, and Tversky eds., 1982).[5] In other words, in order to cope with information

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[5] For a more charitable assessment of human information processing and a critique of the biases and heuristics research program, see Chase, Hertwig, and Gigerenzer (1998).

overload and deficiencies we take short cuts of various kinds. Sometimes these short cuts point us in the right direction; other times they lead us astray.

Some might wish to argue that cognitive limitations do indeed affect individuals, but that they are likely to compensated by collective 'backstopping' in groups or organizations. In other words, one person's 'error' might be corrected by someone else's vigilant processing of information (Janis and Mann, 1977:179-180). However, as we will see, groups and organizations are liable to peculiar pathologies of the their own, which may interfere with vigilant decisionmaking.

• Cognition and motivation

Much of the early research associated with the cognitive revolution used the computer as a metaphor for conceptualizing the functioning of the human brain. This lead to the emphasis on dispassionate or 'cold' information processing which has been noted above. The impact of emotion and motivation on judgement and decisionmaking was not emphasized, probably in reaction to competing post-Freudian psycho-dynamic branches of psychological thought which were sometimes viewed as overly speculative and insufficiently scientific.

However, as the cognitive revolution took root and became more self-confident, there was an increased interest in exploring the interface between motivation, emotion, and information processing. Thus not only cold but 'hot' cognition became the subject of research as did the possibility that individuals may process information differently in alternative social situations and predicaments (Abelson and Levi, 1985:277, 279, 288-93; Janis, 1982; c.f. Tetlock, 1985a). As Janis and Mann (1977:15) put it "we see man not as a cold fish, but as a warm-blooded mammal, not as a rational calculator always ready to work out the best solution but as a reluctant decision maker – beset by conflict, doubts, and worry, struggling with incongruous longings, antipathies, and loyalties". In particular, the ways in which various types of motivated biases – such as denial, wishful thinking, severe value conflict, perceived betrayal etc. – can effect consequential decisions has been the object of study (c.f. Jervis, 1976; Lebow, 1981:101-119; Vandenbroucke, 1993:164-166; David, 1993:23; Lebow and Stein, 1993:115-117). In fact, a robust body of findings suggests that these potent motivational forces can grossly distort information processing and ethical judgement and contribute to producing policy fiascoes of various kinds (c.f. Janis and Mann, 1977:52-53; Bovens and 't Hart, 1996).

• Stress

Particularly relevant to the study of decisionmaking under crisis conditions is the literature on the impact of psychological stress on cognition. While stress has been conceptualized in a number of ways, one of the most influential views stress as entailing a relationship between stressor and the coping capacity of a

particular agent. High stress need not necessarily degrade performance – cognitive and otherwise – if it is balanced by a high degree of coping capacity.

One influential hypothesis is that the relationship between stress and performance tends to take the form of an inverted U.[6] Absence of stress is associated with lower performance, moderate stress with high performance (due to enhanced alertness and motivation), excessive stress with declining performance once leaving the optimum zone of the curve. A wide range of other effects have been hypothesized and found some degree of empirical support. For example, individuals are thought to shift their temporal focus toward the short term under stress, to tend toward conservatism, to narrow and deepen their span of attention, to be prone towards irritability etc (M. Hermann, 1979; Staw, Sandelands & Dutton, 1981; Holsti, 1989:25-37; Post, 1991; Brecher, 1993:521-539; Flin, 1996:97-139).

Neo-institutionalism

One of the most significant multi-disciplinary developments of the past decade is the emergence of a reformulated institutional approach to the study of politics and policymaking[7]. This approach opens up an inviting middle ground between utilitarian rational choice perspectives and structural deterministic approaches to the study of public policy. It is an approach which respects the autonomy of social agents while recognizing the important enabling and constraining effects of the institutional milieu within which politics takes place. As March and Olsen (1989:17) observe "…political institutions are simultaneously an affront to our sense of comprehensive rationality and a primary instrument for approximating it".

• Middle level approach: groups, networks, organizations

March and Olsen (1989) been criticized (e.g. Sjöblom, 1993:398-402) for a lack of specificity with regard to the scope and scale of the institutions to which they

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[6] Lebow and Stein (1994:331-338) suggest that aggregate stress (as in the inverted u hypothesis) is inadequate and suggests disaggregating the concept into three types: lack of time/overload, threat of loss generating internal conflict, threat of loss exacerbating existing internal conflict. They argue that these different types of stress may have differing effects on the capacities of decisionmakers.

[7] Among the leading works associated with political/organizational neo-institutionalism, are Kingdon (1984) and March and Olsen (1984; 1989). It is important to distinguish between this community of scholarship and the neo-institutional schools in sociology (e.g. Powell & Dimaggio, eds. 1991), economics (Williamson, 1975; Coase, 1984) and political economy (North, 1990; Rutherford, 1996). While there is a certain degree of commonality in focus between these schools of thought, the latter two approaches are characterized by an attempt to explain the development of institutions while maintaining the basic rational choice-type logic of neoclassical economics. This logic is questioned to a greater extent in the former two approaches. See also Clark (1998:245-247) who distinguishes between agency and structure-oriented brands of neo-institutionalism.

are referring. In the author's view, political/organizational neo-institutionalism focuses to a considerable extent on meso-level social formations such as factions, groups, networks, and organizations in which individual decisionmakers are embedded and enact their roles (George, 1980; March and Olsen, 1989; Kingdon, 1984, Hult, 1993:113-114; Snyder, Bruck, and Sapin, 1963:92-99). These meso-level formations function both as collective agents and as structural arenas enabling and constraining individual and smaller scale collective agents (Stern and Sundelius, 1994:104). Thus, the ways in which policymaking is organized and structured in practice (as opposed to on paper) profoundly affect the flow of information, the distribution of political administrative power, and dispositions toward cooperation and conflict with the system.[8]

- Institutional structure and culture: rules, norms, roles, routines

A neo-institutional approach acknowledges the pervasiveness of rules, roles, and routines in modern society in general and the modern governmental apparatus in particular. As March and Olsen observe (1989:21-2):

> Simple stimuli trigger complex, standardized patterns of action without extensive analysis, problem solving, or use of discretionary power. Institutions have a repertoire of procedures and they use rules to select among them.

Neo-institutionalists question the adequacy of the utilitarian teleological account of action associated with rational choice and suggest that such an account must be complemented with a deontologically based conception (Soltan, 1997:47; Calvert, 1997:132). March and Olsen (1989:22-3) contend that:

> Action is often based more on identifying the normatively appropriate behavior than on calculating the return expected from alternative choices… To describe behavior as driven by rules is to see action as a matching of a situation to the demands of a position. Rules define relationships among roles in terms of what an incumbent of one role owes to incumbents of other roles…[9]

Thus roles and social identities, along with rules and norms, are central neo-

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[8] Sjöblom (1993:400. 402) criticizes March and Olsen for overemphasizing the consensual aspect of institutional life. Of course, as March and Olsen would almost certainly agree, contestation and conflict are also part of institutional life and an important dynamic for reform and change of institutional parameters. On this point, see also Moscovici and Doise who address the issue from a compatible social psychological perspective (1994).

[9] For an extensive critique of March and Olsen's conceptualization of the logic of appropriateness, see Sjöblom, 1993: 401-403. For example, Sjöblom suggests that the logic of appropriateness might be suitable for routine and relatively unimportant decisions, while crucial decisions are likely to be taken according to the logic of consequence.

institutional (as well as social psychological)[10] concepts, which are clearly relevant to the study of both foreign and public policymaking.[11]

• Subjectivism: interpretation and problem framing

Neo-institutional approaches, like cognitivist ones, tend to emphasize the role of subjectivity in interpretation and policy problem framing. March and Olsen (1989:51) argue that "Political processes are as much concerned with managing interpretations and creating visions as they are with clarifying decisions...life is not only , primarily choice, but also interpretations." Similarly, Rein and Schön call our attention to the central role of framing in policy discourse. They (1991:263) define policy discourse as "... the interactions of individuals, interest groups, social movements, and institutions through which problematic situations are converted into policy problems, agendas are set, decisions are made, and actions are taken". For them (1991:263), framing is "... a way of selecting, organizing, interpreting, and making sense of a complex reality so as to provide guideposts for knowing, analyzing, persuading and acting".[12] By implication, in order to understand an actor's behavior one must understand a given individual or collective actor's own framing of the situation and problem.

• History and inheritance

As has been noted by many scholars (Lindblom, 1990:69-70; Rose, 1994; Soltan, Uslaner and Haufler, 1998:3), policymaking does not occur in an ahistorical vacuum. Nor do policymakers approach each new problem from scratch. Rather, historical experience and precedent play an important role in shaping how a particular problem will be perceived and handled (c.f. Neustadt and May, 1986). Furthermore, prevailing policies are the result of prior choices and political-administrative constellations which may be resistant to change. Policies inherited from predecessors or previous administrations constrain the freedom of action of sitting officials and, often, the nature and distribution of existing resources,

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[10] The reader should note that these are central variables in the social psychological literature as well, not least in work on social identity (Turner, 1987), social cognition (i.e. Fiske and Taylor, 1991) and group processes (Levine and Moreland, 1990).

[11] Seminal attempts to apply insights from organizational theory to the realm of foreign policy studies include works by Allison (1971; c.f. Allison and Zelikow, 1999), Halperin (1974) and Steinbruner (1974). While Allison's work has been the subject of concentrated critical attention (e.g. Art, 1973; Welch, 1992; Bendor and Hammond, 1992), it may well be the case that Steinbruner's pioneering work on integrating cybernetic and cognitive approaches has not received the attention it deserves. See also Kegley (1987), Sagan (1993) and Katzenstein, ed. (1996) for more recent exemplars.

[12] Soltan (1998:48-49) emphasizes role played by decisional standards which fulfill a similar orienting function.

competencies, and procedural repertoires. Thus the degree of preparedness as well as perceptual and problem definitional dispositions tend to be shaped historically. Path dependency is not only relevant in terms of the relationship between crisis and historical context, but also in terms of the sequence of events within a given episode (crisis). Often one cannot fully appreciate or understand the dilemmas and choices arising in the later phase of crisis without attending to the prior series of policy dynamics which generated them (Bennett and George, 1997:112). There is, of course, no way of determining *a priori* how far back one needs to go in order to place a given episode in its proper perspective; that is a judgement call for the analyst (and her or his critics) to make.

- Politics within and across organizations

This perspective points to the highly politicized nature of organizational life in general, and of course, in governmental organizations in particular (Allison, 1971:144-181, Halperin, 1974; Pfeffer, 1981; Stern and Verbeek, eds. 1998) . Decisions are taken not only as instrumental action on the basis of shared and uncontested collective goals, but rather also as part of ongoing individual, factional, group, or organizational competition. Such competition may be based on careerism, personal antagonisms, clashing organizational cultures, or genuine differences of opinion on how to go about conceptualizing and/or pursuing common goals and interests. The outcomes of such power struggles may lead to the total victory of one or another position or 'resultants' which reflect the resolution of the 'tug of war' over the policy.

Compromises between alternative policy proposals can either artfully balance alternative considerations and value conflicts or they may be imbalanced 'worst of all worlds' policies which do little to protect or advance the values to which they ostensibly are dedicated (Vertzberger, 1990:229-234). It is important to keep in mind that not only conflictual behavior results from organizational politics, but also that cooperative behavior such as alliance and coalition-building, log-rolling and similar types of quid pro quos, commonly occur.

- Communication and symbolism

Neo-institutional approaches direct scholarly attention to politics and policy as sense or meaning-making endeavors. Communication is problematized, drawing upon literatures influenced by psychology, semiotics, (Jönsson, 1991) and/ or the linguistic turn in philosophy and social theory (c.f. Edelman, 1988). Thus political communication and behavior should be assessed and analyzed not only in terms of a managerial, rationalistic, technocratic approach, but also in terms of their meaning and consequences for an on-going political conversation ('t Hart, 1993:37-41).

Implications for crisis analysis

The conceptualizations and findings typical of the cognitive and neo-institutional research programs discussed above have a number of important implications for crisis analysis.

• Attentiveness to context

The embedded character of social life is emphasized in both research programs. As a result, attentiveness to contexuality is essential (Goertz, 1994:2-12; Farnham, 1997). One cannot understand an individual or organizational reaction to a particular incident without reference to the prior history of the individual in question. This prior history creates cognitive and collective dispositions toward perceiving and responding to problems in particular ways (c.f. Steinbruner, 1974: 124-135). Prior experience permeates the form of the current organization, the degree and character of pre-crisis readiness and asset allocation, the set of available historical analogies, and the norms and values internalized by key individuals and/or encoded in group or organizational cultures and sub-cultures (Lebow, 1981: 23,335; Hollis and Smith, 1990; Katzenstein Ed, 1996). Knowledge of broader societally based cultural patterns is often indispensable as well (Samson, 1987; Vertzberger, 1990:260-295; c.f. Green and Shapiro, 1994:27).

Not only diachronic historical knowledge is necessary, but also synchronic knowledge of the contemporary political and administrative scene. What are the most important issues which have been pre-occupying players just prior to and during a crisis? What other issues compete for time and attention with the crisis issue or are cognitively available as a source of inspiration for problem defining and solving?

Similarly, good knowledge of the institutional setting is a necessity. The analyst should have a firm sense of the formal institutional setting and prevailing political-administrative practice in order to understand both the de jure and de facto distribution of mandates and authority for crisis management in the system under study.

• Emphasis on pre-choice processes: problem definition and preference formation

Relative to many rational choice perspectives, cognitive and neo-institutional approaches focus attention on the pivotal role of subjective problem definitions and value articulations (George, 1980:28-29; Kenney, 1992:3-7, 30; Soltan, 1998.48-49) in decisionmaking. Problem definitions and value prioritizations cannot be assumed to be objective and uncontestable. Rather they are the product of cognitive and organizational processes which are highly subjective and contingent (Sylvan and Voss, eds., 1998). Problem definition affects and is affected by those exercising political-administrative authority (see below).

Problem definition is often an iterative process in which preliminary understandings of the problem and possible solutions confront each other until a predominant view or constellations of views is generated (George, 1980:182; March and Olsen, 1989; Billings and Hermann, 1998:53, 57, 62). The analyst should be aware of the possibility that problem definitions and their associated value constellations may change, sometimes dramatically, over the course of a particular crisis incident as part of an endogenous process (Snyder et al, 1963:78).

• Process matters

Both of these approaches emphasize the dynamic subjectivity of social problem solving and thus direct the analyst's attention to the decisionmaking process. As Snyder et al noted,

> It is difficult to see how we can account for specific actions and for continuities of policies without trying to discover how their operating environment is perceived by those responsible for choices, how particular situations are structured, what values and norms are applied to certain kinds of problems, what matters are selected for attention, and how their past experience conditions present responses (Snyder, Bruck, and Sapin, 1963:5).

Thus, reconstructing the decisionmaking process in a manner which attends to changing patterns of perception and participation over time and which can provide answers to the questions "what did they know and when did they know it?" is essential point of departure for crisis analysis (Mintz, 1997:1; George and Bennett, 1997:12).

• Thematic-holistic vs. reductionist-temporal analysis

The analyst intent upon studying foreign policy crisis cannot avoid taking important methodological positions with important implications for her or his research findings. In one of the classics of the crisis studies genre, Paige (1968: 278) observes that: "Analytically the Korean decision may be viewed either as a single decision or as a sequence of decisions." In the latter case, the crisis is delimited by the set of decisions taken by a government over a specific period of time. Paige traces a sequence of decisions over a period of roughly a weeks time in his study of crisis preceding the U.S. intervention in the Korean War.

His approach can be contrasted with that selected by Allison (1971) in his influential study. Allison sought the elusive 'essence' of the Cuban Missile Crisis via three thematic analyses based on separate theoretical points of departure or,

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[13] In a critique of Allison's three models for decision making, Bendor & Hammond (1992, 318) assert that "a close examination of these models shows that they are much less rigorously formulated than is generally recognized, that the derivations are in some cases wrong and in others do not follow from the models, and that the meaning of the empirical tests is often quite ambiguous."

as he (1971:32, 78, 162) called them, 'paradigms'.[13] Much of the literature in the field proceeds from relatively holistic conceptualizations of the crisis decisionmaking enterprise.[14] Researchers have commonly identified the observable outcomes of a crisis and then proceeded backwards to trace processes, choices, and actor objectives[15]. Overall assessments of decision quality based on prescriptive theory are not uncommon in this well established genre.[16]

Taking a holistic view of crisis, a crisis spanning weeks or months can be conceptualized as a relatively integrated decision problem. A crisis is triggered creating a situation of heightened stress for decisionmakers and governmental institutions and is managed with greater or lesser degree of 'skill'. Ultimately the crisis escalates (to war, for example) or deescalates. Examples of analyses based on this approach to the subject include the cases studies in George (1991) and Stern & Sundelius' (1992) similarly focused case study of the asymmetrical crisis management problematic.

However, it is important to recognize such a bird's eye view of crisis decision making tends to diverge sharply from the experiences of the participants on the ground. [17] These officials are likely to be acutely concerned with how to handle a series of specific and immediate situations perceived as relevant to their areas of responsibility: "one damn thing after another". Steinbruner (1974:71-78), drawing on earlier work by Cyert and March, suggests that the complex division of labor and generally limited degree of problem integration maintained by the highest levels in the hierarchy contributes to problem fragmentation. As another student of crisis decision making suggests: "The decision process does not appear to be particularly oriented towards long term outcomes; far more attention is paid to the problem of what to do next." (Anderson 1987: 298). This general tendency to focus on the next step rather than on the longer path ahead and an integrated strategic problem may be reinforced by the heightened stress levels characteristic of the crisis decision context (George, 1986:542; cf. Brecher, 1993:521-527).

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[14] An alternative approach to conceptualizing decisionmaking may be found in Bernstein and Berbaum (1983). Their approach, though taking a relatively holistic view of decision problems decomposes a decision into functionally differentiated stages (issue identification, solution development, and solution selection) following Mintzberg et al (1976) which may appear in a variety of sequences across a particular decision. See Snyder and Diesing (1977:15) or Brecher (1989:225) for an alternative holistic phase models of crisis.

[15] Janis' (1982) well known groupthink study proceeded from the identification of policy fiascoes and counter cases deemed policy successes. George's (1991) collaborative study *Avoiding War* takes a similar 'process tracing' point of departure, comparing and contrasting cases which lead to war with those that did not. .

[16] For studies of process quality in executive decisionmaking see George (1980, Janis (1989). See also Nutt (1989).

[17] Blight (1990:67-72) outlines the requirements of phenomenological crisis analysis. Like the approach advocated in this study, he suggests that the analyst should attempt to develop an understanding of what the crisis experience must have been like for the responsible decisionmakers. This presupposes developing a rich contextual portrait of the crisis players and the political stage.

To an even greater extent than in other contexts, crisis decisionmakers are preoccupied with successive emergencies, fighting fires rather than thinking about preventing them. Instead of dealing with a single broadly defined problem, they commonly experience a series of tactical sub-problems of varying degrees of urgency. It is clearly important for analysts of foreign policy to develop methods suited to capturing this key aspect of crisis decisionmaking phenomena. Efforts in this direction promise to help bridge the gap between academic foreign policy/international relations scholarship noted by George (1993:3-18), by providing decisionmakers with analytical accounts of crisis decisionmaking which are more compatible with their own experience of the phenomenon.

• Interplay of power, interest, and reason

These literatures, particularly the neo-institutional literature suggests that important decisions are shaped by a complex interplay of power, interest, and reason (Lindblom, 1992:78-82; George, 1980:192-193; Janis, 1989:16; Green and Shapiro, 1994:209). A (bounded) rationalism and a desire to maximize some conception of a common good is one face of crisis politics and policymaking. However, decisions are shaped also by more parochial interests. Where reasonable and less reasonable – or more 'impaired' to use Lindblom's terminology – men and women differ in their perceptions and preferences, power dynamics and differentials play an important role in shaping outcomes.

Even where decisionmakers are potentially amenable to deferring to technical experts on matters characterized by a high degree of technical complexity (often the case in natural and industrial disasters as well as in military and anti-terror operations), experts often disagree (George, 1980:169-174; Rosenthal and 't Hart, 1991; Libertore, 1993:34-35). The likelihood of expert dissensus increases substantially in areas where the state of scientific knowledge is less developed and where situational uncertainties create room for divergent interpretations. Where experts disagree, or where they would likely disagree if more than one were consulted, decisions are regularly taken on the basis of other criteria. For example, governmental decisions on the proper interpretation of international law in the U137 crisis were based less on the relative merits of alternative legal arguments than on other, more 'political' considerations (Sundelius, Stern, and Bynander, 1997:66-69). Thus crisis analysis should attend to the complex conjunctures of reason, power, and interest which combine to shape crisis decisionmaking.

• Participation and authority

These literatures point to the importance of several related questions in studying crisis decisionmaking:

How and at what level of government – local, regional, national, supra-national – are the key decisions taken?

Which governmental and non-governmental actors participate in deliberations, choice, and implementation.

Is authority exercised by individual executive actors, by small groups, or by other constellations of actors?

The first question pertains to the degree of centralization/decentralization of crisis decisionmaking (c.f. Hermann, 1963; Rosenthal, 't Hart, & Kouzmin, 1993). Is the locus of decisionmaking stable across the crisis or do pressures for 'upscaling' or 'downscaling' emerge? Furthermore, as the tendency for crisis-inducing threats and crisis responses to transcend national boundaries becomes more and more obvious, the question of international cooperation in crisis management and crisis decisionmaking becomes increasingly salient. While alliance and client relations actualized this dimension during the cold war and in the context of regional or superpower conflicts, the issue emerges in new ways in a post-cold war environment where increased attention is being paid to preventing and mitigating a broad range of other types of crisis contingencies.

The second question concerns participation in another sense. Here what is at stake is the extent to which the decisionmaking process is 'closed' in the sense of being restricted to a limited number of insiders as opposed to 'open' in the sense of including a relatively wider range of power and stake-holders. For example, is the loyal opposition brought into the decisionmaking process or are they excluded?

The third issue has to do with what are often called decision units (Snyder et al, 1963:92-103; Hermann, Hermann, & Hagen, 1987) in the literature. Is authority exercised by individual leaders or more collectively? The literature suggests that crises are often managed by small groups (Hermann, 1963:70-71; Janis, 1982; 't Hart, 1994; 't Hart, Stern, and Sundelius, eds., 1997:7-10) which may be either formally constituted (such as a parliamentary cabinet or a national security council) or they may be convened on an ad hoc basis (such as the famous ex comm which assisted President Kennedy in the Cuban Missile crisis). Given the prominent role of small groups in this literature, a substantial amount of theoretical and empirical attention is devoted to small group decisionmaking in this study (see chapters three, four, and six).

• Cooperation and conflict under stress

Clearly, once the researcher opens the so-called black box and becomes sensitized to the multiple actors and stakeholders who interact in shaping, implementing, and reacting to crisis decisions, cooperation and conflict stand out as fundamental

processes influencing crisis decisionmaking (c.f. Moscovici and Doise, 1994; Sjöblom, 1993). While these twin dimensions of social, political, and administrative life may take many forms, two are particularly interesting for crisis analysts.

First of all, a substantial body of research from the fields of public and foreign policy (e.g. 't Hart, Rosenthal, & Kouzmin, 1991:211, c.f. Prados,1991; Libertore, 1993:43-45, Allison and Zelikow, 1999: 256-58, 311-12) suggests that previous notions that crisis situations are inconducive to cabinet or bureaucratic politics are too simplistic. On the contrary, there is reason to believe that these types of dynamics may profoundly influence crisis policy for better, as in a situational of managed competition such as multiple advocacy, or worse (Sabatier, 1987; George, 1980:109-118). As a result, the analyst should be alert to indications that such dynamics are at work.

Second, the literature also suggests that tendencies toward excessive conformity of which groupthink syndrome (Janis, 1982) is the best known may also have serious and often deleterious consequences for crisis policymaking. Thus analysts should not assume that consensus or a manifest spirit of cooperation in the name of governmental or national unity are always benign in their effects on decisionmaking. The problem of conformity will be treated more extensively in chapters three and four.

3. How is a cognitive-institutional crisis analysis conducted?

1. Place the crisis in its proper historical, institutional, and political context.

This step is necessary as it enables contextually sensitive interpretation of crisis behavior. The relevant elements of the context have been discussed above and in the introduction of this study.

2. Establish a time frame and produce a synthetic narrative.

It is, of course, necessary to adopt a principle of delimitation in order to isolate a coherent and manageable data base for disaggregation into decision occasions. Following Paige (1968: xiv, 11, 13), a basic chronological delimitation seems appropriate. For many crises this is a relatively simple matter. The analyst attempts to identify the trigger (or initial impetus) which serves to create crisis levels of stress in among the decisionmakers and institutional structures under study. To take an example previously studied by the author, the Swedish 'Whiskey on the Rocks' (1981) crisis was triggered by the discovery of a Soviet submarine aground on the morning of October 28. The crisis ended on November 6 when the submarine was turned over to the Soviet naval task force on patrol just outside

the territorial limit. In this case, the chronological delimitation is relatively straightforward on both start and end points. However, this is not always the case. Where escalation or de-escalation is gradual, chronological delimitation may be more difficult. For example, natural or technological disaster crises appear to be characterized by a typical pattern of rapid escalation and gradual de-escalation. This was the case in the Chernobyl crisis (from the Swedish perspective) where the crisis began with the detection of heightened radiation at a Swedish nuclear power plant leading to rapid escalation. However, the point at which the crisis subsided to more normal conditions is less clear. While some crises are managed in a fashion which leads to relatively quick closure, others drag on as ongoing political traumas which may plague a polity for years or decades after the critical events.[18] Focused analysis of such cases falls outside of the framework of analysis developed in this study.

Having established, at least in preliminary fashion (obviously such delimitations are often revised subsequent to further empirical research and reassessment) temporal parameters delimiting the crisis, the analyst constructs an empirical narrative. This is accomplished using as much of the full spectrum of available sources as is practically feasible. Generally speaking, this will include most of the following published government documents, archival materials (if available), reports from commissions of inquiry, testimony from the Congressional or parliamentary record, newspaper articles, transcripts or audio-video archives documenting radio and television news broadcasts. Where available previous scholarly articles and monographs, as well their journalistic counterparts are likely to be very useful. These primary and secondary sources may be complemented by interviewing to the extent that access to participants and stakeholders is forthcoming. Through a synthetic process of source comparison and criticism a narrative account of the crisis can be constructed. (For an example of such a narrative, see appendix A to this dissertation). It should be noted that this step is particularly difficult, demanding, and time consuming.

3. Dissect the acute crisis and put the decision occasions identified under an analytical 'microscope'.

In breaking up the incident into its component decision occasions, the task is to attempt to isolate the most important "what to do next" subproblems. That presupposes selection of a principle of disaggregation. Two possibilities come to mind. The first would be to reason backwards from state action, by asking first "what was done?", then "what unit committed the state?", and finally

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[18] The assassination of Olof Palme and the MS Estonia catastrophe are examples of crises which became political serial traumas, in no small measure due to ineffective management of the acute phases of those historical episodes.

attempting to reconstruct the problem which led to the action. This appears to have been the approach employed by Paige (1968:278-281, 316-317; 1969:464).[19]

The developed in this study adopts an approach which is more cognitive in nature, in line with the ambition to more closely approximate the experience of the participants. The premise of the analysis is that decision occasions are generated as reactions to some kind of stimulus, or impetus, as the term we have chosen.[20] The principle of disaggregation is to attempt to document an impetus, reconstruct the problem definition and decision unit formation, identify the option or options discussed and the ultimate choice, and finally to consider implementation. The chosen decisional problem must have been recognized by the participants and have formed the thematic basis for an empirically traceable decision process. This conceptualization of the policy process is synthetic and stems from the cognitive-institutional approach outlined above.

Let us look more closely at this conceptualization. First of all, an impetus of some kind generates a broad problem theme. For example, in the Cuban Missile crisis the initial impetus was the discovery of missile sites under construction in Cuba. In the Gulf Crisis of 1990, the initial impetus for the United States was the relatively unexpected invasion of Kuwait by Iraq. Preliminary interpretations of the substance of a broad crisis problem theme activate decisionmakers situated within organizational units of the governmental machinery with the potential to make claims for participation in this thematic issue area.[21] These governmental units tend to address themselves to particular aspects of the general problem theme. More specifically, they begin a complex individual and collective cognitive process of problem framing. In this manner, one or more decision occasions begin to take shape.[22]

The impetus to decision may come from inside or outside the governmental apparatus. It may result from the occurrence of a dramatic focusing event, changes in systematic indicators, or through formal or informal feedback channels (Steinbruner, 1974:146; Kingdon, 1984:206-207). Anderson (1987:304-

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[19] Levy (1991:71-72) seems to have used a similar, backward mapping approach in trace the path dependent critical decisions which lead to the outbreak of World War I.

[20] The impetus to the first decision occasion of a crisis coincides with the notion of a crisis trigger (Brecher, 1993:3,42). However, over the course of a crisis there is likely to be several impetuses – each generating a discrete decision occasion.

[21] It is important to keep in mind that bureaucratic actors do not always seek to maximize their involvement in developing situations. To the extent that situations are viewed as intractable, such actors may seek to pass their responsibility on to others (Vertzberger, 1990:203-204).

[22] The classic conceptualization of the decision (or "decisional") unit may be found in Snyder, Bruck, and Sapin (1963:93-103). The best known more recent reconceptualization is probably the approach advocated by Hermann, Hermann, & Hagen (1987) and Hermann & Hermann (1989). That approach will be further discussed below.

305) captures one common type of impetus in his portrayal of the decisionmaking process. In his view, government agencies promote options for state action out of their limited repertoires on the basis of the problem theme and seek authorization (if not present a priori) to commit the state to these policy courses. By bringing an option to the attention of senior decisionmakers[23] a problem definition process is begun, leading to a decision occasion. Another common type of impetus in an international crisis is the perception of an explicit or implicit communication from or an overt action on the part of an adversary which is perceived to require a response.

Linked to the impetus is the process of problem identification[24]. The relationship between goal formation, problem identification and consideration of options is highly complex. According to Anderson (1987: 290), the process of goal-formation in foreign policy decisionmaking is often driven by consideration of alternatives for action:

> Statements of goals tend to produce and be produced by statements of alternatives. Thus the temporal relationship suggests that the particular state of affairs envisioned by the decisionmakers is not all that concrete. It appears that decisionmaking involves the discovery of goals as much as it involves using decisions to achieve particular outcomes.

Anderson's rendering of the decision process is thus based on a reciprocal relationship[25] between potential problems and organizationally-generated potential solutions[26]. His seemingly counter-intuitive empirical findings confirm those of Kingdon (1984:215), which suggest that the account presented by rational choice may need to be turned on its head to capture this prevalent dynamic in politics and policy: "...participants do not first identify problems and then seek solutions for them; indeed, advocacy of solutions often precedes the highlighting of problems to which they become attached." Kingdon introduces the concept of policy windows which are opportunities for linking policy problems with policy alternatives, created by the rhythms of political life. A decision occasion may be viewed as an open policy window.

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[23] Kingdon (1984:207) labels those individuals fulfilling this role "policy entrepreneurs".

[24] This process is substantially similar to that described by Bernstein and Berbaum (1983:536) as issue identification. However, their conceptualization appears to proceed from the assumption that this process occurs within the context of a pre-constituted group. The view taken by the author is that issue identification may just as easily be the first stage in setting the stage for the formation of a decision unit which may or may not turn out to be a group.

[25] Lindblom (1990, 10, 17-28) argues persuasively that the articulation of policy ends entails an active exploratory process (i.e. "probing") which is on the same order of importance (and difficulty) as exploration of means.

[26] His position like Kingdon's may be interpreted as falling within the category of temporal-sorting models (March and Olsen, 1989:11-14) of political decisionmaking.

With problem identification underway, a decision unit forms in order to cope with a particular subproblem, or cluster of subproblems. The particular composition of the decision unit which ultimately engages to cope with the issue in question is the result of the interplay of many factors. Real world allocations and constellations of decision responsibility in crisis tend to diverge dramatically from those described in abstract organizational charts or mandated in constitutional arrangements. As March and Olsen (1989:11) observe, the image of decisionmaking which emerges from intense empirical examination tends to be confusing:

> Many things seem to be happening at once…alliances, preferences, and perceptions are changing; solutions, opportunities, ideas, people, and outcomes are mixed together in ways that make interpretation uncertain and leave connections unclear.

Keeping this observation in mind, let us return to the decision unit concept introduced by Hermann, Hermann and Hagen as the center piece of their project on foreign policy decisionmaking.[27] They (1987: 311) advocate the following conceptualization:

> At the apex of foreign policy decision making in all governments or ruling parties is a group of actors – the ultimate decision unit – who, if they agree, have both the ability to commit the resources of the government in foreign affairs and the power or authority to prevent other entities within the government from overtly reversing their position… The basic point, however, remains that eventually for most foreign policy problems, some person or persons finally authorizes a decision and they constitute for that issue the ultimate decision unit.

These scholars focus on authorization as the stage of the decisionmaking process worthy of primary attention.[28] They apparently assume that state actions flow from some identifiable moment when a presidential order or a cabinet decree is issued. Their conceptualization culminates in the identification of three basic decision unit types. These are *predominant leader*, *single group*, and *multiple autonomous actors*.

There are good reasons to be critical of some aspects of that conceptualization.

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[27] Brecher (1993: 45) introduces a substantially analogous notion of a decisional forum as a site for consultation and/or decision-making.

[28] In a subsequent reformulation, Hermann & Hermann (1989:363) recognize this problem noting that units located further down in the hierarchy may in fact constitute an ultimate decision unit. However, this phenomenon continues to present problems for their conceptualization, especially the case when "...the decision or recommendation is thrashed out at one level and then ratified or legitimated at a higher level". They suggest that "If the approval is largely symbolic without thorough review or examination of alternative options, the lower level is still the ultimate decision unit". Of course, making such determinations often requires intensive empirical analysis.

For example, in a case study of the Swedish Whiskey on the Rocks crisis based on a small group approach to decision making, Stern and Sundelius (1992b) found that in several instances the key decisions took place in group settings other than those in which formal authorization or legitimation were sought. For example, demands and commitments were conveyed by the Swedish Foreign Minister to the Soviet Ambassador *prior to* the cabinet meetings which formally adopted these policies. The results of extensive interviewing suggest that this procedure was well in tune with the institutionalized rules and practices for Swedish crisis management. The important point is that the identification of the locus of operational decision for a particular issue is often not amenable to formalistic identification. An analyst exclusively focusing on the decisional "choice points" risks missing the important parameter setting and framing processes which precede and structure critical choices (c.f. Levy, 1991:71).

Decision units appear to be formed on the basis of a great number of factors. Contextual factors such as the amount of time available, the seriousness of the problem, and the physical availability of officials play a role. The substantive nature of the impetus determines to a large extent which organizations may make a claim to participation and forms a basis for allocating expert status to particular individuals or organizations. Political sensitivity, as well as the level of preoccupation with other pressing issues, help to determine the level of interest and participation among political leaders. Personal relationships among decisionmakers may play a role. Confidential deliberations among like-minded individuals may in stressful situations seem like an efficient criteria for the selection of the decision unit composition (Janis, 1982:5-9; 't Hart, 1997:324-326; Hoyt, 1997).

In most states, constitutional stipulations or government regulations of long standing provide guidelines as to which units should be involved on issues such as national security crises or official dealings with other states. Such institutional features do, of course, affect the shaping of the decision unit in a particular case. However, these formal rules do not automatically determine the composition of the *effective decision unit*.[29] Effective decision units are instead formed in a complex interplay between the codified requirements of governing, other embedded features such as (often informal) institutional rules and practices , and contextual factors such as those described above.[30] Understanding how and why a particular decision unit is formed to deal with an identified problem commonly requires intensive empirical analysis.

The above criticism should not be construed as implying that the Hermann,

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[29] This terms seems preferable to the rather dramatic "ultimate" decision unit in the Hermann & Hermann (1989:363) conceptualization.

[30] Kegley (1987) advocates employing the concept of decision regimes to capture these institutional dimensions.

Hermann, and Hagen approach is not a useful point of departure in thinking about decision units. For example, it seems reasonable to assume that within the same state different substantive impetuses in combination with specific contextual and institutional factors would tend to drive the decision making process toward one of the three decision units types identified by Hermann, Hermann & Hagen (1987). For example, it is widely thought that crisis conditions often lead to reliance upon small, authoritative and relatively insulated groups.[31] Decisions taken under time pressure may preclude participation from a wider circle of potentially interested parties. Crucial decisions may in fact be made by a single strategically placed individual with or without the benefit of private or group consultations. While predominant leaders are often heads of government, such as presidents or prime ministers, persons situated elsewhere in the administrative or political hierarchies may come to assume similar individual 'command' responsibility for critical choices. One example is when time and communications constraints force field operatives to respond to perceived situational imperatives, possibly with potentially profound political consequences ('t Hart, Rosenthal, and Kouzmin, 1993:29-31; Bouchard, 1991:42). Another is when experts slide into decisionmaking roles in crisis situations due to the urgent need for specialized information and advice (Rosenthal and 't Hart, 1991:363). Further, domestic political vulnerabilities or perceptions of high levels of political accountability on particularly volatile issues may undermine the collective identity of decisionmakers and emphasize their dependence on outside constituencies with potentially diverging political interests. This could lead to the generation of multiple autonomous actor decision units.

Having identified a decision unit coping with a problem, the next important analytical step is to attempt to map out the range of options considered by the decision unit in question. It should be noted that this task is not the same as to attempt to construct a set of logically plausible options. Comparing the options discussed to the universe of plausible options is a technique for critical post facto analysis. In that type of study, some procedural criteria of rationality or bounded rationality may be used to evaluate the quality of the decisionmaking process (c.f. George, 1980:10; Janis, 1989). In this dissertation, the concern is more with identifying the options considered by the members of the decision unit. The purpose is to understand the parameters of the realm of the conceivable and possible prior to choice, parameters deriving to a large extent from the nature of the institutional norms reigning in the political arena in question. Of particular interest is the conjunction of cognitive and organizational factors at this stage of the decision process.

The next analytical step is to examine the stage of choice. Here the concern

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[31] C.F. Hermann (1963; 1989:374) suggests that the "contraction of authority" is a common phenomenon in crisis situations.

is with how the initial problem definition, through deliberations over options inside the decision unit, is transformed into an authoritative decision geared toward the generation of action (or deliberate inaction) on behalf of the state. It is at this stage of commitment that the critical "what to do next?" question figures most prominently. In other modes of analysis, the choice phase is seen as the most central part of the decision making process.

The approach advocated here is characterized by expenditure of considerable effort in an attempt to trace the processes prior to the choice point. The present focus is motivated by the belief that an institutionally embedded structuration process shapes many aspects of the ultimate decision long before the moment of formal choice arrives (c.f. Wendt, 1987; Onuf, 1989:52-65; Carlsnaes, 1992). This view of decision making does not by any means deny the role of individuals, but it takes note of the structural forces bearing down upon their autonomy. Each decision occasion is delimited by the associated "what to do next?" question referred to above. Through a sequence of what sometimes may appear to be minor steps on the part of the engaged decision units, actions on behalf of the state are prepared to cope with particular facets of the broader crisis theme perceived to be in need of urgent attention.

The final element of the inquiry into each decisionmaking subproblem is consideration of the implementation phase. Among specialists in the field of public policy, it is well known that implementation is a critical process (Pressman and Wildavsky, 1984; Peters, 1995:9-10; Sabatier, 1993). Unanticipated logistical difficulties, environmental changes, communication and coordination problems, ambiguities in directives, and variations in interpretations of such guidelines (with greater or lesser fidelity) by subordinates are among the many and varied factors which can intervene between the authoritative commitments made by high-level decision units and the resulting actions by the state. The relevance of implementation to a comprehensive understanding of foreign policy making has been recognized by a number of scholars (Allison, 1971; George, 1980: 116-118; Smith & Clarke, eds. 1985).[32] In short, even the effective decision unit formed to handle an occasion for decision does not necessarily automatically commit the resources or the actions of the component parts of the state.[33] That fact can only be established in each decision case post facto, after an analysis of the implementation stage has been conducted.

A framework of analysis for each decision occasion emerges from this conceptual discussion. In each decision occasion, an impetus is present to activate potential participants in the decision making process. A problem definition

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[32] For example Bouchard (1991:28-34) studies the structural implementation problematic associated with the command and control of military forces under crisis conditions, finding that conventional wisdom on the efficacy of a high degree of political control of military forces in crisis may be misplaced.

[33] Hermann & Hermann (1989:362) do recognize the importance of the implementation stage.

emerges leading to a particular occasion for decision. A decision unit is formed through the interplay of various situation specific and structural features. Within the given decision unit, options are deliberated and choices are made. Prevailing institutional rules and norms of appropriateness influence this process in important ways. A decision to commit the state to some action or inaction is made at some point. Decisions are transformed in output through an implementation process. The result of this decision occasion becomes an entry value which may lead to a subsequent occasion triggered by a new theme-relevant impetus.[34]

Decision Occasion Model

Impetus

Problem Definition ⟷ Decision Unit Formation

Options Development and Choice

Implementation

Impetus...
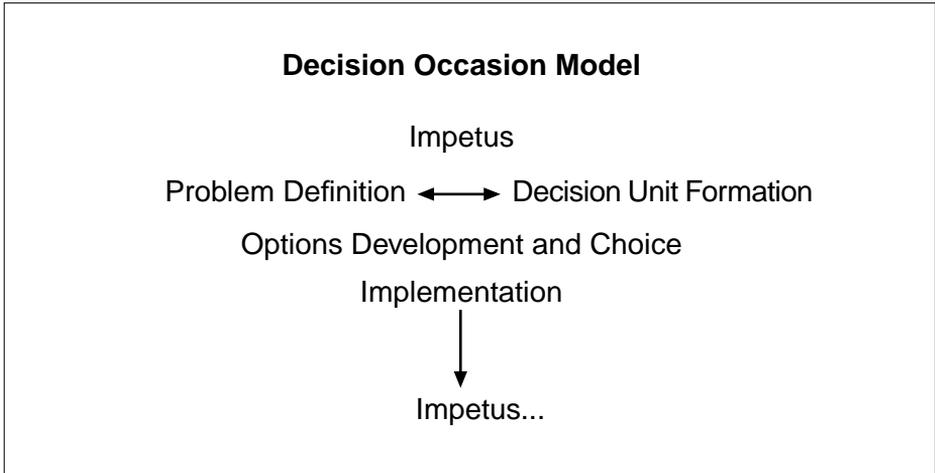
Figure 2.1: Decision Occasion Model

By breaking a historical crisis experience down into a series of decision occasions, complex decisionmaking processes can be traced in relatively close approximation to the reality perceived by the participants themselves. Of course, one must be selective in identifying occasions worthy of exploration along the lines suggested above. Herein lies a virtually unavoidable element of subjectivity. It is no simple task to try to reconstruct the predicaments facing the decision makers at the time. However, through intensive empirical analysis of the available source materials, plausible interpretations informed by knowledge of psychological and organizational phenomena documented in the literature may be developed (c.f. Allison and Zelikow, 1999: 3-8). While such interpretations are inevitably imperfect and contestable, they promise to advance our thinking about crisis decisionmaking processes.

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[34] This account of output from one occasion setting the stage for the next is reminiscent of the input-process-output cycles described by Brecher (1974:4-6).

4. Reassemble the crisis and place in broader perspective.

The final stage of the research process is to put the crisis back together by conducting a number of forms of analysis which cut across the occasions identified. One such analysis is to compare the decisionmaking within the crisis across decision occasions. Are all of the main decisions taken in the same fashion by the same person or groups of persons, or do the participants decisionmaking bodies change significantly across the crisis? Where such comparative analysis suggests that small groups have played a vital role in the advisory and decisionmaking processes, the analyst may wish to conduct further studies of those decisions along the lines suggested in chapters three, four, and six of this study. Similarly, as one tracks the processes of political-administrative escalation and de-escalation in the case, does the locus of decisionmaking shift across in the local-regional-national-supra-national divides via upscaling or downscaling processes, or is it relatively static across the crisis?

Another more holistic analysis focuses on temporal linkages during a crisis. At least two distinct types[35] of temporal linkages are relevant to the analysis of decision occasion chains: sequencing and synchronicity. Sequencing is based upon the simple premise that policy processes and choices affect the parameters of subsequent choices. Much of the classical and contemporary conceptual scholarship in the foreign policy field reflects a similar awareness of decisionmaking feedback phenomena (e.g. Brecher, 1974; Carlsnaes, 1992). It is possible to identify a number of different sequencing patterns. Choices tend constrain future choices, based upon pressures for consistency (Kegley, 1987:252-253). For example, a domestic audience in a democratic system may demand a relatively comprehensible and consistent policy line from its leaders. Similarly, it can be argued that policy choices affect an adversary's decisionmaking in strategic interaction. Resulting patterns of cooperation or conflict then tend to constrain one's own future behavior. Choices taken may also constrain the parameters for future options through psychological internalization effects such as 'bolstering' (Janis and Mann, 1977:82-83). Once a 'consensus' or authoritative choice what constitutes the appropriate boundaries for conduct within the context of a given problem area, it may be very difficult for the next decision unit to break out of this constraining frame in subsequent deliberations (c.f. Billings and Hermann, 1998).

On the other hand, one should also recognize that such legitimizing guidelines have an enabling character, which may facilitate future choices based on creative

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[35] A third type of temporal effect is also potentially important in crisis: temporal context. Factors such as proximity to an election, occurrence early or late in a fiscal year, whether or not the legislature is in session, occurrence during a holiday, weekend, or summer period, may have important impacts on who participates in and the resources (human, financial, and material) that can be brought to bear on the crisis problem.

interpretation and extension of the frame parameters. A common frame may serve as a basis for the generation of a consensus and may provide normative stability conducive to critical deliberations over alternative strategies. Finally, it should be recognized that unrecognized and or unintended consequences of a particular choice often set the stage for new problems arising in the course of implementing, or as a result of the successful implementation of a decision. During the U137 crisis, for example, a relatively low level decision to permit National Defense Research Establishment researchers to conduct radiation measurements outside the hull of the stricken submarine unexpectedly sent the crisis spinning off in a new and dangerous direction as suspicions that the vessel was carrying nuclear weapons mounted (Sundelius, Stern, and Bynander, 1997:182-183).

The second type of temporal linkage considered here is synchronicity (c.f. Snyder et al, 1963:197) which was introduced in the previous chapter. For both psychological and 'economic' (opportunity cost) reasons, there is a strong tendency for decision occasions or other events which occur simultaneously to influence each other. For example, separate but not necessarily directly connected events are likely to be perceived as related. Ideas generated through brainstorming for one problem may be transferred to the other via the well-known availability heuristic (Nisbett and Ross, 1980; Khong, 1992:212-15). Officials dealing with one problem may be physically or intellectually unavailable to cope with another event, which occurs at roughly the same time. Hence, the capacity of the decision units for both occasions are affected. In contrast to the consequences of sequencing, the impact of synchronicity has received relatively little attention in the literature.

The findings generated by these analyses should be placed in a more general context by conducting a dialog with the crisis decisionmaking and management literatures. Are the patterns revealed in the case consistent or inconsistent with those predicted by current propositions regarding decisionmaking in general and crisis decisionmaking in particular? Similarly, the case may be compared with others which have been previously documented in the international literature using a compatible analytical approach in an attempt to develop generic knowledge about crisis decisionmaking and management.

Finally, the analyst may wish to take a step towards bridging the well-known gap between scholarly and practical domains and attempt to formulate tentative positive or negative lessons which may be derived from the case experience and which may sensitize future crisis managers to potential possibilities and pitfalls associated with such extraordinary policymaking challenges.

This approach to cognitive-institutional crisis analysis will be applied to the case of Sweden and the Chernobyl Fallout Crisis of 1986 in chapter five of this dissertation. Findings from that application will be reviewed and placed in comparative perspective, making use of other studies from the Crisis Management

Baltic Sea Area Case Bank (described in chapter one), in chapter seven. Having developed a strategy for crisis dissection in this chapter, it is time to look more closely at one of the decision (and advisory) units identified above as a prominent and recurring institutional feature of crisis decisionmaking – the small group – which will occupy center stage in chapters three and four.

A four step approach to crisis analysis

1. Place the crisis in context

2. Establish a time frame/ develop a narrative

3. Dissect the acute crisis

4. Reassemble the crisis and place it in a broader perspective.

Figure 2.2: A four step approach to crisis analysis

Chapter 3:

Understanding Small Group Crisis Decisions: Process Diagnosis and Research Procedure

1. The importance of group process in crisis decisionmaking[1]

The previous chapter emphasized the importance of micro and meso level institutional structures as elements of the policymaking system which enable but also constrain crisis decisionmaking. This chapter focuses on one such micro-structure: the small advisory/decisionmaking group.[2] Small groups, which appear in many guises (cabinets, kitchen cabinets, inter-agency working groups, councils, committees, commissions etc.) are both prevalent and prominent features of the policymaking landscape in general and of crisis decisionmaking in particular (Snyder et al, 1963:95-99; Minix,1982; Gaenslen, 1992:165-167; Haney, 1995:99). This holds true not least for Sweden. In fact, it has been suggested (Anton, 1980; Heclo and Madsen, 1987; Sundelius, Stern, and Bynander, 1997; cf. Larsson, 1986; Wallin et al, 1999:170-171) that due to features of Sweden's collectivist and consensus oriented political culture, small groups tend to play a particularly important role in Swedish foreign and public policy-making.

Irving Janis's (1972, 1982) influential work on groupthink did much to sensitize scholars of domestic and foreign policymaking to the potential importance of small groups in crisis decisionmaking. However, Janis's work remains controversial and has been criticized for significant conceptual and empirical limitations.[3] Before

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[1] This chapter is a lightly revised version of Stern and Sundelius (1997). The debt to my co-author is gratefully acknowledged. In addition, the author is thankful for valuable comments from numerous colleagues including Paul 't Hart, Alexander L. George, Yaacov Vertzberger, Stephen Walker, Raymond Cohen, Sally Riggs Fuller, Berndt Brehmer, Kjell Goldmann, Magnus Jerneck, Tom Preston, Jean Garrison, Bertjan Verbeek, Max Metselaar, and Paul Hoyt.

[2] The parameters of smallness for groups are often left ambiguous. Within the social psychology literature, dyads (groups of two persons) are commonly considered to exhibit dynamics differing substantially from those in larger groups (Levine and Moreland, 1990: 586). George (1980: 85) notes that trios too tend to have distinct dynamics (e.g. 'two against one'). Regarding the upper limit of smallness, there appears to be little consensus. Vertzberger (1990: 192-3) submits that manageability and a requirement for interaction among all of the members sets the upper limit, although he is not specific regarding how many members are manageable. Practically speaking, groups ranging from four to a dozen seem to be most representative of the dynamics discussed in the literature. However, it should be noted that the upper limit does not represent as clear a structural discontinuity as the lower.

[3] See e.g. Longley and Pruitt (1980) 't Hart (1994), George (1997), Fuller and Aldag (1997), 't Hart, Stern and Sundelius (1997).

outlining a research strategy for taking small group analysis a step beyond groupthink, let us pause for a moment to take stock of perspectives of other scholars in this field. Despite differing disciplinary backgrounds and empirical domains, there is considerable agreement on a fundamental, empirical point. Small group processes matter a great deal in politics. As the eminent political psychologist Philip Tetlock and his associates (Peterson, McGuire, Chang, and Feld) have argued:

> Most political decisions in the world today are the product of a collective decision-making process. One can make a strong prima facie case that how this group decision-making process unfolds plays a crucial role in determining the fate of governments (1992:403)

The survival or prosperity of very large scale collectives such as nations often depends upon decisions made by a handful of individuals engaged in intensive communicative interaction. Deliberative and political processes taking place within and across small groups in governmental settings may profoundly affect the decision makers' view of their situation, its possibilities, constraints, and imperatives.

When groups make consequential decisions or when executives depend heavily upon groups for information and advice, small variations in group interaction – assumptions left unchallenged, questions unasked or ignored, dissenters excluded – can have dramatic effects on the choices made (or not made) and, indirectly, even upon "the fate of nations." As Moscovici and Doise (1994: 122) have observed: "In the field of decision-making modest causes have great consequences." Thus, for foreign policy scholars, delving into the "black box" of group decision processes remains a pressing task.

A practical problem for the researcher intent upon making use of a small group perspective for the analysis of one or more historical cases is the bewildering flora of theoretical constructions and research findings from several disciplines bearing on group interaction in governmental settings. This potpourri is the result of the efforts of a diverse community of scholars working in different traditions toward a variety of programmatic ends. There is a need to weave together and integrate the existing body of research in order to facilitate comparison and cumulative understanding of real world decisionmaking in group settings. In other words, intellectual bridges from the realm of laboratory and simulation studies to the realm of historical and field studies are required.

One such bridge is Fuller and Aldag's (1997:81-87) synthetic "general group problem-solving model". They consider the manner in which decision characteristics, group structure, and decisionmaking context generate emergent group characteristics (cf. Gladstein, 1984). These shape the group decision process which, in turn, produces group choices. While Fuller and Aldag point to a broad range of task, contextual, and group variables impacting on group

decision processes, they do not focus on the important problem of how to diagnose the group decisionmaking processes identified in the analysis of particular historical cases.

Alexander George (1997:44-50) calls for contextual process analysis reembedding the small group in the broader policymaking system of which it is a part. In that spirit, this chapter will focus on the task of formulating a contextually sensitive empirical research strategy for group process diagnosis. First, a diagnostic set of group interaction patterns from the rich, multi-disciplinary literature will be developed. Then a step by step analytical procedure for examining the institutional and intra-group context of small group decisionmaking, the importance of which has been clearly demonstrated empirically by Metselaar and Verbeek (1997:118; c.f. 't Hart, 1994:129-138; Hoyt and Garrison, 1997:269-270), is presented. The objective of this systematic approach is to facilitate the diagnosis of the group interaction pattern (or patterns) manifested in a particular historical case of foreign policymaking, patterns which may profoundly affect decision outputs and outcomes. For easy access and reference, the diagnostic set and the research procedure are summarized in figures 1 and 2 respectively.

2. Group interaction patterns: Developing a diagnostic set

One of the most enduring and compelling insights from cognitive psychology is the importance of *availability* in interpretation and attribution. When a belief, proposition, or explanation is readily available- because it has been recently used or stands out as particularly vivid or important- individuals are likely to make use of that notion when attempting to interpret new and ambiguous situations (Nisbett and Ross, 1980:18-23). Foreign policy analysts are clearly not immune from the downsides of such basic psychological heuristics. As George (1997: 42) has pointed out, there is good reason to believe that Janis "imposed" the groupthink hypothesis on a number of his cases of foreign policy misadventure. If Janis did indeed fall prey to the perennial academic temptation to consciously or subconsciously "massage" the data a wee bit, a contributing factor may have been the fact that his analytical repertoire in his groupthink studies consisted essentially of only two alternative group interaction patterns – groupthink and vigilant decisionmaking (c.f.Fuller and Aldag, 1997:56-57). It seems reasonable to argue that an analyst will, all other things being equal, be less inclined to favor a particular interpretation or explanation in his or her analysis of empirical cases if a broader and more nuanced repertoire of alternative interpretations is available at the outset. Then the question becomes not whether groupthink fits or can be made to fit the "facts" of the case in question, but rather, which of a number of competing or complementary group interaction patterns best captures what went on in the decision group or groups under study.

The set of patterns developed in this section should be seen as a kind of menu which may alert the case analyst to a selection of the best established or most promising interaction patterns to be found in this vast literature. Because these interaction patterns are drawn from differing discourses and idiosyncratic conceptualizations by individual authors, together they do not yet meet the standard typological criteria of mutual exclusiveness and collective exhaustiveness. Thus what is offered is *not* yet a formal typology. While an integrative reconceptualization in order to produce mutual exclusiveness may be promising, it is a daunting task.[4] With regard to exhaustiveness, additional interaction patterns, identified in the vast inter-disciplinary literature bearing upon group process, may need to be added.

The following discussion of group interaction patterns is organized around the issues of conformity and conflict in the small groups setting. It should be emphasized that the relationship between these basic dimensions of social interaction in groups is complex and multi-dimensional. As a result, particular attention is devoted to exploring a number of important hybrid patterns exhibiting various mixes of convergent and divergent tendencies (Moscovici and Doise, 1994:1-18).

Conformity

In developing our diagnostic set, let us begin with one of the most central topics in the small groups literature: the issue of *conformity*. Classic experiments by Sherif, Asch, Schachter, Bales and others produced the disturbing conclusion that group members are often willing to suspend their own critical judgment and even the evidence of their own senses in order to avoid deviating from what they perceive to be an established or emergent group norm (Turner, 1991:1-17; Moscovici, 1985; cf. Deutsch and Gerard, 1955). This is particularly likely to occur when members of the group actively "police" the norm and apply pressure to those airing deviant views. In extreme cases, deviants may even be physically expelled from the group. Importantly, the example set by the treatment of dissenters may serve to discourage others from airing differing views.

Tendencies toward conformity may decrease the diversity of perspectives brought to bear in group deliberations and lead to less differentiated understandings of the problem before the group and the merits and liabilities of alternative solutions. Members may engage in self-censorship and withhold information which seems incompatible with the way they see the proverbial winds blowing in the group. In other words, conformity may lead to a restriction

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[4] In fact, there may be a disadvantage in presenting a neatly compartmentalized typology. It may encourage the already strong tendency among researchers to seek unitary parsimonious 'either or' explanations, when reality may in fact have more of a 'both and' character. For a parallel argument, see Ripley (1995).

and homogenization of the information base available to the group and to premature closure of the decision process. Beneficial short term and longer term impacts resulting from the airing and serious consideration of minority views may be lost if the pressures toward conformity become too strong within the group (Moscovici, 1985; Nemeth and Staw, 1989; Moscovici, Mucchi-Faina, and Maass, 1994:ix).

Groupthink

Irving Janis's (1972, 1982) groupthink syndrome may be seen as bearing a family resemblance to the basic conformity pattern described above. Janis's work emphasized the role of stress-induced or reinforced cohesion (such as that associated with crisis situations) in producing conformity, stereotyping, and risk-taking, to the detriment of the procedural "quality" of the decision process. In particular, such groups were alleged to be subject to an insidious, largely unconscious erosion of the critical capacities of group members.[5]

Post-Janis reformulations of the groupthink notion tend to amalgamate groupthink and simple conformity and deploy an alternative distinction between internalization and compliance. Internalization refers to the case where group members come to adopt group consensual views without private reservations (McCauley 1989:250-251; 't Hart, 1990/1994:167). Compliance refers to the situation where individuals do not express private reservations about what they perceive to be the group consensus on a particular issue. In his multi-path reformulation of groupthink 't Hart (1990/1994:176-177) argues that the route to groupthink most relevant to groups operating in political/administrative settings is *anticipatory compliance*, which refers to the tendency to those lower down in the hierarchy to take positions which conform to the (real or perceived) predispositions of superiors.

Newgroup syndrome

Another type of group dynamics associated with conformity is a pattern which Stern and Sundelius (1994) have labeled *newgroup syndrome*. As newgroup syndrome will be treated at length in the next chapter, a brief description here should suffice. This is a pattern linked to the stages of group development and which may operate at varying levels of cohesion and conflict within the advisory group. In ad hoc, newly institutionalized, or radically destabilized groups, groups in the *forming* stage (Tuckman, 1965:384), common group subcultures and well developed procedural norms tend to be lacking. This vacuum creates uncertainty

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[5] A number of commentators including George (1980:93-96) and Gaenslen (1992) argue that this is the most central and distinctive aspect of Janis's contribution.

among the members, which works to the advantage of group leaders and other assertive individuals, and contributes to the emergence of tendencies toward conformity and coordination difficulties in the group as a whole.

At the other end of the scale from conformity are conflictually-driven dynamics within small advisory and decision groups. These evolve around the balance of power (and "skill") among the "players". Intra-group bargaining and other forms of political gamesmanship tend to generate choices that reflect a political logic, sometimes to the detriment of policy feasibility, moral defensibility, or other standards of evaluation. A substantial body of literature in political science and organizational theory suggests that the withholding of information as a result of latent or open conflict is quite common (George, 1980:112-114; Vertzberger, 1990:202-203; Pfeffer, 1991). The result of such gamesmanship may well be the diminished differentiation in the understanding of a policy problem and alternative responses to that problem.

Cabinet and bureaucratic politics

Conflictual group dynamics patterns may take several forms including bureaucratic and cabinet politics, nay-saying, and manipulation. Several researchers have noted during the last decade that the literature on organizational and bureaucratic politics was relevant to group decisionmaking (Hermann, 1988; 't Hart, 1990/1994:129-203; Kaarbo and Gruenfeld, 1998:226-233). In particular, the fact that bureaucratic or cabinet political struggles are commonly fought out in the small group arena – at all levels of government – led to the realization that factional conflict could be a driving dynamic in group decisionmaking (Vertzberger, 1990246-249). Tactical withholding or deployment of information could have highly significant effects on the choices made by faction, "non-aligned," and leading group members. When small group decisionmaking is driven by personal and organizational conflicts of interest, final decisions may reflect the balance of power and influence within the group – they may be "resultants" produced by "pulling and hauling" (and, counter-intuitively, also by tactical compromise and coalition building) – rather than via a task-driven analytical process.

The contending positions in such conflictual interaction may be represented by individuals (often representing outside constituencies) or by *factions*. Factions are subgroups within the group, bound together by various combinations of personal relationships, perceptions of common interests, ideological homogeneity, or career interdependencies (such as mentor-protégé relationships). Factions tend be more cohesive than the wider groups of which they are a part and that they may exert particularly strong pressures toward conformity on members. They are also thought to be particularly susceptible to groupthink. Conformity within the faction and the tendencies of factions to withhold or selectively provide information in order to promote factional interests may have

a negative impact on the wider group's information processing (cf. Vertzberger, 1990: 246-249).

Following up this line of thought, let us digress briefly to consider whether bureaucratic politics and conformity are fundamentally incompatible. A number of scholars seem to suggest that this may be the case. For example, George (1980: 91) notes that pressures against conformity in policymaking groups often arise from motives inspired by bureaucratic politics and the institutional loyalties of individual members rather than on the basis of the objective merits of a particular proposal.

While plausible, this is only half the story. The defensiveness associated with bureaucratic and partisan politics is likely to inhibit uncritical internalization of group viewpoints. However, there is no reason to believe that bureaucratic or partisan political orientations generally inhibit compliance at the individual level or conformity at the factional or group level (McCauley, 1989:250-253). In fact, the desire to avoid making enemies, to save political capital for organizationally (or factionally) more important issues, and to be associated with the "winning" side in deliberations may induce compliance behavior among particular group members, thus supporting the emergence of conformity dynamics or even full-blown classic groupthink in the rest of the group. Furthermore, as Vertzberger (1990) and 't Hart (1990/94:105-112) have noted, conflict with rival groups or factions may increase cohesion and the likelihood of conformity within an embattled faction or group.

As a result, one may question Hermann's (1989: 375-376) assertion that: "It is noteworthy that groupthink postulates very different dynamics for group decisionmaking than does bureaucratic politics. Clearly, both conditions cannot occur simultaneously in the same group." Once the possibility of subgroup factions is taken seriously it becomes clear that a manipulative faction might strategically exploit stress-induced cohesion experienced by some or most of the other members – generating dynamics at the group level which resemble groupthink.[6] This point will be discussed in more depth below.

Nay-saying

Perhaps the most extreme conflict-driven dynamic noted in the literature is the *nay-saying* pattern. Nay-saying is characterized by a situation where group deliberations exhibit a pervasive negativism, a crippling contrariness, which inhibits effective group decision (Vertzberger, 1990:245-246; Rosenthal, 't Hart, and Kouzmin, 1991:214-215). In such an atmosphere, decision makers are frustrated and exhausted by battles over even the most minor substantive or procedural points. This pattern is thought to result from a passive or discredited

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[6] See Metselaar and Verbeek (1997:107-8, 114, 117) for poignent, empirical examples of this possibility.

group leadership and/or an embedded and stalemated factionalism based on irreconcilable ideological, personal or other differences.

Manipulation

The literature suggests that at least two major group interaction patterns straddle the distinction between conformity and conflictual dynamics set out above: manipulation and "balanced critical deliberation." *Manipulation* or "rigging" of meetings by one or more group members entails the implementation of a hidden agenda through the deliberate structuring of the composition, process or the substantive information base for decisionmaking available to the group (Janis, 1989: 55-56; Glad, 1989:49-53; Hoyt and Garrison, 1997: 252-253; Hoyt, 1997). While any member can in principle engage in manipulation, group leaders commonly enjoy advantages in this regard (cf. Berman, 1982). In this perspective, competition or conflict within the group setting is implied. If resistance to the sought-after objective was not anticipated, machiavellian machinations would not be required. Yet, in successful manipulation attempts the underlying conflicts may remain latent and, not uncommonly, invisible.

The clubby atmosphere commonly associated with socially cohesive groups may create a decision environment especially conducive to exploitation by the manipulator who may turn tendencies toward conformity to his or her own ends. Intentional suppression of information can contribute to the emergence of premature closure by restricting and homogenizing the information base available to members during group deliberations (Vertzberger, 1990: 235).

Manipulation may also appear as a "managed" form of conflictual interaction, which at first sight resembles ordinary bureaucratic or cabinet politics. In this configuration, a manipulator might attempt to incite or stage a conflict between extreme views in order to frame a preferred alternative as reasonable and moderate. A manipulator may deliberately introduce one or more "red herring" alternatives in order to break up a potentially winning coalition developing around a course of action he or she finds objectionable. Whether successful or not, such manipulation affects information flows and political alignments within the advisory group.

Manipulation may be facilitated by aspects of the group setting and organizational context. Maoz (1990: 93) argues that manipulative leverage is enhanced when asymmetries of information exist among the membership:

> An individual [or a faction] who is the only source of information about the events requiring decision and the data necessary for the evaluation of the various options is in a unique position to frame the issues in a manner which suits his or her goals without actually distorting the information or presenting it in a selective manner. Others may find it difficult to challenge the definition of the situation, especially if the data given to the group sounds credible.

The allocation of "expert" status to particular members may provide leverage and enhanced credibility which may be turned to manipulative ends. The high levels of stress (and not uncommonly confusion), and the norm of "rallying around the flag" make crisis situations particularly ripe for manipulation.

The tendencies toward policy entrapment noted above may be deliberately exploited by the manipulator, who may attempt to induce a leader or a policy group to accept a commitment which would have been rejected out of hand had the full implications and full extent of the project been revealed from the start. This manipulative strategy is nicknamed "the salami tactic" in the literature:

> With the salami tactic one innovates by breaking down the novel course of action into a series of gradual policy options. Although each change deviates only marginally from the previous policy, each one also sets the stage for the subsequent decision in the series. Instead of taking one sharp departure from the previous policy, the group takes a series of steps which results in the same effect as the "innovative" alternative the manipulator desired all along (Maoz, 1990:90).

Balanced critical deliberations

The discussion thus far has emphasized various ways that a decision process may be negatively affected by conformity or conflict. In fact, moderate levels of conformity and conflict may be seen has having a positive effect on decisionmaking. In the absence of a will to constructive dialog and in due course to achieve closure, deliberations become an empty, exhausting, and ritualistic exercise as in the nay-saying pattern noted above. At the same time, in the absence of some degree of divergent thinking and conflict, deliberations become stagnant, deprived of the "motor" of diversity and dialectic exchange (Moscovici and Doise, 1994).

This line of thought suggests that another, happier, hybrid pattern should be added to our growing list. Janis (1982:136; Janis and Mann, 1977:179-180) contrasted the groupthink pattern with a model of "vigilant" group decisionmaking. This interaction pattern will be labeled "balanced critical deliberation" in order to emphasize the challenge of navigating between the Scylla of extreme conflict and the Charybdis of extreme conformity. When this can be achieved, group discussions may facilitate the emergence of a more differentiated view of the values implicated in a given situation and the relative prospects of alternative courses of action. Deliberations may contribute to integrating these perspectives by identifying value trade-offs inherent in the various problem representations and alternatives generated (Lawrence and Lorsch, 1967; Nemeth and Staw, 1989: 200-204; Moscovici and Doise, 1994:171-175).

It has been suggested that balanced critical deliberations tend to be associated with more open, democratic, and facilitative leadership styles. They are more

likely to be found in group cultures emphasizing task achievement. Finally, they require a rough balance of power, influence, and policymaking resources among members of the group. Alexander George's (1980:191-208) multiple advocacy arrangement is an example of an attempt to foster balanced critical deliberation and guard against excesses of power imbalance, conformity and conflict in highly competitive policymaking environments. *Figure 3.1* summarizes the menu of group interaction patterns presented above.

CONFORMITY PATTERNS

Simple Conformity Derives from overt or covert pressure from leaders, other members, or the rest of the group on individual group members. Deviance from group norms leads to sanction and, in extreme cases, to exclusion from the group. May lead to reduced differentiation in the decision process via censorship and self-censorship.

Newgroup syndrome Ad hoc or newly institutionalized groups lack stable norm, role, and status structures which tends to generate member uncertainty, dependence on leaders and other assertive members, and coordination difficulties detrimental to the decision process.

Groupthink syndrome The basic mechanism is an unconscious concurrence-seeking tendency – deriving from defensive avoidance and stress-induced or reinforced cohesion – which undermines the critical thinking capacity of group members and, in turn, the "quality" of the decision process.

CONFLICTUAL PATTERNS

Cabinet/Bureaucratic Politics Group interaction is characterized by adversarial relationships among individuals and subgroup factions. Outcomes represent the resultant of the balance of political power among the contestants. Coalition-formation in order to achieve political preponderance may lead to tactical cooperation as well as conflict, both of which may have implications for information processing and bargaining.

Nay-Saying/Paralysis The group is deeply divided by acute personal, organizational, or ideological conflicts. Patience and energy are sapped by disputes over even small procedural and substantive issues. Opposing factions can veto decisions to which they object. Communication may become ritualized and geared toward constituent consumption rather than persuasion and pursuit of cooperative solutions.

HYBRIDS

Manipulation Asymmetries of information and control over the decisionmaking process are exploited by devious members in order to circumvent opposition to a preferred course of action. May take various forms and can be difficult to distinguish empirically from other patterns. For example, group tendencies toward conformity can be exploited by a manipulator. Alternatively, a manipulator may orchestrate factional conflict in order to frame a favored option as a moderate compromise position.

Balanced Critical Deliberations Members maintain a task orientation characterized by constructive conflict focused primarily upon differences of opinion regarding the character of the problem and merit of possible solutions. Group members engage cognitive and organizational resources to develop a richer understanding of the problem and share their insights with the group.

Figure 3.1: A Diagnostic Set of Group Interaction Patterns

3. Developing a procedure for small group decision analysis

Both the interaction patterns outlined in the preceding review and more general attempts at modeling small group decisionmaking (Gladstein, 1984:502; Aldag and Fuller, 1993; Fuller and Aldag, 1997:82) call our attention to some critical contextual and group structural variables which serve to channel group interaction towards one or more of the patterns noted above. A systematic six-step research procedure is proposed as an aid to diagnosing group decisionmaking processes in specific historical cases. The procedure *presupposes* that a preliminary analysis of the decision process in a particular case – such as the cognitive-institutional crisis analysis strategy developed in the previous chapter – indicates that one or more small groups may have played a significant role shaping the decisionmaking in that case.[7]

Before proceeding to a more detailed justification and explication of each step, the author wishes to reiterate that a fairly accurate diagnosis of the processes leading to the adoption of a particular foreign policy posture is of vital importance for the analyst. Even the most subtle and seemingly modest shifts in the way policy problems and potential solutions are framed and the character of information brought to bear in the decisionmaking process may have drastic consequences for choices taken, and indirectly, for foreign policy outcomes. This is the case, in part because crucial policy decisions commonly depend upon contested or potentially contestable judgments regarding matters such as overall problem representation and salience, the capabilities and intentions of adversaries, and other types of difficult risk assessments. It is not possible to understand how such differences of opinion are suppressed or resolved without delving into the decision process. Thus, such crucial choices can not be properly understood without reference to the process and context which produced them.

Step 1: Investigate the extra-group setting.

The literature suggests a number of factors which are likely to be relevant to understanding the role of the wider institutional context in shaping the group setting and process. These include the placement of the decisionmaking group in relation to wider organizational constellations, the influence of organizational cultures or subcultures on the group, and patterns of inter-group conflict.

Placement refers to several closely related factors which may influence group

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[7] See Hermann, Hermann, and Hagan (1987) and Hermann and Hermann (1989) for an alternative approach to performing such a "triage" operation in order to determine the relevant decision unit configuration or configurations in a given case. See also Janis (1982: 194) and 't Hart (1990: 210-211) for some diagnostic questions tailored toward establishing the relevance of groupthink analysis, but of considerable heuristic value none the less.

decisionmaking. The first, boundary management (Gladstein, 1984:500), refers to the extent to which channels of communication between the group and the wider organizational environment are maintained or shut down in the name of operational secrecy. Members may refrain from consulting outside experts (or qualified generalists, for that matter) or sources of information such as those available via other organizations, groups, or networks to which the members may have access. In foreign policy, the classic case here is the self-imposed isolation of cabinet members from departmental expertise on particularly sensitive issues. In particular, the alleged need for secrecy and an excessive interpretation of the need to know principle may deprive senior policy groups from potentially useful information. Alternatively, the monopolization of information at the top level can deprive officials at lower levels from the possibility of being able to fulfill their responsibilities.

Several scholars have argued that insulation of the group is a key antecedent condition to groupthink and related pathological conformity patterns (e.g. Janis, 1982:264-267; Fuller and Aldag, 1997: 81-84). Similarly, differential degrees of member control over communication flows to and from the environment is a precondition for manipulation of the information base (Maoz, 1990). Leaders or other privileged members may be able to act as gatekeepers selectively providing information to the group in order to promote their own agenda.

Decisionmaking groups, and their individual members, are typically the products of multiple socializations. The cultures or subcultures which result play "a cognitive mediation role by providing members with a benchmark and a sense of direction for coping with and understanding their complex environment" (Vertzberger, 1990: 195).[8] Over time, groups are likely to develop a group-specific culture if they endure (see below). At the same time, to the extent that the group is lodged in a broader organization or multi-organizational network, the decision makers may be also be influenced by broader organizational cultures. For example, a senior decisionmaking group within a ministry is likely to be influenced by the culture of that ministry. Alternatively, in an inter-organizational group such as a cabinet or interagency coordinating committee, members may be highly influenced by their respective departmental cultures with regard to both substantive and procedural questions. The well-known adage "where you stand depends upon where you sit" captures this dynamic nicely, as does the oft maligned tendency of individual cabinet secretaries or ministers to "go native" and adopt the prevailing views of their departments (Destler, Gelb, and Lake, 1984:166-168; 't Hart, 1990/1994: 143-148; c.f. Andeweg, 1988:125-134). Thus, organizational socialization may be an important precondition for bureaucratic (or cabinet) politics.

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[8] National cultures may be highly relevant sources of socialization affecting group interaction as well, of course. See e.g. Markus and Kitayama (1991), Sampson (1987) and Vertzberger (1990: ch. 5).

Finally, patterns of intergroup conflict may have important implications for the level of cohesion exhibited within decision groups, a key variable emphasized in the classic groupthink pattern (Janis, 1982:4-5; Tajfel, 1982:15-16; 't Hart, 1990/1994:99, 114, 148-150). Perceptions of competition or threat originating from outside groups (such as rival intra-governmental groups, domestic political adversaries, or foreign adversaries) are likely to produce heightened cohesion within the decisionmaking group. Similarly, subgroup factions may be involved in conflictual relations with extra- (as well as intra-) group formations.

Step 2: Investigate the intra-group setting.

A number of key group composition and structural variables are thought to influence group processes. First of all, the degree of heterogeneity among the group membership has implications for the quality of group interaction and the breadth of perspectives brought to bear in group problem solving (Janis, 1982, 1989; Gladstein, 1984:503; Aldag and Fuller, 1993). For example, Janis (1989: 99) suggests that "a moderate degree of heterogeneity in basic attitudes and beliefs among the members of a policymaking group" in combination with member commitment to vigilant problem solving, yield the highest degree of likelihood that conceptual errors and faulty assumptions will be corrected in group deliberation. Alternatively, excessive homogeneity may contribute to the likelihood of groupthink; this may be due to direct effects on the information base or indirectly via tendencies toward heightened cohesion in homogenous groups.

A related factor is the specific politics of group formation, recruitment and exclusion. The answers to the following questions are likely to provide clues to power relations and factional constellations within the group (more on these topics below). What rules for admittance governed the group entry of each individual member or, alternatively, on what basis were individuals excluded? Were the participants included at the sufferance of a formal or de facto leader? Were they admitted as representatives of extra-group interests, responsible to an external constituency? To the extent that discretion over admission to or exclusion from a group is in the hands of the leader or particular members, homogeneity and conformity are more likely, barring the presence of countervailing norms for recruitment and deliberation. In particular, manipulation may be facilitated by such asymmetries of control.

Thirdly, group power and status structures are important factors which shape group interaction. In particular, a robust body of research suggests that groups rapidly develop informal pecking orders which strongly affect communication within the group (Bales, 1950; Moscovici, 1985; Nemeth and Staw, 1989: 180-182; Levine and Moreland, 1992:598-600). High status members tend to set the norms to which others conform and may feel free to deviate from emergent or

established norms to a greater extent than lower status members (Hollander, 1965). Status patterns within the group may reflect differences in external status and access to outside resources, differences in levels of experience, or differences in the strength of personal relationships to powerful individuals within or outside the group. They may also be based upon a range of seemingly irrelevant personal characteristics such as appearance, demeanor, age, gender, race, social background etc. Such informal status rankings may or may not correspond to formal roles in hierarchical groups. Attending to patterns of power and status within the group helps the analyst understand the outcomes of intra-group power struggles. Severe asymmetries of status and power, such as those associated with strong formal or informal group leaders are conducive to conformity dynamics (including groupthink). Power over the form of the decisionmaking process is also, as we have seen, a precondition for some types of manipulation.

Fourthly, the allocation of "expert" status to some group members matters. Wrong (1988: 52) discusses a source of power labeled "competent authority" which is the source of leverage available to those deemed "expert" (cf. French and Raven, 1959). George (1980: 21) addresses the case where decision makers are generalists and technical reports are submitted by "experts" outside the decision unit. He suggests that "expert advocacy" within the unit may be necessary in order to appreciate the subtleties and uncertainties associated with complex issues and to maintain critical distance in assessing analyses. Expert monopolies may create strong pressures toward conformity as non-experts may be reluctant to question an expert analysis which is not balanced by a competing analysis of comparable credibility.

It is also possible that expert advice may originate from within the small decision group. Rosenthal and 't Hart (1991) note that experts tend to glide into decisionmaking roles in crisis situations. This situation may recreate the uni-source problem George has identified. In fact, one may create a potential for group manipulation by those members with a monopoly on expert competence (Maoz, 1990: 93). Deference accorded experts in group deliberations is likely to be especially important when the problems addressed are complex and have important technical dimensions. Thus it is important to consider whether any of the group members enjoyed "expert" status, which made them relatively immune to challenges by others in the group. If so, did their status inhibit group debate, deliberately or inadvertently?

Group norms and decision rules are likely to be extremely important factors generating distinctive group interaction patterns. Norms "are shared expectations about how group members should behave" (Levine and Moreland, 1992: 600). Norms of deliberation and choice may be mandated by constitutional arrangements, set by leader fiat, by an initial voting procedure, or generated by the common experience of group interaction over time. In particular, norms may regulate the degree to which the agenda is open or constrained (such as by

leader mandate), the length of time taken in deliberations, the amount of information considered and the number of alternatives considered or reconsidered (George, 1980; Janis, 1982; Burnstein and Berbaum, 1983; Betthausen and Murnighan, 1985:350-52, 369-71). Norms may also regulate the extent to which dissenting views are expressed and the kinds of intra- and extra-group strategies which may be legitimately employed in persuasion and other forms of influence attempts. Norms of accountability may have a highly significant effect on the amount of cognitive effort expended by members (Tetlock, 1985a:368-370). Procedural models for "quality" or vigilant decisionmaking may be seen as general normative systems designed to promote a critical and analytical decisionmaking process (George, 1980; Janis, 1982; 1989). Group norms may encourage members to maintain a task orientation or, alternatively, encourage them to engage in the kind of gamesmanship associated with the conflictual dynamics outlined above.

One particular kind of norm, the decision rule, deserves closer attention. Decision rules are fairly specific procedural prescriptions regarding how to aggregate and weight member preferences in order to reach closure on an issue and enable collective action. Decision rules are thought to have a dramatic impact on group deliberation processes. For example, a unanimity rule may result in the application of strong pressure in order to bring a minority into line with an apparent majority. At the same time, such a rule would tend to protect the rights of the minority to be heard, by providing them with a veto. A consensus rule would tend to have similar, though slightly weaker effects, as a dissenting fringe might not necessarily block a choice favored by the bulk of the members. In contrast, majority or plurality rules may result in the marginalization of minority views. Coalition builders may focus their attention predominantly on those with closely aligned views in order to reach the magic 51per cent or to become the largest of the contending blocs (Kaplan and Miller, 1987: 311; Hermann, 1993:194-200). Another common decision rule (particularly in the U.S. foreign policymaking setting) is executive choice (George, 1980:98-101), which may result in communication patterns focused on the group leader.

Thus, decision rules are highly significant in pushing deliberative processes toward various forms of conformity and conflict. A given decision rule or, more subtly, discretion over which rule will be applied in situations where the appropriate decision rule is not obvious, may be exploited by prospective group manipulators. For example, additional options may be introduced in order to break apart an objectionable coalition that appears likely to "win". A manipulator on the verge of being caught in a minority might be able to shift the rule to "consensus" and improve his or her bargaining position (Burnstein and Berbaum, 1983: 550-552; Thompson et al., 1988; Scharpf, 1989: 153).

Finally, note once again that group development factors play a significant role in influencing group interaction patterns (Tuchman, 1965; Longley and

Pruitt, 1980; Aldag and Fuller, 1993; Stern and Sundelius, 1994). Tuckman and Jensen's (1973) revised theory of group development, subsequently supported by research findings, suggests that groups develop and decline in five stages – forming, storming, norming, performing, and adjourning – exhibiting characteristic behavior patterns. For example, in the formative stage, members may be uncertain, anxious, tentative, and inclined to seek direction from a leader figure (Moreland and Levine, 1988: 155-56) making them prone to newgroup syndrome. Groups in the storming stage are likely to exhibit conflictual group dynamics. Groups in the performing stage may be best positioned to sustain balanced critical deliberations.

Step 3: Investigate group leadership practices.

The literature suggests that the character of group leadership practices may have profound impacts on interaction patterns in the group at large.[9] While the literature on group leadership is vast, for the present purpose one important dimension will be emphasized: the extent to which leadership is directive as opposed to facilitative in group discussions. Directive leadership refers to situations where the (formal or informal) group leader promotes personal views strongly in deliberations. Those expressing deviant views may be denigrated or ultimately excluded from the group. Characterizations of the situation or suggested courses of action at odds with those of the leader may be rejected out of hand, without giving the rest of the group an opportunity to consider the independent merits of the idea in question. Leaders may deliberately or inadvertently grant privileged positions to advocates of a particular view, placing the burden of proof on dissenters and making it difficult for them to be heard. A classic example of this phenomenon is Kennedy's "sponsoring" of the CIA representatives in the Bay of Pigs Case (e.g. Wyden, 1979; Janis, 1982:42-46; Vandenbroucke, 1993:19-50; see also chapter four of this study). Highly assertive leadership practices may be associated with conformity in general, and with conformity in newly formed groups in particular (Burnstein and Berbaum, 1983; Stern and Sundelius, 1994:103-104). Directive leadership practices are an important antecedent of both classic (Janis, 1982) and reformulated ('t Hart, 1990/1994) notions of groupthink.

Facilitative leadership stands in bold contrast to directive leadership. Facilitative leaders may attempt to refrain from personally affecting the course

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[9] There is a close interrelationship between leadership and group norm formation. In some settings, such as the U.S. foreign policymaking setting (George, 1980; M. Hermann and Preston, 1994) powerful leaders may have a high degree of leverage in shaping group norms. Other policymaking settings may be characterized by lesser degrees of hierarchical leadership and enduring institutional norms resistant to executive impacts ('t Hart, 1990/1994). For a useful overview of the literature on group management, see P.C. Nutt (1989).

of group deliberations through their interventions. They seek to avoid placing advocates in privileged positions. They may attempt to conceal their initial preferences in order to draw out other members' views. Facilitative leaders may even choose to withdraw from deliberations in order to avoid influencing debate by their mere presence. They may take pains to encourage timid or lower status members to participate. In fact, they may emphasize the responsibility of each member to bring their knowledge, judgment, and analytical resources to bear in probing the issue under discussion. Such leaders may be wary of a rapid consensus and suggest that more rigorous inquiry might be needed prior to choice. Facilitative leadership is associated with what has been called balanced critical deliberations in the set of diagnostic patterns set out above.

The substantive character and the level of engagement on the part of group leaders may have a highly significant impact on the extent to which group members internalize a group identification (see below) and maintain a task orientation. Cabinet and bureau-political group dynamics are thought to be particularly likely to emerge when leaders are disengaged or are incapable of creating a common group identity and task-orientation which transcends more parochial interests (Rosati, 1981:248-250; Hermann, 1989:376). Group identity provides a natural transition to the next step which focuses on group cohesion.

Step 4: Examine the type and level of cohesion in the group.

One of the variables which has figured most prominently in the literature on group decisionmaking is cohesion (or cohesiveness).[10] This variable broadly refers to the forces, or balance of forces, holding groups together. A classic definition was submitted by Festinger (1950: 274):

> Cohesiveness of a group is here defined as the *resultant* of all the forces acting on members to remain in the group. These forces may depend on the attractiveness or unattractiveness of either the prestige of the group, members in the group, or the activities in which the group engages (emphasis added).

Cohesion as defined by Festinger may consist of member-member, member-group, or member-leader ties. By defining cohesion as a resultant, tendencies holding the group together (centripetal tendencies) and tendencies pulling the group apart (centrifugal tendencies) are amalgamated producing a "net" cohesion assessment (cf. Andeweg, 1988:147-149). In other words, cohesion and conflict are posed as opposite ends of a single dimension.

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[10] While a number of researchers have attempted to investigate cohesion as a dependent variable (see e.g. Hogg and Abrams, 1988 for a review) much of the research relevant to decisionmaking addresses the question of the relationship between cohesion and performance and views cohesion as an independent variable. See also 't Hart (1990/1994) and Mullen and Copper (1993).

For our present purposes, Festinger's expansive definition of cohesion is far too broad to be useful. We argue that it is necessary to at least partially disentangle the morass of motivations lumped together by Festinger if insight into the genesis of group interaction patterns is to be gained. In real world situations of high level decisionmaking, in contrast to some controlled laboratory settings, elements of group affiliative and conflictual motives commonly coexist. The challenge facing the observer is to be sensitive to the subtleties occurring in the interface between these two basic elements of group interaction. The analyst should keep in mind that groups are multidimensional in character, as are their individual members. As a result, we begin by treating centripetal and centrifugal dimensions separately.

Returning to the question of cohesion, it is also advisable (to the extent possible based upon the available empirical evidence) to separate out the impact of different types of attraction which may bind groups together. This is particularly important as several recent analyses focus on the distinction between social and instrumental cohesion on the one hand, and task cohesion on the other. Social cohesion refers to the intrinsic appeal and attractiveness of the group, the other members, and/or the leader (cf. Holsti, 1989: 21). Instrumental cohesion refers to the desire to maintain group membership in order to attain other types of goals, such as monetary reward or career advancement. Task cohesion refers to attraction to the group arising from the goals or purposes to which group is perceived as being dedicated. The latter is thought to have very different effects on group performance than the former two (e.g. Bernthal and Insko, 1992 and Mullen and Copper, 1994).[11]

These recent findings support an argument made more than a decade ago by Janis where he notes that not all types of cohesion are associated with conformity. Janis (1982: 247-8) submits that high social or instrumental cohesion tends to contribute to the development of groupthink syndrome, while cohesion springing from a high degree of common commitment to group tasks is not likely to do so:

> Concurrence seeking tendencies probably are stronger when high cohesiveness is based primarily on the rewards of being in a pleasant "clubby" atmosphere or of gaining prestige from being a member of an elite group than when it is based primarily on the opportunity to function competently on work tasks with effective co-workers. In a cohesive group of the latter type, careful appraisal of policy alternatives is likely to become a group norm to which the members conscientiously adhere.

McCauley (1989:252) further develops this line of reasoning, pointing out that

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[11] These authors emphasize that high levels of task oriented cohesion are associated with high performance. Bernthal and Insko's (1992) findings support Janis's hypothesis that high social cohesion can decrease performance in decisionmaking tasks.

the relationship between cohesion and conformity is in fact, even more complex and likely to be mediated by members' perceptions of the security of their position within the group:

> Cohesion, defined as attraction to the group, must be distinguished from uncertainty about approval from the group. Increased cohesion leads generally to more compliance and more acceptance [of group views], as indicated by Cartwright (1968), but an individual can be strongly attracted to a group and yet be so confident of group support and approval to have no need to comply with group expectations... even high cohesion, understood as attraction to the group will not lead to compliance unless an individual experiences some uncertainty about group approval.

Other scholars note the "idiosyncrasy credit" which may be at the disposal of some group members, allowing them to deviate from apparent majority views or group norms without sanction (Hollander, 1965).

To summarize, when assessing group cohesion it is important to not only to make overall assessments of the level of cohesion in the group, but also to make an effort to ascertain which types of cohesion seem to be most relevant in binding members to each other, to the leader, to factions within the group[12] and to the group as a whole. Furthermore, one should keep in mind that each member may be attracted to the group or to a subset of the membership for different reasons and have varying degrees of personal confidence in the approval of the group. These factors are likely to be of importance in making judgments regarding member internalization and compliance (at the individual level) and the extent of conformity in group interaction.

Step 5: Examine the type and level of conflict or rivalry in the group.

In this step the analyst seeks to survey the group for indications of negative affect or competitive relationships within the group. These relationships may take any of several characteristic forms in policy decision groups: bureaucratic rivalry, political and ideological rivalry, personal rivalry and antagonism. Any of these may form the basis for the formation of factions within decisionmaking groups.

In the literature on foreign (and domestic) policymaking in both the U.S. and Europe, the potential for organizational rivalries to emerge in intra-governmental interaction have been heavily emphasized (Welch, 1992; Andeweg, 1988, 1993; Rosenthal, 't Hart and Kouzmin, 1991, Stern and Verbeek, eds., 1998). Portrayals such as Allison's (1971; Allison and Zelikow, 1999) Model

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[12] Vertzberger (1990:246-249) has identified several properties of factions within the small group setting which generate tendencies toward conformity in group information processing. For example, lower ranking faction members may refrain from challenging the faction leader in wider deliberations.

III governmental politics paradigm focus on tendencies among the various departments and agencies to compete for power and influence. Generally speaking, the organizations are depicted as imperialistic, seeking bigger budgets, broader mandates, and increased autonomy in policymaking. Anderson (1987: 304) suggests that governmental "subcomponents" tend to interpret problems in light of organizational subgoals, identify actions within their own repertoire of competence on the basis of that interpretation, and seek ratification of these actions at broader multi-constituency decision meetings. In their attempts to do so, they may easily come into conflict with other organizations pursuing different agendas. Alternatively, it should be noted, when a problem is seen as insoluble or politically dangerous, organizations may seek to evade responsibility and compete to avoid being stuck with a political "hot potato."

As we have already noted, such battles over bureaucratic turf are commonly fought out in the small, inter-agency group setting ('t Hart, Stern and Sundelius, 1997:19-20; Kaarbo and Gruenfeld, 1998:229-231). In fact, to the extent that department or agency heads go native and are socialized into the subcultures associated with their organizations, bureaucratic politics may easily spill over into cabinet or "court" politics (Destler, Gelb, and Lake, 1984:163-237; Blondel and Müller-Rommel, 1993). At the latter levels, conflicts may also originate in ideological differences, such as those between "hawks" and "doves" or in negative personal relationships among particular individuals. It is easy to underestimate the impact of such antagonisms in the political setting. Yet practitioner memoirs are filled with references toward the impact of the personal factor on political decisionmaking. In systems characterized by strong executives, as in the U.S. or Britain, cabinet members and other aides may compete with each other for the leader's ear and favor, producing at times bitter conflicts over policy issues.

The phenomenon of coalition government so typical of parliamentary systems such as Sweden, Germany, the Netherlands, and Israel also creates the potential for conflictual relationships among the coalition partners (Andeweg, 1988; Blondel and Müller-Rommel, 1993). The bedfellows in such marriages of convenience may have an interest in advancing their own interests at the expense of their present allies or attempt to curry the favor of opposition groups with an eye to future governmental constellations. At times these conflicts may be sufficiently powerful, singly or in combination, as to create a policymaking deadlock as in the "nay-saying" dynamic noted above.

Thus, a key question to ask is to what extent are group members acting as committed advocates for competing organizational, political, or personal constituencies? Are informational resources being deployed strategically and with what effect on the information base available to the group as a whole? If so, what are the entrenched positions of the key actors and how do those differences and their respective efforts at exerting influence over outcomes translate into political resultants?

It is important to realize that such competitive or conflictual relationships may often be difficult to detect. A seemingly cordial surface atmosphere may conceal layers upon layers of conflict below. Like tectonic plates beneath the earth's surface can exert tremendous pressure on each other, which may or may not ultimately result in an earthquake, so too can conflictual relationships hidden beneath a seemingly cordial surface have significant impacts on group decisionmaking, without such conflict necessarily reaching the light of day in any dramatic way. This is often the case in successful cases of manipulation, which as we have seen, can take forms resembling either conformity or conflict dynamics.

Step 6: Engage in group process diagnosis by comparing the portrait generated by the first five steps above to the repertoire of interaction patterns outlined in Figure 1.

The final step in the procedure is to weigh the answers to the previous questions in order to establish the nature of the dominant group interaction pattern in a particular decision. In some cases, the results of the framework may clearly indicate that the group decisionmaking process revealed through empirical research matches neatly with one of the seven patterns in figure 1. However, the analyst should be sensitive to the possibility that the factors examined in the six-step procedure may indicate that the group process in fact exhibits traces or substantial commonalties associated with more than one pattern. This is not surprising. The depiction of a given episode which emerges from intensive historical research is often complex and multifaceted. Interaction patterns falling in between those mapped out above are to be expected.

It is illustrative that the application of our analytical framework to Swedish decisionmaking during a crisis triggered by the stranding of a Soviet Submarine on the Swedish coast, led to the identification of several of the patterns set out in figure 1 (Stern and Sundelius, forthcoming). Middle-range dynamics such as simple conformity, newgroup, manipulation, bureaucratic/partisan politics and balanced critical deliberation appeared. The more extreme and dramatic patterns, classic groupthink and nay-saying, did not. Why did the results cluster in this fashion?

A number of possible explanations come to mind. The characteristics of Swedish political culture explain partially the moderation of conflict dynamics. Norms of leader behavior grounded in the Swedish constitution and administrative practice discourage openly promotional leadership and encourage broad consultation and respect for professional expertise, factors largely incompatible with groupthink. The prevalence of mixed member motives and loyalties in the group settings studied inhibited extremes of insulation and cohesion conducive to "classic" groupthink effects. The group interaction

patterns were thus generated by particular combinations of cohesion, conflict, and group structural properties such as the stage of group development and the character of group norms.[13]

Given the complexities of real-world decisionmaking processes, a challenge put to the researcher will be to generate a sufficiently fine-grained account of the case under study to be able to distinguish reliably between patterns with substantial similarity of effects. This is reminiscent of the problem Bennet and George (1998: 16-17) have termed *equifinality* – different causal sequences can result in seemingly similar outcomes. In this case, apparently similar group level dynamics may arise out of different contextual, group structural, or individual level factors. In figure 1, basic conformity, groupthink, and newgroup syndrome are clustered together as conformity patterns. Should a decisionmaking process in an empirical case seem to exhibit a low degree of critical interaction and a rapid consensus regarding the nature of the problem, the values implicated, and, or the appropriate means of dealing with that problem, the analyst should see whether the contextual and structural variables noted above seem to rule out or highlight a candidate interaction pattern.

For example, if the decisionmaking group was one of long-standing and substantial stability in terms of membership and subculture, newgroup syndrome could be ruled out. Similarly, if the group seems to exhibit low levels of social and instrumental cohesion, does not appear to have been under particularly high levels of stress, and was not insulated from its organizational environment, then "classic" groupthink could probably be ruled out. By such a process of elimination, one might end up with basic conformity due to group pressure on the individual. This sequence might be the most common one, as the requirements for diagnosing classic groupthink are stringent, entailing the simultaneous manifestation of multiple situational and group structural conditions, which probably appear together relatively infrequently ('t Hart, 1990/1994).

Note too that it may be difficult to distinguish one form of manipulation (classed as a "hybrid") in figure 1 from conformity dynamics. Should tendencies toward conformity or concurrence-seeking in the group as a whole be exploited by a devious group member (or faction) then the group level process would give every appearance of being a conformity-based interaction pattern. However, the conformity would be "steered" and one would have to look to the individual consciousness and behavior of the manipulator in order to appreciate the conflictual game being played beneath the surface.

Ironically enough, it may also be difficult to distinguish between the other form of manipulation (orchestrated conflict) and conflict dynamics such as

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[13] Hansen (1999:8-9) applied the framework described in this chapter to the Swedish police management group investigating the murder of Prime Minister Olof Palme and found strong indications of conformity dynamics – primarily simple conformity and groupthink.

bureaucratic politics and nay-saying. A manipulator seeking to block action might deliberately create the kind of a deadlock associated with nay-saying. Similarly, "hardball" forms of bureaucratic politics characterized by intensive advocacy might entail gatekeeping and selective presentation of information bordering upon manipulation. This empirical research procedure is summarized in figure 3.2.

A procedure for empirical small group decision analysis

Step 1: **Investigate the extra-group setting** to locate the group within the wider political and institutional contexts.

Step 2: **Investigate the intra-group setting** to establish the composition, internal structure and culture of the group.

Step 3: **Investigate group leadership practices,** which commonly exert important influences in shaping the intra-group setting and in facilitating or hindering deliberations among the members.

Step 4: **Examine the type and level of cohesion,** which bind group members and their groups together, as this element helps determine group interaction and performance.

Step 5: **Examine the type and level of conflict or rivalries,** which pull members and their groups apart, as also this element helps determine group interaction and performance.

Step 6: **Engage in group process diagnosis** by comparing the portrait generated by the first five steps above to the repertoire of interaction patterns outlined in Figure 1.

Figure 3.2: A procedure for empirical small group decision analysis

4. Reflections and implications

Looking backward

In this chapter, it has been argued that there is a need to develop more discriminating diagnostic aids to be used in characterizing group decision and deliberative processes. Further, some preliminary analytical tools designed to facilitate the kind of empirical analysis necessary if one is to understand decisions taken or heavily influenced by policymaking groups have been developed. The review of the literature and the results of two empirical applications lead to the conviction that the groupthink-vigilant decisionmaking dichotomy advanced

by Janis and the tripartite division of small group interaction patterns (groupthink, bureaucratic politics, and leader-driven critical deliberation) favored by some scholars (Hermann, 1988) are too general to be of much use in dissecting real world decisions. More delicate instruments, like the ones developed in this chapter, are required.

The importance of taking into account the political-institutional context in which small groups operate has also been emphasized. An attempt has been made to develop a fairly comprehensive, step-by-step approach intended to capture the most salient features of decision groups and their environments and a number of the most important dimensions of group interaction. The author is aware that this approach is not parsimonious according to conventional understandings of that term. However, understanding a complex, social phenomenon such as the operation and impact of policymaking groups requires taking a wide range of intra and extra group personal, political, and institutional factors into account. To refrain from doing so risks the generation of superficial and misleading accounts of crucially important processes. Prescriptions based upon such flawed accounts are almost sure to do as much or more harm than good (see 't Hart, 1997:313, 315-317).

Looking ahead I: relaxing the single group/unitary problem assumptions

Much of the above discussion, like the bulk of the small group literature, is directed at the case where a single, stable, easily identifiable, and in the case of the foreign policy literature, a top level decision group, is the relevant decision unit. In practice, small groups in foreign policy often have shifting memberships caused by stratification into inner and outer circles, chronic cabinet and staff turnover and the ad hoc incorporation of experts into the decision unit or units. Furthermore, multiple groups lodged at various levels of administrative hierarchies may affect the decisionmaking with regard to a given foreign policy issue.[14] What are the analytical implications of relaxing these conventional assumptions?

For example, in the U.S. system, a given issue may be treated initially by inter-agency groups at the assistant or deputy-secretary level prior to treatment at the so called principals level. To take a recent example of a brewing foreign policy crisis, policymaking toward Iraq prior to the invasion of Kuwait was largely in the hands of the NSC Deputies committee. Then deputy national security assistant (soon to be CIA Director) Robert Gates was assigned responsibility for liaison between the two groups, attending meetings of both.

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[14] It is often overlooked that Janis's (1982) case study of the U.S. decisionmaking prior to the Pearl Harbor attack identified several relevant decision groups located both in Washington, D.C. and on site in Hawaii.

After the invasion, the issue quickly rose on the agenda and the Gulf Crisis was managed primarily by an inner circle around George Bush at the principal level. However, if one wishes to study the role of group deliberation processes in the run-up to the crisis, it is the former body that would probably be of primary interest (Woodward, 1991). It is quite common for issues to move up and down in the hierarchy during the course of their persistence on the policy agenda. Thus as one extends the time perspective, it becomes quite likely that multiple groups will emerge or that the membership of a relevant group will shift due to turnover effects.

As a result, the composition of group decision units may shift through any given crisis.[15] This is highly significant as groups composed of different individuals and representing different constituencies are likely to exhibit different group dynamics. A succession of radically different interaction patterns might well emerge if one tracked group decisionmaking over time through the course of a particular crisis or policy problem.

Identification of any specific group unit as the primary decision locus is to some extent arbitrary. The choice depends on an observer's preference, often a priori or theory-driven, to emphasize parameter-setting by professional staff, the bureaucratic-political interaction, or political decisionmaking (c.f. Wallin et al, 1999). An excessive preoccupation with the process of formal ratification of prior commitments may direct analytical attention away from key decision points. Formalistic views focusing on the concluding stages risk missing significant explanatory aspects. Parametric constraints and a broad range of behind-the-scenes maneuverings by political and bureaucratic actors would be omitted from this type of decision analysis.

As noted in the previous chapter, what we commonly refer to as a crisis, such as the Cuban Missile Crisis or the Whiskey on the Rocks Crisis, can also be seen as a series of related issues actualized by the broad crisis theme. These sub-problems making up the crisis may have different properties. For example, they may have varying degrees of technical complexity or involve different geographic areas. As a result, different individuals may be able to lay claim to expert status and speak with particular authority depending upon the substantive character of the issue. Since, power and status are important determinants of group interaction patterns, the analyst must be alert to the possibility that the same group might develop alternative interaction patterns as the topic of discussion shifts from one topic to another. This shift might be particularly dramatic if an expert monopoly led to deference and conformity with regard to one issue while opposing experts might facilitate balanced critical deliberations

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[15] This finding is in keeping with Levine and Moreland's (1990: 589) recognition of the importance and complexity of the functioning of multiple, inter-locking, and interdependent groups. See also Burnstein and Berbaum's (1983: 547) empirical findings in their case study of the Skybolt affair.

on another issue.[16] This finding, deriving from the small group setting, parallels studies in political science focusing on the importance of issues in determining the character of political processes in larger scale arenas.

Looking ahead II: Plausibility probing and conceptual development

Foreign policy practitioners are fond of noting that, when it comes to political deliberations and policy questions, the devil is in the details. Crisis analysts can draw some valuable lessons from this mindset. Experimental control and theoretical parsimony can generate valuable interpretive heuristics; they are not, however, substitutes for contextually grounded and empirically rich accounts of crucial real world decisionmaking phenomena. The tasks of process-tracing and diagnosis are time consuming, costly, even hazardous as the analyst risks being led down the garden path by imperfections in or manipulation of the available historical record. Despite these obstacles and pitfalls, it is imperative that scholars embrace this difficult but rewarding task.

In chapters four and six of this study, two such attempts at theoretically-motivated, historical case analyses of small group decisionmaking are presented. In chapter four, the analytical procedure developed in this chapter is used to structure an analysis of the Kennedy administration's decisionmaking processes in the Bay of Pigs case. In addition, that chapter focuses on and provides a reconceptualization of one of the group interaction patterns identified here – newgroup syndrome. In chapter six, the analytical procedure is applied to three instances of small group decisionmaking during the acute phase of what would come to be known as the Chernobyl Fallout crisis.

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[16] Empirical findings from a previous study of the Whiskey on the Rocks crisis suggest that this proposition is highly plausible.

Chapter 4:

Probing the Plausibility of Newgroup Syndrome: Kennedy and the Bay of Pigs[1]

1. Groupthink or newgroup syndrome in the Bay of Pigs fiasco?

Still flushed with the thrill of victory in the November 1960 presidential election, John F. Kennedy and his advisors committed the United States to an abortive attempt to overthrow covertly the Castro regime in Cuba making use of an invasion force of Cuban exiles trained by the CIA. The name of the landing site chosen for the operation which took place in April of 1961, the Bay of Pigs, has become an enduring symbol of foreign policy fiasco.

This incident is puzzling. Kennedy, whose life and presidency was cut short by a sniper's bullet, stands out as one of the most respected, revered, and emulated presidents of the post-war period. Kennedy's advisors, a carefully selected and relatively diverse group, are often considered to have been among the "best and the brightest" minds of two generations. Elder statesmen, cunning bureaucrats, captains of industry, and academic luminaries placed their talents, knowledge, and considerable experience at Kennedy's disposal. Yet, despite (or perhaps, because of) extensive group deliberations, Kennedy went ahead with a flawed plan based on a series of highly questionable assumptions. The result was an outcome which proved highly detrimental to U.S. interests in Latin America, to the U.S.-Soviet relationship, and to Kennedy's own reputation and political position.

The case raises a number of highly significant questions. Why were the underlying assumptions subjected only to cursory scrutiny and why were the hard questions rarely asked and the answers shrugged off? As Kennedy himself would later ask, "how could I have been so stupid as to let them go ahead?" (Vandenbroucke, 1984: 491). Furthermore, why did his advisory group prove unable to prevent Kennedy from embarking upon this course of action? Thus, in a nutshell, the puzzle of the Bay of Pigs is how so many individually smart and experienced policy makers could make such a poor group decision.

The present author is, of course, not the first analyst to take up these questions, nor the first to look to the operation of the advisory group and its relationship to the broader institutional context as a source of possible answers. In fact, Irving Janis (1972, 1982) formulated and launched the notion of groupthink in part as an attempt to answer these questions and to understand the tragedy of the Bay of Pigs (see also George, 1997). Yet, as we will see, the fit between this case and Janis's groupthink hypothesis is far from perfect. As a result, reopening the case and applying a more broadly-based small-group research strategy along the lines advocated in the previous chapter by seems worthwhile.

In particular, an alternative hypothesis will be explored. This hypothesis draws heavily upon the social psychological literature on group development and emphasizes the "newness" of the Kennedy advisory group.[2] Perhaps the Kennedy group fell victim to a *newgroup* syndrome instead of, or in addition to, the groupthink dynamics postulated by Janis? Many social psychologists have long believed that groups tend to behave differently and have characteristic behavioral patterns and problems at different stages of development. This literature suggests that newly formed groups or groups subjected to drastic changes in membership or in mode of operation may be particularly susceptible to pathologies of group deliberation. This line of thought has serious implications for political decisionmaking.

New groups are a common feature in political settings for at least three reasons. First of all, a substantial amount of research suggests that acute non-routine decision problems such as domestic or international crises are commonly handled by ad hoc groups, the members of which may have little experience in working together. Second, it is important to remember that changes of administration are likely to lead to the formation of new groups, which may be forced to deal with pressing issues on short notice and with little opportunity to reflect upon their mode of interaction. Thirdly, and paradoxically, existing groups can become "new" as the membership changes and the pre-existing group culture and practices are destabilized. In the political setting, this may occur when cabinets are reshuffled as one or more key players leave the scene or are forced to adopt a new role or ministerial portfolio. The potentially negative consequences of such transience and turnover on policymaking have been noted in the literature:

> Much more important than the experience or inexperience of political appointees is their transience as a group. Cabinet secretaries may bring with them a cadre of personal acquaintances to fill some of their

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[2] Following the official post mortem, Janis (1982:31) recognized the newness of the administration as a possible contributing factor. However, in a subsequent section (1982:33) he dismisses this factor as inadequate even combined with "political calculations," exclusion of experts and conformity based on a desire to preserve political capital within the group. Janis' assessment may, however, have been led astray, in part by his neglect of the emerging literature on group development which is discussed below.

subordinate positions, but in general public executives will be strangers with only a fleeting chance to learn how to work together....Rapid turnover intensifies all of the other problems of political teamwork (Hugh Heclo, 1977: 104).

Thus, the second and more theoretically-oriented purpose of this chapter is to provide a richer and more elaborated conceptualization of one of the group interaction patterns identified in the preceding chapter: newgroup syndrome. First however, it is necessary to lay an analytical foundation by taking a closer look at the broader notion of group development.

2. Groups over time

As suggested by t'Hart, Stern and Sundelius (1997:12-25), the small group can and should be seen as a small scale social institution with a developmental history and temporal perspective of its own. Small groups "have a critical context which includes their history, their expectations for the future, their structure, their purpose, and their relationship to other groups" (Worchel, Coutant-Sassic, and Grossman, 1992: 183). In this sense, the small group is isomorphic with larger social formations such as organizations, states, or international regimes.

Groups are not static; nor do they emerge, like the mythical Athena, fully formed in an act of divine creation. Rather, groups are convened at a particular point in time, from which they embark on a social trajectory of varying scope and duration. Some groups are characterized by extreme longevity; others are temporary constellations assembled for a single meeting or the duration of a single crisis. Some groups are spontaneously convened and short-lived, enduring only for minutes, hours, days, or weeks. Others may endure for years, decades, or even centuries.

Just as a number of influential theories – such as those by Piaget and Kohlberg – suggest that individuals progress through a series of recognizable developmental stages in the journey from childhood to well-adjusted adulthood, many scholars believe that groups pass through characteristic developmental phases (Tuckman, 1965: 396-7; Tucker, 1973; Worchel, Coutant-Sassic, and Grossman, 1992:189). Group developmental theory is based on observation of a wide range of group types , tasks, and settings – therapy, so called T – groups (sensitivity training), laboratory groups, and work groups in the natural setting. On the basis of this diverse empirical experience base, theorists have attempted to model characteristic phases through which groups tend to pass during their "life cycles" (Tuckman, 1965; Moreland and Levine, 1988).

The term *development* has a strong normative connotation in many of the contributions to this literature (Moreland and Levine, 1988: 155). Groups are seen as maturing (generally viewed as a positive quality) and increasingly

sophisticated as they "progress" through the developmental sequence (cf. Tuckman and Jensen, 1977; Moreland and Levine, 1988 on termination and "regression"). At each of these stages, groups are thought to exhibit characteristic patterns of conflict and cooperation. At some point, following some sequence of preliminary stages, these theories suggest that groups may reach a stage characterized by a salutary mix of individual differentiation and collective integration conducive to improved performance in the realm of the group's endeavor.

Developmental perspectives treat many of the same variables emphasized in the wider literature on group decisionmaking and performance. Group development addresses the question of how group structural characteristics change over time as a group acquires a history of prior interaction. Characteristics such as the level of cohesion, the clarity of group norm, role and status systems, and the strength of group identity are thought to change across the life-cycle and historical experience of a given group (Moreland and Levine, 1988: 154). A brief introduction to each of these central variables in the small groups literature and their relationship to group decisionmaking and development is useful.

Cohesion

Cohesion is a variable which has been the object of much attention and conceptual dispute among social and organizational psychologists and management theorists for some fifty years. Festinger (1950: 274) provided a seminal definition:

> Cohesiveness of a group is here defined as the resultant of all the forces acting on members to remain in the group. These forces may depend on the attractiveness or unattractiveness of either the prestige of the group, members in the group, or the activities in which the group engages.

Thus, cohesion may consist of member-member, member-group, or member-leader ties. While a number of researchers have attempted to investigate cohesion as a dependent variable, (cf. Hogg and Abrams, 1988) much of the research relevant to decisionmaking addresses the question of the relationship between cohesion and performance. As a result, cohesion is treated as an independent variable.

A first wave of studies based on work by Lewin, Festinger, Schachter and others suggested that cohesiveness contributes to member feelings of security, minimization of disruptive conflicts, and task coordination and thus is generally positively related to performance. This view was ultimately challenged by critical findings from several realms (Tannenbaum, 1966/1992:126-127; Janis, 1972, 1982) suggesting that the impact of cohesion is modified by the content of group norms, having the potential for both positive and negative impacts on performance (George, 1980:88-101). A recent meta-review integrating a large

number of empirical studies, reviews, and conceptual work suggests that commitment to group tasks, (as opposed to purely emotional or status attractions), is the key element in a modest cohesion-performance effect:

> the studies integrated here suggest that what distinguishes groups that perform well is not that their members interact with smooth coordination, like one another, or are proud of their group but that they are committed to successful task performance and regulate their behavior to that end (Mullen and Copper, 1994: 225; cf. Bernthal and Insko, 1992).

Mullen and Copper also found evidence of a performance-based developmental effect. Successful performance was found, predictably, to induce increased cohesion over time (Mullins and Copper, 1994: 225): "although cohesiveness may indeed lead the group to perform better, the tendency for the group to experience greater cohesiveness after successful performance may be even greater." Another line of research argues that groups subjected to external stress, such as that associated with inter-group conflict may develop an increased need for affiliation and become increasingly cohesive (Janis, 1982: 109-110; Tajfel, 1982; 't Hart, 1990/1994, chs. 2 and 7). Ironically, it has been suggested that situational provocations including "...recent failures, such as an unanticipated poor outcome resulting from a prior decision for which members of the group feel responsible, which makes the members aware of their personal inadequacies" (Janis, 1982:255) may lead to low self-esteem, increased attraction to the group and a susceptibility to collective avoidance ('t Hart, 1990/1994: 201).

Status

Relatively robust research findings from laboratory and other group settings suggest that groups quickly develop tentative status hierarchies (or power-prestige orderings) which may be revised to some extent over time (Bales, 1950). The content of early contributions to group discussions and external status indicators such as disparities in rank, social class, education, and power provide cues for such rankings. Demeanor (confident, or tentative), and physical characteristics, are also thought to be significant. Subtle dominance contests (such as staring games) may be used to settle those rankings which may be unclear on the basis of the previously mentioned criteria. Generally speaking, high status members tend to participate more frequently and authoritatively and are more influential than lower status members in group deliberations (George, 1980:87-88; Moscovici, 1985; Levine and Moreland, 1990: 598-599). The implication of the literature on group development is that groups at higher levels of development tend to have, by definition, relatively stable and well understood pecking orders – having previously resolved questions of status.

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Roles

Roles have been recently defined as "shared expectations about how a particular person in a group should behave" (Levine and Moreland, 1990: 601-603). Informal group roles may include "newcomer" and "oldertimer", "ambassador", "scapegoat", "devil's advocate", "constituency representative", "expert" and "leader." Role systems are highly relevant to the achievement of coordination, division of labor, and accountability. More highly developed groups tend to have more differentiated and less ambiguous role systems.

Norms

Group norms are central to the notion of group development. Norms are prescriptions indicating the appropriateness of particular attitudes or forms of behavior within a social setting. Norms may be substantive or procedural. Substantive norms may suggest that the holding of particular views define the view-holder as beyond the pale and indicate exclusion from the community in question (Lebow, 1981:125-129, 147; Steiner, 1989:657-652). Substantive norms regarding risk-taking are central in some contexts such as foreign or military policymaking. "Boldness" or "caution" may be the order of the day in a particular group or situation, depending upon group experience and context. Norms operate in conjunction with role and status systems in the regulation of participation by group members in discussions. Norms regarding the degree of conflict which will be tolerated and the diversity of opinions which will be solicited are extremely important and may vary across groups. It has been hypothesized that group experience determines norms such as willingness to process large quantities of information and consider a wide range of alternative solutions (Burnstein and Berbaum, 1983: 551).

Decision rules

Decision rules are procedures for the achievement of closure and the aggregation of individual preferences into an expression of collective will or action. Decision rules discussed in the literature include unanimity, consensus, majority, plurality, and executive choice. These rules tend to generate characteristic patterns of interaction with regard to conflict management, coalition formation, and the decisionmaking process. As a result, they affect not only the choice stage of a decision process, but also the previous deliberation (George, 1980: 98-101; Gaenslen, 1980; Scharpf, 1989:153; Hermann, 1993:194-200). Ambiguities regarding decision rules in newly formed groups may create opportunities for powerful and devious members to manipulate outcomes by shifting to a particularly advantageous rule in mid-stream. (cf. Maoz, 1990; Hoyt and Garrison, 1997).

Stages of Group Development

A considerable body of theoretical and empirical evidence supports the contention that groups do indeed pass through recognizable stages of development with characteristic properties (Cissna, 1984). One influential theory formulated in two steps by Tuckman (1965; Tuckman and Jensen, 1977) on the basis of an exhaustive literature review of previous theoretical formulations and empirical findings, suggests that groups develop and decline in five stages – forming, storming, norming, performing, and adjourning:

> Groups initially concern themselves with orientation accomplished primarily through testing. Such testing serves to establish the boundaries of both interpersonal and task behaviors. Coincident with the testing is the establishment of dependency relationships with leaders, other group members, or preexisting standards. It may be said that orientation, testing, and dependence constitute the group process of *forming*.
>
> The second point in the sequence is characterized by conflict and polarization around interpersonal issues, with concomitant emotion responding in the task sphere. These behaviors serve as resistance to group influence and task requirements and may be labeled as *storming*. Resistance is overcome in the third stage in which ingroup feeling and cohesiveness develop, new standards evolve, and new roles are adopted. In the task realm, intimate, personal opinions are expressed. Thus we have the stage of *norming*. [T]he group [then] attains the fourth stage in which the interpersonal structure becomes the tool of task activities. Roles become flexible and functional, and group energy is channeled into the task. Structural issues have been resolved, and structure can now become supportive of task performance. This stage can be labeled as *performing*. (Tuckman, 1965: 396).

Tuckman and Jensen's (1977: 426) characterization of the final *adjourning* stage in the life cycle of the group is rather sketchy. Moreland and Levine (1988: 156) provide a more cogent summary: "During this stage, everyone gradually disengages from both socio-emotional and task activities within the group. This disengagement reflects group members' efforts to cope with the end of the group" (cf. Worchel et al., 1992:194-195).

Tuckman's theory has a number of key strengths but also some omissions and ambiguities which should be recognized. Among the strengths are simplicity, a considerable degree of intuitive plausibility (Tuckman, 1965: 396), parallels with individual developmental theory, and the fact that a wide range of independent empirical studies seem to support the basic notion (if not every aspect) of developmental stage theory. Weaknesses include the over-representation of therapy, T, and laboratory groups and the under-representation of natural groups in the heuristic basis for and subsequent "testing" of the theory. Furthermore, key ambiguities persist. For example, Moreland and Levine (1988:

156) point out that: "The theory might be made more precise by specifying how long each stage lasts or why different kinds of groups develop in different ways but that might be asking too much of a theory meant to apply so broadly."

Another contested issue in this literature is whether or not the sequence of progression through the stages should be seen as invariant or contingent. For example, Tucker (1973: 264, 267) takes a "dialectic" view and argues that the basic sequence is invariant, as it is only through the enactment and resolution of characteristic conflicts (thesis, antithesis, synthesis) that development may take place (cf. Ziller, 1977). Worchel et al. (1992:188) take a similar, though somewhat softer position, emphasizing the "order" of stages. Tuckman (1965: 397) himself suggested that sequencing may depend on differences within and among particular group settings with regard to the content of the stages, the rate of progression through the sequence, and the order of the stages. It should be noted, however, that the dispute over the sequencing of the later stages of group development hides a broad consensus regarding the basic character of the forming stage which remains logically prior to the others.

The rate of development is another issue worthy of consideration. A seeming strength of Tuckman's model is that it seems to subsume broad patterns of developmental progression noted in work as diverse as that of Bion (e.g. 1961) and Bales (1950). While Bion studied therapy groups which endured for many months or even years, Bales studied laboratory groups convened for hours up to several days. On the one hand, the parallels among the developmental trajectories noted seem striking. On the other hand, the notion that the rate of development can be hundreds or thousand of times faster in short-term groups is startling. Tuckman submits some explanations for this rate differential. He argues that short-term laboratory groups are forced by situational constraints to engage in problem solving almost immediately. This rapid engagement is facilitated by "the impersonal and concrete nature of the laboratory task" (1965: 397). In addition, guidance and explicit instructions provided by the experimenter may reduce ambiguity and accelerate orientation. In contrast,

> Emotionality and resistance are major features of therapy group development and represent personal and interpersonal impediments to group development and solution attainment as a function of the highly emotionally-charged nature of the therapy group task (Tuckman, 1965: 397).

Where does that leave real-world policymaking groups? Generally speaking, they would seem to fall somewhere in between. Like therapy groups, real-world policy groups must face up to potentially high levels of affect (positive and negative) which accumulate during the course of political or bureaucratic interaction. Constellations of prior personal relationships and enmities are likely

to affect group interaction and faction formation, thus affecting the rate of development. For example, it has often been suggested that President Jimmy Carter's Georgians and Ronald Reagan's Californians formed cohesive subgroups which impacted heavily upon decisionmaking, particularly in the early days of the two administrations. Similarly, in top level decisionmaking the stakes are commonly high in terms of career prospects, ideological commitments, and valued personal relationships – values which may be placed in jeopardy in group interaction and may exacerbate conflicts. Both the Carter and Reagan administrations developed bitter rivalries of epic proportions among advisors such as the Vance-Brzezinski and Weinberger-Shultz feuds. While policy problems commonly are ill-structured (as in therapy groups), members may be guided to a considerable extent by precedent or explicit instruction (as in some laboratory settings).

Another issue commonly glossed over in the group development literature is the question of membership turnover (cf. Ziller, 1977 and Moscovici and Doise, 1994). The point of departure seems to be the notion of a group with a stable membership which travels intact through the stages. However, where group boundaries are fluid and members move in and out during the period of time in question, major questions arise. As membership shifts, at what point does the old group cease to exist and a new one appear? Moreland and Levine (1988) provide some guidance in this regard through their work on member assimilation and group accommodation. They suggest that a two-way influence process takes place when membership change occurs within a group. Groups exert pressure on new members to conform (assimilate) to group norms and practices. New members may demand that the group adapt (accommodate) to their presence by changing norms and practices. Where accommodation outstrips assimilation, one might say that a new group has been formed out of the remnants of the old one. It seems reasonable that in such a situation, a group undergoing radical membership change might well regress in its development as uncertainties and interpersonal unfamiliarity reemerge. Paradoxically, in such situations a group can become "new" in an important sense.

3. New groups

Given the thrust of the group development literature which emphasizes that groups must pass through the preliminary stages prior to achieving optimal readiness for performance, how do newly formed groups manage their interaction and coordinate the contributions of individual members? This is a highly policy-relevant question since ad hoc, newly established, or newly restaffed groups, committees, and task forces are a common feature of the political-administrative landscape.

Such bodies litter the policymaking field during periods of political transition. Even though such groups may not yet have progressed very far in their development, they may be called upon to make critical decisions on short notice. For example, the Clinton administration took over the reins of power with several foreign policy crises (Bosnia, Haiti, Somalia, Iraq) in progress, as well as an agenda overloaded with other pressing domestic and foreign policy issues.

Moreland and Levine (1988: 64) note, in keeping with the conventional thinking in the group development literature that "before it reaches the performing stage, the group has not yet evolved a clear set of norms," While plausible, this characterization is somewhat misleading for several reasons. First, while a clear set of group-specific norms may not yet have evolved, typical adult group members bring with them a wealth of experience of group interaction. Such experience may derive from wider organizational or societal cultures and practices as well as from previous membership in other groups. This is, of course, particularly true of governmental decision makers.

Therefore, early group interaction is affected in important ways by the extra-group cultural baggage imported by members, particularly during the early stages of group formation and development. As Bettenhausen and Murninghan observe (1985: 350) "uncertainty over appropriate behavior leads members to use their past experiences in similar settings as scripts for choosing behavior in the current situation". Where individual member experience and normative-procedural scripts appear to converge, early interaction may proceed (or appear to proceed) relatively smoothly. However, significant differences among member scripts and role conceptions may go unnoticed for some time and have a negative effect on task coordination, performance, and longer term group stability.[3] Important matters may fall through cracks in the system, if mutual expectations are not made explicit through some kind of communicative process.

Many scholars have emphasized that coordination of policymaking processes in complex, multi-layered institutional systems, such as the U.S. presidency is a difficult matter under the best of circumstances. For a variety of reasons, the newgroup context may be far from the best of circumstances.

To the extent that the group persists, it will be increasingly affected by an emergent group-specific culture. This culture is the product of repeated interaction, experience, and patterns of power distribution and hierarchy within the group:

> Depending upon the similarity of the members scripts, a common basis
> for action is either taken for granted or negotiated within the group. As

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[3] Bettenhausen and Murninghan (1985: 369), call this state "pluralistic ignorance" and suggest that (coordination difficulties aside) the condition is associated with latent group instability and relatively poor performance. Individual views are likely to harden, impairing the group's ability to cope with future threats, challenges and controversies.

the members interact they tacitly revise their beliefs about appropriate action, implicitly agreeing with the direction, or overtly attempt to pull the group toward their own interpretations through challenges to the implied norm. (Bettenhausen and Murninghan, 1985: 350)

These authors (1985: 352) suggest, on the basis of experimental evidence, that groups respond to a high degree "to their own precedents, set early in their initial interactions".

Extra-group norm imports are not the only source of normative guidance which may be available to newly convened decisionmaking groups. To the extent that such groups are characterized by internal or externally sustained hierarchies, a formal or emergent leader figure may have the power to set initial ground rules more or less by fiat (cf. George, 1980; Bettenhausen and Murninghan, 1985: 351). This is particularly likely to be the case where the leader is also the group convenor, enjoying wide powers over the recruitment and exclusion functions as in the U.S. presidential setting. Thus leaders may serve as precedent and norm-setters, reducing uncertainty during the early period of group existence. From the perspective of enhancing group information processing and problem solving capacity, such leader norm-setting may have positive or negative impacts, depending upon the content and strength of the norms he or she establishes. To draw another illustration from the U.S. presidential setting, George Bush was relatively successful in establishing norms generally conducive to balanced and critical advisory group interaction from the very start of his presidency. In contrast, the norms set by Carter did not inhibit what several observers have suggested was excessive conformity among advisors during the early part of his administration (Moens, 1990; George and Stern, 1998).

What happens if the leader (or some surrogate process manager) does not exercise this prerogative? In that case, there is a serious risk that group interaction will spontaneously evolve in a fashion leading to excessive degrees of conformity or conflict (an abrupt shift into the "storming" stage); either of which may have negative effects on group decisionmaking. The issue of conflict in newly established groups will be put aside for the time being in favor of a focus on new groups and conformity.

4. New groups and conformity in the political setting

The tendency of individuals to conform to various forms of overt or covert group pressure is well documented in the small groups literature. These findings are extremely robust – classic experiments by Sherif, Asch, Schacter and others have been replicated, modified and elaborated by large numbers of researchers in a variety of cultural contexts (Moscovici, 1985; Nemeth and Staw, 1989) There is reason to believe that pressures toward conformity are particularly

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strong in newly formed small groups. In fact, as has been recently noted in the literature, many of these experiments have been conducted upon artificial ad hoc groups existing for very short durations of time (often minutes or hours, cf. Ziller, 1977: 307; McGrath et al., 1993: 415). As a result, it is possible that conformity effects associated with new groups may have influenced their results. On the other hand, group phenomena such as conformity are generally regarded as weaker in the laboratory setting than in natural groups where affect and salience, such as moral or instrumental considerations (e.g. career prospects), tend to be of a far greater magnitude (Mullen and Copper, 1994).

As has been noted by scholars in several disciplines, the so-called shadow of the future, a vivid metaphor for the expectation of future interdependence, is extremely relevant to questions of cooperation/conflict and conformity/deviance. Where the shadow of the future is short, indulging impulses toward conflict and idiosyncrasy may be highly attractive. The short term benefits promised by the behavior may predominate. However, as the shadow of the future lengthens and prolonged interaction is contemplated, the costs of such behavior and the benefits of cooperation or conformity may take the upper hand in decisionmaking calculations. Robert Axelrod (1984) makes a version of this argument in *The Evolution of Cooperation*, suggesting that making the Prisoner's Dilemma an iterated, rather than a single play game, leads to cooperation between the players as the dominant outcome. Social psychologists have made similar arguments. For example, Ziller (1977: 305) draws on exchange theory and reports experimental results supporting the hypothesis that "conformity in small groups increases when an individual believes there will be an opportunity for future interaction with the same group". This is based on the notion of conformity as paying in advance for future benefits; a prerequisite for which is the expectation that the social relationship will be sufficiently stable and durable so that collection can take place at some unspecified point in the future.

All other things being equal, the shadow of the future would seem to be longest at the beginning of a particular endeavor, tending to increase conformity incentives in newly formed groups. Such pressures are likely to be particularly strong in newly formed groups where members share the expectation of a longer term and highly salient interaction. Of course, in groups formed with the expectation of holding together for only a very brief period, this effect might not be very strong.

United States presidential advisory groups tend to operate with frames of reference measured in years and membership is generally highly salient to members who may view the experience as the pinnacle of their careers. In such groups, conformity pressures tend to be particularly strong at the outset.[4] Why

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[4] Conformity pressures would also be expected to wane as the end of a second term approaches and the president becomes a 'lame duck' and the group moves into an 'adjourning' phase.

is this the case? Individual advisors are likely to try and avoid squandering political capital and their access to a newly elected president by taking unpopular stands, defying the executive who just appointed them, or deliberately or inadvertently offending some powerful figure. While such hierarchies are being worked out and procedural and substantive uncertainties prevail, caution and compliance would seem to be the order of the day.[5]

It has been suggested that the key to compliance is the level of an individual's confidence in group approval (McCauley, 1989:252). Hollander (1958) coined the term idiosyncrasy credit to capture the latitude granted a leader or particularly esteemed group members to deviate from group norms. The context of newly-formed groups is one in which relatively limited opportunities for earning idiosyncrasy credit are likely to have presented themselves. For most members, the account is likely to be empty. Members of a newly formed group tend to be uncertain about the support of the other members and therefore are relatively likely to conform to nascent group norms or the preferences implied or expressed by the leader or other assertive figures within the group.

Stern and Sundelius (1993, 1994) have coined the term *newgroup syndrome* to capture a hypothesized pathological conformity dynamic liable to occur in newly formed policy groups. As has been suggested above, in ad hoc or newly institutionalized groups, i.e. those in the *forming* stage to use Tuckman's terminology, a common group subculture and well developed procedural norms tend to be lacking. This vacuum creates uncertainty among the members who are likely to be anxious, tentative, dependent and, therefore, particularly inclined to take direction from a leader or other assertive group members within the group (Moreland and Levine, 1988: 155-156; Wheeler and McKeage, 1993: 65-66). These conditions create incentives for both compliance and internalization on the part of the individual member, which in turn results in a tendency toward conformity in the group as a whole. Longley and Pruitt (1980: 87) have argued that in newer groups:

> Group members are uncertain about their roles and status and thus are concerned about the possibility of being made a scapegoat or even excluded from the group. Hence they are likely to avoid expressing opinions that are different from those proposed by the leader or other powerful persons in the group, to avoid conflict by failing to criticize one another's ideas, and even to agree overtly with other people's suggestions while disagreeing covertly. Such actions sound very much like groupthink.

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[5] It is, of course, possible to find examples of political figures who proceed aggressively from day one in group policymaking. General Alexander Haig's brief tenure as Secretary of State in the first term of the Reagan administration comes to mind. However, the brevity of that tenure also illustrates the potential risks of not taking the time to feel out the political landscape and emergent norms developing in a policy group. Haig's early attempts to dominate the foreign policy process served to alienate key constituencies and pave the way for his downfall (Smith, 1988; Cannon, 1991).

Longley and Pruitt suggest that these behaviors may be, in part, the result of what they term "false cohesion" based on the insecurities of the situation and member motivations to maintain their membership and maximize their acceptance by the group. Note that according to the definition of cohesion adopted above, such motivations are legitimate components of cohesion, despite the lack of close personal relationships.

Actually, newgroup syndrome may appear even in only moderately cohesive groups and may in fact be exacerbated by the defensive mentality associated with policy environments rife with personal, factional or bureaucratic politics-style conflict. There are indications that larger newly convened deliberative groups may be especially liable to excessive conformity. This susceptibility to conformity suggests that new groups may be particularly ripe for manipulation attempts as well (Stern and Sundelius 1993; 1994; Hoyt and Garrison, 1997).

Virtually all new groups are thought to have these latent propensities. Yet, *not all new groups develop newgroup syndrome.* As Burnstein and Berbaum (1983: 551) have suggested, one critical factor is whether or not leaders intervene actively in order to set roles, norms and ground rules which suspend extra-group status considerations and encourage broad and forthright participation from the very start. Alternatively, in less or non-hierarchical new groups, constructive ground rules empowering the membership can be established through a collective negotiation process (Bettenhausen and Murninghan, 1985:369)

5. Some potential critiques of the newgroup concept

In the spirit of balanced critical deliberation, it seems prudent to present some observations from the relevant literature that seem to question the underlying assumptions of newgroup syndrome.

Normative ambiguity motivates critical thinking

Philip Tetlock, in his influential study of accountability, suggests that individuals tend to take the cognitive path of least resistance. Therefore, when the views of others are known, they tend to conform, applying the "acceptability heuristic," rather than take the social risk and expend the cognitive effort required to adopt a dissenting or critical posture (Tetlock, 1985a:311). Alternatively, in situations characterized by normative ambiguity, individuals are motivated to expend more cognitive effort in making decisions: "Accountability to others of unknown views has been found in a number of studies to 'motivate' people to become more vigilant, complex, and self-critical information processors..." (Tetlock, 1985a:

314). By extension, in newly formed groups (relative to well-established ones) it could be argued that members are more likely to be ignorant of the views of others and therefore more vigilant.

On the other hand, it has already been suggested that internal structures of individual responsibility and collective coordination are often poorly developed in newly formed groups. Therefore, members seeking the course of action which offers both safety and cognitive least resistance may well adopt passivity rather than vigilance under these circumstances. As a result, new groups may be particularly liable to social loafing (Levine, Resnick and Higgins, 1993: 589-90). Thus the logic of accountability can be turned in defense of the newgroup notion as well. Furthermore, there is reason to believe that social loafing may affect group decisionmaking as profoundly as the tendencies toward conformity already noted.

Group freshness can sometimes be a virtue

In a study of "collective mind", Weick and Roberts (1993: 375-6) extol the virtues of newly formed groups in terms of their capacity for alert and heedful thinking, arguing that institutionalization tends to decrease vigilance in high reliability cultures and some other special contexts. These scholars point to newly formed, short term groups exhibiting a high level of coordination (such as in crisis participants, ad hoc projects, aircraft cockpits, and jazz improvisation), suggesting that such groups are highly vigilant despite low levels of bonding and prior interaction. They quote a study by Eisenberg, who asserts that such groups are based upon a "non-disclosive intimacy" that: "stresses coordination of action over alignment of cognitions, mutual respect over agreement, trust over empathy, diversity over homogeneity, and strategic communication over unrestricted candor" (Weick and Roberts, 1993: 375).

Explicitly engaging the group development literature, Weick and Roberts (1993:376) suggest these as examples of highly sophisticated and structured interaction subversive of conventional notions of group development:

> If people are observed to contribute, represent, and subordinate with heed, these actions can be interpreted as operations that construct a well developed collective mind; however, those actions can also be seen as the orienting, clarifying, and testing associated with the early stages of a group just beginning to form. By one set of criteria, that associated with group formation, people engaging in forming are immature. By another set of criteria, that associated with collective mind, these acts of forming represent well developed mental processes. These opposed criteria suggest that groups may be smartest in their early stages.

Their argument, then, is that for tasks requiring vigilance, new groups may be likely to outperform more developed or institutionalized groups.[6]

How subversive of the notion of newgroup syndrome is this argument and these examples? First of all, many of the examples (airline cockpits and jazz improvisation especially) are taken from situations where temporary group constellations are drawn from members of wider sub-cultures, where individuals are likely to have a high degree of convergence in their operative "scripts". Such convergence is the result of common aspects of formal and informal training, and common experience of prior similar situations, a possibility which was recognized above. Several of these situations also commonly exhibit strong leader figures, such as airplane captains, who may provide members with covert or overt cues, helping to reduce rapidly normative ambiguity. It is also interesting to note that the bulk of these situations (as described in general terms) seem to exhibit short time frames and shadows of the future, tending to decrease pressures for conformity. Finally, the character of the task and the clarity of performance indicators may facilitate coordination in some of these situations. Uncoordinated musical performances produce cacophony, suggesting that coordination failures are likely to be detected and corrected immediately through tacit or explicit communication. Similarly, uncoordinated and faulty performances in flying an aircraft are likely to produce immediate and recognizable feedback. Such relatively structured tasks and clear feedback are less common in the realm of policymaking, where (as was noted in the introduction to this study), tasks tend to be ill-structured and feedback ambiguous at best (Senge, 1992:63).

In sum, these potential critiques – while cogent and reasonable when taken upon their own terms – do not appear to warrant dismissing the newgroup concept in the political context (summarized in figure 1). Let us now turn to a real-world empirical case in order to probe the plausibility of newgroup syndrome.

Ambiguous Intra-group Context →	Tendencies Toward Member →	Susceptibility to Group Pathologies
Norms	Uncertainty	Excessive conformity
Rules	Passivity	Manipulation
Roles	Diminished accountability	Social loafing
Responsibilities	Tactical 'caution'	Malcoordination
Power structure	Compliance and internalization	
Social relationships		

Figure 4.1: Newgroup Syndrome: A Schematic Summary

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[6] Weick and Roberts (1985: 376) suggest that groups steadily lose 'mind' as they become institutionalized, and must 'reform' periodically in order to maintain the capacity for 'heedful inter-relating'. Bernthal and Insko (1993: 85) have recently made a similar argument suggesting that assembling diverse combinations of individuals drawn from an available pool of talent into short-term task groups might be a better approach than maintaining "long-standing teams".

6. A newgroup plausibility probe: The Bay of Pigs case revisited

Having fleshed out and critically examined the newgroup interaction pattern briefly noted in the previous chapter, it is time to reconsider the puzzle of the Bay of Pigs case described in the opening section of this chapter. The inquiry into the case will be structured by the systematic process-diagnosis procedure presented in chapter 3 of this study. While an important motivation for this exercise was to probe the plausibility of newgroup syndrome, the case analysis presented here is relatively generic and geared towards identifying the range of group interaction patterns observable in this case. It will not focus exclusively on the manifestation/non-manifestation of newgroup syndrome.

Only months into his presidency, Kennedy stumbled into a major foreign policy fiasco: the Bay of Pigs. This episode has been described by knowledgeable observers in terms such as "a perfect failure" and "among the worst fiascoes ever perpetrated by a responsible government" (Janis, 1982: 14). The compelling aspect of the Bay of Pigs story is, as we will see, that the failure seems entirely avoidable. While it is always tempting to make such judgments with the benefit of hindsight, a strong argument can be made that raising a few serious questions regarding the more obviously dubious assumptions behind the Bay of Pigs invasion plan should have been sufficient to alert the President to the excessive risks entailed by the operation. Yet these questions were asked rarely if at all, and even then the implications of the answers were dismissed more of less out of hand.

In the spring of 1961, the newly elected President Kennedy reportedly perceived himself to be under pressure from constituencies inside and outside the government to do something about the rapidly radicalizing Castro regime in Cuba. Kennedy had inherited from his predecessor a CIA covert-operation in advanced stages of preparation. This was based on the idea of landing a modest force of exile Cubans on Cuban soil in order to overthrow Castro. The force was based in training camps in Guatemala. CIA intelligence reports conveyed to the president and to the advisory group suggested that such a landing would trigger a "spontaneous" revolt and a wave of sabotage against Castro's forces. Castro's ability to retaliate could be crippled by air attacks (by obsolete U.S. planes with Cuban markings) against Cuban air fields in the early stages of the operation. A disinformation effort including a show defection of a "Cuban" pilot to Miami would help to obscure the U.S. involvement.[7]

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[7] For accounts and analyses of the Bay of Pigs fiasco, see Schlesinger (1965); Wyden (1979); Janis (1982: ch. 2.); Vandenbroucke (1983, 1993); Beschloss (1991); Higgins (1987), Reeves (1993), Bissell (1996), and Blight and Kornbluh, eds. (1998). In addition, a number of previously classified documents and official post.mortems which were previously difficult or impossible to obtain have recently become available. These include the documentation published in the *Foreign Relations of the United States* (FRUS) series in 1998 and the so called Kirkpatrick Report , also known as the (CIA) *Inspector General's Survey of the Cuban Operation*, which was also released in 1998 and is now available at the web site of the National Security Archive (http://www.gwu.edu/ nsarchiv).

A number of highly questionable assumptions and assessments escaped critical scrutiny during the group deliberations. First, Kennedy and his advisors seemed to believe that the administration could maintain the secrecy, or plausible denial of U.S. involvement in the operation despite the fact that the plans had become an open secret known even to a number of journalists *prior* to the operation (Reeves, 1993: 83-84). They assumed that the operation would enjoy the element of surprise when in fact Castro himself had gotten wind of the plan. Second, they failed to question the likelihood of the spontaneous rising assessment. As it turned out, Castro had penetrated the resistance network and rounded up potential rebels prior to the landing of the exile force. Third, the Kennedy circle labored under the misconception that the exiles would have an escape route to the Escambray mountains should the landing prove unsuccessful. However, a change of venue in the latter stages of the planning foreclosed this possibility. Fourth, Kennedy reportedly assumed that an overt U.S. intervention would likely trigger Soviet retaliation in Berlin, an assumption which was never subjected to rigorous questioning by experts. Finally, on a more general level, Kennedy apparently incorrectly assumed that the information he received from the intelligence and military experts was balanced, impartial, and informed by special professional competence beyond question by non-professionals.

What were the results of the decision to go forward on the basis of these assumptions? The April 1961 Bay of Pigs operation should be seen as nothing less than a political and military disaster. Within two days, the U.S.-sponsored exile expeditionary force was decimated and forced to surrender in the face of overwhelming Cuban loyalist numerical and air superiority. One hundred and fourteen exiles lost their lives and the other 1,189 were captured by Castro's forces. Furthermore, the short and longer term political consequences were severe. Feeble U.S. attempts to deny involvement were generally met with disbelief by the international community, damaging the nation's international credibility. The U.S. action was denounced at the United Nations by allied and political rival countries alike. The Latin American countries were, understandably in light of the U.S. history of intervention in the region, particularly incensed.

The poor U.S. performance led to a questioning of Kennedy's courage, will, moral fiber, and competence at a critical juncture of his presidency and the on-going Cold War with the USSR. The abortive intervention attempt also served, ironically enough, to further cement the developing ties between the Castro regime and Soviet Union leading to a detrimental change in the local security environment. The administration's clumsy execution of the operation and apparent lack of resolve may well have encouraged Khruschev to believe that he could get away with the strategic gambit which would ultimately trigger the Cuban Missile crisis of 1962 (Janis, 1982: 15).

This historical episode presents us with a puzzle of sorts. As Kennedy reportedly lamented after the disaster, "How could I have been so stupid to let them go ahead?" (Vandenbroucke, 1984: 491). Furthermore, why did such a dedicated, talented, experienced, and professional group of advisors allow Kennedy to place himself in such a position? Ironically, these may well have been, for the most part, the right persons in the right positions at the right time. Many of the them would go on to perform admirably in subsequent crises. Somehow, in this situation, the individual intellectual horsepower and combined experience of these advisors failed to translate into an effective advisory group performance. What went wrong? The puzzle of group information processing in the Bay of Pigs case then, to put it crudely, is how could so many individually smart and experienced policy makers make such a poor group decision?

In an attempt to explore the role of small groups contributing to this failure, a systematic analysis of the functioning of Kennedy's advisory group and its relationship to the wider institutional structures in which it was embedded will now be presented. The analysis will be based on the six-step analytical scheme developed in chapter three.

Step one: The extra-group setting

The key decisions in the Bay of Pigs case were taken by Kennedy in consultation with a small group of top-level advisors. However, in order to understand the group's mode of operation and "working conditions" it is important to examine the wider temporal, political and organizational context.

First of all, the Bay of Pigs decisions were, as noted above, taken in the first three months of the Kennedy administration. In fact, it is quite fair to describe the general atmosphere of that time as a "honeymoon in Camelot." Kennedy's public approval ratings were high and had improved dramatically since the election.[8] This was not, by any means, an administration under siege.

This is not to say that Kennedy and his advisors did not see potential rivals and enemies within and outside the government. Following an election in which he narrowly defeated a more conservative opponent, Kennedy was mindful of his right flank. In fact, Kennedy's campaign had emphasized Cold War themes and criticized the Eisenhower administration for passivity and complacency in the face of the Soviet threat. The spurious (but politically volatile) "missile gap" and the Castro regime in Cuba became symbols for the previous

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[8] A poll conducted by Lou Harris on March 23 found that 'Public popularity has risen to perhaps record heights,' apparently surpassing both F.D. Roosevelt's and Eisenhower's ratings at that point in their presidencies (quoted in Reeves, 1993: 73)

administration's alleged shortcomings in this regard.[9] In an important sense, Castro had become a politically-loaded enemy figure for the new administration.

It is also important to keep in mind that like many U.S. presidential advisory groups, the Bay of Pigs group was inter-organizational and informal in character. Participants were drawn from various agencies including the CIA, the State Department, the Defense Department, the Armed Services and the White House Staff. Thus no common organizational subculture appears to have been shared by the members. In addition, since the members came from different "parallel" organizations, most of the principals may be seen as formal equals though, of course, subordinate to the president.

However, where more than one participant from a particular agency was involved, intra-organizational status is potentially relevant. For example, Allen Dulles (the CIA Director) was formally superior to Richard Bissell (the CIA Deputy Director for Plans). Such relationships may be significant with regard to questions of inclusion and exclusion from the group. For example, Dulles and Bissell chose to exclude representatives from the CIA's Directorate of Intelligence from the decision group in particular and from the planning of the operation in general. Even the Deputy Director for Intelligence, Robert Amory, was excluded despite his extensive experience in amphibious landings of the type under consideration in what developed into the Bay of Pigs operation (Schlesinger, 1965; Andrew, 1995: 261).

As a result of this penchant for secrecy, much of the CIA's area expertise was never brought to bear in an in-depth and systematic analysis of the political situation in Cuba. The operation was viewed as so sensitive that participants in the decisionmaking group were discouraged from consulting experts at lower levels in their respective organizations. This applied not only to the CIA experts, but also those affiliated with the State Department. As one analyst noted:

> Excluded [from the decision making process] were most of the government's Latin America experts, both within the CIA's Directorate for Intelligence and the State Department. In addition, the non CIA officials reviewing the project were mostly generalists who knew little about Cuba or Latin America (Vandenbroucke, 1993: 28).

Similarly, Secretary of State Dean Rusk exercised gatekeeping privileges, deciding whether or not his subordinates (such as Chester Bowles or Roger

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[9] In fact, in what would become a historically controversial incident during the campaign, Kennedy called for strong support for Cuban exiles geared towards toppling Castro. Nixon was reportedly furious, feeling that Kennedy had exploited his national security briefing by Dulles for political purposes. In order to avoid compromising the secrecy of the covert operation in preparation, Nixon was forced to bite his tongue and refrain from rebutting Kennedy. It remains to this day unclear whether or not Kennedy had been specifically informed of the mission at the time. Kennedy claimed, in any case, that the statement in question was actually drafted by one of his aides and released prior to his having seen the specific wording (e.g. Wyden, 1979: 66-67).

Hilsman) would be allowed to study the project or have access to deliberations or to the president himself (Wyden, 1979). As it turned out, the insulation of the decisionmaking group from relevant expertise served to prevent or weaken challenges to some of the operation's more dubious assumptions.

The proximity to the presidential transition had important implications for the functioning of the advisory group. Disdainful of Eisenhower's formalistic national security policymaking apparatus, which had been heavily criticized by the Jackson Committee, Kennedy ordered it dismantled. He wanted the Eisenhower system replaced with a more ad hoc and collegial organization (George, 1980: ch. 8). As a result of this reform process, top-level policymaking was significantly de-institutionalized during this period, depriving the president of the systematic evaluation and implementation routines established by his predecessor. As noted by the Taylor Commission subsequently appointed by Kennedy, "Top level direction was given through ad hoc meetings of senior officials without consideration of operational plans in writing and with no arrangement for recording conclusions and decisions reached" (Wyden, 1979: 317). Under these conditions, it was relatively easy for important matters to escape careful scrutiny; a clear allocation of responsibility and accountability for the various aspects of the problem and various stages of the decisionmaking process was lacking among the members of Kennedy's advisory group (Reeves, 1993: 84; Prados, 1991: 99-103).

This reorganization was allegedly absorbing most of National Security Assistant McGeorge Bundy's time during the run up to the Bay of Pigs. Other officials were also preoccupied with getting a handle on their new jobs and launching institutional reform programs. Secretary of Defense, Robert McNamara, was heavily involved in attempting to master the Pentagon bureaucracy. Given the other pressing tasks at hand, it was difficult for these senior officials to focus on the relatively arcane CIA plan (Wyden, 1979).

Finally, it should be noted that the Bay of Pigs was far from the only foreign policy problem on the agenda during the early months of 1961. U.S.-Soviet relations in general, tensions in Berlin in particular, and most notably the situation in Laos were perennial distractions from the Cuba project. In fact, the Bay of Pigs project was often a secondary issue under discussion in the meetings of Kennedy's foreign policy advisory group. It has been alleged that at no time during the decision process prior to the invasion attempt did Kennedy and his advisors concentrate on the Bay of Pigs for more than 45 minutes at a time (Neustadt and May, 1986: 1; Andrew, 1995: 260).

Step two: The intra-group setting

A natural transition from the external to the intra-group setting is the question of admittance to the group. In this case, it is clear that the president acted as convenor. While the group did include virtually all of the NSC principals, most

of deliberations did not take place in formally constituted meetings of that body. As a result, NSC principals could conceivably have been excluded from the inner circle, as has been the case with some subsequent presidents such as Nixon. Other participants, such as Special Assistant James Schlesinger, were included as aides to the president. Thus, unlike in some other political systems and settings, the group leader's control extended to the recruitment/exclusion function. In addition, as noted in the previous section, gatekeeping responsibilities vis-à-vis the major organizations represented were delegated to the ranking participants from those bodies.

The group composition exhibited elements of both homo- and heterogeneity. As was the custom at that time (and during most of U.S. history for that matter), all of the major participants were white males. Most had similar educational backgrounds, with Ivy League degrees. The east coast foreign policy establishment was heavily represented. It is interesting to speculate whether a greater degree of diversity might have altered the decisions reached. For example, the presence of females in the group might have contributed to diluting the "macho" atmosphere of the deliberations. Perhaps one or more Latin Americans or other minorities in the group might have encouraged questioning of some of the stereotypes which contributed to underestimating the efficiency and competence of the Castro regime?

Apart from the high degree of social, gender, and ethnic homogeneity, relatively diverse experiential backgrounds were represented among the participants. Expertise of various kinds including military science, intelligence, and (to a far lesser extent) regional (Latin America) were at hand. Some of the participants had made their careers in public service, others in academia, still others in the private sector. Politically speaking, the group ranged from moderate republicans such as McNamara to liberal democrats like Schlesinger.

Let us now turn our attention to the group culture in an attempt to identify aspects of the norm, rule, and role structures in the group, which may have significantly affected the outcome of deliberations. First of all, a number of analysts have suggested that a norm of "boldness" associated with the "New Frontier" mentality (in contrast to the perceived timidity of the Eisenhower administration) permeated the proceedings (Schlesinger, 1965; Janis, 1982). Another important norm appears to have been "rally to the President" when his "project" came under the criticism of outsiders. The most dramatic example of behavior apparently stemming from this norm was the reaction of the group to Senator William Fulbright's scathing criticism in the key meeting on April 4. The group reportedly closed ranks in support of the project and rejected the arguments made by the legislative interloper. Another apparent norm which proved dysfunctional was "deference to experts." Finally, an emergent norm of deference to the leader is noticeable, a norm of which the president himself appears to have been unaware.

The literature suggests that decision rules may have important consequences not only for choices, but also for the character of the deliberations and "political" action which precede them (e.g. Gaenslen, 1980, 1992; Hermann, 1993). The decision process in the Bay of Pigs case was characterized by an overall decision rule of executive choice following extensive consultation. In fact, as has been pointed out by Wyden (1979), the final decision to go ahead with the project was not made in a group setting. However, the plan had been shaped and reshaped in group deliberations and the president's thinking had been profoundly affected by these processes.

It is interesting to note that in the final plenary meeting of April 4, a pseudo-voting procedure was used. This meeting produced what Kennedy perceived to be a near consensus in favor of proceeding with the Bay of Pigs operation. More than a dozen of Kennedy's top foreign policy and military advisors were assembled. Following a presentation by CIA deputy director Bissell and a critique of the plan by Senator Fulbright, each participant in turn was asked for a yes or no answer. "Ifs," "ands," and "buts" were discouraged; at one point Kennedy interrupted a junior member who tried to give a more nuanced response. After a long string of "yes" votes from the senior participants, Kennedy broke off the procedure, saying "Gentlemen, we'd better sleep over it" (quoted in Wyden, 1979: 150). Several of the junior participants including Schlesinger were not given a chance to vote. A number of the participants later suggested that the circumstances and the format were inconducive to serious critical discussion of the plan (Wyden, 1979: 146-151).

As the Bay of Pigs decision took place in the first few months of the Kennedy administration, the participants generally had little experience in working together in general and working as a group in particular. This created a potential for misunderstandings regarding the roles of the individual members in the deliberations. For example, Dean Rusk's somewhat idiosyncratic conception of the role of the Secretary of State in policy deliberations was apparently poorly understood by the President and other participants. This may have contributed to the growing momentum in favor of the proposed Cuba initiative. Rusk

> sought to be Kennedy's chief advisor on questions men 'should approach on their knees'. No one must overhear or interfere with the advice the Secretary of State gave the President. In large meetings, he would deliberately 'act the dodo' while others spoke. When they were done he would summarize what had been said, let the meeting end, and then follow Kennedy into the oval office to offer his own views in private (Wyden, 1979:48; cf. Beschloss, 1991:71, 108),.

Rusk's passivity in the group setting was apparently interpreted as tacit assent by the other parties. He failed to serve as an effective counter-weight to the passionate advocacy of the CIA representatives in group deliberations and failed

to hearten other potential critics (Janis, 1982: 38). It is has also been suggested that National Security Assistant McGeorge Bundy may have initially interpreted his role as primarily directed at managing the policy process, inhibiting him from engaging in substantive critical advocacy on the basis of private skepticism regarding the Cuban project (Vandenbroucke, 1984: 482). To the extent that others may have misunderstood Bundy's role conception, this would have had roughly the same effect as in Rusk's case.

This survey of the intra-group setting will conclude with an examination of the intra-group power and status structure. In the U.S. system, the formal position of the president with regard to foreign policymaking is one of unrivaled power. To the extent that a president wishes to be assertive, as did Kennedy, an abundance of means are at his disposal. In addition, the president has a great deal of institutional latitude with regard to the structuring of the policymaking process after his personal preferences. These factors place the president in a firm leadership position vis-à-vis his cabinet secretaries and other advisors, all of whom serve at his pleasure. However, this important hierarchical dimension is just the beginning of the story.

In practice, this highly asymmetrical power relationship may be modified by issue-related and contextual factors of various kinds. "Players" may have outside constituencies or other power resources which may limit the president's freedom of action, as exemplified by the conflict between Truman and MacArthur. Experience and age differentials are potentially significant as well. Kennedy, as a relatively young president and new in office may well have been respectful, if not quite intimidated, by veterans in public service, such as Allen Dulles who was kept on from the Eisenhower administration.

Dulles had an almost mythic reputation as an intelligence practitioner based on his previous successes including the overthrow of the Arbenz regime in Guatemala in 1954. This wider reputation translated into a position near the top of the intra-group pecking order. As Wyden (1979: 316) neatly put it, "one doesn't trifle with a legend." Bissell, despite relatively junior formal rank in this context also had a privileged position in the group. This position derived from a number of personal factors including Bissell's towering intellect and charisma, his previous history of bold and spectacular successes, and his command of the details of the operation. These assets were buttressed by personal relationships to several of the key players (see below) and by the fact that Kennedy had already made a preliminary decision to offer Bissell the CIA directorship upon Dulles' retirement. Thus both Bissell and Dulles were seen as veteran "experts" in a group dominated by generalists, and generalists new to their jobs at that. Kennedy's personal respect for Bissell and Dulles was matched by his positive image of the CIA as an innovative, flexible, and highly useful institution.

Similarly, Kennedy and several of the other participants including McNamara were inclined to view the Joint Chiefs as having expert status on these issues.

McNamara himself had spent fifteen years in the private sector and had initially been reluctant to take on the Defense portfolio, feeling that his knowledge of the military realm was out of date. Thus McNamara tended to endorse the Chief's views on military matters, rather than contributing independent views of his own. Kennedy's view of the military will be discussed below in the section on leadership.

The State Department representatives may have also benefited from the power resources which accompany expert status. In particular, Kennedy proved highly receptive to arguments regarding the need to preserve the deniability of the U.S. role in the operation in light of concern for preserving good relations with regional (and extra-regional) powers. However, it should also be said that Kennedy had a rather negative opinion of the State Department as an institution. This fact may have tended to weaken the position of participants affiliated with that organization (particularly the more junior ones) in the group deliberations.

All in all, one sees a situation where the CIA representatives appear to have been in a privileged position, without however, enjoying a monopoly of relevant expertise. In particular, it seems probable that the Joint-Chiefs would have had the prestige and knowledge to mount a serious challenge to the operation had they so desired. In fact, those resources were brought to bear only in relatively marginal and ambiguous ways, which tended to strengthen the hand of the CIA. An illustrative detail in this regard is the fact that Bissell, rather than a military officer, was given responsibility for briefing the decision makers on the findings of the JCS study assigned to assess the CIA plan (Wyden, 1979: 95).

Step three: Group leadership practices

In relatively informal, yet hierarchically organized groups of this kind, there is an intimate relationship between leadership style and the formation of group culture (George, 1980; Janis, 1982; and Hermann and Preston, 1994a, b). Let us now examine the potential impact of Kennedy's leadership style on deliberations. Kennedy's group leadership had two distinct traits. First, he exhibited a "laissez-faire" style with respect to process. Second, and ironically, he also showed tendencies in this case toward promotional and directive leadership on substance.

Kennedy, having little previous management experience, reportedly had a relatively simplistic view of small group and organizational management. He placed a premium on talent, believing that this quality was the key to achieving policy and political success. In other words, he believed that it was enough to assemble a number of talented people, throw them in a room together, and wait for good things to happen. JFK's management philosophy upon taking office has recently been described (Reeves, 1993: 23) as follows: "Kennedy believed that problem solving meant getting the right man into the right place at the right time. If things went wrong, you put in someone else". In keeping with this

general orientation, Kennedy did exhibit a laissez-faire group leadership style with regard to the Bay of Pigs decisionmaking process. As a result, he did not engage in active norm-setting designed to enhance the critical rigor of deliberations.

A number of the participants, including Secretary of State Rusk were reportedly discomfited by the lack of systematic procedures characteristic of Kennedy meetings during this period. Rusk was disturbed by the egalitarian and informal style encouraged by Kennedy. It galled him that junior participants were often allowed by the president to participate on a relatively equal footing with NSC principals (Wyden, 1979: 147-8). Ironically, junior participants such as Paul Nitze, and Chester Bowles (who substituted for Rusk when he was abroad) appear to have been unaware of Kennedy's preference in this regard, or alternatively, were inhibited out of deference to higher-ups from their own organizations (Wyden, 1979: 120,148).

Yet it has also been suggested that Kennedy engaged in subtly promotional leadership which granted the CIA advocates a privileged position and allowed them to dominate the discussions (e.g. Schlesinger, 1965; Janis, 1982: 42-44). For example, the CIA advocates were often allotted substantial time for formal presentations and briefings. Others were allowed to respond and comment, but not in a sustained fashion. As his commitment to the venture increased, Kennedy reportedly became increasingly perceived as a proponent of the Cuban initiative and as easily irritated by doubters, disheartening and disarming potential critics of the venture (Beschloss, 1991: 114).

Lacking governmental management experience, JFK reportedly exhibited a naive confidence in the expertise and professionalism of the intelligence and military communities. He accepted the analyses of hand-picked experts as beyond question by civilians uninitiated in the arcane mysteries of these domains (Beschloss, 1991: 24; Janis, 1982: 31). He apparently had a particularly positive view of the CIA as a motivated and responsive organization, in contrast to his view of the State Department as ponderous and hidebound (Vandenbroucke, 1993: 20). Thus Kennedy himself contributed to setting the norm of deference to experts in the group deliberations, noted above.

Step four: Type and level of cohesion

Kennedy's key advisors in the Bay of Pigs did, for the most part, not know the president or each other well. This may be surprising to some readers; it was a surprise to the author. Part of the myth of Camelot, a myth reinforced by the myriad accounts of the decisionmaking during the 1962 Cuban Missile Crisis, is the notion of an easy familiarity borne of long acquaintance between the president and his talented and trusted men. The fact that Kennedy's management

style and organizational model has often been described as "collegial" (e.g. George, 1980) reinforces this impression. However, this widely accepted image does not fully capture the personal context of the transition and the first few months of the new administration. Many of the key decision makers were new to their positions and unsure of the strength of their relationships to the newly elected president and the nature of their roles in the decisionmaking process.

Kennedy lacked a close personal relationship with the major foreign policy players in his administration. Secretary of State Rusk met Kennedy for the first time in December, 1960 (Reeves, 1993: 80; Beschloss, 1991: 71). Defense Secretary McNamara also reportedly met Kennedy at about the same time (Schlesinger, 1965: 108-109). National Security Assistant McGeorge Bundy knew Kennedy only slightly from some brief contact at Harvard functions. Bundy subsequently suggested that had he at the time enjoyed the kind of rapport with Kennedy that later developed, he would have questioned what he perceived to be the president's sudden shift in favor of the Bay of Pigs project in early April.[10] Ironically, those advisors with whom Kennedy did have a close personal relationship were, for the most part, kept out of this decisionmaking process. Robert Kennedy and Theodore Sorensen did not play important roles in the run-up to the Bay of Pigs operation.

Arthur Schlesinger heavily emphasizes this unfamiliarity factor in his account of the Bay of Pigs decisionmaking. He (1965: 216) writes that Kennedy: "could not know which of his advisors were competent and which were not. For their part, they did not know him or each other well enough to raise hard questions with force and candor". Thus, it appears that in this case, as in many new groups, the members lacked "idiosyncrasy credit" (Hollander, 1965), increasing their susceptibility to conformity.

This overall picture should not be interpreted as ruling out the impact of social ties on the deliberations. For example, both Bundy brothers and Walt Rostow (Deputy National Security Assistant) knew Bissell from his teaching days at Yale University. The Bundy's both took economics courses with him; Rostow worked as his teaching assistant. McGeorge Bundy worked briefly for Bissell as a consultant on the Marshall Plan in 1948 (Prados, 1991: 100). These prior relationships probably helped compensate for Bissell's relatively junior formal status, as did the sponsorship of Dulles and Kennedy himself.

Of course, personal relations are only one basis for group cohesion. Others include loyalty to the president who appointed them, a desire to contribute to and share in the success of common projects, a sense of shared destiny, and pride in being a part of an elite group It should, however be noted that these

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[10] Kennedy reportedly committed to the intervention upon his return from a trip to Florida where he met with his father and several other anti-Castro intimates (Beschloss, 1991: 107-8). These individuals may have been significant members of Kennedy's reference group for this decision, though not a part of the official advisory system at all.

various types of cohesion may have different effects on policy deliberations. Loyalty to the president might well lead to conformity and support for him when his project is questioned by "outsiders." It could also lead to a desire to protect him from an embarrassing failure by candidly pointing out the flaws in the proposed operation. Thus loyalty and task cohesion may be interpreted as coincident or divergent by members.

Members may handle perceived conflicts of this kind in various ways. At the plenary meeting on April 4, many participants have later professed to have harbored doubts. Some, like McGeorge Bundy, reportedly voted yes out of solidarity with the team. Schlesinger was silent at the meeting, but followed it up with a conversation with Kennedy after the meeting and a memo summarizing his grounds for opposition to the venture.

Empirically speaking, it is a very difficult matter to attempt to sort out the motivations of the individual members in order to understand the forces binding the group together. Let it suffice to say that the evidence suggests that the group members did anticipate working together in the future. There is every reason to believe that they valued the cooperation and good will of the other members and the president, not least as a means of pursuing their own public and private agendas.

Step five: Type and level of conflict/rivalry

Scanning the record of the deliberations prior to the decision to go ahead with the Bay of Pigs operation reveals little in the way of overt and virulent conflict. In general, the tone of the deliberations were cordial and characterized by an apparent willingness of virtually all parties to make compromises. No obvious personal or political animosities among the select group of decision makers involved in the case are apparent from the available source materials. However, this is not to say that other forms of conflict and rivalry did not affect the decisionmaking in this case.

It is important to note that significant differences regarding policy preferences are noticeable among the "players". The CIA contingent (most notable Dulles and Bissell) were committed advocates of the intervention. They favored a relatively bold operation, and tended to be less concerned with concealing the U.S. role. Given trade-offs between military and political risks, they tended initially to favor reducing military risk. However, when pressed by others (particularly Kennedy himself and the State Department representatives) they were prepared to accept greater levels of military risk in order to get the go-ahead. In fact, they were so eager to get the project ratified that they at times took direct action to prevent negative assessments from reaching the president and his other advisors (see the discussion of manipulation below).

The Defense Department, led by a distracted Robert McNamara (who was

then concentrating on taking control of the Pentagon bureaucracy), tended to support the CIA view. The other participants from the defense sector, the Joint Chiefs of Staff, tended also to emphasize minimizing military risk. Yet it should be noted that the military apparently treated this issue as one of relatively low organizational salience. They were very aware that what ultimately became the Bay of Pigs Operation was a CIA project from start to finish. As such the CIA would take credit for an eventual success and take the primary heat for a failure. Having procured assurances from the President that conventional U.S. forces would not be used under any circumstances and having successfully vetoed the notion of using the Guantanamo base as a platform of operations (raised by the State Department), the Joint Chiefs provided only ambiguous and muted criticism of the operation (Wyden, 1979; Vandenbroucke, 1993).

The State Department, represented at the top level by Secretary Rusk ultimately favored a relatively small-scale and "quiet" operation which would conceal the U.S. role and maintain a posture conducive to plausible deniability. This should not be surprising in light of the departmental responsibility for maintaining relations with Latin America and other foreign governments which might be highly critical of another instance of heavy-handed U.S. intervention in the region.

Similar considerations combined with a high degree of skepticism regarding, a) the viability of the plans, and b) the possibility of keeping the U.S. role secret, led two other participants to oppose the proposed operation. Both Senator William Fulbright (Chairman of the Senate Foreign Relations Committee) and Special Assistant Arthur Schlesinger wrote eleventh-hour memos to the President outlining these critical arguments and urging President Kennedy to refrain from this course of action. Fulbright, who was permitted to attend what has been described as the "climatic" meeting of Kennedy's advisory group on April 4, 1961, made an impassioned speech opposing the plan on moral grounds. Schlesinger did not air his views in the wider group at that meeting.

Thus it is clear that a fairly diverse set of competing views were conveyed to the president during the decision process, although a number of key dissents or criticisms took place outside of the group setting, such as those of Schlesinger and Rusk. The discreet communication of criticism may have led the president and his other advisors to overestimate the degree to which a consensus in favor of this course of action had been attained in the advisory group as a whole.

Step six: Observed interaction pattern(s)

Let us begin by checking for indications of newgroup syndrome. Kennedy received his first in-depth CIA briefing on the proposed operation only eight days into his presidency; the operation was conducted less than three months later (Vandenbroucke, 1993: 19, 40). As a result, it was a relatively newly

convened advisory group which Kennedy consulted on this issue. In such new groups, as we have seen, there is a serious risk that ambiguity regarding the intra-group context may lead to characteristic "malfunctions" which may undermine group deliberations.

Was the intra-group context ambiguous? The balance of evidence suggests that this was the case. Given Kennedy's relatively laissez-faire management style, he did not attempt to guide consciously and clarify the group decision culture in order to reduce uncertainty and promote critical interaction. He appears to have been unaware of the effect of his person and the weight of his office upon his colleagues (Wyden, 1979: 316). Similarly, the evidence suggests that he was insufficiently conscious of emergent group norms (unwittingly reinforced by his own conduct) of deference to the president, and to "experts".

Many participants were rendered cautious and relatively passive due to their uncertainty regarding their mastery of their organizational portfolios, their role in the decision group and their relationships to the president and other potentially powerful players. As Schlesinger observed in the quotation above, they simply did not yet know each other well. Wanting to give new colleagues the benefit of the doubt and to avoid unnecessary confrontations, the New Frontiersmen guarded their political capital, and whole-heartedly or reluctantly gave their consent to the CIA's plan. The qualms which were aired were often communicated outside the group setting and tended to originate from outsiders or relatively low status members.

These observations suggest that Kennedy and his men did fall prey to some of the classic pitfalls associated with new groups such as excessive conformity, social loafing, and serious coordination difficulties. These behavioral patterns go a long way in accounting for the Kennedy administration's poor performance in the Bay of Pigs case (cf. Longley and Pruitt, 1980: 87).

New groups are thought to be particularly susceptible to manipulation (Stern and Sundelius, 1993). The available evidence suggests that the CIA-based advocates of the operation (Dulles and Bissell) did in fact engage in manipulative tactics in order to secure authorization for their pet project. Their manipulative leverage was enhanced by their ability to use the alleged need for secrecy as a means of limiting the information available to potential critics, particularly concerning the details of the invasion plan. Papers related to the operation were routinely collected by the CIA representatives at the close of meetings. Allegedly, the CIA also actively sought to suppress the expression of views critical of the project (Wyden, 1979; Vandenbroucke, 1993: 27).

The most flagrant example of the resort to manipulative tactics on the part of the CIA was probably the assurances given the president that the operation could be successfully accomplished without the overt involvement of additional U.S. forces. Privately, they believed that such involvement could very well prove essential and that Kennedy would then be forced to authorize open intervention

to avoid failure of the initiative. Therefore, in order to secure presidential authorization for the operation, they avoided openly questioning the restrictions Kennedy was placing on the operation. As Dulles later wrote, he and Bissell

> did not want to raise these issues – in an academic discussion – which might only harden the decision against the type of actions we required. We felt that when the chips were down – when the crisis arose in reality, any action required for success would be authorized rather than permit the enterprise to fail.[11]

This suggests that the CIA advocates of the operation attempted (ultimately unsuccessfully) to entrap the president, through a variant of the salami tactic described by Maoz (1991).

More conventional bureaucratic and cabinet politics within the advisory system appear to have contributed to the policy failure as well. For example, it has been suggested that the Joint Chiefs may have avoided pressing doubts regarding the military viability of the Bay of Pigs operation in order not to antagonize CIA colleagues or the President who seemed kindly disposed to the plan. Their decision not to "rock the boat" may have been facilitated by the fact that this was a CIA operation and by the President's assurances that regular U.S. forces (and the Guantanamo Base) would not be used under any circumstances. Despite serious problems identified during two separate rounds of evaluation resulting in two relatively critical written reports, the JCS did not actively oppose the plan. Vandenbroucke (1993: 25) concludes that

> Having put their reservations on paper, the JCS did not raise them again. There is no evidence the JCS mentioned to the president the findings of the evaluation team. Indeed, the military rarely spoke up about the project. As a result, the civilian decision makers were left with the impression that the Joint Chiefs approved the scheme.

Lacking operational responsibility and having covered themselves with the written reports, the Chiefs' posture contributed to the "consensus" supporting the operation.

It is also possible to interpret the final version of the Bay of Pigs plan as a political resultant established in group deliberations primarily reflecting a mix of the CIA representatives' preference for a larger scale operation and the preferences of the "State Department representatives [who] fought to reduce the scale and visibility of the operation, while not criticizing the basic idea itself" (Vandenbroucke, 1984: 483). The compromise operational configuration which was ultimately adopted was also influenced by the wider constellation of preferences among the consulted "players" (including the vehement opposition

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[11] Vandenbroucke (1993:33, 192, fn 60). Vandenbroucke cites Dulles' handwritten notes, box 244, x, y of the A.W. Dulles papers collection at the Princeton University library.

of Senator Fulbright) and, most importantly, by Kennedy's own views. Unfortunately, the willingness of many of the stakeholders to compromise, a seemingly commendable trait, resulted in this case in an unbalanced and unstable "worst of all worlds" policy (George, 1980).

Could groupthink syndrome have played a role as well? Janis (1982: 35-36) argues that this was the case, citing Arthur Schlesinger's characterization of the Kennedy White House atmosphere during the first few months as "buoyant optimism" consistent with the groupthink illusion of invulnerability: "Euphoria reigned; we thought for a moment that the world was plastic and the future unlimited". Janis asserts that this mood may have undermined the group's critical thinking capacities, serving to prevent the subjection of the key (and faulty) assumptions behind the Bay of Pigs plan to careful scrutiny.

Janis (1982: 38-39) also finds evidence of the groupthink illusion of unanimity, again drawing on Schlesinger's account: "Our meetings took place in a curious atmosphere of assumed consensus". He suggests that the illusion could only be sustained through members' suppression of their private doubts. Janis also cites Sorensen's assessment that senior officials in the White House and State department held their tongues "partly out of a fear of being labeled 'soft' or undaring in the eyes of their colleagues".

Another key precondition of groupthink, insulation of the decisionmaking group from outside sources of information and critical analysis, is prominent in this case as well. According to one credible account:

> Excluded [from the decision making process] were most of the government's Latin America experts, both within the CIA's Directorate for Intelligence and the State Department. In addition, the non CIA officials reviewing the project were mostly generalists who knew little about Cuba or Latin America (Vandenbroucke, 1993: 28).

Thus the decisionmaking group in this case appears to have been effectively insulated from expert criticism regarding the military viability of the plan and from essential expertise regarding crucial assessments of the local political situation, such as the likelihood of spontaneous risings against Castro in response to an operation of this type.

Still, there are some aspects of the case that do not fit well with Janis's theory. The cornerstone of the theory, and the point which separates groupthink from more basic notions of conformity deriving from group pressure on the individual, is the notion of stress-induced cohesion as a source of extremely strong and largely *unconscious* conformity pressures (George, 1980). This defensive avoidance tendency at the heart of groupthink is labeled concurrence-seeking by Janis. An interesting question is whether Kennedy's advisory group was subjected to unusual levels of stress prior to, or during the deliberations on the Bay of Pigs.

It is certainly true that the early days of a presidency may be stressful for the chief executive and his top advisors. The pace of policymaking, the awesome responsibilities of leadership, and the demands of the media weigh heavily on newly appointed top officials. On the other hand, the atmosphere of optimism during the Kennedy "honeymoon" period suggests that the burdens of office still sat relatively lightly on group members during this period. Reading through accounts of this period does not give an analyst the impression of an "embattled" primary group. Quite simply, the Kennedy group does not appear to have been under siege in general or on the Cuba issue, until after the operation was in progress. Therefore, the question arises of whether Janis's strict version of the groupthink hypothesis – as opposed to noting some symptoms and indications of a low quality decision process – really fits well with this situation.

Paul 't Hart's reformulation of groupthink neatly sidesteps these problems ('t Hart, 1990/1994). First, 't Hart (following McCauley, 1989) stretches the groupthink notion to include both unconscious (internalization) and deliberate (compliance) variants of conformity. Therefore, the issue of whether group members were actually carried away on the wave of enthusiasm for the project, or merely playing a tactical-political game becomes less central (cf. Janis, 1982: 39-40). Second, 't Hart distinguishes between two types of groupthink – collective avoidance (close to Janis' original formulation), and collective over-optimism. The latter type is driven by high levels of group and individual confidence and expectations of dramatic successes. This is offensive, rather than defensive, avoidance resulting in concurrence-seeking tendencies and group conformity. To the extent that "groupthink" played a role in this case, it seems that collective over-optimism is the more plausible variant.

This exploration of the decision processes leading up to the Bay of Pigs intervention suggests that, a) newgroup syndrome contributed significantly to the fiasco, b) the relationship between newgroup syndrome and other patterns of group dynamics noted in the literature is complex, and that c) several such dynamics may operate simultaneously or in turn across a decision process lasting several months.

7. Reflections

The Bay of Pigs Case is widely regarded as the strongest of Janis's original groupthink case studies (George, 1980:94; McCauley, 1989). Following a suggestion from Longley and Pruitt (1980), this classic case was "reopened" and confronted with the newgroup perspective and other theoretical constructions from the small-group decisionmaking literature. Clearly, the notion of a newgroup syndrome does help to shed light on the Bay of Pigs puzzle, as do several of the group dynamics patterns previously noted in the literature and

incorporated into the synthetic analytical scheme developed in chapter 3, including manipulation, bureaucratic politics, and basic conformity, as well as groupthink. These theoretical notions proved highly relevant to the task of developing a richer understanding of the unhappy constellation of institutional structure and group process which contributed to the all too spectacular policy failure in that case.

A major finding of this case application is to support the theoretical argument made in the preceding chapter that multiple group dynamics patterns can coexist, interacting in complex ways, to the detriment of the quality of the policy process. Previous notions of the incompatibility (George, 1980; Hermann, 1989) of bureaucratic politics and conformity dynamics are in need of some revision and clarification. While bureaucratic or cabinet level political considerations may indeed introduce constructive conflict into the decisionmaking process, they may also lead to avoidance of responsibility, compliance, and amiable compromise to the detriment of policy feasibility. Embattled factions within groups may be even more subject to conformity and concurrence-seeking than the wider groups of which they are a part ((Vertzberger, 1990: passim, 247; 't Hart, 1990/1994: 139-180).

Similarly, the relationship between manipulation and conformity patterns such as groupthink and newgroup syndromes, is worthy of examination. Stern and Sundelius (1993; 1994: 104) advanced the proposition that tendencies toward conformity such as those associated with groupthink and newgroup syndrome, may be exploited by manipulative group members. The case findings here strongly support that proposition as do findings from a previous Swedish crisis decisionmaking study of the 'Whiskey on the Rocks' Crisis. The manipulative tactics employed by the CIA advocates of the Cuban intervention went unnoticed and largely unchallenged, in good measure due to conformity pressures deriving from a mutually reinforcing combination of newgroup syndrome and elements of groupthink syndrome. It is also worthy of note that even ultimately unsuccessful attempts at manipulation may affect decision processes in highly significant ways. Dulles and Bissell's attempt to entrap Kennedy was ultimately stymied by Kennedy's unexpected (for them) willingness to accept failure of the venture rather than escalate the U.S. involvement. Still their rosy assessments and efforts to stifle critics affected the substantive information base available to Kennedy and his advisors and served to undermine considerably the quality of the decision process.

Decisionmaking and advisory groups may be particularly susceptible to newgroup syndrome during transitional "honeymoon" periods. Flushed with a string of victories from the campaign trail and the election, they may understandably acquire the "illusion of invulnerability" noted by Janis in his work on groupthink. That, in conjunction with the long shadow of the future together facing group members and the primitive and chaotic group

institutionalization typical of such periods, may create pressures for conformity and collective over-optimism. If unchecked by the leader or the group as a whole, this may have extremely negative consequences for the quality of decision processes and make performance failures more likely ('t Hart, 1990/1994:202-203).

Leadership practices are an essential determinant of the character of group deliberations in virtually all settings. In new groups, where members tend to be especially malleable, leadership practices may well be even more crucial than in more institutionalized group contexts. Formal or de facto leader figures can use their leverage to engage in explicit and implicit norm-setting and coordination. Such group norms may empower members and encourage them to place their knowledge and critical/analytical capacity at the group's disposal, or, they may promote passivity and conformity. Unfortunately, a laissez-faire leadership mode in such groups may result in "spontaneously generated" norms leading to excessive conformity and premature closure.[12]

Another function often, but not always, associated with group leadership is coordination and oversight of the division of labor in the group. It is unrealistic to assume that a comprehensive and rigorous analysis will arise spontaneously within the group on the basis of an emergent role system and division of labor. The suggestion on the part of Weick and Roberts (1993) that newly formed groups are more likely to engage in heedful inter-relating than more developed/ institutionalized groups was not borne out in this case investigation. On the contrary, serious difficulties associated with excessive conformity, inadequate structures of accountability and role ambiguity emerged from the analysis of the Bay of Pigs case. These findings are in harmony with the basic propositions in the group development literature reviewed above.

This chapter will conclude by considering the subsequent functioning of Kennedy's advisory group over a more extended time perspective. Some eighteen months after the Bay of Pigs fiasco, seemingly very different group dynamics were revealed during the Cuban Missile crisis of 1962. Several authoritative assessments (e.g. Janis, 1972, 1982; George, 1980) of the performance of the Kennedy group in that later crisis suggests that individual and collective learning processes, group development, and a more effective set of leadership practices, division of labor, and group interaction norms, resulted in a superior process and outcome.[13] This depiction is quite a contrast to the description of the

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[12] Another possibility is that a newgroup managed on a laissez-faire basis in a competitive or antagonistic situation will rapidly shift into a mode of interaction characterized by excessive conflict, a state reminiscent of the storming stage of Tuckman's group development model. Prescriptions for coping with that difficulty are beyond the scope of the present.

[13] There are those who challenge the characterization of the Kennedy administration's management of the Cuban missile crisis as vigilant decision making. See e.g. Lebow (1981), McCauley (1989), Welch (1989), Purkitt (1992), and Lebow and Stein (1994). Many of these arguments are rebutted in George (1993).

uncoordinated and conformity-ridden process described above. Perhaps, the contrast between the two cases is the difference between a group in the *forming* stage, which fell prey to newgroup syndrome, and a group in the *performing* stage, which rose in vigilant fashion to a crucial decision occasion (Longley and Pruitt, 1980: 87)? This is a question worthy of further consideration.

The potential for drawing upon the group development literature in order to understand better the functioning and malfunctioning of decisionmaking groups in the political setting has just begun to be tapped. Comparative synchronic and diachronic studies of such groups represent a highly promising line of inquiry and one with a high degree of potential policy relevance.

Having developed strategies for cognitive-institutional crisis dissection (chapter two) and for the analysis of small group advisory and decision processes (chapter three), and having probed the plausibility of the six step analytical framework in general and of newgroup syndrome in particular in a pilot application (this chapter), the time has come to deploy these analytical tools in an in-depth empirical analysis of a Swedish case – the 1986 Chernobyl Fallout Crisis – in chapters five and six.

Part II

The Chernobyl Fallout Crisis

Chapter 5

Sweden and Chernobyl:
A Cognitive-Institutional Analysis

In this chapter, the cognitive institutional analysis strategy outlined in chapter two is used to dissect and analyze the Chernobyl Fallout crisis from a Swedish perspective. The chapter begins with an application of the three part crisis definition developed in the introduction of the study to the case, assessing the extent to which the Chernobyl crisis can be regarded as a crisis for Swedish decisionmakers. Following that section, eight acute decision problems which emerged in the wake of the Chernobyl fallout are discussed in turn.

Before launching into an analysis of Swedish crisis decisionmaking during the Chernobyl incident, it is important to consider whether or not the case meets the criteria for a crisis adopted in chapter one. That definition read as follows:

A decisionmaking crisis is a situation, deriving from a change in the external or internal environment of a collectivity, characterized by three necessary and sufficient perceptions on the part of the responsible decisionmakers:

1. A threat to basic values

2. Urgency

3. Uncertainty

When applying definitions of this kind, it is important to specify the relevant set of decisionmakers and institutions. In this case, that is not entirely straightforward. The initial crisis impetus was detected at the local level by the management of the Forsmark nuclear power plant and the first important decisions such as calling an emergency alert and the plant evacuation were decided there. These decisions set in motion a political-administrative escalation process which reached the ministerial level within just a few hours.

Threat to basic values: It is important to keep in mind that the crisis problem was initially framed as a potential nuclear accident at a nuclear facility roughly two hours' drive north of Stockholm. As a result, the worst case scenario was one of severe radioactive contamination of heavily populated areas. This scenario would seem to fall under the category of threat to basic values as a risk of "grave damage" (Wilkenfeld et al, 1988:3). Once this scenario was ruled out – roughly seven hours into the crisis – and the source of the contamination identified

– many actors experienced a lessening of tension. The authorities, particularly at the political level, were relieved that the responsibility for the accident belonged to the Soviet authorities rather than to the Swedish nuclear power program. For example, it was obviously a relief for the Forsmark plant leadership to be able to to relax the state of alert secure in the knowledge that nothing was wrong with the three reactors operating there. Similarly, Birgitta Dahl stated in an interview immediately following the Soviet 'confession' on April 28, 1986 that drastic steps such as an immediate shut down of the Swedish nuclear reactor program had been considered. Establishing that there had in fact been no malfunction of the Swedish program meant that it was no longer necessary to consider such drastic action in the short term (FBIS-WE, 860501:p2). Instead, a commission (Svensson et al, 1986) was established to assess the implications of the Chernobyl accident for the Swedish nuclear power program.

Combined with what would prove to be unwarranted optimism regarding the level of contamination and underestimation of the need for protective interventions, this resulted in something of a deescalation of the perceived threat picture.

However, as the contamination levels continued to rise dramatically public unease and domestic political repercussions became increasingly evident. Serious second order threats to high priority values (Wilkenfeld et al, 1988:3) emerged, bringing decisionmaker stress levels over the crisis threshold once again. The initially optimistic prognoses presented by the authorities in conjunction with an information policy which proved insufficient to the difficult task of briefing the citizenry and the mass media on these technically complex issues, created a legitimacy crisis for the Swedish authorities, most notably for the government – which was under a great deal of political pressure – and for the leadership of SSI[1].

The need to sort out responsibility allocations on an ad hoc basis in light of virtually non-existent planning for this contingency added to the levels of stress experienced by Swedish officials. In addition, some days into the crisis, the Swedish political leaders and experts become increasingly concerned (on the basis of fallout analysis and analysis of commercial satellite images) that the fire would spread from the stricken reactor to the neighboring reactors resulting in additional massive releases. Soviet unwillingness (or inability) to provide credible and detailed information in the early period of the crisis compounded these fears. These fears were more or less put to rest by the on-site visit of the IAEA team led by Hans Blix, which resulted in the flow of more comprehensive and reliable information from the second week of the crisis.

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[1] See Nohrstedt (1991:486-496) for a useful discussion of the information/legitimacy crisis which developed in Sweden in the wake of the Chernobyl accident. This issue is also discussed in some detail below in this chapter and in chapter 6.

Thus far, the Chernobyl fallout crisis has been considered as a public health and a political problem. Yet it was also seen as a domestic and international legal problem, a foreign policy problem, and an economic problem. Coping with the crisis entailed dealing with difficult trade-offs among these values. For example, minimizing the radioactive exposure of the Swedish population entailed accepting economic costs in terms of food products declared unsuitable for human consumption. In the Swedish legal system and political culture, this intervention implied state acceptance of some degree of liability for costs incurred by citizens and corporate actors in the agricultural sector, for example. One way of off-setting this liability was the possibility of seeking compensation from the Soviet Union. Yet doing so risked jeopardizing important foreign policy goals such as supporting Gorbachev and his reform process and warming up the Swedish-Soviet relationship which had been frosty since the submarine incidents of the early 1980s. These are but a few of the many difficult and stress-inducing value conflicts associated with the Chernobyl crisis.

Urgency and uncertainty: From the very beginning, there were perceptions of time pressure which 'necessitated' decisions under conditions of uncertainty and inadequate information[2]. At the outset, there was a lack of information about the source of the radiation (in no small measure due to the lack of warning from the USSR). Subsequently, once the source was identified, there was a lack of information regarding the state of affairs at the site in the Ukraine. For example, as we have seen, information regarding whether or not the fire at the stricken plant was under control was lacking. Furthermore, there was initially a lack of information regarding the intensity and geographic spread of the contamination (Bengtsson, 1986:1-2). Finally, it is worth mentioning that there was some degree of scientific uncertainty and expert dissensus regarding the threat posed by the Chernobyl fallout.[3]

A good example of a decision taken under conditions of uncertainty, taken not even four hours into the crisis, was the decision to evacuate 800 persons from the Forsmark nuclear facility. It is illustrative that this rather drastic measure was taken despite the inability of the Forsmark operators to find any malfunction or source of contamination inside the plant.

The window of opportunity phenomenon noted in chapter one is discernible in the case as well. A number of potential intervention measures such as ingestion of iodine tablets, keeping children indoors, diet modification, keeping cattle

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[2] Dror (1988:260-261) suggests that such "fuzzy gambling" is a virtually inescapable part of crisis/disaster decisionmaking.

[3] For example, there was inadequate knowledge of biological and industrial 'concentration' processes which could heighten exposure for certain risk groups (G. Bengtsson interview). See also Bengtsson (1986:1-7) and FRN (1986) for discussions of a number of other scientific uncertainties associated with radiological protection in the context of the Chernobyl nuclear accident.

stalled (and on dry feed) rather than allowing them out to pasture must be adopted early in an incident in order to be maximally effective. While the optimistic assessments during the first 48 hours ruled out such interventions as unnecessary, several were adopted already in the first week of the crisis as it became clear that the consequences of the crisis were likely to be more severe than originally thought. Additional time pressure resulted from the demands of the mass media and public for information and guidance. In particular, mass media reports of intervention measures taken elsewhere in Europe served to increase the pressure on the Swedish authorities to take rapid decisions.

In addition to the three main criteriae discussed above it is interesting to note that 'surprise' (c.f. Hermann, 1963) was an important stress-inducing factor in this case as well: While proposals to incorporate scenarios of contamination resulting from foreign nuclear accidents into Swedish contingency planning surfaced as early as 1979, political decisions were taken to focus planning almost exclusively on local contamination in the five counties hosting nuclear power plants. Nohrstedt (1991:477) describes the situation in the following terms:

> ...it is odd to note that when Sweden was hit by the fall-out from Chernobyl, the people as well as the authorities were completely unprepared. Like most countries, Sweden had no plans for a situation of this kind. The responsible authorities were prepared for possible accidents and leakages at the domestic nuclear power plants. For the consequences of accidents abroad, however, nothing was prepared.

An official study of Swedish nuclear preparedness published just two years prior to Chernobyl supports Nohrstedt's characterization. In the hundred page report (Statskontoret, 1984), somewhat less than a page is devoted is devoted to contingencies other than domestic nuclear accidents. Gray (1991:61), an expert with the EC Commission, makes the case in even stronger and more global terms:

> Before Chernobyl no credence had been given to the possibility that a single reactor accident could contaminate crops on a national, let alone a continental, scale. ...Very few countries had established contamination limits for foodstuffs in trade, the most notable exception being the US Food and Drug Administration, which had defined protective action guidelines in 1982.

In addition, Sweden (like most European countries) did not have pre-set intervention levels for protecting the food supplies from radioactive contamination. As a result measures were adopted on an a national basis (in some cases even on a local basis) leading to policy discord. Mass media reports

of widely varying levels adopted by neighboring jurisdictions served to undermine the credibility of government responses. Efforts on the part of the EC Commission to coordinate member and EFTA state policies during the crisis began after an initial delay and were only moderately successful.

To sum up, the evidence suggests that the Swedish Chernobyl crisis indeed meets the criteria for identifying a decisionmaking crisis set out above.

Eight Decision Problems

For the purposes of this study, the Chernobyl crisis may be broken down into eight relatively distinct decision problems. Each represents an aspect of the developing situation; each should be recognizable as a major issue by participants as well as by post facto analysts. The eight decision problems are:

1. Swedish nuclear accident?

2. If not Sweden, then where?

3. The accusing finger points at the Soviet Union

4. How serious is the contamination problem and prognosis?

5. Who is in charge?

6. How to protect the population?

7. Has the situation stabilized?

8. Seek compensation from the USSR?

It should be noted that this list is not exhaustive; it is selective and is designed to highlight pivotal developments during the acute phase of the crisis experience. A secondary criterae was to focus on decision occasions which revealed phenomena likely to be instructive in preparing for the management of future crises.

1. Swedish nuclear accident?[4]

The crisis was triggered at 7:00 am on Monday, April 28, 1986 at the Forsmark nuclear facility 120 km north of Stockholm. A plant worker passing through a routine radiation monitoring check-point while exiting from the Forsmark 1 reactor bloc set off an alarm. The worker was found to be wearing shoes

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[4] The account of the events in and around the Forsmark nuclear power station draws on a wide range of sources including Nilsson (1986), Sjöquist & Eckered (1986:41-46), Steen et al (1986:43-65), Amnå & Nohrstedt (1987:12-73) and interviews with the Forsmark management.

exhibiting a high level of contamination.[5] This simple fact contributed to the generation of an initial working hypothesis as to the nature of the problem at hand. Not surprisingly, given the circumstances surrounding the discovery of the unusual radioactive contamination, the working hypothesis was that an accidental release of some kind had occurred at Forsmark.

Several factors contributed to the plausibility of this line of thought. The existing planning for nuclear accidents emphasized the local character of such episodes (SSI, 1979; Statskontoret, 1984; Steen, 1986). The 1979 accident at Three Mile Island (Harrisburg, USA) had stimulated a review of accident management procedures and served as a primary reference case.[6] Ironically, the TMI analogy (c.f. Khong, 1992) focused on the fact that official accounts of the incident emphasize the relatively minor radioactive releases to the environment which took place, despite the serious of the damage to the stricken reactor. Thus the lesson of TMI for many politicians and nuclear safety planners, not least in Sweden, was that the containment structures had performed reliably under adverse conditions. The implication of this interpretation was that it was better to invest in improving containment hardware (such as the FILTRA program designed to filter emissions prior to their release into the environment) than in broadening and deepening emergency preparedness.[7] In addition, this reference case focused attention not long range transboundary contamination (as was often mentioned in the context of acid rain), but rather on potential local sources of radiation such as the Forsmark nuclear power station and its storage and transport of nuclear materials.

Furthermore, since its commissioning in 1980 the Forsmark plant had experienced chronic, through relatively minor, technical difficulties. For example, problems with leaking fuel rods had resulted in several small radioactive releases during the late winter of 1986.[8] The evidence suggests that this information was highly available and salient to the regulators at the Nuclear Power Inspectorate (SKI) (see below).

This backdrop appears to have affected the situational assessment via the

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[5] Ironically, the worker in question never entered the main reactor area. According to several Forsmark intereviewees, he began the entry process (crossing the so-called shoe border) in order to gain access to the locker room facilities located between the shoe border and the main dosimetry station at the point of entry to the reactor bloc. According apparently he wished to brush his teeth there in the wake of some a nocturnal adventure. Then, without ever having entered the reactor bloc, he recrossed the shoe border and set off the alarm. The fact that he had not been inside was apparently not communicated to the plant management for some time.

[6] See e.g. SSI (1979) and Svensson et al (1986: C53-54).

[7] Several Forsmark interviewees indicated that emergency planning and preparedness had been downgraded in importance on the list of priorities in the years preceding the Chernobyl crisis.

[8] The Forsmark interviewees emphasize that the period just prior to the Chernobyl crisis did not stand out as particularly accident prone. For details on the various incidents, see the quarterly reports for the first and second quarter of 1986 published in the *Uppsala Ny Tidning* (April and July 16, 1986).

availability heuristic (Nisbett & Ross, 1980;18-28).[9] These factors combined with the specific location of the discovery of the mysterious radiation – at a Swedish nuclear power plant – reinforced the framing of the problem as a possible leak at the plant. This hypothesis would dominate the definition of the situation for roughly the first seven hours of the crisis.

The alarm led to some three hours of increasingly feverish measurement activity aimed at identifying the source of the contamination. Initially, the problem was treated as a relatively low level situation subject to being handled by relatively junior staff deploying standard operating procedures. However, continuing inability to find the source gradually led to increased concern at higher levels of the organization. By 9:30 am, the problem reached the attention of the top level management group (assembled for a regular monday morning production meeting) led by the dynamic, founding Forsmark Plant Manager, Karl Erik Sandstedt.

The reports were puzzling and troubling to Sandstedt and his men. The measurement teams, working backwards from the however did not succeed in locating any source of contamination within the facility. Yet despite these results, decisionmakers continued to cling to the Forsmark hypothesis. Further measurements appeared to justify that situational assessment. The pattern of contamination reports outside the plant seemed to senior radiological specialist Lars Wahlström (interview) to conform to those expected in the event of a major Forsmark release, given prevailing weather conditions.

Due to measurement error, non-standard equipment, and reports in multiple units of measurement, the reports of the measurement teams were not easily commensurable. In order to make a quick assessment possible, Wahlstrom 'homogenized' the measurements by halving the extreme values in order to generate a rough picture of the contamination. This picture seemed to match very well with the model of one side of the expected plume.according to the dispersion models in use at the time. Wahlström then assumed, incorrectly as it would turn out, that the pattern was symmetrical and did not check the other side. If he had done so, (as he was later ordered to do), he would have found that the contamination did not conform to the model. This asymmetry would have been a strong clue pointing in directions other than a Forsmark source.

Similarly, readings taken in the parking lot of the nuclear facility showed significantly higher levels than those found in a wooded area several kilometers away. These findings were communicated to the regulators at the Nuclear Power Inspectorate who interpreted them as supporting the Forsmark hypothesis

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[9] The availability heuristic refers to "the relative availability of the objects or events, that is their accessibility in the processes of perception, memory, or construction from imagination...."(Nisbett and Ross, 1980:18). Frequently used and or relatively vivid information tends to be more available and is likely to be used to interpret new and especially ambiguous information. See chapter two for a more detailed discussion of the implications of cognitive theory for crisis decisionmaking analysis.

(Ahlbom, 1986:21; Reisch, 1987b). The disparity in readings was later shown to be the result of the different ground surfaces at the sampling sites. The asphalt of the parking kept the contaminated rain concentrated in puddles at the surface. In contrast, the rainwater filtered down through the layers of earth at the wooded site, resulting in lower readings at ground level. Once again, the interpretation of the incoming evidence was affected strongly by the nature of the predominant problem frame.

At roughly 10:30[10], plant chief Karl-Erik Sandstedt decided to block off entrance to the plant. At 10:30 Sandstedt ordered a precautionary ('höjd beredskap') alert despite the fact that no source of contamination or other malfunction had been identified at the plant.[11] The plant emergency command center was manned and the plan for coping with local nuclear accidents was put into effect. Contemporary (and current) emergency plans envisioned a division of responsibility between the county board and the plant management. The county board was held responsible for the protection of the population outside the perimeter of the nuclear station, while the plant emergency management team (led by the plant manager) retained operational responsibility for on site safety measures (Amnå and Nohrstedt, 1987:12, Sandstedt interview). The county board (länsstyrelsen) was notified via the county alarm center. The alarm was distorted due to a misunderstanding on the part of the operator at the county alarm center, leading many county officials to believe that the more serious disaster alert ('haverilarm') had been declared.

Just after 11:00am, the decision to evacuate was made by the plant management. This decision was taken despite the fact that "no abnormal radiation levels were observed inside the reactor buildings or from the stacks" (Reisch, 1987:29; confirmed by Forsmark interviewees). Shortly after 11:00am, a loudspeaker announcement instructed employees who did not have emergency or operational duties, consultants, and temporary visitors to report to a recreational facility at Norrskedika, several kilometers south of Forsmark. The ominous instructions were to disregard normal contamination procedures and vacate the premises immediately. More than 800 hundred non-essential operating personnel and visitors were affected.

The evacuation did not proceed smoothly. Roadblocks intended to block access to the power plant significantly impeded the evacuation as well, creating delays of up to thirty minutes at the checkpoint. Due to a coordination lapse, police officers assigned to register the evacuees arrived at least half and hour late (Sjöquist and Eckered, 1986:44,53). The evacuees were asked to wait outside pending registration and decontamination, which could not begin until the police

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[10] This time is drawn from the internal Forsmark memorandum on the incident by Sandstedt's assistant and eye witness Rune Nilsson (1986).

[11] This decision will be examined more closely in the following chapter.

officers arrived. Once registered, the clothes and shoes of the evacuated persons were measured for radioactive contamination. While none of the outerwear checked showed signs of contamination, at least half of the shoes revealed readings of more than twice the normal background radiation. Those shoes were decontaminated with water and alcohol. Only a single functioning Geiger counter was available, resulting in long lines at the improvised control station set up in a room at the stadium. Evacuees were not permitted to leave until the decontamination process was complete (DN 860429:7).

It should be noted that the procedure of keeping the Forsmark evacuees outside pending registration was contrary to basic principles of radiological protection and was the result of an unreflective adherence to a flawed procedure. The idea of such an evacuation was to get these individuals out of harms way and indoors in order to limit their potential exposure to radioactive fallout. Apparently, the procedure (decided at the municipal level) was designed to protect an expensive wood floor installed at the Norrskedika sporting hall from possible contamination (interview). In the event of a real emergency, this policy could have resulted substantial additional exposure to fallout.

The evacuation also served to degrade Forsmark's ability to communicate with the outside world. The telephone operator was evacuated along with other 'non-essential' staff which made it difficult to manage the heavy telephone traffic in and out of the emergency command center. In addition, intra-plant communications were affected. For example, the team in charge of reactor 3 was largely cut off from the emergency command center, where the telephone lines were constantly busy (Alf Lindfors interview).

It is important to emphasize that these relatively drastic measures cannot be understood without reference to the prevailing problem frame, which in turn was largely the product of circumstantial evidence surrounding the discovery of the radiation and the preexisting plans for local nuclear emergency. With perfect hindsight, the evacuation of the plant makes little sense; we now know what the participants would realize within a few hours, that the contamination was a national not a local problem and that the evacuation as implemented risked increasing rather than decreasing the doses received by these individuals. Ironically, the inside of a nuclear power plant may well have been among the safest places in Sweden that day. However, in light of the then available information, one can understand the decision to evacuate measure taken as a sensible precaution designed to remove staff and visitors from harms way[12]. The difficulties associated with the evacuation are illustrative of the limits of

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[12] According to Sandstedt (interview) the prime motive for the evacuation was to remove worried staff from the site and reduce personnel and visitor traffic which might have been dispersing radioactivity within the plant. He suggested that this would facilitate identification of the contamination source. Other interviewees (e.g. Wahlström, Danielsson, Nilsson) downplayed this motive asserting that preparing for the worst case scenario was a more important motivation.

planning and the difficulty of testing crisis preparedness through relatively small scale unrealistic and emergency exercises of the kind undertaken by Forsmark prior to this crisis (e.g. Wahlström interview on exercises for radiation measurement).

From a more theoretical perspective, the importance of effective coordination and implementation (Allison, 1971; Smith and Clarke, 1985; Pressman & Wildavsky, 1984) is clearly demonstrated in this decision occasion. In addition, the episode shows how critical functional interdependencies – such as the seemingly obvious fact that the evacuation of the telephone operator would degrade communications with the outside world – may not be so obvious prior to or during a crisis. Finally, the episode also shows how a myopic application of organizational routines – such as forcing evacuees to remain outdoors pending decontamination – may generate counter-productive behavior (Weick and Roberts, 1993:362, 375-376). In other words, it is important that even the footsoldiers – such as the local police administering the evacuation – understand the 'big picture' and how their role fits into the wider purposes of the operation.

2. If not Sweden, then where?[13]

At roughly 11:00 am, some four hours into the crisis, analysis groups were established at the national level at SSI and SKI. The Forsmark-oriented problem frame was still dominating the discussions as mid-day approached. However, and it would turn out to their credit, these groups gradually began thinking about the broader situation and checking contamination levels in other parts of the country.

At this point, perceptions perceptions of the situation began to diverge between the operational (Forsmark) and strategic levels (the regulators in Stockholm).[14] At Forsmark, the plant leadership became increasingly confident – on the basis of extensive measurements and analysis of operational data – that nothing serious was wrong with the Forsmark reactors and that no ongoing releases were taking place. The view was shared by the inspectors from the nuclear power inspectorate (Dick Weibar and Lars Lindström) who happened to be out at Forsmark that day (Sandstedt and Danielsson interviews, Lindström interview and Steen et al, 1986:91).

The SKI crisis group in Stockholm (see next chapter for a more detailed analysis) saw the situation differently. In their view, it was up to Forsmark to

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[13] The account of this decision occasion draws heavily upon Steen (1986:77-81, 90-93), Ahlbom (1986:21), Reisch (1987), notes on theses events taken by Nuclear Power Inspectorate [SKI] General Director Hörmander and crisis group member Alf Larsson, and interviews with members of the crisis groups at SKI, SSI, and FOA.

[14] Compare Bouchard (1991:42) and t Hart, Rosenthal and Kouzmin (1993)

prove that nothing was wrong, which entailed pinpointing the source of the radiation (A. Larsson notes). This group had been put together on an ad hoc basis, since many of the agency's leading technical experts were out of town at a conference on nuclear accident management (Steen et al, 1986:77-78,92; Högberg interview)!

Over the vigorous objection of Sandstedt at Forsmark, the Director General of the Nuclear Power Inspectorate Olof Hörmander gave Forsmark a noon ultimatum. If the source of the contamination was not identified in ten minutes, SKI would order the shutdown of the Forsmark reactors. According to his own account (interview), Sandstedt feared that such a shut down might cause an imbalance in the Swedish power grid and lead to a major power failure. In his view, such a 'blackout' could easily lead to serious secondary accidents.[15]

Apparently now well on the way to being committed psychologically to the ultimatum, the SKI group was initially inclined to dismiss a report of similar levels of contamination identified at the Studsvik nuclear research facility south of Stockholm. The consensus within the group was that the Studsvik staff had probably fallen victim to a stress-induced measurement error.[16] As a result, the group leaned towards going ahead with the Forsmark shutdown policy anyway (SKI interviews; Hörmander's and Larsson's notes; cf. Steen et al, 1986:79, 91-92).[17]

Shortly after 12:00 pm, a FOA working group led by Lars-Erik De Geer was apprised of the situation via an informal contact (Sjöquist and Eckered, 1986:46-47; De Geer interview). Air samples taken in Stockholm in the early morning hours were immediately analyzed. The preliminary analysis revealed heightened levels of radiation in the sample. Further analysis of the isotope composition was undertaken. The results indicated the presence of graphite particles in the fallout which was interpreted as suggesting that the source was a stationary civilian nuclear reactor accident, probably an RBMK reactor.[18]

According to an on-going cooperative arrangement between FOA and The

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[15] Several well placed sources indicated that Sandstedt was fully prepared to use delaying tactics to buy some time for further investigation if the order to shut down had been given. As the Forsmark chief had the reputation of being something of a maverick (one interviewee from the Nuclear Power Inspectorate actually used the term 'cowboy' to describe him), there is little reason to question Sandstedt's resolve.

[16] In fact, according to several interviewees, Studsvik was in the midst of their own verison of the Forsmark crisis. They too assumed that the radiation found around their nuclear facility must have come from their own research reactor system.

[17] There is a minor conflict of sources here. Hörmander's account asserts that the ultimatum was suspended immediately upon receipt of the Studsvik report. Reisch's account places more emphasis on the raw data from FOA. These accounts agree that the arrival of a report from Finland definitively put the Forsmark hypothesis to rest.

[18] It was apparently not possible at that time for the Forsmark chemists to undertake this advanced type of analysis which served to deprive the Forsmark 'detectives' of the important graphite clue (Wahlström interview)

National Meteorological and Hyrdological Institute (SMHI), FOA was provided with so called 'air parcel trajectories' on a daily basis (Persson, Rodhe, and De Geer, 1986:2). This arrangement was created to facilitate monitoring of compliance with the Partial Test Ban treaty and venting from underground nuclear tests. At any rate, due to the existence of this arrangement, the FOA analysts were able to draw upon a readily available calculation of the geographic origin of their air sample. On this particular day, the air sample originated in the southwestern Soviet Union. On the basis of this information and the in-house analysis[19], the FOA group was able to make an accurate assessment of the situation (a nuclear accident at a power station somewhere in the Southwestern USSR) within about 45 minutes of being notified (Sjöquist and Eckered, 1986: 46-51; De Geer interview). This was an impressive achievement.

Parallel discussions continued in SKI's improvised group led by Hörmander and Frigyes Reisch. The group maintained contact with the FOA technicians and drew on similar meteorological data from SMHI. The group sequentially eliminated a series of alternative hypotheses after some initial difficulty in abandoning the Forsmark hypotheses noted above.[20] Conclusions supporting the FOA analysis were reported to SSI circa 1:00 pm. The SKI group's openness to this alternative hypothesis may well have been enhanced by the fact that Reisch had recently published an article surveying nuclear stations adjacent to Sweden. Ironically Chernobyl was not included in the survey of neighboring nuclear power stations, as it was more distant than the most of those discussed in the article.

According to a strategically placed participant, SSI initially resisted the FOA group's assessment, possibly due to a certain degree of organizational rivalry (see chapter six). Skeptical of the accuracy of the routine meteorological analyses, SSI requested SMHI to redo manually the same calculations already executed as part of the daily routine.[21] Once SKI's group reached similar conclusions and reports of elevated radiation detected in different parts of the country mounted, the dominant working hypothesis gradually shifted. By 2:00 pm, a new consensus had been achieved at among the agencies dealing with the issues at the national level. The source of the contamination was to be sought outside of Sweden.

This decision problem highlights the importance of routines in shaping crisis response. The existing inter-agency cooperation between FOA and SMHI enabled an extremely rapid and accurate assessment which successfully challenged the dominant working hypothesis. The fact that this arrangement and these analytical

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[19] Particularly noteworthy was the identification of graphite particles in the fallout, which otherwise exhibited a composition typical of stationary power-station reactors. This fact pointed to the Soviet graphite-modulated reactors (RBMK type) as a probable source.

[20] A participant account (Reisch interview in Ahlbom, 1986:21) suggests that group concurrence seeking may have delayed the exploration of alternative hypotheses in that forum. See also the following chapter.

[21] These results took several hours and ultimately confirmed the results of the routine calculations.

capabilities had been formally defined as being outside the civilian radiation protection system illustrates that assets useful for coping with a crisis may well be found outside standing plans. However, some friction in integrating such assets into the existing system is to be expected.

These events also illustrate the value of diversity and heterogeneity in crisis problem solving, as noted by the late social psychologist Irving Janis (1982, 1989) in his work on groupthink.[22] Janis suggested that allowing multiple groups to work in parallel on crisis problems increases the likelihood of vigilant crisis decisionmaking. In this case, it was clearly useful to engage the FOA group in the crisis analysis work. Just as the other analytical groups (SSI, SKI) were used to dealing with with Swedish reactors, the FOA group was used to tracking radiation coming from the East. In this case, the latter orientation (and the infrastructure developed to support it) pointed in the direction which ultimately solved the mystery of the 'Forsmark' radiation.

3. The accusing finger points at the Soviet Union [23]

Among the first attempts to move beyond national information resources to further clarify the situation entailed transnational expert contacts by members of the SSI task force with counterparts in Denmark (Risö) and Finland (Finnish Center for Radiation and Nuclear Safety). Similar contacts were taken by the SKI analysts and the Forsmark leadership. By early afternoon it had been firmly established that unusually high radiation levels had been detected in those countries as well.[24]

At 3:00 pm, Energy Minister Birgitta Dahl requested the Foreign Ministry (UD) to make inquiries in East Germany, Finland, Poland, and the Soviet Union. Representatives of these countries were asked whether a nuclear accident had occurred on their territory. One and a half hours later, Dahl opened up another diplomatic channel by contacting Hans Blix. Blix, a former Swedish Foreign Minister was then the Director General of the International Atomic Energy Agency. Blix agreed to forward the Swedish request for information to the ambassadors to the IAEA from the countries in question. Shortly thereafter, Blix confirmed that the information requests had been relayed and promised to pass on any responses immediately.

Mobilizing the IAEA early on proved an effective move on Dahl's part. By

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[22] Janis's work is discussed in more detail in chapters three and four.

[23] The account of this decision occasion draws upon a number of sources including Isberg (1993), parliamentary constitutional committee documentation (KU 1986/87:33), and interviews with Birgitta Dahl and Torsten Örn, then ambassador to the Soviet Union.

[24] In fact, Finnish experts had detected heightened radiation levels the previous evening, but apparently had not acted on the findings. See the appendix to this study for more details.

adding the weight of the international organization's prestige and broad membership to the Swedish information requests, the culprit would come under far more pressure to disclose a nuclear accident than if the request were simply bilateral. The IAEA would prove extremely useful as a lobby for Soviet openness, multilateral communication channel, and information clearinghouse as the crisis wore on.

UD confirmed that the information requests had been lodged with the appropriate authorities in the above-mentioned countries. Particular emphasis was placed on inquiries to the Soviet Union. Requests for information were made at several levels during Monday afternoon.

These included efforts by the Swedish technical attache in Moscow, Per Olof Sjöstedt who contacted the state committe for nuclear energy and other nuclear authorities during the afternoon. Swedish ambassador to the USSR Torsten Örn made informal inquiries at an evening cocktail party in Moscow. In response, the various Soviet officials contacted neither confirmed nor denied the possibility of a nuclear accident (Interview with Torsten Örn, FBIS-WE, 860429: P; Bailey, 1989:7).

At 7:00 pm, the Soviet authorities issued a terse statement confirming that a nuclear accident had occurred at what was then an obscure nuclear power station at a place called Chernobyl in the Ukraine. The exact wording was:

> An accident has taken place at the Chernobyl power station, and one of the reactors was damaged. Measures are being taken to eliminate the consequences of the accident. Those affected by it are being given assistance. A government committee has been set up.[25]

This statement was carried by the TASS wire service. The IAEA was formally notified by the Soviet ambassador at roughly the same time.

Swedish experts rapidly formulated a list of detailed questions about the circumstances and consequences of the Chernobyl accident. These were submitted to the Soviet Foreign Ministry by the Swedish embassy in Moscow late Monday evening[26]:

- Did the accident occur in a graphite modulated reactor?
- How many channels in the reactor are damaged?
- When did the primary event take place, the one which initiated the release and when did the release begin?
- Is the reaction under control?
- Has the graphite caught fire?

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[25] Quoted in Bailey (1989:7).

[26] In her May 12 statement to the Riksdsag, Dahl says that the list of questions was submitted on Tuesday morning.

- Has the release of radiation to the environment ceased?
- How much and which radioactive elements have been released?

(Dahl, KU 1986/7:251; author's translation).

An initial statement was issued by SSI General Director Gunnar Bengtsson: "The radiation will not exceed those levels allowed in nuclear power plants. Those who live in radon buildings are exposed to significantly higher doses than those measured today." (DN 860429:7; author's translation).

Birgitta Dahl appeared on the *Aktuellt* nightly news program, chastising the Soviet Union for its silence: "It goes without saying that the Soviet Union has not acted correctly with regard to information about the nuclear accident. They should have informed us and other countries immediately." (FBIS-WE, 860501:P2) She called for more information from the USSR in the short term. Furthermore, as far as the longer term is concerned, Sweden will "...be repeating our demand that the Soviet Union submit its reactor program to international checks". She firmly rejected the suggestion on the part of an anti-nuclear power group that Sweden shut down its own reactor program immediately: "This morning, when we could not rule out an a fault at Swedish installations, we did consider this. But now that we know that the fault was not here and that such a step is unnecessary."(FBIS-WE, 860501:P2).

The management of this decision problem is significant in three respects. First, the relatively effective Swedish analytical activities described above and the decisive international information gathering activities described in this section resulted in Sweden's having sounded the alarm for the world. This was a significant achievement. Second, making use of the IAEA increased the likelihood of a response while at the same time guaranteeing a rapid and authoritative dissemination of the crisis warning to IAEA member countries. Third, the episode highlights the importance of the Swedish transnational networks – Nordic, European, and global – for rapidly generating useful information in a crisis situation.

4. How serious is the contamination problem and prognosis?[27]

Following the Soviet confirmation during the evening of April 28, Energy and Environment Minister Dahl made public statements condemning the tardiness of the Soviet Union (such as the one cited above) in disclosing the accident. In fact, almost three days had passed between the accident and the grudging Soviet

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[27] The account of this decision occasion draws heavily upon Steen et al (1986:109-184); Reisch (1987); and interviews with officials at SSI and SKI.

disclosure. Other Nordic leaders added their voices to the chorus of protest. The Finnish government was, however, conspicuously silent on this issue.

Swedish officials perceived a pressing need for more detailed information regarding the accident than was available in the blunt Soviet communique. During Monday evening, a detailed list of technical questions regarding the stricken reactor, the accident, and the current situation was formulated by Swedish experts. The Swedish request for information and the specific list were repeatedly passed on to Soviet officials through multiple channels. This bilateral effort would prove frustrating and ultimately fruitless. Swedish officials ended up acquiring their information through national technical means, via informal transnational contacts, and from multilateral institutions, most notably the IAEA. The IAEA 'spontaneously' took on the unprecedented role of international clearinghouse for information regarding the accident.[28]

The existing SSI and FOA networks of measuring stations provided both a background of previous measurements, which enabled comparison with pre-crisis levels, and monitoring of the progressive development of the situation. These stations were put on a crisis-footing of accelerated sampling and analysis in order to generate a dynamic picture of the emerging contamination patterns across the country.

Just as assets from the defense realm (such as the FOA-SMHI routines) proved extremely useful in identifying the source of the contamination, assets from the defense system played a major role in the effort to survey and monitor the developing situation. FOA technicians used a Navy helicopter as platform for measurements designed to identify the location of the contaminated cloud masses. Air samples taken at a variety of altitudes were collected on a regular basis, making use of filters mounted on Air Force Lansen fighter aircraft.

Parallel to the efforts underway to survey and assess the scope and severity of the contamination, the leadership at SSI perceived another pressing problem: addressing the deep unease felt by the public and expressed by the mass media. Public panic control became a top priority in the wake of the identification and confirmation of the source of the contamination. In fact, the evidence suggests that the senior SSI leadership took this latter task even more seriously than the former after the initial phase of the crisis. These factors may well have contributed to SSI Director General Gunnar Bengtsson's subsequent assessment of the problem's character: "Strålningen är till 80 procent ett informationsproblem och till 20 procent ett strålskyddsproblem."[29]

Several factors help to explain this orientation. First, the importance of the initial relief that a Swedish nuclear accident had not taken place should not be

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[28] For an overview of the IAEA's role in the crisis, see Blix (1987).

[29] Quoted in Nohrstedt (XXXX: 134). Author's translation: "The radiation is eighty per cent an information problem and twenty per cent a radiological protection problem".

underestimated. The nightmare scenario of a serious Swedish nuclear accident and its associated radioactive and political fallout had not occurred. This may have lulled some officials into a false sense of security that the crisis was already over for all practical purposes.[30] Second, the prevailing conventional wisdom prior to the Chernobyl experience suggested that nuclear accidents had largely local consequences. Officials were at first disposed to believe that while some contamination had reached Sweden, the consequences would be marginal and temporary. This impression may have been reinforced by the fact that SSI initially focused on short lived isotopes such as radioactive iodine, rather than on the more persistent isotopes such as cesium (Nohrstedt, 1991:494). The record also suggests that the experts initially underestimated the importance of the continuing releases from caused by the delay in getting the fire under control at Chernobyl. These factors contributed to the rather optimistic initial prognoses regarding the severity of the radioactive pollution and need for intrusive interventions into the daily lives of ordinary citizens.

The initial optimism set the stage for a rapidly escalating second order legitimacy crisis. The radiological protection officials became caught in a serious credibility trap largely of the their own making. The ongoing releases, which resulted in increasing levels of contamination reaching several orders of magnitude greater than those predicted in initial reports, and mass media reporting of more aggressive interventions mandated by authorities in other European countries, combined to create an extremely difficult information problem.[31]

5. Who is in charge?

The redefinition of the 'Forsmark crisis' into the Chernobyl crisis raised a cluster of major coordination problems. Detailed and differentiated planning, including specific allocation of responsibility for a wide range of crisis management functions, existed for the contingency of nuclear accidents in the five counties housing nuclear power plants.[32] According to these plans, the operative responsibility for crisis response was assigned to the county level authorities: the landshövding and the länstyrelsen. The central agencies such as SSI and

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[30] It is worth noting that this effect apparently did not apply to SSI General Director Gunnar Bengtsson who had been out of town during the monday morning roller coaster ride described above. By the time he joined the crisis management efforts in the early afternoon, (upon his return from an extended international trip) the Forsmark hypothesis had already been dismissed (Bengtsson interview).

[31] For analyses of Chernobyl as an information crisis, see the cited works by S. A. Nohrstedt above. See also Steen (1987) and Löfveberg (1986).

[32] For a description of the broad outlines of this planning system prior to Chernobyl, see SSI (1979), Statskontoret (1984) and Svensson et al. (1986: section D).

SKI were assigned a primarily consultative role. For example, the plan called for the SSI and SKI General Directors to travel to the affected county and assist the county board with technical advice and public relations. Obviously this procedure had to be disregarded as many counties were simultaneously affected by the Chernobyl contamination.

It is not an overstatement to observe that virtually no planning existed for radiological contamination originating outside of the country and affecting large portions of it (Nohrstedt, 1991:477). This created a very confusing situation. Due to the relative lack of attention to this scenario, the legal complexities of the jurisidictional allocations, and the fact that a new Rescue Services Act (Räddningtjänstlagen) had recently been passed by the Parliament but had not yet entered into force, the operational responsibility distribution was far from clear. Possibile candidates for primary responsibility include the cabinet, county boards, municipalities, and SSI. There are some significant differences of opinion between academic and official studies of the the legal situation at that time.

For example, one major study – published by Statskontoret in 1984 – found that "The government or authority selected by the government has the responsibility for measures taken in response to accidents occurring elsewhere than in the four nuclear counties." (author's translation). This interpretation was based on The Nuclear Protection Act (*Atomskyddslagen*, SFS1960:3). That study found that the likeliest outcome in such a contingency would be for "the cabinet to give the county boards in the most effected counties responsibility for command and control of the response" (author's translation, Statskontoret, 1984:43).

Amnå and Nohrstedt (1987:133-138) contest this conclusion, stating that a 1981 amendment gives the perogative of taking responsibility under certain circumstances. They reject the idea of an automatic transfer of responsibility to the government. Since no explicit transfer of mandate took place and since the county boards were only legally responsible for Swedish nuclear accidents, they reach the following conclusion:

> We can therefore draw the conclusion that neither the Cabinet, SSI, nor the county boards had *de jure* any special mandate to take operational measures at the time Chernobyl afflicted the country. The legal situation points to the municipalities as the formally responsible authorities. (Author's translation)

This responsibility derived not from the Nuclear Protection Act but rather from the basic constitutional responsibility (SFS 1982:1080 paragraphs 1,2, and 4) of local government for dealing with threats to the health of residents. They also point to the oversight responsibility of the county boards, which could be interpreted as providing a mandate for action.

In fact, there was a striking confusion with regard to who was responsible

for regional and local crisis response. Many municipality leaderships believed that the responsibility rested at the county level. Many municipalities and counties were poorly prepared and ill-equipped to lead the effort in this technically complex contingency, which created a vacuum which was largely filled de facto, if not always de jure, by SSI.

Given the complexity of the organizational-administrative apparatus engaged by such a disaster – including numerous central ministries and specialized agencies, as well as county and local government bodies – and this confusing legal situation, there was pressing need to sort out supervisory and task responsibility. In addition there was a need to establish an information clearing house and unobstructed lines of communication.[33]

How then was this coordination problem handled during the Chernobyl crisis? Swedish decisionmakers largely followed a precedent set during a mini-crisis which had occurred three years before. In December-January of 1982-3, a quasi-crisis emerged centered around the uncontrolled reentry of a Soviet satellite (Cosmos 1402) bearing a nuclear reactor.[34] The authorities set up a crisis working group coordinated by SSI which planned for the contingency of the satellite's crashing on Swedish territory causing significant contamination.[35] A parallel satellite quasi crisis occurred in 1986.

In the aftermath of Chernobyl, SSI was granted the inter-agency coordinating role at the national level. This decision was made during a meeting on April 29 among officials from the Ministries of Industry, Agriculture, Defense, and the general directors of SSI and SKI. SSI's crisis group was reinforced with expert competence from SKI, the Defense establishment, the civil defense board, and SMHI, among others. In a development which paralleled the innovative role of the IAEA at the international level, SSI became the central clearing house for information and analysis.

As already noted, the cabinet had the authority to take or reallocate responsibility for nuclear emergencies originating outside Swedish nuclear reactors. This case certainly qualified. Therefore, the government could have chosen to invest itself, SSI, or some other body with direct and formal operational authority . The cabinet chose not to exercise these options, choosing to informally allocate de facto responsibility (Isberg, 1993).

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[33] Serious communications problems emerged due to inadequate communications infrastructure and user overload. For example, SSI was initially overwhelmed by telephone traffic to the extent that even other government agencies were unable to reach SSI officials. Some agencies (such as Livsmedelsverket) dealt with this technical problem by sending messengers across town in order to break through this information choke point. Additional telephone capacity was added after the first week of the crisis (Steen, 1987:120-125).

[34] See SSI (1983) ["Utvärdering av erfarenheter i samband med störtningen av den Ryska satelliten Kosmos 1402" Arbetsdokument 83-10. Stockholm.]

[35] Cosmos 1402 ultimately crash-landed in Canada, sparing Sweden.

As a result, SSI's role remained formally consultative. In managing the crisis, SSI recommended actions to the county boards or to other central agencies such as the National Food Administration (SLV) . In fact, as the SSI crisis group had the technical competence, such recommendations were generally adopted. In some cases, particularly early in the crisis, these recommendations were publicly and authoritatively announced without prior consultation with the formally responsible body. For example, SSI initially issued public statements regarding consumption of foodstuffs such as rainwater, parsley, mushrooms etc without the authorisation of SLV. That agency did in fact subsequently adopt SSI's recommendations and expressed understanding for SSI's behavior under the difficult circumstances (Steen et al, 1986:129). SSI was in charge de facto if not de jure and had the strong support of Energy Minister Birgitta Dahl who took a leading role in the political level crisis managment (Dahl, Bengtsson and Högberg interviews). The Cosmos incidents not withstanding, this arrangement entailed an unprecedented allocation of operational authority in crisis management to SSI.

6. How to protect the population?

Perhaps the most obvious problem posed by the identification of the Chernobyl contamination for Sweden (and the other European governments) was developing a policy for the protection of the population. The layman might well suppose that this would be a relatively simple matter of applying accepted, scientifically-based, principles of public health to this specific situation. In fact, policy development in this area proved extremely troublesome for many individual European governments and the EC. Sweden was no exception.

The central organizing concept employed by the international radiation protection community is the so-called ALARA principle. ALARA is an acronym for the english phrase "as low as reasonably achievable". Radiation doses to the general public should be kept as low as reasonably achievable. The notion is hardly profound. Furthermore, it is highly ambiguous.[36] This ambiguity reflects recognition of the value tradeoffs inherent in this policy area. While policy-makers should strive to keep doses limited, marginal returns on intervention measures are seen as diminishing. At some point, measures which might further reduce public exposure are foregone due to prohibitive cost.

Even in the official literature, such decisions are seen as highly context dependent. Figure 1 illustrates the complex techno-political process which leads to the generation of an intervention profile in the event of massive radioactive releases, as in a nuclear accident. While commendable in its recognition of the role of social, economic, and political constraints, the figure seems to suggest

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[36] For a short critique of the ALARA principle in the context of Chernobyl, see Steen (1987:221-2).
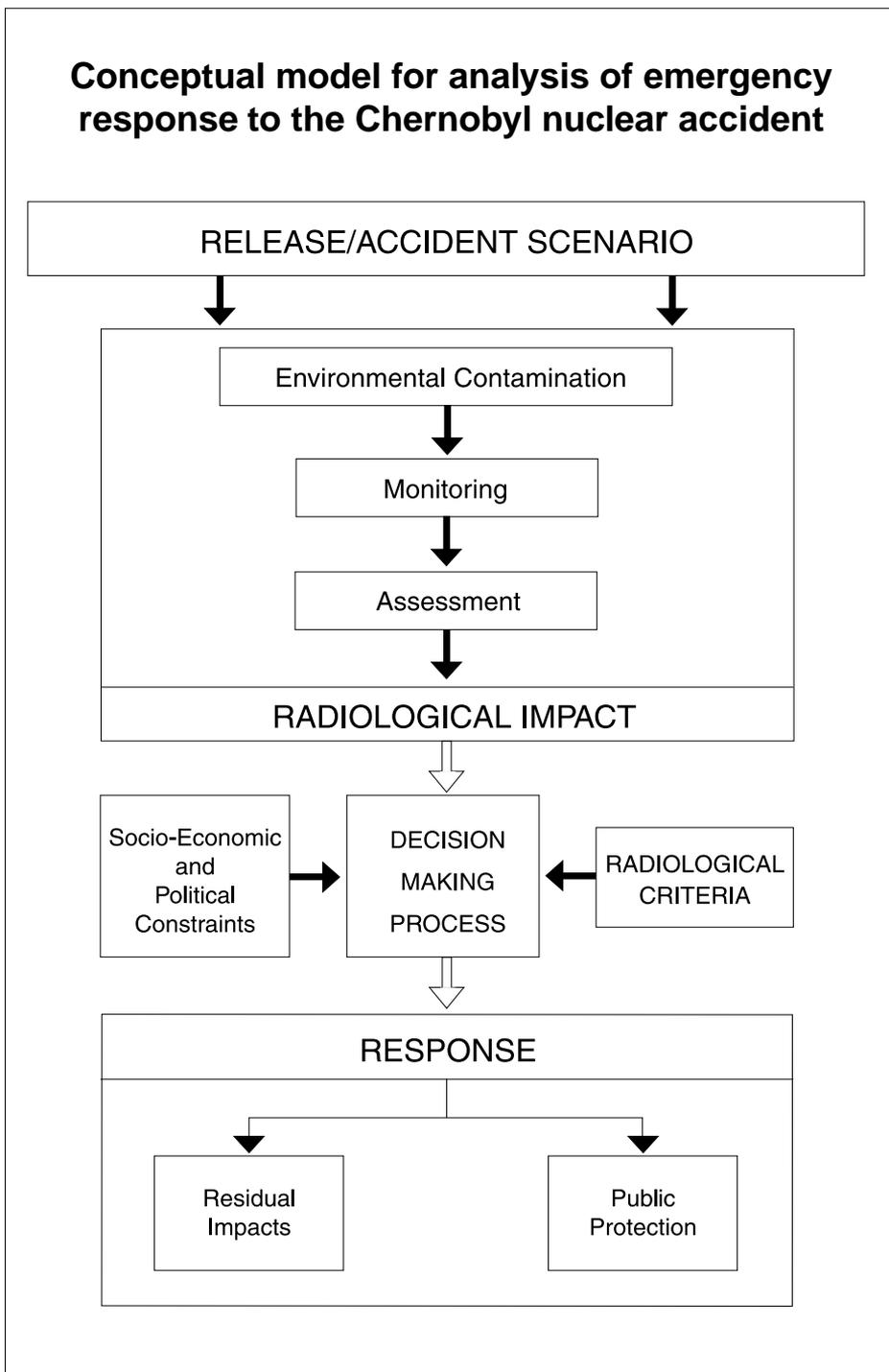
Figure 5.1: Conceptual model for analysis of emergency response to the Chernobyl nuclear accident. Source: OECD (1987:14)

that radiological criteria are relatively unproblematic. In fact, many commentators have noted that there was no stable consensus in the scientific community as to the health effects of sustained lower levels of exposure[37]

In the absence of prefixed nationally and internationally coordinated intervention levels, responses to Chernobyl developed in a variety of separate policy-making systems, driven by different levels of contamination, unevenly effective monitoring, and independent assessments. The diversity of policies adopted reflected the ambiguity of the radiological criteria and the particular configurations of social, political, and economic factors in the relevant administrative jurisdictions. The negative impacts of the policy discord were exacerbated by the vigilance of the mass media which reported, with relish, dramatic contrasts in intervention levels in adjacent regions.[38] This contributed to public perceptions that the authorities did not have a firm grasp of the situation.

The origins of the credibility trap in which the Swedish authorities were caught have been described above. The initial optimistic prognoses and denial of the necessity of intrusive interventions were overtaken by a gradually emerging picture of more widespread and serious contamination than anticipated. The Swedish public wondered why iodine tablets were administered to Polish children on April 29, but not to Swedish children. On April 29, senior SSI official Jan Olof Snihs stated that no special precautions regarding drinking water are necessary: "drinking water is not much affected by these conditions" (FBIS-WE, 860430:p7). A day later, SSI recommended that stagnant water supplies at summer cottages and similar affected locations not be used for drinking (FBIS-WE, 860501:p.P4). Austrian parents were advised early on to keep children indoors and to avoid play in playground sandboxes; no such advice was issued by the Swedish authorities.

Protection of the food supply raised particularly thorny problems. Tradeoffs became immediately apparent between economic cost and dose minimization. Setting threshold values low would contribute to dose minimization but would be likely to be expensive in terms of food stocks destroyed, agricultural disruptions, and claims for compensation from those negatively effected by these measures. Setting the values at higher levels would avoid some of these costs but result in higher doses of radiation ingested by the population. In addition, the threshold values quickly proved to have important implications for the large scale international trade in foodstuffs at that time.

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[37] See the FRN volume *Tjernobyl och vår hälsa* (1986) for a debate on the health impacts of low dose radiation. See also Libertore (1993:43-44), Steen (1987:220), Svensson et al, (1986: D20) and Bengtsson (1986).

[38] This problem was particularly acute in W. Germany where policy discord developed among the states. See Czada (1991).

On April 30, Livsmedelsverket (LMV) issued a ban on the import of a broad range of foodstuffs from the USSR and five Eastern European countries. The ban was made even more strict on May 4. Similar policies were adopted by other European countries individually, and subsequently by the EC. These bans met with protest from the affected countries who argued, with some justification, that the bans were politically motivated and discriminatory. Sweden was in fact more seriously affected than several of these countries.

Consultations among the senior SSI and SKI officials and Minister Dahl (and indirectly with Prime Minister Carlsson), resulted in political direction to the effect that safety should be prioritized over economic cost in decisionmaking regarding the protection of agriculture. Beyond this general directive, specific policymaking remained the prerogative of the agencies. SSI issued recommendations on May 2 on threshold levels for milk and other domestic food products. In addition, dairy farmers were asked to keep their cattle stabled and on dry feed pending analysis of the situation.

It is interesting to compare the threshold levels set for a particular commodity – milk – as an illustration of the policy discord alluded to above. Sweden, along with several other Nordic countries, set the threshold for iodine [131] in milk at 2000 becquerels/liter. The EC commission's proposal called for a more saftey-conscious 500 bq./liter.[39] These proposed levels were rejected by the FRG as too lenient and by Italy as too intrusive. Unable to find a consensus on uniform limits, the EC Council of Ministers adopted a principle of non-discrimination. Imports from other member states were to be subject to the same threshold values as domestic products.

In response to a request from the EC Commission (via UDs foreign trade division), and an affirmative from SSI, Swedish LMV expressed willingness to adopt the more restrictive threshold values in order to preempt food monitoring difficulties concerning EFTA food exports to the EEC. The liberal Swedish policy had already resulted in an Italian ban on meat and hard bread imports from Sweden. LMV, in an apparent retaliation, announced (May 13) more rigorous monitoring of food imports following detection of an excessively contaminated shipment of Italian vegetables. On May 16, SSI revised the threshold value for milk, to a more restrictive 300 bq./liter.[40] Sweden, a non-member of the EC, actually behaved in a more cooperative manner than a number of the member states.

The difficulties reported in this section reflect the poorly developed international regime for the protection of the food supply from radioactive contamination which was in place at the time. They are also indicative of the

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[39] Steen, 1986:150; DN 850611:6.

[40] Reg skr 1987/88: 96, p.14.

growing international interdependence and density of transnational interaction which complicated the effort to minimize the exposure of the population to radioactive contamination via the food supply.[41] The impact of trading relationships – which motivated an adjustment of the Swedish radiological protection strategy – is particularly striking – especially as this crisis took place well before Swedish membership in the EC/EU.

7. Has the situation stabilized?

The impetus to the next problem of note was the concern among many Swedish and other Western policy-makers that the fire at the fourth Chernobyl reactor might spread to the other reactor units at the complex, resulting in further massive releases, via explosions and/or smoke plumes. This fear was exacerbated by the unwillingness of the Soviets to provide detailed information as to what was occurring on-site. Bland reassurances that the situation was under control, unaccompanied by hard information, only served to make the Swedish policymakers more concerned about the state of affairs and the potential risks.

A serious problem in risk assessment was the shortage of available information as to the design of the stricken reactor. Soviet participation in international cooperation for the enhancement of nuclear safety had been marginal at best. Similarly, the secretive Soviet Society inhibited the diffusion of information regarding the Soviet reactor designs to the West. As a result, an important priority quickly became gathering all available information on the Chernobyl type (RBMK) reactors.

Despite the fact that official and unofficial requests for technical status reports had been lodged on numerous occasions and through a variety of channels, the Soviets continued to stonewall during the first week of the Chernobyl crisis (Örn and Högberg interviews). Soviet feelers and trial balloons regarding possible technical assistance from abroad (including several informal contacts with Swedish nuclear experts) were interpreted as ominous (Reisch, 1987b). In the absence of Soviet information, Swedish officials were forced to resort to an eclectic mix of international cooperative and national technical means of assessing the risk of further releases (Mandeus and Högberg interviews).

On May 3, five days into the crisis, Minister Dahl inspected the SSI/interagency groupÕs crisis command center at Haga. The key issue was the risk for further releases due to the apparently uncontrolled situation at the accident site. This concern became even more intense by May 7, when SKI's analysis of commercial satellite images (SPOT, Landsat) suggests that the fire was still not

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[41] Similar dynamics regarding competition among national governments with regard to safety consciousness and 'caring government' have been documented by scholars studying responses to the floods which struck Western Europe during 1993 and 1995 (Rosenthal and 't Hart, eds., 1998).

out, some twelve days after the initial explosion.[42] It is interesting to note that SKI took on an operational intelligence role (analogous to that performed by military intelligence agencies in a military-security crisis) in this context. This technical intelligence analysis was complemented by human intelligence gathering efforts as well. Contact was established with the US Nuclear Regulatory Commission and other similar agencies abroad. Lars Högberg, one of main division chiefs at SKI and the agency's senior crisis manager after the first days of the crisis, participated in an OECD/NEA meeting in Paris on May 9 which focused on the issue of further releases.[43]

Meanwhile, another international cooperative initiative between the IAEA and the Soviet Union was in progress. On May 4, an IAEA delegation to be led by Hans Blix was invited to Moscow. The delegation arrived the very next day. High level consultations took place and an helicopter-borne inspection of the Chernobyl site was arranged. Agreements concerning information sharing and monitoring were reached. The information logjam was dramatically broken by this historic mission, which served, indirectly, to solve the Swedish information problem to a considerable extent. On the basis of Blix's report the assessment of the likelihood of additional massive releases was greatly reduced. Sweden was able to turn to the IAEA for information which compensated for the inability to open a satisfactory bilateral information channel.

While Soviet efforts to contain the fire and protect the other Chernobyl reactors ultimately proved successful, the inability to extinguish rapidly the fire did have significant consequences. Driven by the rhythm of releases on site and the weather patterns, fallout continued to be a problem for European countries for roughly two weeks. Sweden experienced a second period of intense fallout between May 9 and May 12. This second contamination period was comparable in severity to that experienced during the first few days of the crisis (April 27-30).[44]

The decision problems discussed here once again highlight the importance of transnational, informal contacts and creative improvisation as means of compensating for the deficiencies in the formal structures of international cooperation, limitations in the available information base, and even shortcomings with regard to technical infra-structure (e.g. the use of commercial satellite images in the absence of access to national intelligence satellites of the kind available to the superpowers.

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[42] Close analysis of Soviet television footage distributed to the international media also revealed the enormous extent of the damage and undercut the reassuring propaganda which accompanied the footage (Högberg interview).

[43] For useful insights into the risk assessment picture during that period, see Högberg's contingency plan which was left with his colleagues 'minding the store' in Stockholm while he was gone.

[44] See Persson, Rodhe, & De Geer (1986:43).

8. Seek compensation from the USSR?

A final matter which came up during acute phase of the crisis was the question of whether Sweden should attempt to seek compensation from the USSR for damages incurred as a result of the Chernobyl nuclear accident. As resistance was anticipated (and confirmed by subsequent Soviet statements to the effect that no such compensation would be forthcoming), pursuing compensation would have entailed taking international legal action designed to compel the Soviets to take responsibility for the costs inflicted on neighboring countries such as Sweden. At first glance, the merits of such a course of action might seem considerable. First, a successful suit would hold the Soviets accountable for any negligence which might have contributed to the Chernobyl nuclear catastrophe, thus providing an incentive to spur the culprit to more vigorous efforts toward and investments in nuclear safety in the future. In addition, Sweden could seek financial compensation for damages incurred as a result of the extensive contamination of Swedish territory. In the immediate post-accident period, leading officials from West European Countries including West Germany and Austria called for pursuit of this possibility.[45]

Following the Austrian initiative, principal responsibility for the task of evaluating the international legal possibilities fell to several experts at the Foreign Ministry Legal Department. On May 15, an internal brief on the legal grounds for eventual Swedish demands for compensation from the USSR for damages caused by Chernobyl was completed (Bring and Ahlstrand, 1986). The brief, which also formed the basis for the parliamentary foreign affairs committee majority opinion (Utrikesutskottets betänkande 1987/88:6 pp.1-4) found that it would be difficult to claim compensation on the basis of either of the three existing international conventions on nuclear liability as the USSR was party to none of them.[46]

These international lawyers found, however, that there were grounds for a suit based on 'softer' principles of international customary law and precedent, declarations, and legal doctrine (c.f. Detter de Lupis, 1989:16-18). For example, the *sic utere* principle (use one's property so as to avoid damaging that of others) enunciated in the famous Trail Smelter Case of 1937-1930 was cited (Bring and Ahlstrand, 1986:1). Among several non-binding declarations mentioned was also article 21 of the 1972 United Nations [Stockholm] Declaration which posits an

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[45] See for example the statement made by Austrian Prime Minister Gratz on May 7 (FBIS-USSR suppl., 860506:N1). See also the accusation of Soviet negligence and confirmation of the intent to seek damages expressed by the Austrian Chancellor Sinowatz in a speech to the Nationalrat (Parliament) on May 15 (FBIS-USSR suppl., 860515:N5). West German Chancellor Kohl and Foreign Minister Bangemann also called for compensation for damages in mid May (e.g. FBIS-WE, 860519:J1-2 and 860520:J4).

[46] The three conventions in question are the Paris convention of 1960; the Brussels convention of 1963 and the Vienna convention of the same year.

obligation of states to ensure that activities under their jurisdiction do not cause environmental damage to other states or territories under the control of other states. However, they point out, the Soviet Union did not attend the 1972 conference (Bring and Ahlstrand, 1986:1; Kiss and Shelton, 1991:106-107). While the prospects of success in a suit based on such principles were uncertain, the Foreign Ministry Legal experts noted that even an unsuccessful suit could spur the development of international law in this area and thus have positive consequences:

> It should however be pointed out that states can influence the legal situation through their praxis. An initiative from Austria and Sweden could contribute to such a law-creating effect (Bring and Ahstrand,1986:6 Author's translation).

However, Bring and Ahlstrand (1986:10) also point that mounting such a suit might contribute to increasing Swedish liability in the event of future legal actions against Sweden. This would seem to be an oblique reference to the a contingency such as a future catastrophe at the Barsebäck nuclear power plant located across the sound from Copenhagen in which might lead other countries (such as Denmark) to seek damages from Sweden.[47] Curiously enough, this argument did not find its way into the parliamentary foreign policy committee report based upon the Bring/Ahlstrand brief.

The Swedish decisionmakers decided not to pursue international legal action to seek compensation for damages incurred as a result of the Chernobyl accident despite the example and exhortations of Sweden's teutonic neighbors and a formal motion from the liberal party parliamentarian Hans Lindblad (Utrikesutskottets betänkande 1987/88:6 p.1). In light of the traditional Swedish foreign policy objective of strengthening international law and the emphasis placed on this objective by then Prime Minister Ingvar Carlsson, this choice seems worthy of further examination.[48] Was concern over Sweden's future liability the primary concern?

The available evidence suggests that it was not. When asked in a 1996 interview with the author to explain this decision, then Minister of Energy Dahl played down the 'Barsebäck' factors importance. Initially, she suggested that there simply were no viable international legal options. When pressed with the nuances of the Bring/Ahlstrand analysis, she responded by conceding that that was an oversimplification. Rather, she suggested, the Swedish position reflected

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[47] The Foreign Ministry international law counsel Bo Johnson Theutenberg drew similar conclusions in a DN interview (860515:7). For a compendium of international legal documents and analysis bearing on these and related issues, see Sands (1988).

[48] Strengthening international institutions in general and international environmental law in particular would subsequently be heavily emphasized by Carlsson led UN Commission on Global Governance which published its report entitled *Our Global Neighborhood* in 1995.

a broader philosophy about how to go about enhancing environmental protection. She distinguished between two broad governmental approaches to environmental protection in both domestic and international issues. The first approach – the American road – emphasized confrontation and legal action to punish polluters and coerce them to implement reforms.[49] The second approach focuses on attempting cooperate with potential (or actual) polluters and working with them in order to influence them to mend their ways. According to Dahl, the Cabinet strongly preferred the latter approach in its dealings with both domestic actors and foreign neighbors such as the Soviet Union.[50] The Carlsson Cabinet apparently believed that confronting the Soviets with demands for compensation and threats of legal action would place them in a defensive posture which would not be conducive to pursuing cooperative initiatives and voluntary unilateral reforms. Furthermore, she indicated that there was a widespread feeling that the Soviets had already been sufficiently punished; they too were victims (as well as perpetrators) of the Chernobyl tragedy.

The contextual evidence available strongly suggests that Dahl was far from the only member of the Government who preferred cooperation to confrontation with the promising and 'new thinking' Gorbachev regime at that historical juncture. Substantial improvements in Swedish Soviet relations which had been tainted for half a decade by submarine incidents were in the works (Örn interview). For example, negotiations over the disputed demarcation of economic zones in the Baltic Sea which had been suspended since 1982 had been restarted on April 10.[51] Just two weeks prior to Chernobyl, this step was followed by the termination of a de facto ban on ministerial level visits to the Soviet Union dating back to the Whiskey on the Rocks (U137) incident of 1981.[52] This policy ended with an official visit by Prime Minister Ingvar Carlsson beginning April 14. The visit including meetings with General Secretary Gorbachev and Premier Ryzhov and culminated with the signing of a 600,000,000 SEK trade agreement.

Several of these factors combined to create a predisposition relatively hostile to the idea of pursuing compensation via the mechanisms available under international law. This is not to suggest that international law was irrelevant to

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[49] She cited Prof. Staffan Westerlund, an environmental law specialist at Uppsala University Law School, as a primary proponent for this approach in Sweden.

[50] In fact, Dahl described authoring passages calling for international cooperation to enhance nuclear safety which were inserted not only in her own May Day speech but also in that of the Prime Minister and other leading Ministers in the Social Democratic Government. See also Utrikesutskottets betänkande 1987/88:6 p.3).

[51] The long time dispute, which had been the subject of on again off again negotiations since 1969, was ultimately settled by the Carlsson government in January of 1988 (*Anno 1988*).

[52] The reader may recall that an important signal of Swedish displeasure during that case was the cancellation of the planned visit to the Soviet Union by then Supreme Commander of the Military Forces Lennart Ljung.

the Swedish government's post-Chernobyl international nuclear safety strategy. Rather, pursuit of international political and legal action was geared towards strengthening the international legal infra-structure such as by supporting the passage of two draft conventions which had previously been unsuccessfully sponsored by the International Atomic Energy Agency. Examination of the process which led to the adoption of the conventions on early warning and mutual assistance in the event of nuclear accidents is beyond the scope of this study. Let it suffice to say that Sweden actively supported the efforts to secure the speedy adoption of these important, though not uncontroversial, treaties.[53]

This decision occasion, (like the parallel question of interpreting international law in the Whiskey on the Rocks crisis), reveals the subtle mix of legal and political considerations in shaping crisis decisions.[54] Once again, the international legal situation was found to be ambiguous and potentially supportive of multiple courses of action. It was left to the leadership, political and bureaucratic, to choose whether to press the bounds of international law or to declare the legal means inadequate in this case – on the basis of non-legal considerations such as their view of the broader national interest. The case differs from the Whiskey case in that here there was a relatively unified view of the legal situation – different policies could be justified within the bounds of a single legal assessment (by Bring and Ahlstrand). In the Whiskey case, different policy lines were indicated by dramatically different interpretations of the possibilities and constraints offered by the contemporary body of international law.

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It is important to recognize that the Chernobyl crisis did not end at abruptly with the decision to defer seeking compensation for damages and to pursue international cooperation for enhancing nuclear safety. Rather, an uneven process of gradual de-escalation took place. A high pace of political and administrative activity continued through the summer and into the fall.[55] New issues such as measures concerning the fitness of reindeer meet for consumption, for example,

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[53] It has been argued (e.g. Sands, 1988) that these conventions were the product of an overly hasty adoption process, driven by the desire of politicians to show progress on international responses to nuclear accidents like Chernobyl, and which resulted in poorly formulated documents rife with loopholes. For example, under the early notification treaty, it was left to the state in which the accident takes place (as opposed to the IAEA for example) to determine whether the event had significant transboundary radiological consequences. Since the Soviet Union's position was to deny that significant transboundary radiological consequences resulted from Chernobyl, it would not necessarily have been legally obligated to inform anyone in a similar future event.

[54] See Sundelius, Stern, and Bynander (1997: 66-69) for an analysis of the disputes over the proper interpretation of international law in that case.

[55] See appendix A of this study for a description of some of the major events following the acute phase of the Chernobyl Fallout crisis.

arose and kept agencies such as the SSI very busy for some time. In this sense, the Chernobyl case differs from the Whiskey on the Rocks case which was characterized by a dramatic and very concrete endpoint – the departure of the U137 from Swedish waters.[56]

In the following chapter, several of the decisions taken and the decisionmaking groups that made them will be examined more closely, drawing upon the analytical scheme developed in chapters three and four.

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[56] The twin currency crises of 1992 (Stern and Sundelius, 1997b; Stern, Sundelus, and Byndander, 1997) also ended abruptly with the floating of the Swedish krona.

Chapter 6:

Small Group Advisory and Decisionmaking Processes during the Chernobyl Fallout Crisis

1. Introduction

The results of the crisis dissection procedure executed in the previous chapter suggest that small advisory and decisionmaking groups were a prominent feature of the institutional landscape during what came to be known as the Chernobyl Fallout crisis. In this chapter, three very different types of small group information processing and decisionmaking contexts will be studied making use of the conceptual and analytical framework developed in chapter three and elaborated in chapter four. The first of these is the staff group led by Plant manager Karl Erik Sandstedt at the Forsmark nuclear power plant (where the radiation originating from Chernobyl was first discovered). The second focuses upon an operative analysis group at the Nuclear Power Inspectorate (SKI) which dealt with the same issue – the mysterious radiation discovered at Forsmark – from the perspective of a nuclear regulatory agency. The third group decisionmaking context is the interagency 'super-group' led by the National Radiological Protection Institute (SSI) which was reinforced by expertise and manpower from several ministries and government agencies. This body was created on the second day of the crisis to serve as a primary information sharing and analysis group on the national level.

2. Group decisionmaking at Forsmark

Step 1:   Investigate the extra-group setting to locate the group within the wider political and institutional contexts.

The staff group which engaged to deal with the Forsmark/Chernobyl crisis was embedded in several wider institutional settings relevant to understanding the key decisions taken on April 28, 1986. First of all, the group was embedded in the wider organizational culture and structure of the Forsmark nuclear power plant. At that time, Forsmark at that time was a semi-autonomous subunit (entreprenör) under the authority of the *Vattenfall* utility.[1] As a result, the plant

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[1]   This relationship was restructured as part of a larger privatization of the energy sector in 1993.

leadership was subject to decisions taken at Vattenfall Headquarters in Stockholm (Råcksta). Vattenfall, in turn, was subject to the authority of the National Nuclear Power Inspectorate [SKI], which issued operating licenses and had the formal authority to shut down reactors for safety reasons (Steen et al, 1986). In addition, as noted in the previous chapter, Forsmark shared authority for emergency decisionmaking with the county board according to contingency planning for accidents at Forsmark. The Forsmark leadership was responsible for decisions concerning the safety of the plant operation, site, and workers, while the county board was responsible for emergency decisionmaking concerning off-site areas and the welfare of the local population at large.

A few words about the Forsmark plant operation are also in order. Following a reorganization in the early 1980s, the core of the organization consisted of three 'result units' each centered around one of Forsmark's three nuclear reactors (interviews, *FK*[2] Nov. 15, 1983:1-2). The first two reactors went on line in 1981 and 1982 and the third in 1985. Each of these units was headed by a production (or block) chief with broad discretion over reactor operations and maintenance. In addition, complementing the broad (multi-functional) result units were several support units responsible for plant wide technical and administrative matters. Responsibility for emergency preparedness was primarily assigned to the Fire-fighting/Security sub-unit of the technical unit under the direct supervision of the plant manager (*FK*, Oct. 1984: p.2) L.Wahlström interview).

Organizational culture is always difficult to capture and document, especially ten years after the fact. The following are some characterizations of the Forsmark culture derived from the self reports of leading figures at the plant. The responses of interviewees asked to describe plant's organizational culture tended to converge around a number of qualities and values instilled by Sandstedt and reinforced by shared experience. Many of these very same themes are emphasized in statements by Sandstedt and other key plant officers and printed in the *Forsmark Courier (FK)*, a personnel newspaper. Several emphasized not only the content of the culture, but also its strength. Watchwords included independence, pride, self-confidence ("nothing is impossible"), self-reliance, distinctiveness, service and responsibility (c.f. *FK* Nov. 1983:3, Aug. 1984:8, Sept. 1985:3, Oct.-Nov. 1985:3, Dec. 1985:2). The common goal was to produce safe energy at low cost (Sandstedt in *FK* Nov. 1983). This goal was seen as compatible with a high availability of energy.

Responsibility for the decisions bearing upon plant safety (and for that matter productivity and profitability) were thought to be best taken by those who knew Forsmark best – those who built her and watched over her on a daily basis. Micro-management, by the regulatory authorities or for that matter by the mother utility in Stockholm, was to be avoided at all costs. A similar philosophy was

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[2] Forsmark Kuriren

said to operate within the organization as well. Staff was encouraged to engage ongoing problems and take responsibility themselves to a high degree. The desire to have decisions made by those with extensive hands-on experience influenced the emergency planning as well – efforts were made to design an emergency response system which conformed as closely as possible to the normal operations organization in minimize the placement of staffers in relatively unfamiliar roles in critical situations.

Another facet of the emphasis on responsibility focused on individual accountability. The Forsmark culture contained a strong suspicion of shared responsibility and emphasized combating the risks of malcoordination and social loafing. One respondent cited an illustration which he said was commonly emphasized in leadership training at Forsmark: "Shared responsibility is ambiguous; it can mean 99 per cent for each sharer or 1 per cent." Quite a few of the interviewees emphasized parallels between Forsmark and military organizations. The importance of a clear chain of command was emphasized by several of the respondents. Similarly, the responsibilities and prerogatives of command were highlighted. In their view, a commander must act on his or her own judgment even if most of the subordinates (or in some cases even superiors) disagree. In fact, a distinct anti-majoritarian tendency was discernable in several of the responses.

According to several interviewees, still another aspect of the responsibility culture had to do with candid reporting of errors or mistakes. The organization viewed this as an imperative – in the field of nuclear power failure to report a mistake could have potentially expensive or even catastrophic consequences. In order to encourage frankness, the organization offered protection to those confessing lapses by providing confidentiality and discreet handling of follow up measures.[3]

Lennart Franzon, the chief public relations officer asserted that Forsmark's public information strategy reflected a longer term perspective and the value of responsibility. He suggested that Forsmark had adopted a strategy of proactive provision of information on the logic that in the long term, it is better for the organization to provide candid information about eventual shortcomings to the public than to leave disclosure of problems to investigative reporters. As an example, he cited the fact that Forsmark voluntarily publishes quarterly reports describing all irregular events in the local and regional newspapers.

This disciplined atmosphere reportedly fostered high degrees of enthusiasm and dedication. Staff put in long hours, often without extra compensation. The Forsmark executives proudly described how performance goals far in excess of

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[3] It should be noted that this cultural feature has implications for interviewing. It might inhibit respondents from identifying colleagues who may not have performed well during the Chernobyl crisis, for example. In some cases, interviewees did in fact prefer to describe behavior without identifying the individuals.

the industry norm were set and, despite the skepticism of outsiders, achieved through heroic effort and pragmatic, innovative management (e.g. Lindfors, Nilsson interviews).[4]

Regarding the Sandstedt leadership team's management of the boundaries between the group and the wider environment during the crisis, two distinct phases are noticeable. The initial deliberations which culminated in the decision to treat this incident took place in the relatively open and accessible site of Karl Erik Sandstedt's office. Once the group shifted to an emergency footing and relocated to the emergency command center, communications with the plant organization at large and the outside world were significantly degraded in several respects. This issue will be discussed in more detail below in the context of whether the group should be regarded as suffering from insulation or not.

Step 2:   Investigate the intra-group setting to establish the composition, internal structure and culture of the group.

Once again, it is important to distinguish between two group settings at Forsmark. The initial decisionmaking took place in the setting of a regular production meeting between Sandstedt, representatives for each of the three reactor block sub-organizations (Danielsson, Runemark – who would be replaced by Brolin –, Lindfors), and senior support personnel (e.g. Wahlström) and aides (e.g. Nilsson). This was a highly structured and institutionalized group meeting taking place on a weekly basis. The regular business of the group was suspended on the basis of multiple reports (e.g by Danielsson and Wahlström) of unexplained radiation in the locker room facilities located adjacent to the entrance/exits of and just outside several of the reactor blocks.

This meeting was quickly adjourned (according to head of block 3, Alf Lindfors, at his request) in order to enable the block chiefs and the others present to conduct further investigations. Lindfors' idea was to reconvene shortly thereafter in order to discuss the situation and make the necessary strategic choices. However, before they could reconvene, Sandstedt declared an internal alert placing the plant on an emergency management footing. This meant that the group reformed not in Sandstedt's office but rather in a pre-prepared emergency command center located in a nearby underground bunker. This had a number of important consequences. For one, the group shifted form its normal surroundings and interaction mode to less familiar surroundings and a mode of operation for which the experience base was not weekly interaction but rather occasional exercises, drills, and simulations. Key staff switched into pre-

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[4] Psychological research on the relationship between performance and cohesion suggests that high level performance is likely to increase organizational and group cohesion over time (Mullen and Copper, 1994).

established roles in the emergency organization. For example, Henning Danielsson normally the chief of reactor block 1 was assigned the emergency role of 'facility chief' [*anläggningsledaren*] which entailed prime responsibility for monitoring plant-wide operations. His task this day centered around supervising the diagnostic analysis effort. Roles in the emergency organization were highly structured. Those occupying key positions were equipped with binders containing the emergency plans, detailed check lists and instructions, and lists of options. Use of these binders had been rehearsed, and to some extent routinized, in previous exercises.

A third consequence of the decision to relocated to the emergency command center was the relative isolation of block 3. According to the then head of Block Three (presently the managing director of the Forsmark concern, Alf Lindfors), the organization of the third reactor block which went on line in 1984 (several years after the first two) had never been fully integrated into the emergency planning. As a result, none of the personnel from block 3 took part in the decisionmaking activity occurring in the emergency command center.

Finally, it should be noted that the group was 'para-military' in the sense that plant manager Sandstedt now in the capacity of 'Area Leader' (*områdesledare*) was in overall command (Sjöquist and Eckered, 1986; Franzon interview). Thus, the decision rule for this group was executive choice (with or without) consultation with subordinates. The relatively hierarchical and regimented character of the wider organization which has been described above in step 1 was recreated and even reinforced in the emergency group.

Step 3: Investigate group leadership practices, which commonly exert important influences in shaping the intra-group setting and in facilitating or hindering deliberations among the members.

The Forsmark group in question were led by a rather imposing, for some even intimidating, figure: Plant Manager Karl-Erik Sandstedt. In general, and in his capacity as group leader, Sandstedt stands out as a charismatic and commanding presence. His closest associates from his Forsmark days describe him with adjectives such as "powerful", "effective", "entreprenurial", "dynamic", "demanding" and "decisive". He possessed a strong sense of self-efficacy and self-confidence. Under normal conditions and up to a certain point, he was willing to listen and critically evaluate the suggestions and arguments of subordinates. Some found his probing overly vigorous and unpleasant and dreaded being put on the spot, but Sandstedt reportedly often was willing to incorporate ideas which survived this scrutiny into his own policies.

Sandstedt reserved the right to decide when an issue had been treated sufficiently; those who persisted in pushing an issue past this point could be treated to an impressive display of temper. Several of his closest colleagues

emphasized the importance of learning to read tell tale signs such as the reddening of the flesh above his shirt collar (and the chronic inability of some staffers to do so) (Brolin and Lindfors interviews).

According to Sandstedt himself, he regarded providing his subordinates with opportunities to express their views as an important obligation of group chairmanship under normal conditions. In fact, an ambitious suggestion program was instituted including a reward committee which made awards to those who were found to have made the most useful suggestions (*FK* 1983:2). According to a statement in the May, 1985 issue of the *Forsmark Courier* the boss's job was to spread energy and enthusiasm – when that is done properly "anything is possible". Similarly, earlier in the year Sandstedt made an appeal for workers to disregard the Forsmark bureaucracy and question any weak points they perceived in the plant operations (*FK* Jan. 1986).

However, Sandstedt drew a sharp distinction between normal and crisis conditions, implying that in a crisis there often is not enough time for such consultation (interview). As indicated above, Sandstedt was not a believer in consensus-seeking or collective decisionmaking. When asked about collective decisionmaking, he disdainfully referred to the impotence of the 'Polish Parliament', an allusion pointing to the risks of indecision. He emphasized the fact that there were no collective decisions in his groups – rather, all the responsibility was his.

Virtually all of the respondents heavily emphasized Sandstedt's decisiveness, which could at times border on impulsiveness.[5] In their view, he often responded to situations in an intuitive rather than explicitly and systematically analytical manner. However, the interviewees were quick to add that Sandstedt's intuition was based upon long experience and deep knowledge of the nuclear power industry. In their view, his gut seldom led him wrong. Most of the decisions made in this fashion ended up working out well.

The evidence suggests that the decisions to call an emergency alert and evacuate personnel from the plant were made largely in this fashion and on the basis of limited use of his advisory group. In contrast, Sandstedt relied more heavily on the command center group regarding the diagnostic analysis and the decisionmaking regarding the question of whether or not it was necessary to shut down one or more of the Forsmark reactors.

Step 4:   <u>Examine the type and level of cohesion</u>, which bind group members and their groups together, as this element helps determine group interaction and performance.

The Forsmark groups examined in this study exhibited very high levels of

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[5]   In this he is reminiscent of U.S. president Harry Truman (c.f. Preston, 1997).

cohesion and esprit de corps. This cohesion was both a contributing factor towards and a consequence of an impressive record of achievement in the years since the construction and operation of the Forsmark plant (cf. Mullen & Copper, 1994). Actually, a fair amount of this cohesion actually predates the Forsmark period. Quite a few of the leading figures had worked with Sandstedt at the Ågesta nuclear power station which was dismantled at roughly the same time as the effort to build up the Forsmark organization and physical plant commenced. These individuals followed Sandstedt to Forsmark from Ågesta. The pride, affection, and respect of the respondents for their organization and their former leader comes across loudly and clearly in almost all of the interviews. Several of them described mentor-protege relationships with Sandstedt (Lindfors, Nilsson, Danielsson). Most had been at Forsmark since the late seventies or the beginning of the eighties. In fact, most were still working at Forsmark in the late 1990s when the final interviews for this study were conducted.

This high level of cohesion was based upon several pillars. There was a significant degree of social cohesion. Group members reported eating and drinking coffee together when convenient. Several members shared an interest in sailing and socialized around that hobby from time to time outside of Forsmark. It is probable that the usual instrumental motivations contributed to group cohesion as well, though this was not a topic emphasized in interview responses. Group members did share a common fate to the extent that a major incident or accident could jeopardize the future of nuclear power at Forsmark (and even in the country at large) given the precarious political support for Sweden's nuclear power program. During his heyday, which included the 1986 period, the career prospects of subordinates certainly were significantly dependent upon Sandstedt's continued confidence in and good will towards them. Finally, and this was emphasized in the interviews, they shared the the commitments to professionalism and safety emphasized in the Forsmark culture highlighted above. As Sandstedt's assistant and longtime Forsmark hand Rune Nilsson put it, the members of the leadership group percieved themselves as working well together and 'thrived' (*trivdes*) in the relatively congenial and cooperative atmosphere of the group.

Step 5: <u>Examine the type and level of conflict or rivalries</u>, which pull members and their groups apart, as also this element helps determine group interaction and performance.

As far as could be determined on the basis of interview data, the levels of conflict and rivalry displayed by the Forsmark group was relatively low. No indications of serious personal conflicts have come to light.

The most obvious lines of structural cleavage – the division of the Forsmark organization into 'result units' – was designed to create some degree of rivalry

and competitiveness among the three reactor organizations.[6] In fact, the desire to create constructive and dynamic tension conducive to innovation and high performance was one of the reasons for the organizational reform which produced the system. Most of the interviewees suggested that this reform was largely well received and that the previous system, which was built around divisions for operations and maintenance had generated more serious conflicts.

For the most part, conflicts were moderated by a broader sense of team spirit and common purpose at Forsmark. To the extent that 'rivals' were percieved, they appear to have been located on the outside (the mother company, other nuclear plants to be beaten in the productivity race (the quarterly performance figures for rival facilities were routinely reported in the personnel newsletter), incompetent or overzealous regulators etc) (c.f Sandstedt in *FK* May 1985:3).

Step 6: Engage in group process diagnosis by comparing the portrait generated by the first five steps above to the repertoire of interaction patterns outlined in Figure 3.1.

For the sake of a more fine-grained analysis of the group decisionmaking at Forsmark, it seems wise to separate the analysis into two distinct decisions. The first involved the responding to the disturbing inability to find the source of the mysterious radiation. The second involved the question of whether or not to shut down one or more reactors. As will become apparent, the group dynamics differed significantly between these two major decisions taken in relatively close temporal proximity to each other.

The first set of decisions – to seal off access to the plant, to call a formal yellow alert, and to evacuate all non-essential personnel – exhibited very distinct group dynamics. These were relatively intuitive decisions taken by the executive with very limited group consultation and very little debate. By all accounts, these decisions were accepted virtually without question by staff exhibiting military-like discipline. A suggestion by one of the block chiefs that more information be gathered and the group reconvened was rejected by Sandstedt in favor of rapid action . Thus these decisions do appear to have been characterized by low levels of conflict and critical engagement on the part of most rank and file group members. As a result, it seems possible to rule out all of the conflictual and hybrid patterns identified in figure 3.1. Similarly, given the long-standing and highly institutionalized features of the Sandstedt's staff and emergency management groups, newgroup syndrome can be ruled out as well. Thus, the interesting question is whether the basic conformity or groupthink dynamics prevailed in these decisionmaking bodies.

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[6] According to one key player, parochial identities manifested themselves only to the extent that the participants all had the same thought: "I hope the problem is not with my reactor block" (Danielsson interview).

According to Janis (1982), a number of fairly stringent preconditions are required in order to establish the likelihood that groupthink tendencies might have been in operation. Among the most important of these are 'organizational flaws' – such as insulation of the group, a provocative situational context, directive rather than facilitative leadership, homogeneity, and cohesiveness. Let us examine each of these factors in turn.

Insulation: The group was insulated to a considerable extent both in terms of contact with the expertise within Forsmark and subsequent to the alarm, even with the outside world during these early decisions. In fact, one of the block chiefs was not even consulted prior to the evacuation decision (Franzon interview). In the subsequent decisionmaking, it would turn out that block 3 was neither represented in the emergency command center nor able to maintain steady contact with the emergency management team in the bunker, due to degraded telecommunications capacity caused by the evacuation of the plant's telephone operator.

Provocative situational context: Competence and control of the reactors and the nuclear reaction is the core value of an organization such as Forsmark. These decisionmakers found themselves in an almost untenable situation. They 'knew' there was a problem of some kind – the radiation must have come from somewhere and, for understandable reasons, they *assumed* it must have come from Forsmark. Their continued inability to find the source of the problem, frustrating enough in and of its own right, was compounded by concerns that the unidentified problem might escalate into an incident of catastrophic proportions (LW, RN, HD) and/ or a public relations disaster (LF).

Directive leadership: A number of features of Sandstedt's personality, role conception and leadership style suggest that a directive leadership style was in operation in the Forsmark group. The evidence suggests that it would have been very difficult for subordinates to challenge disagree with a group leader of this stature during a situation of peak stress. By the same token, it would have probably seemed foolhardy to raise the possibility of a seemingly wild alternative explanation (such as a foreign nuclear accident) for the troubling radioactive contamination.

Cohesion and homogeneity: As we have seen, this was a highly cohesive team, many of whose members had worked together for many years. The evidence suggests that 'esprit de corps' and personal loyalty to Sandstedt were at very high levels. All worked in civilian nuclear sector, and had relatively similar backgrounds and educations. Public relations chief Franzon was a kind of joker in the deck. But he was probably not seen as competent to weigh in the technical issues.

Assessing the quality of the information processing sustained in this group on the early decisions is difficult. Within the boundaries of the problem paradigm within which they were operating, many of the conclusions drawn seem

reasonable. The Forsmark leadership can perhaps be criticized for waiting so long (3.5 hours from the first discovery of the radiation) to call the alert. However, they probably expected to find the source 'any second'. Gradually the seconds turned into minutes and the minutes turned into hours. Finally this mild form of collective optimism gave way to a realization that finding the source might be difficult, dangerous, and time-consuming.

The failure to seek alternative explanations and to ask penetrating questions in the case of the contaminated shoes, the parking lot/woods contamination asymmetry, and the plume analysis are also worthy of explanation. The strikingly top-down character of the schematic processing for these issues has been noted above. This processing was not challenged or corrected in the group setting, which should probably be viewed as a lapse. The group failed to help Sandstedt break out of his initial (and, it would turn out, incorrect) framing of the nature of the problem. Finally, the main decisions made by Sandstedt with limited group consultation – cutting of access to the plant, calling the emergency alert, evacuating Forsmark – do appear to reflect a sober assessment of the situation and one which cannot easily be characterized as recklessly overoptimistic. On the contrary, they reflect what appears to have been a genuine concern for the psychological and physical well-being of the staff and a willingness to embrace the worst case scenario and act upon it, despite the lingering uncertainties and ambiguities of the situation.

According to Janis (1982:244), another symptom associated with groupthink is to neglect to adequately consider implementation. There were a number of aspects of the response which can be criticized in this respect. It has already been noted that the decision to block the access road served to impede the evacuation and that evacuating the telephone operator degraded tele-communications at a critical juncture. With regard the former, this was an oversight which seems quite compatible with what Janis had in mind. In the latter case (the operator), the oversight probably reflected a flaw in the existing contingency plans more than the insidious effects of groupthinking in real time crisis management.

Was the alert/evacuation decision the product of groupthink? This is not a simple question. The decisionmaking situation and dynamics did conform in many respects to those posited by Janis. Furthermore, the group decisionmaking process reflected directive leadership and conformity, though it is difficult to determine post hoc to what extent that conformity was sub- or semi-conscious (groupthink) or more deliberate (conformity/compliance). The outome of that decisionmaking process did not, however, lead to defensive avoidance, but rather to a willingness on the part of the leader to take responsibility and respond vigorously , if perhaps not quite vigilantly in Janis' (1989) sense of the word, to the situation.

Following these decisions which have been examined in some detail, the Forsmark group was confronted with another problem complex: what further

steps should be taken to identify the source of the radiation. That issue was exacerbated by pressure from the SKI regulators in Stockholm (see the following section) to shut down one or more reactors if the source of the radiation could not be found rapidly.

The group dynamics on these questions appear to have been somewhat different. Intuitive and directive leadership by Sandstedt appears to have given way to a more systematic and collective information processing and collection while process. While Sandstedt retained control via the executive choice decision rule which was in force (sustained by the hierarchical character of the plant organization), considerably more receptivity to suggestions from subordinates was demonstrated. For example, Sandstedt's aide Rune Nilsson (formally speaking a relatively junior participant though one enjoying a strong and long-standing personal relationship to Sandstedt) reportedly suggested contacting a sister facility (TVO) in Finland in order to see whether that plant had detected any abnormalities. Similar contacts were also taken with other Swedish nuclear plants. These initiatives were immediately authorized and led, after some delay, to positive responses – highly significant clues that, given the prevailing weather conditions and geographical placement of the facilities, Forsmark could not have been the source of the mysterious radiation. Thus, this decisionmaking process was characterized by less insulation than the initial decisions – opening up broader communications with the outside world did in fact provide useful information bearing upon the crucial decisions.

At the same time, systematic measurements and diagnostic tests continued all of which showed normal results and/or failed to reveal any malfunction or other 'internal' explanation for the radiation (Nilsson memo, 1986, Steen et al., 1986: 49,57,65). As a result, Sandstedt's decision to oppose and resist a shut down, which he regarded as counterproductive and potentially dangerous (in terms of the risk of power failures and secondary accidents), appears to have been the result of more collegial, and critical deliberations. These deliberations, according to a subsequent internal post-mortem, came to the following conclusions:

- We had no, and could not find any, indications of any malfunctions or releases from any of the reactor blocks.
- A shut down would not have reduced the number of operative personnel for several hours. (Nilsson memo, 1986:7).

Furthermore, it should be noted that Sandstedt's assessment was not contested by the SKI reactor inspectors (Lindström and Weibar) on site at Forsmark – only by SKI's Director General and possibly by some members of the operational analysis group in Stockholm (see the following section).

3. The SKI group

The emergency management group led by Sandstedt at the Forsmark nuclear power plant was the first, but by no means the only group to participate in the Forsmark/Chernobyl crisis analysis and decisionmaking. A second major group which engaged to cope with the emerging crisis was located at the Nuclear Power Inspectorate (SKI) in Stockholm. This group convened on an ad hoc basis following a 10:40 am[7] phone call from Sandstedt to SKI in which he informed the regulators that relatively high levels of ground radiation (*markbeläggning*) had been observed in and around the Forsmark complex.

Step 1: <u>Investigate the extra-group setting</u> to locate the group within the wider political and institutional contexts.

This group was lodged entirely within the Nuclear Power Inspectorate. It was formed according to the standing emergency plan[8] in order to analyze the incoming information from Forsmark, diagnose the emerging situation, and propose options for possible regulatory intervention.

It has already been noted above that the primary operative responsibility for dealing with nuclear accidents was shared by the power plant operator (in this case Forsmark) and the county board (länstyrelsen) of the county hosting the power plant. However, the authority of the power plant operator in turn derives from the license granted by the state and administered by the inspectorate. This arrangement thus provided a basis for emergency regulatory intervention by the Inspectorate. In an extreme situation, the agency can thus suspend the operating license for one or more reactors effective immediately and thus obligate the operator to shut down the reactors (Steen et al, 1986:70).

It is also noteworthy that the standing plans for domestic nuclear accident scenarios called for SKI participation in accident management at several levels in the administrative system at several geographic locations. First, qualified reactor inspectors were to be sent to the power plant in question. Second, the SKI Director General was to hasten to the support of the county board in the affected jurisdiction. Third, a contingent was assigned as liason/support staff to SSI (Radiological Protection Agency) crisis center. Fourth, "the remaining personnel worked in analysis groups at SKI" (Steen et al, 1986:72, author's translation). The present section focuses on the last of these tasks.

According to the report of the subsequent Commission of Inquiry:

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[7] This time is taken from SKI Director General Hörmander's memo on the incident. Other sources place the time at 10:45 (e.g. Ahlbom:1986:21) or "shortly before 11:00 am" (Steen et al, 1986:90).

[8] See Statskontoret (1984) and Steen et al. (1986) for discussions of the emergency plans for nuclear accidents in general and the role of the Nuclear Power Inspectorate in particular.

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> The personnel at SKI headquarters shall analyze incoming information. The analysis should focus foremost on the consequences of the events at the facility and of the possible consequences of measures taken. These analyses are intended as support for the technical decisions regarding the nuclear power plant which have to be taken continuously in conjunction with a failure. These decisions may also concern other reactors in service in the country. The event may require that one, several, or all other plants shut down immediately for [safety] measures. Such decisions are most likely to concern other reactors at the same site as the stricken one. Another goal of the analyses is to assess the risk of radioactive releases in the immediate future. In the case where a release has already taken place, the assessment is of how large it may be and how it may be limited (Steen et al, 1986:72-73, Author's translation).

These analyses are intended to provide support to SSI for its radiological protection efforts and to county officials charged with responsibility for interventions (such as evacuations or distribution of iodine tablets) to protect the public.

Looking upwards in the political-administrative hierarchy, the Inspectorate was one of a network of agencies in the energy sector affiliated with the Ministry of Industry headed by the then Minister of Energy and Environment Birgitta Dahl. Formally speaking, the role of the individual minister is constrained even in crisis situations in the Swedish system. Ministers are discouraged from direct intervention in particular cases under the constitutional prohibition against *Ministerstyre*. Rather the prerogative of intervening in order to shift responsibility or take direct action in crisis management lies with the government as a collective body. De facto, however, single ministers may exert a great deal of influence over crisis management via more or less subtle signals sent in communications with subordinate bureaucratic actors or indirectly via informal delegation of responsibility for a crisis issue to a particular Minister (c.f. Isberg, 1993). Ministers have also been known to intervene directly in a forceful fashion in crisis situations without the benenefit of prior governmental sanction.[9]

Turning to the question of internal organization, the Inspectorate was in 1986 divided into two main divisions: the division for oversight (tillsyn) and the division for research & analysis (utredning). The oversight division was in turn divided up into units for each of the four Swedish nuclear power stations plus one umbrella unit for other facilities and material handling. The oversight division is responsible for supervising the normal plant operation and operational dispensations. The division for planning and research was subdivided into units for reactor technology, materials durability, man-machine interface, and research.

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[9] One such case, which led to considerable subsequent controversy had to do with ministerial involvement in the deportation of a foreign terrorist in conjunction with the West German Embassy occupation of 1975 (Hansen, 1998).

Accounts of the organizational environment at SKI at the time of the Forsmark/Chernobyl incident diverge in some respects, but several emphasize the legacy of successive reorganizations during the 1970s and early 1980s (Högberg interview). Several of the interviewees (e.g. Lindström, Reisch) regarded these changes, which accompanied the rapid expansion of the organization, as destabilizing and disruptive. Similarly, the relative rapid turnover of Directors General was seen as unfortunate and contributing, like the previously mentioned factors, to an increasingly factionalized workplace in which newcomers tended to be resented by oldtimers (and vice versa).

Finally, let us turn to the question of the group's management of its boundary to the wider organizational environment. While the group was, as noted above, an exclusively intra-agency group it did maintain communications with several key outside constituencies during its deliberations. Key lines of communication included those to the Minister of Energy and Environment and her staff (via Director General Hörmander and Information Chief Mandeus)[10], to SSI in general and to Deputy Director Snihs in particular, to Forsmark (via Inspectors Lindström and Weibar), to FOA, to the Studsvik research reactor facility, the Vattenfall utility's headquarters in Råcksta (Lennart Hammar) on the outskirts of Stockholm, nuclear regulatory authorities in Finland (STUK) and other counterparts in the other Nordic countries. In this sense, the group cannot be said to have been particularly insulated. On the other hand, despite the continuous reporting of Lindström and Weibar regarding the latest information coming out of Forsmark, the group made significantly different assessments regarding the nature of the situation at Forsmark than did the Forsmark leadership (Steen, 1986:79, 91-92). This is suggestive of the possibility that the group may have closed itself off psychologically to some extent to the information coming in from Forsmark.[11]

Step 2: Investigate the intra-group setting to establish the composition, internal structure and culture of the group.

It has already been noted that the analysis group formed to deal with the

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[10] It is curious that communications with the Ministry recalled by Minister Dahl herself and some Hörmander's subordinates are not mentioned in Hörmander's memo on these events (compiled from notes taken on the 28th of April, 1986 and from memory during the summer of 1986).

[11] Several interviewees suggested that both more structural and personal factors may have disposed the group to discount assessments from the inspectors on site. Structurally, they cited a tendency for those in the field to lose the big picture and be insensitive to the needs of the agency leadership in Stockholm, particularly with regard to media relations in crisis or quasi-crisis situations (Lars Högberg interview). It was also suggested by more than one interviewee that there were doubts regarding the ability of one or both of the inspectors in the field to perform adequately under these trying conditions. In particular there were apparently concerns that the inspectors might not have the personal stature to pursue aggressive intervention measures in the face of opposition from the dynamic and charismatic Forsmark boss K.E. Sandstedt.

'Forsmark crisis' had been envisioned in the standing inter-organizational plans for dealing with nuclear power plant emergencies. However, this element of formal planning is only the beginning of the story as far as this particular group was concerned.

In fact, one of the most important features of this group was its ad hoc character. As noted in the Steen Commission Report (1986:96): "The existing emergency [beredskap] organization was used only to a small degree or not at all on this occasion. The emergency [beredskap] activity at the Inspectorate was completely improvised during the first few days"(author's translation). Why was this the case? A large part of the answer, as far as the Forsmark crisis was concerned lies in the fact that the composition and culture of the Inspectorate's analysis group was profoundly affected by two temporal coincidences (synchronicities). The first had to do with the fact that two key officials from the oversight unit for Forsmark (Weibar and Lindström) were scheduled to be in the field that day and were in fact on their way to Forsmark when the alarm reached the Inspectorate's headquarters in Stockholm. They would arrive at Forsmark in the middle of the analysis group's most hectic deliberations and then provide a continuous real time communication channel to the Forsmark leadership in the power plant's command center, via a dedicated telephone line. As a result, these potentially key players (the agency's experts on Forsmark) were not available to participate in the face to face deliberations in Stockholm.

The other coincidence which dramatically influenced the structure and composition of the analysis group is even more ironic. A good part of the Inspectorate's core competence on reactor safety and accident management was out of town that day attending a meeting of the Swedish Working Group on Severe Reactor Accidents near Oskarshamn (the site of another of the Swedish nuclear power stations). This meant not only that the analysis group was deprived of this highly relevant competence, but also that both of the main division chiefs (one of which was Lars Högberg who would play a leading role in the subsequent crisis management activities) were out of town and could participate only the most marginal way (Steen et al, 1986, interviews e.g L. Högberg).[12] These officials considered coming back, but ultimately decided to stay on at the meeting pending further developments. Subsequent information to the effect that the source of the radiation was a foreign nuclear accident was taken as an indication that that choice had been a correct one.

These temporal factors combined to generate a situation in which the programmed analysis function came to be enacted by a number of individuals, several of whom were apparently selected on the "who is in the office today?"

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[12] According to Högberg (interview) the contingent at Oskarshamn was advised of the on-going situation by telephone but was not able to a acquire a sufficiently detailed build of the details to be able to provide guidance or advice to their colleagues in Stockholm.

principle rather than on the basis of their primary organizational responsibilities or competence in reactor safety and accident management.[13] For example, several of the group members had backgrounds in chemistry (e.g. Hörmander, Larson) as opposed to reactor physics and normally focused on problems of nuclear waste management (e.g. Larson, Norrby) rather than reactor operations. Others, such as Information chief Mandeus, who handled most of the liason work with the Ministry of Industry enacted more familiar roles.

Regarding intra group norms and rules, a mixed picture emerges from interviewing. On the one hand, several participants articulated their feeling that the participation norms within the group had been open and constructive. Reisch himself (interview) emphasized the 'brainstorming' character of the deliberations (see also the section on leadership below). On the other hand, there were intimations of substantive norms in operation suggesting that the hypothesis that the Soviet Union might be the culprit was politically incorrect in non-aligned Sweden in the last days of the Cold War. One participant cited this as a factor which might have delayed the shift in working hypothesis away from Forsmark.[14] Similarly even after the Soviet hypothesis became the dominant one internally, there was reportedly concern about 'premature' disclosure of this information to the press.

The group exhibited a hybrid decision rule. The analysis group itself was apparently operating in an informal consensus-seeking mode. In a more formal sense, the operative decision rule for SKI was executive choice by the Director General or his surrogate (with or without the benefit of consultation with subordinates).

Step 3:   Investigate group leadership practices, which commonly exert important influences in shaping the intra-group setting and in facilitating or hindering deliberations among the members.

The leadership of this group is somewhat unusual in that there appears to have been a dual leadership structure. On the one hand, existing emergency plans envisioned the Director General of the Inspectorate travelling to the county board command center in the affected nuclear power plant host county. Given this arrangement, the plan called for delegation of analysis group leadership to a subordinate official such as a main division chief. On the day in question, both of the main division chiefs were (as has already been noted) out of town. For this reason, Frigyes Reisch (the most senior reactor specialist available) was

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[13] One major exception was Frigyes Reisch an Hungarian emigre reactor technician who headed up the oversight unit for the Ringhals nuclear power station.

[14] Interestingly, an interviewee from SSI suggested that this very same concern was a contributing factor in prior decisions not to view SSI's network of radiation measurement stations as an early warning system or to give it the technical capability to serve effectively as such.

delegated formal responsibility for the analysis group (Steen et al, 1986; interviews). However, given the compressed nature of the group deliberations (they most important stages of which took place during the course of roughly 90 minutes) and the fact that the group ultimately concluded that Forsmark could not have been the source of the mysterious radiation, Director General Hörmander did in fact participate in the most relevant deliberations and decisions.

Let us look briefly at these two figures, beginning with Hörmander. Hörmander had occupied the Director General's office for several years when this incident occurred. Hörmander presided over a period of growth and formalization/bureaucratization of work routines at the Inspectorate (Reisch interview) which was regarded as somewhat turbulent. Several interviewees emphasized Hörmander's competence and passion for nuclear waste managment issues, issues for which he had previous professional experience and where his training as a chemist stood him in good stead. Apparently Hörmander's dedication led him to wear himself out and contributed to his developing a serious chronic illness. He was described as a very decent and humane person, perhaps even a bit too kind in nature for his executive position (Högberg and Larsson interviews).

Others were less charitable in their assessments. Several accounts (Reisch, Lindström), alleged that Hörmander was viewed as a relatively weak leader. One respondent called him a 'zero'. Several suggested that he was heavily dependent upon more dynamic subordinates such as Lars Högberg.[15] As a non-physicist, it does not seem too surprising that his dependence was most notable in the area of nuclear safety and not least accident management (Reisch, Högberg, Lindström interviews) areas for which Hörmander was least prepared by prior experience and training.

According to several accounts Hörmander's own participation in the deliberations on the Forsmark problem was uneven and rather fitfull. He would enter the room for a while, then run off to his office to think, then return. Hörmander thus at times isolated himself from the ongoing analysis and deliberations during the critical ninety minute period in question. As a result, Reisch was delegated an important leadership role as far as the analysis group was concerned. Still, one should keep in mind that Hörmander reserved, and ultimately used the right to make important policy decisions – the most notable being the 'ultimatum' to Sandstedt (see chapter five and below).

According to his own account, Frigyes Reisch was put in charge of the analysis group when an agitated Hörmander rushed into his room shortly before lunchtime on April 28, 1986, informed him of the news from Forsmark and said "Now you have to take over". It should be noted that Reisch was not a particular

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[15] This characterization wa challenged by some interviewees such as Alf Larsson who praised Hörmander's leadership skills. It may be worthy of note that Larsson also described himself as a longtime personal friend of Hörmander.

intimate of Hörmander's (Högberg, Larsson interviews). In fact, most of the respondents from SKI described Reisch as a somewhat controversial figure. He was respected for his technical competence developed in a long career in the nuclear sector and for his rich network of international contacts cultivated through publishing articles and participating in international conferences and working groups. Reisch had joined the predecessor of the present day Inspectorate in 1969 (Reisch cv) and seen many Directors General come and go. On the other hand, several of the interviewees reported that the Hungarian emigre[16] was seen as a bit eccentric, bossy and something of a show off.

According to Reisch himself, his intention was to lead the group with a very light touch. He used the term "brainstorming" to describe the group interaction, and indicated his intention to create an atmosphere which would be open and relatively free of status considerations: "Any member was welcome to bring up any idea". Reisch described substantial experience in chairing working groups at international conferences and a well articulated and conscious strategy of group leadership. He also indicated satisfaction with the size of the analysis group which he described as consisting of four or five persons – an ideal size for brainstorming. In his recollection, the most important contributions to the discussion were made by himself and waste management specialist Alf Larsson. Others recall Reisch's role more as summing up the opinions of the others (e.g.Larsson).

Step 4: <u>Examine the type and level of cohesion</u>, which bind group members and their groups together, as this element helps determine group interaction and performance.

It has already been noted that this group was assembled on an ad hoc basis to deal with the Forsmark crisis, drawing upon the available talent in the building that day. As a result, the group had little or no history as a collective body. Nor is it likely that the group per se had much of a future beyond this incident – thus the shadow of the future was relatively short in this sense.

Such group cohesion as existed in the group was grounded in wider professional or organizational norms, broader career aspirations, and the existing patterns of social relationships. The interview responses indicate that it was immediately apparent to participants that the Forsmark crisis was a highly consequential and important problem with potentially broad ramifications for the Swedish nuclear sector. This would generate tendencies toward task cohesion among the members of the group. Similarly, the group was on the spot, so to speak, in the sense that members were aware that its performance was likely to

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[16] Reisch came to Sweden in 1957 in the wake of the Soviet intervention to preserve the communist government of Hungary.

be observed or subsequently scrutinized by key constituencies within the Inspectorate (such as the Director General himself) and in the wider organizational environment. To the extent that the group members perceived a common fate here, which seems highly plausible, these factors should be seen as contributing to the instrumental cohesion of the group. As far as social cohesion is concerned, the group appears to have been only moderately cohesive as a whole, which is not to say that nodes of cohesion did not exist.[17] It is also possible that group cohesion may have been heightened by the stress of the situation (Larsson interview).

Step 5: Examine the type and level of conflict or rivalries, which pull members and their groups apart, as also this element helps determine group interaction and performance.

As implied above, the Forsmark problem does not appear to have actualized factional conflict within the Inspectorate. The various broader organizational rivalries or tensions described by respondents (newcomers, oldtimers, old boys and feminists, scientists and bureaucrats etc) do not appear to have manifested themselves in any concrete way in this decision/analyis group. Rather, the problem was reportedly seen in terms of a common problem to be coped with by those on duty at the Inspectorate that day. Similarly, no particular evidence of strong overt or latent conflictual dynamics within the group has come to light. As such, the overall level of conflict within the group appears to have been relatively low.

Step 6: Engage in group process diagnosis by comparing the portrait generated by the first five steps above to the repertoire of interaction patterns outlined in Figure 3.1.

The group deliberation and decisionmaking process in this case seems to fall into two fairly distinct phases. The first phase resulted in the conditional decision to close down Forsmark and culminated in the five minute (according to Hörmander's notes, c.f . Steen et al 1986:79 10 minute) ultimatum to Sandstedt. This phase was characterized by tendencies toward consensus-seeking around the Forsmark hypothesis and passivity/conformity with regard to the decision to shut down the plant unless the source of the radiation could be rapidly isolated. The second phase entailed breaking away from the Forsmark hypothesis and increasing group receptivity to alternative hypotheses.

  Given the relatively low levels of conflict and dissension noted in the first phase, the question arises of whether conformity patterns-basic, groupthink, or

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[17] For example, Alf Larsson's close relationship to Hörmander has already been noted.

newgroup – may have contributed to maintaining the focus on Forsmark and producing the shut down ultimatum which was described in the previous chapter. In an autumn 1986 interview, Frigyes Reisch recalls the group's difficulties in breaking free of the gravitational force of the Forsmark hypothesis:

> It was extremely difficult to leave the first thought of a damaged Forsmark reactor. And this was despite the absence of facts which supported that hypothesis. At times we were on our way towards other thoughts but there were always many forces which pulled us back to the starting point. (cited in Albohm, 1986:21 author's translation).

Reisch's remark (and the relatively low levels of conflict noted above) do tend to point the analyst in the direction of the family of conformity dynamics noted above. In particular, the notion of insidious forces preventing the group from breaking out of its tunnel vision seems reminiscent of groupthink as conceptualized by Janis (1972, 1982). As Reisch put it "In retrospect, one can think that we should have devoted more effort to other hypotheses, among others that wind and rain could have brought the radioactivity from Forsmark" (cited in Ahlbom, 1986:21; author's translation). Thus "incomplete survey of alternatives" (in this case alternative explanations) and "selective bias in processing information" both among Janis' tell tale indications of a decisionmaking process negatively affected by groupthink fit well with the process described in phase 1.

Looking back to the antecedent conditions, consonant with the groupthink interpretation are the provocative situational context (a potential nuclear accident is certainly a provocation to the regulator!) and a certain degree of insulation. While the group was in touch with SSI, Forsmark, and the Ministry – substantive inputs were garnered primarily from Forsmark. Even here, as has been noted above, there was a certain degree of suspicion of the information coming from the on-site reactor inspectors and from the Forsmark leadership – leading the group to rely heavily upon its own background knowledge and resources. The group was relatively homogenous – being composed primarily of males with backgrounds in reactor physics or nuclear waste management. Perhaps most significantly, as far as the shut down ultimatum was concerned, there are strong indications of directive leadership by the Director General of the agency. Several accounts (e.g. Mandeus and Reisch interviews) emphasize that this decision was taken by Hörmander on his own, following a period in which he had retired to his office to think. The group was apparently not asked to assess the advantages/disadvantages of this option prior to its having been communicated to the Forsmark leadership.[18]

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[18] Given the fact that this decision proved a hasty and potentially a very costly one deriving from what turned out to be a misdiagnosis of the situation, the reader should keep in mind that there is a some risk that these accounts which emphasize non-participation in the ultimatum decision may be self serving.

There are puzzling aspects about Hörmander's alleged behavior here. First of all, it does not really seem consistent with his leadership style as described by the various interviewees. It is possible that he became hypervigilent (c.f. Janis and Mann, 1977: 59-62,81) under the stress of the situation and adopted a more forceful posture than usual. The fact that he was here operating in an area usually delegated to others and outside of his primary competence raises some some questions about his judgment if that was the case.

Another possible explanation is that Hörmander was responding neither to his own stress induced impulsiveness, nor to a group consensus, but rather to signals sent by an outside actor such as the Minister or some member of her staff. Were this to be true, then the decision would be the result of linked conformity – that of the Director General to the Ministry and that of the analysis group to the Director General. There are some circumstantial indications which seemed to support this hypothesis. It is known that communications between the Ministry and the SKI leadership took place in the period just prior to this decision (Dahl, Mandeus, Reisch interviews). However, no non-circumstantial evidence of Ministerial influence on this decision has come to light thus far. On the contrary, several interviewees (Dahl, Mandeus) categorically denied that such intervention took place.

On the other hand, there are aspects of the group situation which do not seem to fit particularly well with the groupthink hypothesis. In this case cohesiveness does not seem to have been particularly high as an antecedent condition, though as noted above it is possible that the group may have become more cohesive under stress.

Other aspects of the group context and dynamics are suggestive of a fleeting bout of newgroup syndrome. It is clear that this was an ad hoc group unused to working together. The group role system was relatively undifferentiated. Group leadership and decisionmaking procedures were rather ambiguous as indicated by the dual leadership structure and hybrid decision rule noted above. To the extent that the group did not engage in the deliberations regarding the ultimatum before it was issued this is indicative of a breach of decisionmaking discipline quite compatible with the social loafing, passivity, and conformity predicted by newgroup syndrome.

It is quite clear that the dynamics in phase two are not compatible with the notion of conformity dynamics. Rather, one sees here a intensive phase of balanced critical deliberation (or vigilant) decisionmaking which is at odds with notions of groupthink or group level rigidity under threat (Staw, Sandelands, & Dutton, 1981).

This process of reassessment has already been treated in some detail in chapter five so this discussion will be fairly brief. It is clear that the group broke its insulation in phase 2, extending its interface with other actors possessing relevant competence or strategically essential information. Lines of communications were

established to plants elsewhere in Sweden (e.g. Studsvik) and to counterparts in Finland – yielding information which suggested that Forsmark could not possibly have been the source of the contamination given current weather conditions. Lines of communication to the analysis group at FOA, proved useful indeed in the formulation of alternative hypotheses. It is also striking that rather than being entrapped and becoming defensive, Hörmander himself – like the others – proved able to the rethink the situation and did not allow pride to keep him from suspending the 'ultimatum'.

Phase 2 is suggestive of the value of diversity and heterogeneity in crisis problem solving, as noted by Janis (1982, 1989) in his work on groupthink. Janis suggested that allowing multiple groups to work in parallel on crisis problems increases the likelihood of vigilant crisis decisionmaking. In this case, it was clearly useful to engage the FOA group in the crisis analysis work. Just as the other analytical groups (SSI, SKI) were used to dealing with Swedish reactors, the FOA group was used to tracking radiation coming from the East. In this case, the latter orientation (and the infrastructure developed to support it) pointed in the direction which ultimately solved the mystery of the 'Forsmark' radiation.

The analysis group proved able to shift gears and maintain receptivity to information inconsistent with the working hypothesis to an impressive extent.

4. The SSI super group

As we have already seen, analytical resources relevant to the various aspects of the Chernobyl Fallout crisis were initially dispersed across a number of government agencies. Once it became clear that the radioactive contamination did not originate in one of the Swedish nuclear power stations and involved large areas of the country, emphasis was placed on radiological protection issues. As a result, the National Radiological Protection Institute [SSI] was named lead agency with primary coordination responsibility at an inter-ministerial meeting (Industry, Defense, Agriculture) also attended by the Director Generals of SSI and the Nuclear Power Inspectorate [SKI] hosted by Energy Minister Birgitta Dahl on April 29 .

In addition, a decision was taken to integrate the separate crisis management groups which had been set up at SSI and SKI. The joint-crisis group would be chaired by SSI and situated at the SSI crisis facility located at the Haga Tingshus across the highway from SSI headquarters. This crisis management team would gradually be reinforced by staff resources from a number of other agencies including the National Defense Research Agency [FOA], the Civil Defense Board, and the National Meteorological and Hydrological Institute [SMHI], the National Food Administration [SLV] as well as a number of other national and local authorities (Svenson et al, 1986: D39).

As noted above, one of the puzzles of the case has to do with the question of why the Swedish decisionmakers initially based their assessments and public information upon a best rather than worst case scenario, setting the stage for a 'credibility trap' (Sundelius, Stern and Bynander, 1997:205-206; c.f. Norhstedt, 1991). The SSI super group drew upon the best available competence within the Swedish administration, yet apparently made some elementary errors with regard to crisis management and public information strategy. This is particularly ironic in light of the fact that, according to then Director General Gunnar Bengtsson (interview) major investments in improving the agency's public information capability had been made since 1980. The following analysis will explore the proposition that factors associated with the group's internal structure and culture as well as its relationship to the wider institutional environment may have contributed to this outcome.

Step 1:   <u>Investigate the extra-group setting</u> to locate the group within the
            wider political and institutional contexts.

As noted above, the SSI super group should be seen as lodged within a much wider political-administrative context. Delegated responsibility for coordination of activities at the national level, the group had primary responsibility for a range of tasks including operational intelligence, monitoring and measurement, developing options for intervention measures, and not, least, managing the public information campaign.[19] It is important to keep in mind that formal authority rested to a considerable extent elsewhere in the system (at the local and county levels, in other government agencies such as the National Food Agency [SLV] and potentially in the hands of the government should it choose to exercise its prerogatives under the Nuclear Protection Act (*atomskyddslagen*). Still, this group was in a very powerful position due to the lack of clarity and consensus as to which of the other actors were formally in charge and the strength of its expertise-based competent authority (Wrong, 1988:52-60). Expertise was a particularly potent source of power in this contingency given the highly technical and complex nature of the crisis problem.

In terms of its boundary management, the group maintained a broad range and high frequency of contacts with other areas of the government for the most part, with counterparts abroad (particularly agencies analogous to the main constituents SSI and SKI and with relevant international organizations), and even with analytical resources out in the private sector. As a result, this group does not appear to have been particularly insulated from the wider environment as has been the case for some of the groups studied by analysts in the groupthink

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[19] The diversity and pace of telephone, telex, and telefax traffic documented in the SSI archives is revealing on this question. See also the detailed reporting on intra-governmental contacts in Steen et al 1986.

tradition (Janis, 1982; 't Hart, 1990/94). The general overload experienced by the group did create another kind of insulation, however. The group proved unable to fulfill its responsibilities for systematic monitoring of media coverage (Steen et al, 1986:136), which served to delay reception of feedback and probably served to delay recognition of the seriousness of the developing information crisis.

Despite some allegations to the contrary, the overall pattern of communication of the group does not suggest that information was deliberately withheld from other governmental actors or from the general public (e.g. Aner, 1986:14-15, c.f. Norhstedt, 1991:486-7). Rather, it seems that the pace of events at times overwhelmed the capacity for intra-governmental coordination. For example, and contrary to normal practice, county level officials were often not briefed in advance (via so called *myndighetsmeddelanden*) of the content of statements and guidelines made public during the daily press conferences. In fact, according to Director General Gunnar Bengtsson "The Cabinet was the only body which was informed prior to the press conferences" (Sjöquist and Eckered, 1986:163, author's translation). Subsequent analyses (Steen et al, 1986, appendix 1, p.19), found that this practice created serious coordination and public information problems at the county level, introducing further divergence and 'noise' into the overall public information situation.

While certain members or factions within the group enjoyed preferential access to information regarding particular aspects of the crisis problem, (for example the SKI representatives dominated the information gathering on the situation on site in the Ukraine), no clear evidence of gatekeeping or other manipulative control of the flow of information to the group has come to light.[20] However, it should be noted that certain SSI policies such as discouraging and discounting the potential value of unauthorized measurement activity were perceived as manipulative (c.f. Norhstedt, 1991).

Finally, the situational context was indeed 'provocative' Janis, 1982:255-256). As noted above, nuclear power had been a highly politicized issue in Sweden for much of the preceding decade (Lindström, 1992). As a result, the political landscape was filled with constituencies trying to turn these events to their own purposes, a contest which emerges very clearly from the record of the May 12 debate in the Swedish Riksdag. Some segments of society viewed the national regulatory agencies as part of a pro-nuclear establishment despite the professed neutrality of, for example SSI, on the question of denuclearization (Mandeus interview, Löfveberg, 1986). Similarly, the lack of preparation and planning for this contingency combined with the tremendous demand of an uneasy public (and public administration for that matter) for information created

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[20] Note that this is a different question than whether the public information strategy vis a vis the public should be viewed as manipulative as some critics have suggested (c.f. Aner, 1986).

a particularly stressful situation for the group members who worked extremely long hours under heavy pressure during the acute phase of the crisis.[21]

Step 2: <u>Investigate the intra-group setting</u> to establish the composition, internal structure and culture of the group.

The intra-group setting of this group is worthy of some comment. First of all, and as noted above, the composition of the group changed significantly across the crisis period. From a relatively homogenous and predominantly intra-agency body, (the main exceptions being the participants detached from SKI and the Civil Defense Board), the SSI crisis management group at Haga successively became more diverse and interorganizational. In light of the designation of SSI as lead agency, senior SSI officials were in a privileged position as far as the intra-group status system was concerned. Unlike participants from other agencies, they were on their own turf, dealing primarily with their own support staff and with problems close to the core of the agency's competence.

This diversification also had important implications for the strength and clarity of the group culture. The existing group culture based on prior interaction in non-crisis situations, emergency simulations, and previous quasi-crisis experiences such as the Kosmos incidents (see above), became successively more diluted and was increasingly displaced by an emergent and ad hoc group culture.

The record suggests that the integration of the major contingent from SKI was somewhat uneven. Certain aspects went very smoothly, due in no small measure to prior interagency cooperation and planning for contingencies relating to planning for potential Swedish nuclear accidents and the experience of the satellite scare (Gunnar Bengtsson and Sven Lövfeberg interviews).[22] This type of cooperation was facilitated by a fairly well differentiated group role structure. There was a clear division of labor with regard to the analysis activities. For example, a key problem for the SKI participants was getting technical information regarding the design of the stricken Soviet reactor, the causes of the accident, and up to date information regarding the situation on site at Chernobyl (Steen et al 1986:85, 128). This information, in conjunction with information regarding weather patterns, was critical with regard for estimating the risk of further releases. Meanwhile, the SSI participants focused on various aspects of the radiological protection problematic in Sweden.

In the section of the Steen report on SSI's cooperation with other agencies, it

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[21] It should also be noted that according to existing contingency plans for Swedish nuclear accidents, the Haga group was not expected to provide information on the acute operative situation, a task which would have fallen to the county boards (Steen et al, 1986:108).

[22] See SSI (1983) for a post-mortem of the crisis management experience in that case.

is stated that "during the first weeks of May, SKI's personnel provided significant support to SSI, above all in its information activity" (Steen et al, 1986:128, author's translation). Despite this appreciative acknowledgement, it proved rather more difficult to integrate the SKI personnel brought in on an ad hoc basis to help with public information activities, particularly the telephone information lines. Two of the SKI staffers had previously worked at SSI and thus could be eased quickly into the ongoing effort. The other ten detached from SKI had varying backgrounds and were relatively unfamiliar with radiological protection work. Some were technicians specializing in other areas; some had a behavioral science background. These officials found if difficult to contribute to the work at first, particularly as the harried SSI stafff had little time available for instruction (Steen, 1986:86, 138). Over time, instructional resources were prepared and routines developed, enabling them to handle some questions and deferring those beyond their competence to specialists.[23]

The information work was by no means the only part of the crisis management effort to be handled on an ad hoc basis. For example, a fair amount of the measurement and forecasting work was conducted in similar fashion. In the early stages, the Director General himself and colleagues from FOA made a number of the most important estimates themselves, without fully documenting all of the dose rate calculations (Steen et al. 1986:120). In fact, the so called 'situation and prognosis' unit of the planned emergency organization was never activated.[24] Instead, a three person 'measurement' group was formed. The measurement group's internal leadership structure and relationship to other parts of the super-group remained unclear – creating significant coordination problems which, in combination with understaffing and work overload, delayed the development of a comprehensive picture of the measurement activity and national contamination pattern (Steen, 1986:119, 162).

Step 3:   <u>Investigate group leadership practices</u>, which commonly exert important influences in shaping the intra-group setting and in facilitating or hindering deliberations among the members.

Pre-crisis emergency plans based on the contingency of a Swedish nuclear accident envisioned the absence of the SSI Director General and Chief Public Information Officer, who would both be occupied providing support to the County Board in the jurisdiction of the stricken reactor. Therefore, more junior personnel would be in charge of these activities in Stockholm. However, these

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[23] In the aftermath of the Chernobyl crisis an ambitious handbook for nuclear accident information was developed by SSI in collaboration with the newly formed SRV (SSI, 1988)

[24] Gunnar Bengtsson (interview) indicated that a lack of confidence in the technical competence of the individuals making up the 'situation and prognosis' unit was a key factor in the decision to create an alternative structure.

directives were set aside in the Chernobyl case as the contamination was dispersed across large areas of the country rather than being concentrated in one area. As a result, the Director General himself came to play a leading role in the crisis management in Stockholm.

This change of leadership structure and role had a number of important implications. First of all, it meant that the Director General and the chief public relations specialist (Sven Löfveberg) found themselves playing roles which differed in important respects from those envisioned and practiced in the most recent training exercises. Second, Gunnar Bengtsson exhibited an idiosyncratic leadership style which is worthy of note.

Bengtsson became SSI Director General during the summer of 1982, when he succeeded Bo Lindell who had served in that capacity for seventeen years. Bengtsson joined SSI, then a scientific research institute, in 1969 after completing a dissertation on radioactive contamination of reindeer. Thus at the time of the Chernobyl nuclear accident, he too had worked for SSI for seventeen years and had served as Director General for almost four years. During his years with the agency, he had seen a gradual metamorphosis from a research institute to an agency charged with major coordinating, planning, and oversight responsibilities (SSI Nytt 1982-08-18, p.2).

In what could be termed his inaugural interview published in the staff newsletter, Bengtsson presented his vision for the agency and his philosophy of leadership. He proposed to draw upon and build the competence of the staff, to help provide the staff with clear goals to work towards. With regard to his own role, he declared no ambitions to know everything – and noted that it is the officials dealing on an on-going basis with particular issues who possess the most detailed and up to date knowledge. He saw the Director General's role as focusing on the big picture and drawing up plans for the future. Still, he emphasized too the importance of maintaining his own professional competence and proposed to do so by participating actively in Nordic cooperation in the area of radiological protection (SSI Nytt 1982-08-18, p.2).

It has been suggested that Bengtsson's management style in practice differed somewhat from the philosophy outlined above. In his published diary on the Chernobyl crisis, Sven Löfveberg (then the Chief Information Officer at SSI) reflects upon the pre-crisis atmosphere at SSI. He reports, in part based upon the results of a workplace survey conducted by *Statshälsan* , significant discontent among the operational staff. According to this source, micromanagement on the part of the agency leadership had been a chronic irritant which created tendencies toward passivity among the staff. In his view, a 'confidence gap' had developed between the operational staff and those at the top of the organization:

> Some in the agency leadership seem to have been over-reading so called

management books of the worst kind. They preach leadership methods which probably do not even function well in an American workplace. They are completely inapplicable in Sweden. It just does not work at our workplace which is a regulatory agency filled with physicists, technicians, and researchers. This was the state of affairs when the accident [Chernobyl] occurred (Löfveberg, 1986:132; author's translation).

Furthermore, he questions whether the leadership has been able "to see the difference between giving orders and delegating" and whether "individual staffers have the self-confidence… to make their own decisions without running in to the boss to get every comma approved" (Löfveberg, 1986:132-133). Even close collaborators of Bengtsson's suggested that he was not a particularly good listener and tended to be unresponsive to the suggestions of colleagues, preferring his own counsel and relying heavily upon his own judgment.

Given this background, what type of group leadership did Bengtsson provide during the crisis? The available evidence suggests that several aspects of Bengtsson's general leadership style were carried over into the crisis situation.[25] In particular, some of the tendencies toward micromanagement and difficulty with delegation alleged by Löfveberg (and contrary to the spirit of the inaugural interview statement summarize above) are visible.

Bengtsson exhibited a markedly hands on style during the crisis, immersing himself in a wide range of operational and public information matters during the acute phase of the crisis. The record describes him involving himself personally in processing the raw intelligence on the crisis, in this case the raw measurement data, and performing extensive and demanding calculations regarding projected radiation dosages to the population and the possible impacts of alternative intervention measures. In all fairness, it should be noted that this reflected not only Bengtsson's general approach, but also the fact that he may well have been the leading expert in the organization for the type of problems which emerged during the Chernobyl crisis, problems for which his dissertation research provided a useful point of departure.

Furthermore, Bengtsson was heavily involved in a variety of coordinating responsibilities, acting as a liason between his agency and members of the cabinet such as Energy Minister Birgitta Dahl. Finally, and particularly relevant to the puzzle we are presently exploring, he personally took on an extremely heavy burden with respect to public information activities, rapidly becoming a kind of crisis celebrity on the basis of his daily appearances on the evening news programs and a range of talk shows. His trademark became the elegant sweaters

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[25] In other respects however, the atmosphere at SSI appears to have been transformed by the crisis working conditions. See the discussion of stress induced cohesion in steps four and 6 below. Similarly, Löfveberg (1986:132) describes a decentralization and pragmatic approach to crisis problem solving which stands in sharp contrast to his depiction of normal pre-crisis working conditions for mid-level professional staff at the agency.

he favored at the time (Sjöquist and Eckered, 1986:148-150).

It is difficult to avoid the conclusion that Bengtsson must have been spreading himself rather thin during the crisis.[26] He bore a crushing burden of diverse responsibilities, some of which might better have been delegated to competent subordinates. Bengtsson himself emphasized the toll taken by the crisis in subsequent interviews in which he would sigh "I am so tired" (Sjöquist and Eckered, 1986). In fact, previous analysts have come to the conclusion that not only the Director General, but also the super-group as a collective, was severely overloaded during this crisis (Steen et al, 1986: 159).[27]

The available evidence suggests that Bengtsson took a high degree of personal responsibility for both the formulation and execution of the public information strategy in this crisis rather than delegating these responsibilities to the public information specialists attached to the Haga group. There are significant indications to the effect that this choice did in fact have an important impact on the tack taken in the public information campaign, via his prominent media role.[28]

Why did this occur? The documentary record is somewhat sparse with regard to this issue. Reading between the lines of information chief Löfveberg's crisis diary does however provide some clues. This account suggests that psychological and mass communication oriented approaches to public information had been regarded as relatively low priority and low payoff areas in an SSI organization dominated by natural scientists and a technocratic organizational culture. He describes an uphill battle in procuring funding within the organization for research relevant to developing a more effective information strategy.[29]

Particularly telling is an incident which occured on the third day of the Fallout crisis. Shortly before the Chernobyl accident, SSI had sponsored a study of

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[26] In fact, Bengtsson's approach to crisis management recalls that of U.S. President Jimmy Carter during the well documented Iran Hostage Crisis (Smith, 1985; Glad, 1989; Vandenbroucke, 1993). Even long before that crisis, Carter had become famous for his predilection for immersing himself in the details of ongoing policy issues and at times losing track of the forest for the trees. It is also interesting to observe that Carter's engineering approach to problem solving, micro-management, and forceful personality apparently encouraged tendencies toward conformity (particularly anticipatory conformity) in his staff. These tendencies were most pronounced in the first part of the administration, prior to the outbreak of bureaucratic warfare between Secretary of State Cyrus Vance and National Security Assistant Zbigniew Brezhinski (Moens, 1990; George and Stern, 1998). Accounts of the Iran Hostage crisis emphasize Carter's personal involvement in the intelligence analysis and decisionmaking, including even questions regarding tactical dispositions.

[27] A common problem in crisis centers of many kinds is that strong, committed leaders push themselves to or past the point of exhaustion, spending long hours on duty and neglecting to eat and sleep sufficiently. This behavioral pattern can easily lead to 'burn-out' if the crisis is of more than a very short duration.

[28] The second commission of inquiry report (Steen et al, 1987:270) found that the Director General probably carried too much of the media information burden personally.

[29] It should be noted that this account conflicts with that of Bengtsson himself (interview), who emphasized the major investment made in information preparedness in the pre-Chernobyl period.

local residents' confidence in the Forsmark warning system. The results of that study, conducted by Örjan Hultåkers' consulting firm (linked to the catastrophe research group at Uppsala University) found that confidence in the warning system had been significantly eroded by a series of false alarms in the year prior to the Chernobyl crisis (Löfveberg, 1986:34; Hultåker, 1986). On April 30, Hultåker visited the crisis command center and proposed a follow up to his study designed to document the concern of the inhabitants of the Forsmark area in light of the most recent events. Löfveberg reacted positively to this proposal which he regarded as capitalizing on a unique opportunity. However, he was discouraged by the lack of interest from the SSI leadership:

> If we learn more about it [people's concern about nuclear accidents], maybe we can ease that concern in the future with good information. In the present mess, the interest of the leadership was cool. They say it will be too expensive. Örjan and I feel disappointed. Both of us want a stable foundation to stand on in order to improve preparedness and information (Löfveberg, 1986:34).

This incident which occurred at the height of the Chernobyl crisis, though prior to a realization of the extent of the mounting 'information crisis' is indicative of the mindset of Bengtsson and his closest aides, who did not yet fully appreciate the difficulty of the information task before them. Armed with slogans such as 'threat and support' (suggesting that threatening messages should be accompanied by reassurance and/or means of dealing with the threat) they boldly sallied forth to inform the public.

As a result, Bengtsson himself and other top level staffers chose to place themselves on the front line and meet the media. From the perspectives of scientific competence and even administrative hierarchy, this made good sense, as these leading officials clearly were authoritative spokespeople. However, from the perspective of effectively communicating with laymen and coping with the uncertainties of this most complex situation in fashion that protected the credibility of the agency, this may have made less sense. This line of thinking rests in part on the assumption that information professionals would have designed and implemented a substantially different type of information campaign if left to their own devices. Löfveberg's (e.g. 1986: 57,58, 92, 204-206) own account points out a number of junctures where tactical choices which he considered to be ill advised were made.[30]

There are in fact some indications that this is the case apart from Löfveberg's

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[30] Löfveberg's credibility here is buttressed by the information strategy outlined in a report co-authored by him published a year prior to the crisis. This report (SSI, 1985: 20) heavily emphasizes the importance of avoiding over-optimistic assessments and of maintaining short and long-term credibility with the public.

own observations reported in his diary.[31] The tone of some early statements by Lövfeberg himself, prior to being increasingly eclipsed by other spokesmen such as Bengtsson, do reflect a significantly different tactical posture.[32] For example, during day two of the crisis (April 29) Löfveberg appeared on a national radio magazine program. He reported measurements indicating radiation up to ten times the normal background level varying according to levels of precipitation across the country. Furthermore, he presented a conditional prognosis to the effect that, assuming no further radioactive emissions from the Chernobyl plant, levels were likely to gradually drop. However, he also emphasized the possibility that this assumption might not hold, pointing to the uncertainty regarding the status of the fire on site in the Ukraine. Should the fire not be out, "...there still might be big emissions from the reactor" (FBIS-WE, 860430:P6.). This message should be seen as both candid and guardedly reassuring. Furthermore, it protects the credibility of the agency in the event of a negative development of the situation. This stands in contrast to the pattern which would come to dominate the SSI information campaign, a pattern emphasizing early reassurance and optimism and which ultimately led to a series of tactical retreats and increasingly intrusive interventions noted above. To sum up this discussion, it seems that relatively directive leadership and micro-management of the information effort by the SSI Director General significantly impacted on both intra-group deliberations and the intra-group division of labor and contributed to de-professionalizing some key aspects of the information campaign. The record indicates that Information chief Löfveberg and other in-house information professionals were marginalized within the Haga group. In addition, Gunnar Bengtssons own operational analysis and information activities may have detracted from his ability to maintain the 'big picture' to which he aspired in his inaugural address and distracted him to some extent from other aspects of group leadership and coordination.

Step 4:   Examine the type and level of cohesion, which bind group members and their groups together, as this element helps determine group interaction and performance.

A number of potential sources of cohesion are identifiable in the Haga group.

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[31] Löfveberg's diary is a strong source in a number of respects. For example, it was reportedly based on his notes taken during the crisis itself. Furthermore, it was published during the same year as the crisis, and thus was chronologically proximate to the events portrayed in that regard as well. The main potential weakness is the risk that this account is biased or self serving, a risk which can hopefully be managed by cross-checking and comparison with other sources.

[32] Löfveberg was apparently suspended from some or all of his duties following an incident to which several respondents have alluded but which has proven difficult to penetrate. Some accounts suggest a conflict with Bengtsson, while others insinuate that Löfveberg had difficulty in coping with the psychological pressure of the crisis stress and that he was subject to losing his temper in his dealings with journalists.

First of most members of the SSI core had worked together previously and knew each other relatively well. As noted above, Gunnar Bengtsson had spent most of his professional life at SSI and many of the other players at the agency had been there for long periods of time. Similarly, the radiological protection and nuclear regulatory communities in Sweden are relatively small, so members come in contact with each other relatively frequently and tend to develop social ties across institutional boundaries (cf. Anton, 1980:12-13, Heclo and Madsen, 1987; Löfveberg interview). For this reason, the risk of overly friendly relationships between regulators and the those working in the nuclear power industry is discussed from time to time in the professional press (e.g. SSI Nytt, 1982-08-18, p.2; Mandeus interview).[33] Thus it is not surprising that when Information Chief Löfveberg was recalled from his planned vacation and reported to the crisis center at Haga Tingshus there were many familiar faces:

> Twenty minutes later, I found myself sitting at the big conference table in the assembly room (tingssalen). Many people are gathered there. I know most of them. Sitting there are people from the Nuclear Power Inspectorate, the National Defense Research Institute, Sveriges Geologiska AB, and SMHI. Everyone looks very serious (Löfveberg, 1986:19, author's translation).

However, it should be noted that this obseration was made on the second day of the crisis, prior to the subsequent expansions of the Haga group which brought many new faces into the working group.

Some of the pre-crisis cleavages dividing SSI (and thus tending to lower the degree of social cohesion at the workplace) have been described above. Interestingly, in his entry for May 10, Löfveberg (1986:132-133, author's translation) describes a significantly heightened sense of team spirit and unity during the acute phase of the crisis:

> During these first two weeks, it became apparent that the important and massive workload pushed aside most of the internal conflicts. Even now when we are dead tired, the cohesiveness and team spirit is fantastic.

This observation is strikingly reminiscent of the phenomena of stress induced or heightened cohesion in combat units and among crisis decisionmakers which has been well documented in the political psychological literature (Janis, 1982: 7-8, 109-110; George, 1980: 94-95; Stern and Sundelius, 1997b: 39-40). This comment also speaks to the shared sense of professional responsibility and task cohesion which helped to unite group members.

It is difficult to estimate the level of instrumental cohesion except to say that

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[33] D. Vaughn's (1996) study of the space shuttle Challenger fiascoe emphasizes the potentially insidious effects of such overly 'clubby' relations.

participants must have been aware that their performance in the crisis decisionmaking would have implications for their future careers, not least due to the dramatically increased public and media interest in the activities of SSI and the other involved agencies.

Finally, it seems worthy of mention that changes in the bureaupolitical situation (see below) brought about by the crisis may have served to facilitate cooperation by transforming a zero or negative sum game into a positive sum game. This seems particularly true of the relationship between SSI and FOA unit 215 who had been involved in a semi-competitive relationship which will be described in the next section.

Step 5: Examine the type and level of conflict or rivalries, which pull members and their groups apart, as also this element helps determine group interaction and performance.

The history of internal tensions within SSI has been described above and need not be repeated here except to note that they appear to have been mitigated to some extent by the mechanism of stress induced cohesion already mentioned.

In interagency groups in which members represent outside competencies and constituencies, there is always a potential for group dynamics to be strongly influenced by wider patterns of bureaucratic rivalry. At least three such potential rivalries are worthy of note. First of all, it is fair to say that SSI and FOA unit 215 which monitored radiation deriving from Soviet nuclear testing had been on a collision course. This conflict had to do with the redundance of monitoring resources across the two agencies. Given the fact that the Partial Test Ban treaty of 1963 put an end to Soviet (and US) atmospheric testing and led to a substantial decrease in fallout over Sweden, there had been proposals to rationalize monitoring by integrating the specialized FOA program and the SSI program (Interview, Sjöquist and Eckered, 1986:51). The FOA program had previously (1978-83) been linked to SSI, but this link had been severed three years prior to the Chernobyl crisis (Steen et al, 1986:129). As a result, both systems were perceived to be in danger of cuts or radical changes, creating an apparent zero or negative sum situation. This tension may provide a clue as to the alleged initial SSI suspicion (interview) of the surprising FOA conclusion that the radiation originated not in a Swedish nuclear power plant but rather from one in the then Soviet Union on day one of the crisis.

However, from very early on in the crisis it became apparent that the political winds had shifted and that the political fallout from Chernobyl would put an end to that problem. Following Chernobyl, discussion quickly focused on the fact that the SSI (and, to a lesser extent, the FOA) stations had recorded the heightened radiation levels well before the Forsmark alarm and that the lack of automation in the monitoring system had deprived Sweden of a potentially useful

early warning. As a result, it quickly became obvious that appropriations for monitoring (and its automation) would be substantially increased rather than decreased. This implies a positive rather than zero sum game between the FOA experts and their SSI counterparts and helps to explain why relations subsequent to the first few hours of the crisis appear to have been relatively cooperative.[34] By most accounts, the subsequent integration of the FOA working group into the SSI led super-group (Steen et al, 1986: 129, 144) went relatively smoothly (e.g. Löfveberg interview).

A second potential source of bureaupolitical conflict within the group was relations between SSI and SKI. In particular, given the fact that a leading role for SKI was implied by the initial problem definition of possible nuclear accident, one might expect that the demotion to supporting actor, following the identification of a foreign reactor as the culprit, would raise resentment. This appears not to have been the case. Part of the explanation lies in the fact that the two agencies had a long history of cooperation, a cooperation regulated by the existing emergency plans. Furthermore, and importantly, their operative competencies and operative spheres are distinctly different. As a result, SKI's leadership reportedly perceived (Steen, 1986) the problem as falling primarily under SSI's domain and thus was comfortable with this supporting role.[35]

It is well known that one of the most common bureaupolitical *casus belli* is when one agency usurps authority formally belonging to another agency. The evidence suggests that SSI did in fact act within the juridiction of other agencies during the crisis. As one participant put it, SSI "exceeded its authority by many miles" at the outset (Löfveberg interview). For example, the SSI went public early on with unilateral recommendations regarding the protection of the food and water supplies. Formally speaking, such issues fall under the jurisdiction of the National Food Administration (SLV) (Steen et al, 1986:241-242). Again, the literature leads one to expect that this might well have created serious resentment and turf consciousness which in turn might well have an impact on the crisis management effort, as in fact occured in other countries coping with Chernobyl such as Italy (Liberatore, 1993) and Germany (Czada, 1991).[36]

In fact, the available evidence suggests that such bureaucratic conflict did not escalate during this crisis (Steen, 1986:249). Why not? Much of the explanation lies in the fact that the SLV did not have the requisite competence

[34] The positive appraisal of the FOA performance in the SSI section of Steen et al (1986:161) and strong praise from G. Bengtsson (interview) are both strong indications that this was the case.

[35] This is reminiscent of the surprisingly, (in light of the empirical experience documented in the U.S. dominated military crisis literature), smooth collaboration between the Supreme Commander/ Defense Staff and the Foreign Ministry leadership in the Whiskey on the Rocks Crisis (Stern and Sundelius, 1992a)

[36] For an effective dismissal of the alleged incompatibility between crisis decisionmaking and bureaucratic conflict, see Rosenthal, 't Hart and Kouzmin (1991).

and infrastructure at its disposal to deal independently with this problem, never having previously been called upon to deal with this type of contamination (Steen, 1986:243).[37] At that time, the SLV possessed neither competence in the area of radiological protection nor independent measuring resources. As such they were dependent upon support from SSI in order to be able to dischage their responsiblities for the protection of the food supply (Crozier, 1964). As a result, the SLV leadership was prepared to overlook the lack of consultation on some of the earliest decisions (several of which were taken during the holiday weekend) and accept SSI's explanation that the pace of events largely precluded such communication. The bulk of SSI's recommendations were subsequently 'ratified' post-facto by SLV.

To sum up, despite a number of factors which might have led one to expect significant conflict among the members of the augmented SSI group at Haga, the levels of conflict appear to have been relatively low, the main exception being the intra-SSI conflict which escalated between Director General Gunnar Bengtsson and his own information chief.

Step 6:   Engage in group process diagnosis by comparing the portrait generated by the first five steps above to the repertoire of interaction patterns outlined in Figure 3.1.

On the basis of the results of the five previous steps, one can make assessments as to the extent to which the various group interaction patterns identified in chapter five appear to have contributed to the outcome. Again, excepting the Bengtsson-Löfveberg tension, little evidence of overt conflict has come to light. This tends to rule out the more clear cut conflictual patterns such as cabinet/bureaucratic politics and naysaying/paralysis. Similarly virtually no significant indications of intra-group manipulation have been unearthed.

As a result, the analysis will concentrate upon the question of whether elements associated with one or more intra-group conformity patterns may have contributed to the decisionmaking regarding information strategy. Let us begin by examining the group decisionmaking structure and dynamics for indications of groupthink.

In fact, there are aspects of the empirical record which do seem to support the proposition that groupthink-like dynamics may have contributed to the outcome in this case. A number of the antecedents of groupthink as formulated by Janis (1982) are visible in the case. First, most of the members of the core group did know each other fairly well from previous interaction within SSI and in emergency preparedness drills suggesting at least a moderate level of cohesion

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[37] Löfveberg (interview) was rather critical of SLV for what he described as their overly bureaucratized approach and general passivity in this critical situation.

based on personal ties and shared professionalism. Some pre-crisis tensions were apparently defused, increasing the overall level of cohesion. The evidence suggests that cohesion was boosted by the mechanism of stress induced or reinforced cohesion posited by Janis and by the easing of potentially divisive resource constraints (SSI-FOA).

Were there "structural faults in the organization"? The group does not appear to have been particularly insulated from its environment. Rather it appears that a wide variety of channels to other parts of the government, trans- and international actors, and even to the general public were kept open. There does appear to have been a lack of tradition of impartial leadership. The available evidence suggests that Gunnar Bengtsson did exhibit tendencies toward micromanagement and directive leadership both prior to and during the crisis period. This was particularly striking with regard to the informational issues. Thus far it has proved difficult to specify the character of the norms operating within the group. However, there are some indications that norms of openness to improvisation and pragmatic problem solving did emerge in the crisis group in contrast to the pattern predicted by groupthink (Löfveberg, 1986 and interview, Snihs interview, Bengtsson interview). Once again, a key exception to this generalization, and one critical to our puzzle, appears to have been the formulation of the information policy line.

Finally, Janis suggests that a provocative situational context characterized by high stress and threat, recent performance failures, and moral dilemmas can make a group ripe for groupthink. As we have seen, the situational context was indeed provocative and stressful. It is possible that the Forsmark false alarm and misperception may have temporily shaken the confidence of some members of the group, although it may have bolstered the confidence of some others who had contributed to solving the mystery of the contamination detected at Forsmark. There is no indication in the record to support the attribution of acute moral dilemmas, although some of the value tradeoffs between economic values and dose minimization were probably difficult and stressful.[38]

The high level of confidence exhibited by the group and its willingness to make fairly detailed and optimistic prognoses is compatible with some of the symptoms of groupthink such as an "illusion of invulnerability" and a belief in the inherent morality of the group and its mission of banishing hysteria through the provision of scientifically based information to the public.

As far as the decisionmaking process on information policy was concerned, it does not seem to conform to the ideal of vigilant decisionmaking as formulated by Janis (1982, 1989). In fact, according to several participants, virtually no

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[38] On the other hand, these radiological protection specialists appear to have viewed the levels of contamination as relatively low, thus giving them a good margin for taking economic factors into consideration without taking risks seen as excessive.

deliberations on the question of how to go about formulating and implementing an information strategy took place during the crisis. Rather, the record suggests that information provision was handled in an intuitive and relatively off the cuff manner (though drawing on the existing information policy) by Bengtsson and his closest collaborators. This is particularly true as far as appearances on broadcast media are concerned. The evidence suggests that overconfidence both in their own own ability to communicate effectively with mass publics and over-optimism regarding the severity of the contamination and the level of intervention which would ultimately be called for prevailed.[39] Collective overoptimism is seen in the literature as a key manifestation of both classic groupthink (Janis, 1982:) and neo-groupthink syndromes ('t Hart, 1990/94).

In addition, newgroup syndrome appears to contribute to our understanding of why the crisis managment group failed to develop an adequate information strategy and why some of the apparently erroneous assumptions underlying that strategy were not seriously questioned. For one, the rapid introduction of so many new members almost certainly undermined the core group's existing culture and mode of operation, thus disempowering many of the members. The reactions of the SKI newcomers brought in to help with the information activities but unable to do so at first due to lack of experience and clear instruction is highly suggestive.

Other deviations from the planned mode of operation, such as the decision not activate the 'prognosis and situation unit' and its substitution with an ad hoc measurement group did create serious coordination difficulties of the kind anticipated by newgroup syndrome (Steen et al, 1986:119, 162-163, Snihs interview). Other coordination problems included communication difficulties between Gunnar Bengtsson and the Haga group (when he spending a large proportion of his time doing media appearances at various TV and radio studios and between press conferences and those giving telephone information to the public (and who were not always kept up to date on the latest assessments and policies) (Steen et al, 1986:137, Steen et al, 1987; Löfveberg, 1986 and interview). Similarly, changes in the group leadership caused by the unplanned insertion of the SSI Director General probably did create tendencies toward conformity and tentativeness in a group used to being led by other, more junior and less imposing, figures.

To sum up this discussion, it seems that factors associated with groupthink and newgroup syndromes did contribute to the Haga Group's manifest collective over-optimism and information policy difficulties.

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[39] Another indication of over-optimism may be the fact that when information officials from county boards with nuclear power plants within their jurisdictions offered their assistance to SSI early on in the incident, the offer was declined citing an expectation that the crisis would be short-lived and of limited severity (Steen et al, 1987:225-26).

5. Small group analysis of the Chernobyl Fallout Crisis: Some findings

While the sample of Swedish decisionmaking and advisory groups studied in this chapter is small and biased to the extent that they were drawn from a single international environmental crisis episode, a number of patterns emerge from comparing and contrasting these three cases.

1. The groups studied tended to be more liable to conformity than to overt conflict. This finding holds for all of the groups studied in this case and is consistent with the results of a previous study of group decisionmaking during the Whiskey on the Rocks crisis (Stern and Sundelius, 1992b). The finding is also consistent with conventional renderings of the consensus oriented and sociable Swedish political-administrative culture (Anton, 1980; Heclo and Madsen, 1987). While that stereo-type may be somewhat exaggerated and underestimate the tolerance for serious, substantive differences of opinion under normal circumstances (Wallin et al., 1999:171) and the chronic appearance of interministerial conflicts (Larsson, 1986:314), it may well be the case that political cultural tolerance of overt conflict declines under crisis conditions. This proposition runs parallel to Janis's (1982) suggestion that stress may create or intensify social cohesion in small groups and strengthen tendencies toward conformity in advisory and decisionmaking groups.

2. Two of the three groups studied – the Forsmark and SKI groups – were found to exhibit potentially problematic, from an information processing perspective (George, 1980; Fuller and Aldag, 1997, 't Hart, Stern, and Sundelius, 1997:12-25), group dynamics initially, but moved subsequently into more effective modes of communication and information processing (c.f. McCauley, 1988). Clearly, group dynamics within the same group can vary greatly across decision occasions, even those taking place only minutes or hours apart as noted in chapter three. The third group (the SSI supergroup) did not seem to exhibit this pattern as clearly during the time period studied. The continual expansion of the group and an ambiguous leadership structure may have created a prolonged period of newgroup type dynamics (see chapter four and below) which detracted from group performance.

3. The importance of group leadership is obvious in all three cases studied (Janis, 1982; Nutt, 1989; 't Hart, 1994; Hermann & Preston, 1994). Note that leader dominance can emerge even where directive leadership has not been an antecedent prior to the crisis. The SKI group, the leader of which had a history of relatively open and non-directive leadership, functioned in roughly the same fashion as the Forsmark group and SSI groups, though the leaders of both had a history of very directive leadership. In all three cases initial decisions were

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taken in a 'spasmodic' fashion. The decisions to evacuate Forsmark taken by the Forsmark executive groups, to issue a reactor shut down ultimatum for Forsmark taken by the SKI group, and the decision to base the intitial intervention and public information policies on an optimisitic scenario taken by the SSI group – all fit this pattern. The available evidence suggests that these were all decisions taken on a semi-intuitive basis by leaders who did not fully exploit the brainpower assembled in their respective advisory groups.

In two of these cases (Forsmark, SKI) , a combination of improving group dynamics and a receptivity to information from outside sources enabled a 'rethinking' process. This process suggests that groups under heavy stress may not necessarily be as cognitively rigid as has been hypothesized by some researchers (c.f. Staw, Sandelands, and Dutton, 1992). A key factor appears to be the degree of insulation (Janis, 1982; Gladstein-Ancona, 1987). Interfacing with the outside world provided information crucial to achieving 'breakout' from initial problem framings and action dispositions which proved incompatible with incoming information (c.f. Lebow and Stein, 1993:95-97).

4. In the bulk of the decisions studied, groups tended to base their assessment on worst case scenarios (Forsmark, SKI). This is particularly notable during the initial 'spasmodic' decisions described above. This observation is interesting as it reinforces the notion that groupthink-type dynamics need not produce 'reckless', optimistic, risk-seeking behavior (Vertzberger, 1990: 243 ; cf. 't Hart, 1990/94). In some cases, where cultural or sub-cultural norms tend toward caution – polarization effects (Moscovici, 1985) will produce results rather different than those commonly associated with groupthink such as collective over-optimism. Over-optimism and wishful thinking (David, 1993; Vandenbroucke, 1994) did manifest themselves however in the SSI case and as well as in the Bay of Pigs case studied in chapter four.

5. The case studies of the Chernobyl groups provide strong support for the plausibility and potential importance of newgroup dynamics (c.f. Longley and Pruitt, 1980) as a significant source of conformity pressures and coordination difficulties in crisis decisonmaking. Newgroup dynamics were prominent in the SKI and SSI supergroup cases, as well as in the Bay of Pigs pilot case reported in chapter four. They were also noted in a previous study of decisionmaking during the Whiskey on the Rocks crisis. Newgroup did not appear in the Forsmark case, however, where the crisis was managed by a long-standing, highly institutionalized and cohesive group.

Having delved into the context, structure and dynamics of small group decisionmaking in the Chernobyl Fallout crisis, it is time to take a step back and reflect upon the findings of this dissertation, a task which will addressed in the final chapter.

Part III

Conclusions

Chapter 7:
Cognitive-Institutional Crisis Analysis: Findings and Reflections

In the previous chapters, a distinctively cognitive-institutional approach to the study of crisis decisionmaking was developed. This approach was deployed empirically focusing on a major crisis which faced Swedish decisionmakers and governmental institutions in the spring of 1986: the Chernobyl Fallout crisis. The analysis of this case, like the others prepared for the Crisis Management Baltic Sea Area Research Program (CM Baltic) case bank, was prepared according to the crisis dissection strategy developed in chapter two. This entailed reconstructing and tracing the decisionmaking and communication processes of the crisis from the point at which it was first (mis-)perceived by Swedish actors, through an acute phase characterized by an uneven process of political-administrative escalation and de-escalation. The dissection strategy was designed to identify and illuminate the central policy challenges (or occasions for decision) as they were experienced by the key policymakers who took (or avoided) responsibility for the Chernobyl crisis. Particular attention was paid to the role of small groups in making or providing analytical support for crucial decisions. These groups were seen as micro-institutional structures enabling and constraining individual officials and mediating among various organizational levels and bodies. Several decision problems in which small groups figured prominently were selected for closer examination, according to the analytical scheme developed in chapters three and four. Chapter four also contained a pilot application of the procedure to the case of the 1961 Bay of Pigs fiasco, providing a modest comparative frame of reference for the three examples of group decisionmaking drawn from the Chernobyl case.

These empirical analyses required a significant research investment – process tracing and reconstruction of this kind is a demanding and at times rather frustrating task. For the reader, and particularly the skeptical reader, the question remains: Was it worth it? In other words, what are the empirical, conceptual, and practical payoffs of this kind of research? This assessment will take as its point of departure the empirical findings from the Chernobyl case study reported in this dissertation. In addition, the Chernobyl findings will be complemented and placed in comparative perspective drawing upon findings from other cases in the CM Baltic case bank and from the international literature.

1. Empirical payoffs

As indicated in chapter two of this study, the final step of the analytical strategy developed is to once again reassemble the case and place it in a broader, comparative perspective. Having examined the case in some detail, it is time to move towards the proverbial 'big picture'. What are some of the most distinctive features of this historical case?

Another analyst – approaching the Chernobyl case from a slightly different angle – argues that from the vantage point of the Swedish cabinet and its support staff, the case was managed in the much the same fashion as a more important normal policy issue with a single minister, in this case Energy Minister Birgitta Dahl, taking the lead and reporting back to the Prime Minister and her colleagues in the cabinet (Isberg, 1993). However, this finding is to some extent misleading.

It was argued in chapter one that major policy crises are, virtually by definition, highly complex events. The policy challenges associated with the response to the Chernobyl fallout crisis were characterized by striking degrees of political, institutional, temporal, informational, and problem complexity (c.f. Bovens & 't Hart, 1996:55-57, 68-69; Jervis, 1998). The source of the threat originated well beyond Sweden's borders and the response entailed a broad range of steps taken in more or less coordinated fashion with other European countries, regional bodies such as the European Community and EFTA, and international organizations such as the World Health Organization and the International Atomic Energy Agency. Even as far as the Swedish domestic response was concerned, multiple levels of governance – local, regional, and national – were involved, raising a broad range of jurisdictional and coordination problems. In other words, the view from the chancellery emphasized by Isberg (1993) – while important – is only the tip of the proverbial iceberg from the perspective of crisis decisionmaking.

Another striking feature of this case is the complexity of the values at stake in the crisis. Most obviously, the Chernobyl fallout crisis was a public health problem and one characterized by high degree of technical complexity and uncertainty regarding the extent and risks posed by the radioactive contamination. Yet, at the very least, the fallout crisis was also perceived as posing domestic and international political, economic, and legal problems. Furthermore, coping with the crisis entailed dealing with difficult trade-offs among values associated with these domains. For example, minimizing the radioactive exposure of the Swedish population entailed accepting economic costs in terms of food products declared unsuitable for human consumption. In the Swedish legal system and political culture, this intervention implied state acceptance of some degree of liability for costs incurred by citizens and corporate actors in the agricultural sector, for example. One way of off-setting this liability was the possibility of seeking compensation from the Soviet Union. Yet doing so risked jeopardizing

important foreign policy goals such as supporting Gorbachev and his reform process and warming up the Swedish-Soviet relationship which had been frosty since the submarine incidents of the early 1980s. These are but a few of the many difficult and stress-inducing value conflicts associated with the Chernobyl crisis.

As the reconstruction and dissection of the Chernobyl crisis reported in the previous chapters indicates, the fallout from the Chernobyl nuclear accident was taken very seriously indeed by a broad range of governmental and quasi-governmental actors in the affected sectors, by the political opposition, by the mass media, and by the public at large. As was argued in chapter five, a substantial number of decisionmakers did perceive *threat to basic values*, *urgency*, and *uncertainty* and were thus forced to cope with heavy stress in dealing with problems associated with the Chernobyl fallout. The relative lack of anticipation and preparation for the scenario which occurred greatly increased the demands on the relatively 'surprised' decisionmakers as did the lack of warning from the Soviet Union (Hermann, 1972:14). Thus this case does conform to the definition of crisis developed in chapter one this study.

Another way of assessing the empirical payoffs of the study, is to pose the question of to what extent the approach chosen contributes to solving the puzzles and apparent anomalies noted in the introduction to the study? The first puzzle surrounded the initial Swedish response to the radiation originating from the stricken power station in the Ukraine. The response entailed first an alert and then the evacuation of 800 workers and visitors to the Forsmark nuclear facility. At first glance, it is far from obvious why the evacuation of a *Swedish* nuclear power station would be a reasonable response to the Chernobyl nuclear accident Reconstructing the information flow during the crisis and attending to the decisional context – including its ambiguities and uncertainties – helps to render this response understandable. Contextual factors such as the silence from the Soviet authorities, the organizational routines governing the monitoring of radiation measurement stations then in place in Sweden (and the state of the technical infrastructure which did not then provide automated early warning capability), wind and rain patterns conspired to make the Forsmark power plant the site of the first vigilant response to the Chernobyl radiation.

As a result, the issue was initially framed as a potential nuclear accident at the Forsmark facility – making an evacuation of non-essential staff seem like a reasonable precaution based on worst-case scenario thinking. As predicted by a number of the cognitive theories discussed above in chapter two, this frame influenced the way in which incoming and often ambiguous information was framed – creating tendencies toward tunnel vision which would keep the Forsmark hypothesis alive for many hours on site and in Stockholm.

The literature on decisionmaking under stress suggests that small groups can either contribute to or help to overcome cognitive rigidities and pathologies

such as tunnel vision or 'groupthink' (e.g. Staw, Sandelands, and Dutton, 1981:510-511; Janis, 1982:3; 1989:149.). Thus a secondary puzzle of the Chernobyl case is why the Forsmark Plant Manager's highly qualified and experienced staff group did not question the evacuation decision. The in depth analysis of the dynamics of this key group embedded within the relatively hierarchical Forsmark organization and led by a dominant and charismatic leader figure helps us to understand why the group situation proved inconducive to generating the kind of balanced, critical deliberations which could have produced a more accurate diagnosis of the situation facing the plant. It also demonstrated how a more open and critical group process generated a more vigilant response to the SKI Director General's shutdown ultimatum.

Similarly, small group analysis – particularly observation of changing group dynamics across the two phases of the SKI shut down decision – helps us to understand both the SKI Director General's preliminary decision to shut down Forsmark and the rapid reconsideration process. In this instance, reconsideration was facilitated by a wider range of intra and extra-group consultations serving to reduce the degree of insulation and open the group process to entertaining alternative hypotheses (Janis, 1982; Fuller and Aldag, 1997:59, 81-83). This group decision occasion provides support for the potential utility of Janis' (1982:264-5) suggestion that appointing parallel analysis groups to deal with the same issue may help to safeguard against the emergence of pathological group dynamics such as groupthink and increase the likelihood of generating an effective and acceptable (George, 1980:2; Farnham, 1997:12) response to acute, stress-generating problems.[1]

Another puzzle regarding the response to Chernobyl noted above had to do with the origins of the legitimacy crisis which developed in the wake of the Chernobyl contamination. Why did the SSI leadership depart from the pre-crisis information policy outlined in SSI (1985) and communicate with the public in a manner which cost the agency credibility with the media and the public?

First of all, one must recognize the formidable task facing those responsible for public information in this crisis. The press and public's unfamiliarity with this technically complex issue made explaining radiological protection policy a difficult undertaking. In addition a number of contextual factors made things even more complicated. The domestic politicization of Swedish nuclear energy ensured that substantial elements of the public were inclined to be suspicious of information coming from what they perceived to be part of the 'nuclear establishment' (Norhstedt, 1991: 482; c.f. Westerståhl and Johansson, 1987).

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[1] Janis' (1982:264-265) recommendation was apparently inspired in part by JFK's practice of dividing the Ex Comm into separate analytical units in the Cuban Missile crisis. Janis himself, and subsequent analysts – e.g. 't Hart (1997:322-3) – have noted that this strategy may have unfortunate side effects of various kinds which should be taken into account prior to its adoption.

Furthermore, the transnational character of the problem raised other difficulties. In the absence of common regional policies for radiological protection, it was inevitable that policies taken under crisis stress would diverge from country to country, and sometimes even from county to county (Segerståhl, ed. 1991; Czada, 1991: 313-317). Policy discord of this kind was noted by an internationalized mass media which pointed out discrepancies with relish.

An organizational culture at SSI which emphasized a technical rather than psychological approach to risk communication left the leadership underestimating the gaps which emerged between lay and expert risk assessments. Furthermore, an apparently dysfunctional contraction of authority took place within the organization concentrating influence over policymaking and information in the hands of the general director (Hermann, 1963: 70; Staw, Sandelands, and Dutton, 1981:502; c.f. 't Hart, Rosenthal, and Kouzmin, 1993).[2] This contraction strengthened tendencies toward conformity in risk assessment and served to further marginalize the public information expertise within the organization. These group dynamics contributed to the generation and relatively uncritical acceptance of prognoses and recommendations which proved overly optimistic. The gradual realization that the scenario which materialized was more serious than predicted forced the agency to make a series of rapid retreats and qualifications of their early recommendations to the public. This sequence proved costly in terms of public confidence in the domestic radiological protection regime. The group and organizational level factors identified help us to understand why and how the SSI leadership fell into what may be called a *credibility trap* (see below).

A third puzzle identified in the introduction to this study concerned the Swedish decision to refrain from taking legal action against the Soviet Union to demand compensation for the damages and other costs incurred in the wake of the Chernobyl nuclear fallout. A reconstruction of the culture and context surrounding this choice (presented in chapter five) revealed a number of factors which influenced the Swedish decision on this matter. One key factor was the glaring loopholes in the regime for nuclear liability; the USSR was not a party to either of the two main treaties regulating liability for nuclear accidents with transboundary consequences. Second, while an attempt based upon 'softer' principles of international law was conceivable, according to Energy Minister Birgitta Dahl such an action was seen as incompatible with the Swedish 'collaborative' (as opposed to litigation-oriented) tradition with regard to environmental protection. Furthermore, there was a concern for the prospects of improving the bilateral relationship with the USSR, following Prime Minister Carlsson's historic visit to Moscow which occurred just two weeks prior to the

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[2] An analogous pattern of contraction of authority, with similarly detrimental consequences to the decisionmaking process, was noted in the Swedish currency crisis of 1992 (Stern and Sundelius, 1997:43).

Chernobyl crisis. Finally, sympathy and solidarity with the Soviet Union, which was simultaneously the culprit and the most serious victim of the nuclear accident, and with the celebrated reform efforts of Mikhail Gorbachev contributed to the Swedish preference for avoiding confrontation at this juncture.

Thus the analytical techniques developed and deployed empirically in this study did generate plausible solutions to the empirical puzzles identified in the introduction to this study. A legitimate question which might be posed by a skeptical reader is whether an alternative approach might have provided simpler and possibly, even more plausible solutions to these puzzles (Elster, 1990:7-8). This is a difficult question to answer definitively, as the purpose of this dissertation has not been to engage in a competitive 'test' of the relative merits of two or more alternative approaches (c.f. Allison, 1971; Vandenbroucke, 1984; Verbeek, 1992, Sagan, 1993; Geva and Mintz, eds. 1997). Such an exercise in multi-perspectivism would be a logical follow up to the plausibility probe (Eckstein, 1975: 108-113) which has been reported here.[3] Still, for the reasons outlined in the opening discussion in chapter two, it seems unlikely that any alternative approach would do better than the cognitive-institutional perspective adopted in this study in terms of helping us to understand how and way individual and collective actors came to perceive, structure, and attempt to cope with the problems facing them in this highly stressful situation.

2. Theoretical and conceptual payoffs

The previous section summed up some of the most important empirical findings of this dissertation. In this section, the focus shifts to the broader conceptual/ theoretical implications of the findings from the Chernobyl case study presented in chapters five and six as well from the Bay of Pigs pilot case in chapter four. These findings will also be placed in a comparative perspective drawing selectively upon the CM Baltic case bank and relevant empirical work from the international literature.

Circumstantial cues and problem (re)definition[4]

Crises are by definition characterized by uncertainty and often by a serious lack of operative information, particularly at the early stages. The rapid pace of events often leads decisionmakers to perceive a need to act quickly in order to gain

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[3] For exemplars of multi-perspective research designs, see Morgan (1986); Bovens and 't Hart (1996), and Kleiboer (1998). See also Allison and Zelikow (1999:x,3-9).

[4] The phrase 'problem (re)definition' was inspired by Billings and C.F. Hermann's (1998:53) use of the term "re-representation".

leverage over the situation, to capitalize on situational opportunities, to gain advantages over adversaries, to stay one step ahead of the media, to demonstrate decisiveness etc. At the same time, little firm information about the emerging situation tends to be at hand early on. Therefore, decisionmakers will tend to make use of pre-existing schemas (Larson, 1985; Fiske and Taylor, 1991: chs. 4-5) 'go beyond the information given' (Markus and Zajonc, 1985: 162; Khong, 1992: 28, 212) in making situational assessments and attributions.

As has been noted above, Swedish decisionmakers deemed it highly significant that the mysterious radiation was first discovered at a particular Swedish nuclear power station. As a result of these circumstances, it seemed *obvious* that Forsmark was the culprit. If one finds radiation at a nuclear power plant, the cognitive path of least resistance is to assume that the radiation originated at that plant. Thus the activation the Forsmark hypothesis was largely circumstantial and it triggered top-down processing based on the schema for 'possible domestic nuclear accident'. Organizational scripts for just such a contingency – including the implementation of alert and evacuation procedures – were activated (Steinbruner, 1974; Allison and Zelikow, 1999:143-147).

In this case, the circumstantially 'obvious' explanation turned out to be incorrect and was subsequently revised. From a counterfactual perspective (c.f.Tetlock and Belkin eds., 1996), it is interesting to point out that the circumstances of the discovery could have easily been different. At least two programs for the measurement of background radiation, with stations dispersed across the country, were in place at the time. Had the first alarm come from an SSI measurement station in remote wooded area in northern Sweden instead, Forsmark would probably not have seemed as likely a suspect – and alternative hypotheses would have been that much more plausible at the outset. This counterfactual also points to interesting linkages between technical infrastructure (the remote measurement stations did not have automatic alarms at that time, as they do today), organizational routines (the stations were then monitored on roughly a weekly or bi-weekly basis), and perception (c.f. Sagan, 1993).[5]

Brändström's (1999) study of the management of the 'Swedish Mink Crisis' provides an parallel example of these linkages. In that case, an improvement in technical underwater surveillance capability led to the discovery of a 'new' and seemingly ominous marine sound. This was initially diagnosed as 'compressed cavitation' and was interpreted as a reliable indication of foreign submarine activity in Swedish waters. This technical evidence subsequently served as a basis for diplomatic communication with Russia; at one point Swedish Prime

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[5] Sagan (1993:3) opens his study of safety in the U.S. system for command and control of nuclear weapons with an example of a false alarm during the height of the Cuban Missile Crisis of 1962 which was caused by a wandering bear and escalated due to a similar combination of psychological , organizational, and technical factors..

Minister Carl Bildt alluded to this 'evidence' in a letter to President Boris Jeltsin about the apparently persistent problem of foreign submarine activity in Swedish waters. Subsequent re-analysis of these recordings by scientists at the National Defense Research Institute (FOA), making use of new analytical techniques, revealed that the sounds in question were not made by foreign submarines, but rather by minks swimming in the archipelago. The important point is that here too, organizational, technical, and psychological factors combined to influence perception and ultimately reconsideration of the working hypothesis which was providing a basis for official action.

In the Chernobyl case too, alternative explanations for the fallout (and its geographic spread) were initially not fully explored – surface compatibility was seen as a strong support for the Forsmark hypothesis. Ultimately, however, the weight of accumulating technical evidence proved so overwhelming as to necessitate a revision of the working hypothesis. The pattern of information processing in the Chernobyl case suggests that information was initially processed in a top-down mode according to a schema compatible with the Forsmark hypothesis. However, as the anomalies piled up, the mode switched to a more open 'bottom up' mode of information processing and alternative explanations were seriously entertained for a time before a new working hypothesis (ultimately confirmed by the Soviet confession) was adopted. The pattern exhibited in this case is consistent with that associated with state of the art multi-mode models of cognitive processing such as the elaboration likelihood model which suggest that individuals may process information more or less systematically and from both top down and bottom up perspectives depending upon the circumstances (Petty and Cacioppo, 1986; Tetlock, 1985a; c.f. Khong, 1992:245-250).

In the Chernobyl case, analysts from a number of different organizations participated in the decisionmaking. Not surprisingly actors with different organizational backgrounds and roles displayed differences in their mindsets, and had different schemata and historical analogies 'available' to them (Jervis, 1977:203, Nisbett and Ross, 1980:17-40; March and Olsen, 1989:41-46; Khong, 1992:35-37). The timely and serious exploration of alternative hypotheses in the Chernobyl case was greatly facilitated by the participation of the defense researchers (from FOA) whose first instinct was to look eastward for the source of the fallout. From a bureaucratic political perspective, it should be noted that the situation was relatively conducive to cognitive openness (Lebow, 1981; Jervis, 1977:356-389). The bulk of the engaged Swedish analysts (and particularly the regulators at SKI who were responsible for maintaining nuclear safety standards) had good reasons to be relieved that the source of the contamination was not a Swedish facility. Others had more organizationally neutral positions, having stakes in seeing the analytical puzzle solved, regardless of the results. These more organizational political factors helped to enable the relative cognitive

flexibility under stress demonstrated in the case (c.f. Staw, Sandelands, and Dutton, 1981; Stern and Sundelius, 1997b).

Problem definition and participation

In chapter two, it was suggested conceptually that there is often a complex interaction between processes of problem definition and responsibility allocation (i.e. decision unit formation). This relationship has often been overlooked. This oversight probably due in part to a heavy emphasis on individual perception and decisionmaking in the cognitive literature. Of course, when using an individual subject as a point of departure the issue of who will participate is moot. Unitary actor and other rationalistic models of complex organizations (Scott, 1992:29-34), or of the state – as in Allison's (1971; Allison and Zelikow, 1999) model 1 – also tend to deflect attention from this important question.

If, as has been proposed in this study, one opens the so called black box (as Allison did with his second and third models), one tends to find that multiple individual and collective actors can make potential claims for participation. Thus the question of who is in and who is out is a often a very serious one. This problem is particularly likely to arise where relatively unprecedented, uncertain, and ill structured problems arise – as is often the case in crisis situations, per definition. Therefore, ambiguities regarding the appropriate way to conceptualize the crisis problem or problems are likely to create room for tension with regard to who 'owns' the problem. This tension can be resolved in various ways. For example, in the Whiskey on the Rocks crisis, an amiable compromise was worked out (and sanctioned implicitly and explicitly by the cabinet). In that case, a dual meta-problem definition was generated (Stern, 1990, Stern and Sundelius, 1992; Sundelius, Stern, & Bynander, 1997:61-62). The problem was seen both as a matter of territorial defense (which fell under the mandate of the Swedish armed forces) and as matter of neutrality/foreign relations (falling under the mandate of the Foreign Ministry). It should be noted that the emergent dual problem definition may be seen as both a cause and a consequence of the pattern of participation in the crisis consultations.

What is particularly interesting about the Chernobyl case is the extent to which a change in the problem definition radically altered the pattern of responsibility allocation and participation.[6] At the outset, as we have seen, the working hypothesis was a possible Swedish nuclear accident at the Forsmark plant. That problem representation placed not only the plant itself, but also the county board and the national regulatory and radiological protection agencies

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[6]   Rosenthal et al (1994) submit parallel findings. During the Biljmer air crash the problem frame shifted from 'disaster response' which placed one set of actors under the spotlight to 'social crisis' which brought a new set of actors to center stage after the first week of the crisis.

at the center of the decisionmaking activity. As the Forsmark hypothesis gave way to an alternative (fallout from a foreign nuclear accident), new actors began to play an important role. The Forsmark leadership rapidly became peripheral once it was established that the plant could not have been the source of the mysterious radiation discovered on that fateful day. At this point, the Foreign Ministry as well as international organizations such as the International Atomic Energy Agency occupied central stage for a time. Similarly, once it was clear that this was a continent-wide problem with ramifications for the large scale international trade in foodstuffs, the European Community and EFTA became important as well.

Thus, in a broader sense the participation-problem definition relationship is reciprocal. Actors perceive and define the problem, but the emerging view of the problem also 'selects' (and sometimes changes) the relevant set of actors in any given case.

Small group analysis: techniques and findings

In chapter three of this study, an analytical framework for the contextual analysis of small group decisions (c.f. George, 1997:35-53; 't Hart 1990/94) was developed and summarized in figures 3.1 and 3.2. The framework consisted of a systematic six step analytical procedure culminating in a diagnostic set of seven group interaction (dynamics) patterns. The patterns were clustered in three groups (conflictual patterns, conformity patterns, and hybrids). In addition, one of the interaction patterns – newgroup syndrome, which refers to tendencies towards conformity, malcoordination, and susceptibility to manipulation in newly formed or radically de-stabilized groups – was further elaborated and conceptualized (in chapter four) as it has previously received relatively little attention in the political psychology literature.

The analytical procedure was deployed in the analysis of four small group decision contexts. The first of these was a pilot study based on the secondary literature and reopening the classic Bay of Pigs case (c.f. Janis, 1982:14-47). The other three small group contexts analyzed were drawn from the Chernobyl fallout crisis and based on the author's primary research. The empirical results clearly demonstrated the necessity of attending to the 'embedded' character of the small groups studied (George, 1997; Stern, Sundelius, and 't Hart, 1997:25-29). Information flows to the group, intra-group dynamics, as well as the political impact of group assessments and decisions are strongly affected by the group or groups' placement in broader institutional settings. Similarly, the empirical findings suggest that the literature is correct in emphasizing the potential impact of group-specific compositional, structural, and cultural factors on group dynamics.

The Chernobyl findings in particular illustrate an important methodological

point related to the institutional and problem complexities discussed in chapter one. That is that the analyst should not take for granted the unitary character of group decisionmaking phenomena. Given that institutional and problem complexity are typical of crisis decisionmaking, the analyst should be aware of the possibility that more than one group may be engaged in significant crisis decisionmaking activities. Three distinctly different advisory and/or decision group contexts were studied in chapter six, each of which had a significant impact on the Swedish crisis response in the most acute phase of the crisis. Similarly, the same decision group may be forced to deal with multiple problems simultaneously or sequentially during the course of a crisis. As several of the groups studied revealed, group dynamics may vary substantially across these group decision occasions, even if the group membership is held constant. As the topic of discussion changes, different constellations of expertise (monopoly, plurality etc) may emerge. Isolation from other qualified bodies may increase or decrease. A shift from a problem perceived in positive sum terms to one seen in zero sum terms can easily lead to an escalation of conflictual dynamics. Thus, the analyst must be attentive to the possibility that group dynamics may shift substantially and rapidly over the course of the crisis.

Substantial empirical support for the idea of a newgroup syndrome (elaborated in chapter four) was found in three of the four small group decisions studied. The main exception was the study of the Forsmark executive group which was a long standing, cohesive, and highly institutionalized group. The results of the fine-grained contextual process analysis and diagnosis did contribute to shedding additional light on several of the puzzles identified in the introduction of this study. The elaborated repertoire of seven patterns – as opposed to Janis' (1982) dichotomy between 'groupthink' and 'vigilant decisionmaking' or C.F. Hermann's (1988, 1993:181-182) tripartite conceptualization (groupthink, bureaucratic politics, and 'balanced' deliberations) – facilitated a more nuanced diagnosis of empirical group interaction patterns manifested in the empirical cases studied.

While the applications in this study suggest that the diagnostic set culled from a reading of the interdisciplinary literature was useful, it should still be regarded as preliminary. In its present form, it does not yet meet the MECE (mutually exclusive, collectively exhaustive) criteria associated with a fully developed typology. The overlap among and gray areas between clusters can make it difficult to distinguish among closely related patterns, especially those with similar overt empirical manifestations. Addressing this issue would entail developing an integrative 'meta' reconceptualization, a task which was beyond the scope of the present study, but which might well be a worthy endeavor for a future follow up research project. Similarly, group cohesion while a key variable in Janis' conceptualization of groupthink and emphasized in the systematic research procedure, posed serious empirical difficulties. For example, different elements of cohesion discussed in chapter three – social, instrumental, task – are thought to

have different implications for group performance. Yet the experience from the Bay of Pigs and Chernobyl case applications suggest that they are very difficult to establish empirically. It may be the case that this variable should be further differentiated or even de-emphasized in future reconceptualizations (Fuller and Aldag: 1997:70; Flowers, 1977:895).

Finally, it should be noted that the small group perspective – while making a potentially significant contribution to the study of decisionmaking processes – is associated with severe data availability problems. As many formal and informal group processes are not well documented via audio, video, or text sources, researchers may be forced to rely heavily on post-facto interview data, the accuracy of which must be taken with the proverbial grain of salt and subjected to rigorous source criticism and inter-source comparison. Is empirically rigorous small group analysis worth the trouble? The author's answer is yes, but only when preliminary empirical analyses suggest that a) small groups were very prominent in the decisionmaking and/or advisory processes under study, b) significant puzzles persist even after key decisions have been analyzed from other perspectives c) adequate documentary data and/or interview access is likely to be forthcoming (c.f. 't Hart, 1994:278-279).[7] As we have seen, these criteria were met with respect to the case of the Chernobyl Fallout crisis.

Sequencing and synchronicity

Chapters one and two stressed the importance of respecting the temporal context and dynamics of crisis decisionmaking. Two broad types of potential temporal effects were identified in turn: sequencing and synchronicity.

Sequencing refers to the tendency for decisions taken at a particular point in time to create and sometimes constrain, subsequent occasions for decision. Sequencing was a prominent dynamic in both the Chernobyl Fallout and Bay of Pigs cases. For example, an early decision to evacuate the telephone operator from the Forsmark nuclear power station degraded Forsmark's ability to communicate with the outside world and thus impacted on the conditions for subsequent decisions. Similarly the 'ultimatum' issued by the Director General of the SKI to commence a Forsmark reactor shut down (unless the cause of the mysterious radiation could be promptly identified) necessitated a subsequent decision to countermand that order, as evidence mounted that Forsmark could not possibly be the culprit. Finally, the above-mentioned credibility problems may be seen as a particular kind of sequence, where early, rosy, assessments necessitated subsequent decisions to 'retreat', costing the SSI credibility with substantial elements of the public.

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[7] For more detailed findings regarding the small group perspective, see the final sections in chapters 3,4, and 6.

In the Bay of Pigs case, a pre-invasion decision to shift the landing site to the now infamous Bay of Pigs from a previous candidate site served to cut off the unfortunate Cuban exiles from the possibility of retreating into the Escambray mountains. This choice severely constrained the options of the Cuban exiles and the U.S. government alike once it became clear that the intervention was not likely to succeed.

Synchronicity – the tendency for simultaneous events to affect each other via various psychological or institutional mechanisms (Stern, Sundelius, and Bynander, 1997:207-208; c.f. Snyder et al, 1963:59; Haney, 1997:140) – was also visible in these cases. Some analyses of the Bay of Pigs indicate that part of the explanation of the fiasco lies in an inability of the Kennedy administration to focus adequately on the Cuban problem prior to the decision to proceed. Concern with other issues on the agenda – most notably managing the transition to government, relatively strained relations with the Soviet Union, and the Laos conflict (which was seen as a more urgent problem during much of the relevant period) – conspired to deprive the Bay of Pigs project of the kind of sustained and rigorous scrutiny that might have revealed its fatal flaws.

Two near-synchronicities proved significant in the Chernobyl case as well. The assassination of Olof Palme in February of 1986 almost exactly two months prior to the outbreak of the Chernobyl fallout crisis meant that a relatively new Prime Minister and a destabilized cabinet team had to cope with the political fallout of what was already perceived as a botched murder investigation. In addition, it also meant that the Swedish public was forced to absorb two major traumas in as many months time. The Chernobyl fallout also arrived on the heels of the historic visit of fledgling Prime Minister Ingvar Carlsson to Moscow just two weeks before, which certainly affected Swedish predispositions with regard to the USSR.

More skeptical readers might object that the previous examples of 'near synchronicities' should really be seen as elements of the context rather than as temporal effects of the kind under discussion. There are in fact at least three examples of full-blown synchronicities worthy of mention in the Chernobyl case. The first was the coincidence of the 'Forsmark'/Chernobyl crisis and the national conference on accident management at Oskarshamn described in chapter six of this study. As a result, many of the 'heavy duty' experts on nuclear accident management from SKI— those most likely to have taken charge of the Forsmark analysis under normal circumstances – were for the most part unavailable to participate in the crisis management on day one of the crisis. Similarly ironic was the fact that the inauguration of the CLAB facility for the intermediate term storage of nuclear waste was scheduled for April 29 – day two of the crisis from the Swedish perspective. This proved to be both an additional burden on the 'lead' minister Birgitta Dahl, and an opportunity to explain the Swedish response to an assembled corps of energy journalists and industry specialists.

The third synchronicity was the coincidence with the first of May holiday. The most notable impact of this synchronicity was that the Prime Minister was already on the island of Gotland when the crisis hit, working on his traditional May Day speech. Carlsson's absence at the outset contributed to the adoption of a posture of relatively delegated crisis management (c.f. Bouchard, 1991) at the outset of the crisis. In this instance as well, the pre-programmed May Day speeches provided an opportunity for Carlsson, Dahl and the other Ministers to add a paragraph about the Chernobyl accident and a call for an enhanced international regime for nuclear safety. These examples of synchronicities and near-synchronicities are good illustrations of the potential importance of this second kind of temporal effect.[8]

Credibility traps: heuristic induction

The notion of a 'credibility trap' is a good example of the kind of phenomena which may be called to the attention of the analyst in the course of an intensive empirical study of a particular case (c.f. Layder, 1993:42-50). Having noted the legitimacy problems caused by rosy initial assessments in this case, it is possible to reformulate the idea in more general terms, terms potentially applicable to a wide variety of other cases. In fact, related patterns of untenable reassurances or undeliverable public commitments by senior policymakers or their authorized spokespersons are visible in a number of other relatively well-known Swedish cases studied by researchers from project CM Baltic or by analysts with similar interests. In the 1982 Hårsfjärden submarine hunts, the Swedish military lost face and credibility when optimistic prognoses regarding the likelihood of catching a suspected foreign intruder proved unrealizable, costing the military some of the credibility gained during the Whiskey on the Rocks crisis (Bynander, 1998:61-64; 1988b). In the wake of the 1994 MS Estonia ferry disaster, statements widely interpreted as prime ministerial commitments to salvage the ferry and recover the bodies of the dead proved equally difficult to make good (SOU 1996:189). On the basis of a single systematic study used in heuristic fashion in the formulation of such a concept, the conceptualization must of needs be somewhat tentative.

However, based on further structured and focused comparison of credibility traps sprung and avoided, it should be possible to refine the notion in a manner which would make it more useful for theoretical and practical purposes. For example, alternative types of traps might be identified (c.f. George and Smoke,

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[8] While there is a growing body of literature which supports the notion of synchronicity, it should be noted that Niklasson's (1999) case study of the Swedish response to the virtually simultaneous Hungarian and Suez crises did not find evidence of the phenomenon. It is possible, however, that these negative findings are an artifact of the methodology used and peculiarities of the case studied – i.e. Sweden was a third party rather than a direct participant in the dual 'crisis'.

1974). These might include overestimations: of preparedness, of response capabilities, of the willingness of others to help in an emergency. Alternatively, underestimations may be involved: of the seriousness of the problems to confronted, of the technical difficulties to be encountered, or of the uncertainties involved in making prognoses. Once a number of types of traps (or, alternatively, pathways to credibility loss) are identified, one can focus on developing strategies for avoiding them. Furthermore, it should be possible to identify contextual conditions which may tend to ameliorate or exacerbate the consequences of falling in. For example, if the actors or agencies enjoyed high credibility prior to a performance failure, all other things being equal there should be more tolerance for error than if the actors or agencies in question already had serious image problems before the crisis. While this discussion of credibility traps is still very preliminary, the broad contours of a promising line of research are visible.

Prevention and learning

This study has focused heavily on the phenomenon of crisis decisionmaking and particularly decisionmaking during the so called response phase. It is important to keep in mind that response is actually only one part of a broader cluster of issues related to crisis management. First of all, crisis response is only required in those cases where crisis prevention fails. As the old adage suggests, 'an ounce of prevention is worth a pound of cure'. Of course, modern polities are confronted by many types of threats and risks and constrained by more or less severe resource constraints. Furthermore, as efforts towards risk minimization reach the point of diminishing marginal return on investment, efforts toward designing more robust and resilient societies (and governmental institutions) become increasingly interesting. Summing up, the challenge is to strike a balance – in the sphere of research as in the sphere of practice – between a focus on prevention of and preparation for coping with crisis situations (Wildavsky, 1988; Sundelius, Stern and 't Hart, 1998.212).

Similarly, a focus on crisis response should not obscure the scholarly and practical imperatives of learning from crises. Crises – though often traumatic and threatening – represent opportunities as well. They are opportunities to study the performance of political systems under extreme conditions. They are opportunities to identify priorities for reform. Furthermore, from a political perspective, they are often associated with windows of opportunity for overcoming the inertia of 'normal politics'. Sometimes sensible lessons are drawn and sound reforms proposed in the wake of crisis situations. Other times, the post-crisis 'learning' process is undermined by individual and organizational defensiveness, credit-seeking, rationalization, blaming, denial, over-generalization and similar impediments to political and organizational learning. Though difficult, both

empirically and conceptually (c.f. Levy, 1992) 'crisis and learning' stands out as topic deserving sustained academic attention.[9]

3. Reflections for practice

While the primary purposes of this study have been more academic than practical, crisis management research is an area where there are often significant synergies between theoretical and more practical types of insights. Therefore, and keeping in mind that these findings are still based on the analysis of a limited number of cases, one of which is reported in some detail in this study, it seems appropriate to point to some issues which may be of interest to those approaching crisis decisionmaking from the more practical side. It should be noted that in this final section the mode of discussion shifts from a relatively analytical to a more explicitly prescriptive mode.

1. Small groups are a double-edged sword.
The social and organizational psychological literatures have long emphasized that group dynamics have potentially profound effects upon performance. Even where executive authority is formally concentrated in the hands of a particular individual, an alert advisory group can provide an invaluable 'backstopping' function – helping to curb a leader's impulses, encouraging reflection and critical dialogue, and pointing out problematic assumptions or unrecognized implications of a particular course of action. The case research points to examples of groups functioning effectively in these capacities and of groups functioning less well. The empirical findings point to the critical variables of group leadership and group norms, both of which must encourage candor and tolerance of dissenting views if group problem-solving capacity is to be maximized.[10]

Both the review of the relevant literature and the empirical findings suggest that newly formed (or radically destabilized) groups – which are a common feature of crisis decisionmaking – tend to be liable to pathologies of coordination and conformity. In such groups, malcoordination and conformity pressures stem not from the same sources as groupthink but rather from structural and situational vulnerabilities of other kinds. As a result, great care must be taken by both group leaders and members if the debilitating effects of 'newgroup syndrome' noted in the Bay of Pigs and – to a somewhat lesser extent in several of the group decisions in the Chernobyl case – are to be avoided. This problem is a particularly serious concern in political-administrative settings and cultures,

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[9] See Stern (1997b) for a conceptual analysis of the relationship between crisis and learning.

[10] One should of course keep in mind that problem-solving capacity is not necessarily the only value to be maximized in group decisionmaking – see 't Hart, Stern, and Sundelius (1997:12-25) for a discussion of alternatives.

like those typical of contemporary Sweden, which rely heavily upon ad hoc crisis groups for crisis management.

2. *Beware of the conventional wisdom – it may be wrong.*
In the Chernobyl case, as in several others including the Whiskey on the Rocks and 1992 Currency Crises, established 'truths' that governed the planning work within respective sectors turned out to be unreliable. Basic assumptions must be questioned periodically and if need be revised. Such re-evaluations are not easy to bring about since they require both cognitive and organizational change (c.f. Goldmann, 1988)

From a longer time perspective a crisis can become the triggering factor that enables reassessment of established policy parameters (Lebow, 1981:309-333; Stern, 1997; Lagadec, 1997). Of course, crisis decisionmakers are faced with a difficult situation when the conventional wisdom crumbles during a crisis – they are challenged to adapt their thinking and routines under very difficult and stressful conditions.

Before Chernobyl, the Swedish planning for potential nuclear accidents and radioactive contamination was mainly based on domestic nuclear accident scenarios which focused attention on those administrative districts containing or adjacent to the Swedish nuclear power sites). This basic mindset contributed greatly to an initial fixation on Forsmark as the source of the radiation during the Chernobyl crisis. Furthermore, this basic approach meant that national plans for radioactive fallout contingencies were inadequate. Some regions were relatively well prepared for the post-Chernobyl challenge while others were not.

In a similar way, the U137 crisis was preceded by a basic assumption within the Swedish security policy establishment that submarines of the Whiskey type were not armed with nuclear weapons. Dominant views of a Nordic nuclear-weapon-free zone and about the Baltic Sea as a nuclear-weapon-free sea were based on this premise. Those aspirations were revised after an analysis of the results from the radiation measurements made alongside the stricken Whiskey Class diesel-electric submarine (Hellberg and Jörle, 1983; Stern, Sundelius and Bynander, 1997:64-66, 74-76). Swedish regional security policy was influenced greatly by this changed view of Soviet submarines in the Baltic.

The currency crisis of 1992 began with a prevailing belief in the stability of the European Monetary System. This implied a necessity for the crown to stand firm in order to establish itself as a European hard currency. When the EMS began to shake in its foundations, this view was changed only marginally. If one considers the muted international reactions to the September 1992 500 per cent solution, the Swedish position stands out as rigid. This applies above all else to the expensive efforts to camouflage the massive outflow with supporting purchases and forward exchange deals. Floating the crown in November of the

same year did not have the devastating effects for the country's economy or market credibility as had been previously predicted by the advocates of the fixed exchange rate policy.[11]

3. Expert advice is not a substitute for political responsibility.

In both the U137 and Chernobyl cases, striking disagreements among experts occurred. Even expert knowledge is often based on interpretations and assessments of ambiguous evidence. It seems important for an appropriate scrutiny of a problem, even in crisis situations, that areas of dispute among experts are brought before the responsible decisionmakers. If an expert monopoly exists and if this available knowledge is one-sided the decisionmaker is held hostage to this expert view without knowledge of other, perhaps equally plausible assessments or possibilities (cf. George, 1980; Janis, 1989). Stressed crisis managers may well feel great unease in the face of acrimonious expert disputes on some apparently technical issue. Alternatively, decisionmakers may sense an opportunity: if the experts cannot quickly agree on an optimal course of action, then there is more room for a solution that seems most appropriate on political grounds.

In the Whiskey on the Rocks case an early interpretation dispute took place between two of the Ministry for Foreign Affairs' international law experts. The dispute was regarding to what extent Sweden could 'bend' the principles of international law concerning the immunity customarily extended to foreign state vessels such as warships. The different interpretations would lead to completely different views of what legitimate courses of action were available to the Swedish government. The decisionmakers then chose to disregard the more restrictive point of view, which gave them more freedom of action towards the Soviet leaders and the stranded submarine.

In the Chernobyl case, both in Sweden and other countries, expert interpretations were made of the health risks associated with long-term contact with low doses of radiation. The application of the common, yet ambiguous, ALARA principle varied greatly among the stricken countries. The political decisionmakers could not find clear-cut support within the relevant fields of science. Political assessments and special circumstances governed the regulations and warnings issued in every country. The Swedish solution in the Chernobyl case was to delegate responsibility for recommendations regarding risk levels to SSI. The political leaders stressed that safety would be put before economic considerations. The thresholds turned out to be conspicuously higher than

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[11] T. Kärde's (1998) study of the Hallandsås environmental crisis found that a failure of 'conventional wisdom' contributed to that crisis as well. The substance used to line the tunnel turned out to contain considerably higher levels of the toxic compound acrylamide than previously thought. The manufacturers specifications proved to be unreliable.

corresponding recommendations in other stricken Western European countries. Apparently the Swedish experts were prepared to tolerate a higher degree of contamination in the food supply than their colleagues in some other countries. Swedish products were initially banned from some countries until the Swedish standards were brought into harmony with others in the EC/EFTA area.

In the currency case, the relationship between expert opinions and the political action was somewhat different. Here, unanimous expert interpretations of the crisis situation prompted concrete political measures. The fact that a near unanimous chorus of expert assessments initially supported a determined defense of the crown and a strict diet of austerity measures designed to placate the market was used as a justification for the necessity of long-term and highly consequential decisions that, from a party-political and parliamentary perspective, would otherwise be very difficult to carry out.

In their public justifications of their policies decisionmakers commonly refer to the scientific or expert-based foundation of these policies. A certain amount of legitimacy can be reached by wearing the mantle of science. Often, however, the decisionmaker can chose between varying expert advice or scientific findings based on different criteria. The cases show that even in crisis situations there is commonly considerable room for alternative expert interpretations. At the end of the day, those with political and administrative authority do retain responsibility even in the face of highly complex and seemingly technical crisis issues. And, ultimately, it is those charged by the voters with political mandates – not the relatively anonymous experts – who will be held accountable.

4. Creative improvisation is the name of the game

Crises often require the use of preexisting administrative and operational resources in new ways. In the initial phase of the Whiskey on the Rocks crisis for example, military resources for guarding the stranded submarine were very difficult to find. Relatively untrained recruits and a variety of antiquated and prototype artillery pieces were deployed until a more convincing defense posture around the vessel could be produced. Creative elements including blocking Gåsefjärden with the icebreaker Thule to place the onus of first use of violence on an the Soviet forces in the event of a raid to free the stranded submarine. Similarly, a heavy salvage tugboat from Karlshamn was kept on hand in the first part of the crisis. The purpose was to be able to push the submarine up on the rocks again if it should manage to free itself from the rocks. In Stockholm, the interdepartmental crisis group which was working on the synchronous Poland crisis when the 'Whiskey' crisis broke out, was rapidly transformed into a submarine crisis group when the news reached the capital. That body, under the direction of the Permanent Undersecretary of State for Foreign Affairs, played an important role in the crisis management process.

In the Chernobyl case, existing military resources and technical capabilities developed for monitoring superpower nuclear testing programs were used to find the source and measure the extent of the radioactive fallout. By using FOA's special competence in this area, in combination with SMHI's technical data and routine meteorological calculations – the likely culprit was quickly identified. Furthermore, military aircraft such as Lansen planes and naval helicopters were fitted with radiation measurement equipment and used to track the fallout in the air and the clouds.

It is clear that every crisis situation is unique in some ways and therefore demands a flexible adaptation of established routines and existing resources. No pre-determined handbook or detailed crisis plan can replace creative thinking that enables a decisionmaker to solve problems by improvisation. It is, however, just as clear that such ad hoc solutions can be more or less appropriate. In some cases, new problems can be created, which in turn require new improvisations (c.f. Perrow, 1984; Sagan, 1993:133). For example, in the U137 case, a opportunistic use of domestic maritime legislation in an attempt to pressure the Soviets led to absurd consequences and necessitated a subsequent government decision to apply only certain paragraphs of the law in question.

The experiences from the three Swedish crisis cases studied in Sundelius, Stern and Bynander (1997) point towards the fact that preparation for possible future crises must be done with a clear awareness of the limitations of formal planning. Relevant historical and contingency studies and creative scenarios can be used to raise cognitive readiness for future challenges. Nevertheless, these pictures of the future should not "lock in" the crisis manager mentally or organizationally. Planning should instead be focused on developing competence, resources, and infrastructure that can be combined and used in different ways in a crisis. Like lego pieces, governmental capacities can be combined in creative ways suited to the crisis in question, particularly if they have been designed in relatively modular fashion in order to facilitate this type of flexibility.

5. Look abroad for help?

In the research literature on the security policies of small states as well as studies of crisis management, it is often suggested that small and large states a like may stand to be benefit from multilateralizing a crisis situation (Snyder and Diesing, 1977:204; Habeeb, 1988:133; Stern and Sundelius, 1992a). Through mobilizing support for its position within the international community or with multilateral institutions, a small country can put more weight behind its demands or its resistance to others' demands.

Despite Sweden's internationalist tradition in many other respects, Swedish practice suggests ambivalence about multilateralizing military security issues. A good example is the 1952 DC 3/Catalina crisis in which Sweden proved very

reluctant to multilateralize the response to the Soviet downing of several Swedish aircraft operating in the Baltic Sea area (Karlsson, 1995; 1998).

The Chernobyl crisis – which took place outside the military security sector was managed in manner more consistent with the small state multilateralization strategy. Birgitta Dahl contacted the IAEA via Director General Hans Blix on the first day of the crisis. While Swedish inquiries on the issue directly to the Kremlin were ignored with a certain nonchalance, Sweden was able to acquire much of the desired information relatively quickly through the IAEA initiatives and auspices. The Soviet leaders chose a more cooperative approach toward this UN body compared to Swedish bilateral attempts. An IAEA team led by Blix was permitted to visit the site (via helicopter) and an international intelligence clearing house for the distribution of radiation measurements was created. This system provided Sweden and many other countries with valuable operative intelligence.

By contrast, during the acute phase of the U137 crisis no such international, multilateral public support for the Swedish line was mobilized. It was not until after the conclusion of the acute phase of the crisis that the question came up at the UN in New York and in the European Security Conference in Madrid, which both met that autumn. However, it should be noted that the international media were welcomed to Karlskrona and were seen as constituting a valuable line of symbolic defense raising the potential costs to the Soviet Union of using force in the tense situation (Hellberg and Jörle, 1983:152-156, 257).

These comparisons, and the findings of a number of other studies of cases such as the Nordic MC Wars, the Brolin Kidnapping, the Mad Cow Crisis and the M.S. Estonia Tragedy (Svedin, 1998; D. Nohrstedt, 1998; Grönvall, 1998; Hasper, 1998) suggest that this tactic may be more appealing to Swedish decisionmakers in cases which do not involve military-security issues

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This dissertation began with an extended metaphor comparing the state to a ship, leaders to Captains, and crises to storms. It will end with another metaphor which is often used to describe the relationship between the worlds of academia and practice: the infamous 'gap'. The term suggests that there is often a "…wide (usually undesirable) divergence in views, sympathies, development, etc." between scholars and practitioners.[12] The metaphoric basis of the term derives from a secondary meaning synonymous with a topographical barrier of empty space such as a gorge, canyon or chasm. It is sometimes suggested that there is a virtually irreconcilable conflict between the knowledge requirements of practice and science (e.g. Hill, 1994:19-21) . While the potential for such conflicts should

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[12] This is the third definition of the term in the *Oxford English Reference Dictionary* (2nd ed. 1996:571)

not be underestimated, they should not be overestimated either (George, 1993; Zelikow, 1994:143; Lepgold, 1998:43-44, 60). Gaps can be bridged.

The domain of crisis studies stands out as one area where significant synergies do seem to exist. Detailed empirical case studies tracing decisionmaking and communication phenomena such as the ones presented in this study are costly in terms of the time and resources required. Yet, as this dissertation demonstrates, the data gathered may be exploited to the potential benefit of both constituencies. Historical reconstructions of empirical cases may be used to 'field test' theories as well as to identify and document so called 'best practices' (and their lesser counterparts). Similarly the development of bodies of generalized knowledge (or 'theory') is not merely in the interest of scientists. In the area of crisis management – as in other zones of social life – there is nothing as practical as a good theory. This adage seems particularly apropos when it comes to the study and practice of complex decisionmaking and communication processes. Empirically grounded middle level theories, such as the bodies of cognitive and institutional research that inspired this study have the potential to identify potential pathologies and pitfalls, provide examples of successful crisis coping strategies, encourage a more reflective and agile practice of the art of crisis management, and inform efforts towards institutional reform. The gap between the realms of theory and practice does loom wide at times. But as Alexander George (1993:3-29) has suggested, the gap can sometimes be bridged to mutual benefit, even if it would be naive to think it could ever be fully eliminated. When undertaking more concrete infrastructure development projects, it is obviously important to pick a suitable site for construction. The results of this and many similar studies suggest that the chasm is relatively narrow in the region of crisis management. Looks like a good spot for a bridge.

Appendix A

Sweden & the Chernobyl Fallout Crisis: An International Environmental Crisis Narrative

Author's note

The following is a narrative description of selected aspects of the Swedish governmental reaction to the crisis which developed in the aftermath of the 1986 Chernobyl nuclear accident. Unlike previous accounts emphasizing public administration and information / mass communication, this narrative focuses on the case as an example of international environmental crisis management[1] . During the course of the research, it became increasingly evident that this crisis entailed decisionmaking in multiple, interdependent, political and institutional arenas. These arenas were linked by bilateral governmental communication, multilateral international fora, transnational expert and activist networks, and not least by intensive and comprehensive mass media coverage. Events taking place in the Swedish national, regional (Nordic and European), and international organizational arenas all shaped threat perceptions and policy responses to the Chernobyl disaster. Swedish operational decisions influenced, and were influenced by, the actions of neighboring states, regional actors like the European Community, and international organizations such as the International Atomic Energy Agency. The account presented below is an attempt to place the Swedish response in context. Relatively detailed treatment of the Swedish national crisis management is combined with an overview of the European political scene in the month following the nuclear accident.

The Chernobyl international environmental crisis should be seen as a complex of political problems arising in the wake of the accident. Labeling these phenomena a single 'crisis' is a merely a shorthand expression. Coping with the radiological emergency was but one of the urgent problems making up this complex. Decisionmaking regarding the implications of the incident for controversial national nuclear programs, addressing the deep concern and unease of mass publics, managing the issues of liability and compensation, coordinating

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[1] For example, the account does not particularly emphasize crisis response at the local or regional levels. See Amnå and Nohrstedt (1987) for case studies of county level crisis administration in Uppsala and Gävleborg.

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national responses, addressing potential impacts on trade, and enhancing the international nuclear safety and disaster management regime are among the other important components of the multi-faceted challenge faced by European governments during the spring and early summer of 1986.

This narrative is a synthesis based upon accounts in official publications, previous scholarly studies, and a wide range of journalistic sources described in the bibliography. Given constraints of space and limitations in the available public information base, it can only be a selective and imperfect portrayal of the events described. Rather than a definitive history, the narrative should be seen as an aid to the reader of this dissertation and a point of departure for further research, interpretation, and reflection upon this crisis experience.

Prologue: The accident

A test of a safety system on the fourth reactor at the Soviet nuclear power station at Chernobyl in the Ukraine, originally scheduled to take place during the afternoon of Friday, April 25, is postponed until approximately 11:00pm that evening. During the next few hours, a series of decisions taken in conjunction with the test results in loss of control of the reactor and two major explosions which destroy the facility, cause a graphite fire , and lead to massive releases of radioactive materials. These releases contaminate not only the immediate area but are also transported over long distances by air currents.[2]

Sunday, April 27
Soviet authorities commence an evacuation of an area with a 30km radius around the Chernobyl nuclear facility. Women and children are evacuated first. (IAEA Bull, Summer 1986:62). Soviet aircraft begin monitoring the radioactive cloud which has already crossed the Polish and Finnish borders with the USSR (Medvedev, 1990:194).

Shortly before 9:00 pm, increased levels of background radiation are observed at a Defense Forces monitoring station[3] in Kaajani, Finland. The results are passed on to the Operational Center in Helsinki. The Finnish Defense Staff notifies the civilian Radiation Safety Institute of the high readings[4]. Measurements as high as five times the normal background radiation are also

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[2] For a detailed critical account of the circumstances leading up to the accident, see Medvedev (1990: Chapter 1).

[3] A network of circa 270 measurement stations, each equipped with simple Geiger counters and taking measurements every second day, is maintained by the Ministry of the Interior and the Finnish Defense Forces (Schönhofer, 1991:31).

[4] Schönhofer (1991:31) reports that a parallel measurement network run by the Finnish Meteorological Institute was temporarily out of commission due to a strike.

taken in Tampere and near the Olkiluoto nuclear power plant[5]. The Finnish authorities do not notify their counterparts in the other Nordic countries. Allegedly, the Finnish authorities were waiting for confirmation and clarification[6] as to exactly what was occurring[7].

Air samples taken at a number of locations in Sweden as part of standard operating procedure in the Swedish monitoring system exhibit heightened levels of radiation. This is not discovered until these samples are analyzed the following day[8].

A parallel standard operating procedure is in place in Denmark. A self-recording ionization unit at the Risö facility detects heightened levels of radiation. However, these results are not analyzed until after the Swedish alarm the following day. It is subsequently determined that the radioactive cloud reached eastern Denmark at noon, reaching peak intensity around 5:00 pm (Medvedev, 1990:197). It is interesting to note that Norway apparently had no on-going radiation measurement programs in place at the time of the Chernobyl accident.[9]

Monday, April 28
An employee leaving[10] the Forsmark nuclear power station (120 km north of

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[5] This information is taken from a May 28 interview statement by the Director of the Finnish Institute of Radiation Protection, Antti Vuorinen (FBIS-WE, 860429: P2).

[6] According to Medvedev (1990:196), at that time there was no sign of radiation at other monitoring stations in Finland, due to favorable weather patterns. Schönhofer (1991:31) suggests that the high readings identified in the Defense Forces measurements were interpreted as a "radon peak", a phenomenon which had occurred a number of times in previous years.

[7] Finnish Interior Minister Kajsa Raatikainen, responsible for emergency management, claimed that she was first informed of the situation via radio news on Monday evening (DN 860430:7).

[8] According to Isberg (1992:19), among the stations which collected contaminated samples were Erken in Uppland, southern Öland, and Eksjö. For a description of the Swedish monitoring system, see Jensen & Lindhe (1986) and Reisch (1987a). For a comparison of monitoring systems in five European countries, see Schönhofer (1991).
   Minister of Energy and the Environment, B. Dahl subsequently claimed that the levels later found, when these samples were analyzed the following day, were within the range of normal variation when rain washes airborne radioactivity to the ground. She suggested that had levels been as high on Sunday as on Monday morning, they would have been detected at Forsmark (Riksdagen, May 12, 1986:75). Still, the findings of the inquiry commission suggest that continuous evaluation of the SSI station measurements should have detected the incident at least twelve hours earlier (Isberg, 1992:19).

[9] Statements by Norwegian participants at the *International Conference on Nuclear Accidents and Crisis Management* (Stockholm, March 16-18, 1993).

[10] Bailey's (1989:7) account suggests that the alarm was set off by a worker entering the plant. This point is potentially significant as it might bear on the a priori plausibility of the Forsmark accident hypothesis vis a vis other possible explanations. However, other inaccuracies such as the Bailey's (1989:7) characterization of the subsequent evacuation as immediately following the initial alarm – some four hours elapsed between alarm and evacuation according to other authoritative sources – detract from the credibility of his claim. Nohrstedt (XXXX:135) is clear on this point, claiming that routine checks of incoming employees/visitors were not made, reinforcing the impression that the source was within the plant. However, the logic of this argument may not be compelling either. It seems possible that an uncontrolled release from the plant

Stockholm) at approximately 7:00 am sets off a radiation monitor that routinely measure the radiation on the clothes and bodies of exiting workers. His shoes reveal an abnormally high degree of contamination (Reisch, 1987b:23). The initial hypothesis is that an accidental radiation release had occurred somewhere in the facility[11]. An effort is made to isolate the source of the leakage. Further measurements are taken. These show that the radiation levels are higher immediately adjacent to the plant than in the surrounding wooded areas several kilometers away from the plant. This is interpreted as reinforcing the hypothesis that the source is to be found within the power plant[12]. A decision is taken to close off the access road to Forsmark in order to prevent additional persons from entering the area and spreading radioactivity within the complex at circa 10:00 am (Amnå & Nohrstedt, 1987:13).

At 10:30 am, a decision to declare an emergency alert is taken by the Forsmark management, despite an inability thus far to identify unusual levels of radiation inside the facility. The Forsmark emergency team led by Karl-Erik Sandstedt gathers in a special command center, designated and equipped for the handling of emergency situations (Amnå and Nohrstedt, 1987:13). The Swedish Radiation Protection Institute (SSI) is alerted. SSI forms a special emergency task force at the agency's Stockholm headquarters to assess the implications of the potential emergency, in accordance with standing plans for domestic nuclear emergencies[13]. The SSI monitoring system is placed on alert status. Systematic data collection routines for twenty-five continuously-recording gamma radiation detectors are in place before noon (Reisch, 1987a:29).

Energy Minister Birgitta Dahl's staff is informed by an SKI official of the

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could contaminate the immediate area, so identification of contamination on incoming workers might not have changed the evaluation of the likely source of the radiation.

  Information gleaned from interviews with the Forsmark management suggests that both Nohrstedt and Bailey are partly correct. The alarm was reportedly set off by a worker which had passed the outer ring (the 'shoe border') but had not passed into the second control border and entered the reactor block. The fact that the worker was in the 'entering' process but set off the alarm in exiting is the source of this apparent confusion.

[11] According to Nohrstedt (XXXX:135), a history of technical difficulties at Forsmark during the late winter of 1986 (including problems with leaking fuel rods and small radioactive releases) made the plant leadership (and the regulators at SKI) inclined to believe that the mysterious radiation originated within the plant. See also Reisch (1987a and b).

[12] Subsequently the explanation for this effect is identified. The radiation was the result of wet deposition through rain. The asphalt pavement close to the plant absorbed the radioactive fallout and showed relatively high levels. The rain filtered down through layers of moss in the wooded areas, resulting in lower readings at ground level (Ahlbohm, 1986: 21).

[13] According to Svenson et al (1986: D38), the SSI emergency plan had been invoked previously to assess the implications of the uncontrolled reentry of the Soviet Kosmos satellite bearing a nuclear reactor.

developments at Forsmark at approximately 10:30 am[14]. The Minister is herself informed some five minutes later. Beginning at 11:00 am, Dahl attempts to contact the heads of the major organizations immediately concerned with the situation: SKI, SSI, and the Vattenfall utility. She immediately reaches SKI General Director O. Hörmander[15] and they consult on the implications of the situation. A decision is then taken by SKI to lower the output of all three Forsmark reactors (KU 1986/87:52). Dahl is unable to reach SSI General Director Gunnar Bengtsson, who is en route to Stockholm from a trip abroad. His deputy, Jan Olof Snihs, is in charge in his absence. The Vattenfall chief is also unavailable, being actively involved in consultations with the Forsmark management. Dahl instructs staff to contact cabinet and agency officials and to follow developments closely. Prime Minister Ingvar Carlsson is on the island of Gotland[16]. Dahl informs him personally of the situation (Dahl, KU 1986:249).

The Swedish Nuclear Power Inspectorate (SKI) is formally notified of the situation shortly before 11:00 am[17], some four hours into the crisis. At SKI, an operational analysis group is quickly set up to assess the situation. The group begins to analyze measurement results and advise on potential counter-measures. The group is led by senior engineer Frigyes Reisch. (Ahlbom, 1986:21). According to Dahl (KU 1986/7:255) contacts were taken with Nordic neighbors to ask if they had detected heightened values.

At 11:16 am, the county board (länstyrelsen) in Uppsala[18] is apprised of the situation, via the county emergency communications center (länsalar-meringscentralen) (Amnå and Nohrstedt, 1987:13)[19]. The county executive (landshövding), Ingemar Mundebo, activates the county-wide emergency management procedures (DN 860429:7). The county level emergency management task force is fully assembled at headquarters by 11:45 am.

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[14] There is an apparent minor conflict here about the times given in different accounts. Dahl's (KU 1986/87:249) account claims that her office was informed by SKI circa 10:30. Ahlbom (1986:21) reports that SKI received the initial call from Forsmark at 10:45 am. Reisch (1987b:23) reports that the call came "a few minutes before 11:00 pm".

[15] Steen et al (1987: bilaga 1b)

[16] Apparently, Prime Minister Carlsson was scheduled to give May 1 speeches in Visby and Hemse in Gotland and arrived some days ahead of time (DN 860426:8).

[17] According to Reisch (1987b:23), two SKI inspectors were, coincidentally, already at Forsmark for a scheduled meeting.

[18] In an emergency situations, the emergency plan envisions a division of responsibility between the county board and the plant management. The county board is held responsible for the protection of the population outside the perimeter of the nuclear station, while the plant emergency management team (led by the plant manager) retains operational responsibility for on site safety measures (Amnå and Nohrstedt, 1987:12) .

[19] According to this source (pps. 14, 17) the alert classification "höjd beredskap" declared by Forsmark was escalated to the more serious "haverilarm" in the process of communication among Forsmark, LAC, and the county authorities.

Preparations are made to shut down the reactor, if necessary, including the startup of alternative oil-burning power plants (Ahlbom, 1986:21). Efforts to find the leak within the nuclear station continue.

In accordance with Forsmark's standing plan for local nuclear emergency, the plant management, led by Karl-Erik Sandstedt, takes the decision to evacuate more than 800 non-essential operating personnel from the facility[20] . This decision was taken despite the fact that "no abnormal radiation levels were observed inside the reactor buildings or from the stacks" (Reisch, 1987a:29). Shortly after 11:00 am, a loudspeaker announcement instructs employees, consultants, and temporary visitors to report to a stadium at Norrskedika, several kilometers south of Forsmark.[21] Roadblocks intended to block access to the power plant vicinity reportedly significantly impeded the evacuation as well, creating delays of up to thirty minutes at the roadblock. At Norrskedsdika, long lines of evacuees accumulate outside the improvised processing area set up at the sports complex. The police, (responsible according to the county plan for registration of the evacuees) arrive late due to a breakdown of communications among Forsmark, the county authorities and the police (Amnå & Nohrstedt, 1987:18-19). This serves to further delay the proceedings.

The evacuees are not allowed to take shelter or commence decontamination until the registration process is complete. They are directed to wait outdoors pending registration. Once registration begins, individuals are requested to leave names and numbers where they may be reached for the next 48 hours (DN 860429:7). Following registrations, the clothes and shoes of the evacuated persons are measured for radioactive contamination. Measurement and decontamination procedures are supervised by Ero Mattilainen. While none of the outerwear checked show signs of contamination, at least half of the shoes show readings of more than twice the normal background radiation. Those shoes are decontaminated with water and alcohol. Only a single functioning Geiger counter is available, which results in long lines at the improvised control station set up in a room at the stadium. Evacuees are not permitted to leave until the decontamination process is complete.

The Forsmark emergency team notifies the local radio news organization at 11:15. Ten minutes later, the local radio broadcasts news of heightened radiation at Forsmark. Two reporters from Radio Uppland are sent to the plant. They

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[20] According to Amnå & Nohrstedt (1987:13) motivations for the evacuation aside from minimizing potential exposure included a desire to avoid panic within the plant and to minimize human traffic which might spread radiation inside the facility and complicate the radiation measurement activities. They quote Sandstedt as subsequently saying that the evacuation was a calculated decision, taken with full awareness of the economic consequences of such an action: "…the maximum possible cost of an evacuation would not exceed a million crowns – what is so special about that?"(Author's translation)

[21] Due to an oversight, the plant telephone operator was evacuated, which degraded Forsmark's capacity to communicate with the outside world.

cover events during the next few hours and their reports are shared with national and other local radio news organizations. Until the early afternoon, news broadcasts treat the radiation as a local phenomenon (Steen et al, 1987:154). The county emergency team holds a press conference, as mandated in the emergency procedures. It is attended by a single journalist (Steen et al, 1987:110).

Approximately 12:00 pm, County Executive Ingemar Mundebo, reports to the Defense Ministry on the situation, preparedness, and the information activities to date. Defense Minister Roine Carlsson is subsequently briefed on the content of Mundebo's report (Isberg, 1992:20).

At 12:00pm, the SKI general director prepares to order the total shut down of Forsmark reactors (Isberg, 1992:20). The SKI operational analysis group receives a call from technicians at the Studsvik research reactor (located circa 150 kilometers southwest of Forsmark) at about 12:05. Studsvik reports similar levels of radiation to those found at Forsmark. The group, fearing measurement error at Studsvik, is inclined to err on the side of caution and shut down Forsmark anyway.

FOA (The National Defense Research Institute) is contacted at 12:15 pm. An air sample taken from the Stockholm monitoring station the previous evening is immediately analyzed.[22] The results are in line with the others previously reported – the isotope composition suggests that the source is a nuclear reactor. In addition, particles of graphite are identified in the fallout. These findings are reported to SKI. As part of an on-going program of cooperation between FOA and the Swedish Meteorological and Hydrological Institute (SMHI), FOA is provided with air parcel trajectory data on a daily basis. This enables the FOA researchers to determine the probable fallout trajectory and source area. By 1:00 pm, some 45 minutes after notification, FOA is able to report that the probable source of the radiation is a reactor accident somewhere in the southwestern region of the Soviet Union (Persson, Rodhe, and De Geer, 1986:2).

FOA upgrades the alert status at its seven air-sampling stations around the country. Normally changed three times per week, samples are now taken every one to three hours (Reisch, 1987a:29). During the afternoon, air filters are mounted on the wings of Air Force Lansen fighter aircraft, another component of the FOA surveillance system. Samples are collected during the afternoon along Sweden's eastern territorial limit, 300 meters above the Baltic Sea. A scan is made of varying altitudes up to 12 km, in order to rule out the possibility that the radiation could be the result of a reactor-powered satellite making an accidental re-entry (Reisch, 1987a:29).

A parallel analysis session is taking place at SKI. Upon receipt of the raw data from FOA, which confirmed the results at Studsvik and Forsmark, the operational analysis group finally accepts that the radiation did not originate at

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[22] The standard procedure was to allow such samples to 'mature' for some days prior to analysis.

Forsmark and begins seriously investigating alternative hypotheses, using the process of elimination. An early hypothesis was that the fallout might have come from a nuclear vessel in the Baltic. This was quickly ruled out; fallout analyses conducted by the Forsmark laboratory suggested that the source was a stationary reactor[23]. The next working hypothesis was that the source might be an accident at one of the pressurized water reactors on the Kola Peninsula. A phone call to SMHI is made in order to get the wind direction data. The trajectories calculated that morning showed that the air was coming from Latvia/Lithuania, White Russia, and the Ukraine (Ahlbom, 1986:21; Reisch, 1987:29). SMHI's information helped to rule out not only the Kola hypothesis, but also to exonerate all of the Swedish reactors. Gradually, the suspicions turn to a range of Soviet nuclear stations at Ignalina (Lithuania), Rovno, Chernobyl, Kursk, and Novorenezh[24]. The fact that the samples analyzed by FOA contained graphite particles is deemed highly suggestive. These reactors are graphite modulated (RBMK) and their location seems to fit with the direction of the prevailing winds. This analysis is reported to SSI at about 1:00 pm (Reisch, 1987a:29).

During a 1:00 pm Cabinet lunch meeting, Dahl informs the attending ministers of the developing situation. The Defense Minister, Roine Carlsson, takes the opportunity to brief colleagues on his ministry's efforts. It is interesting to note that a cabinet quorum was in place, which would have enabled formal cabinet decisions to be taken. This was not deemed necessary. The emphasis was rather on managing the agencies taking operational responsibility for the emerging situation (Dahl, KU 1986/87:253).

Throughout the early afternoon, the SSI task force engages in a wide range of consultations with the other Swedish nuclear stations (all of which reported heightened radioactivity in the air and on the ground) and with colleagues in the other Nordic countries. Both the Danish Risö Research Center and the Finnish Center for Radiation and Nuclear Safety confirm that abnormal levels of contamination have been detected in their home countries.

At 1:32 pm, the SSI task force informs the Uppsala county board's emergency command center that the latest information suggests that the site of the nuclear accident is near Riga, as opposed to Forsmark. From 2:00 pm on, the county board team reorganizes its activities, relaxing the alert. The county executive and representatives, among others, leave the command post leaving a reduced staff on duty. The county board does not inform the Forsmark leadership of the changed alert status (Amnå & Nohrstedt, 1987:15).

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[23] These analyses also served to rule out the possibility that the source was the detonation of an atomic weapon (Ahlbom, 1986:21).

[24] Note that Reisch had recently published an article entitled "Sweden Surrounded by Nuclear Power Plants" [author's translation, *Elteknik* 86:3] including a map of the Baltic region indicating the location of the Soviet reactors. However, Chernobyl (located in the Ukraine) was not included (Ahlbom, 1986:21).

At approximately 2:00 pm, Dahl contacts the heads of SKI, SSI, and Vattenfall and orders a joint inter-agency consultation to be held at 3:30 pm. Thereafter, she meets with officials from the Ministries of Industry, Defense, and Agriculture. The latter ministry is included because responsibility for radiological protection affairs was delegated to the Ministry of Agriculture at that time. It has now become clear, through measurements and consultations, that the radiation detected that morning did not originate in any Swedish, Scandinavian, or West European nuclear station (Isberg, 1992:21). Dahl issues instructions to the Swedish Foreign Ministry (UD) to make inquiries via the Swedish embassies in the USSR, Poland, East Germany, and Finland at 3:00 pm. The instructions are to ask whether a nuclear accident has occurred, and if so at what location.

Some thirty minutes later the "all clear" signal is announced to the Forsmark evacuees by Forsmark operating chief, Karl-Erik Sandstedt. Operation of the facility resumes with full staffing and without restriction (DN 860429:7).

At about the same time, an interagency consultation is held between Dahl, the SKI Director General, a representative for SSI, and the head of the Vattenfall utility. SSI Director General G. Bengtsson arrives directly from Arlanda airport while the meeting is still in progress.

At 3:45 pm, FOA spokesman Ingmar Vintersved is interviewed on national radio. Vintersved rules out a Swedish nuclear accident on the basis of meteorological factors and multiple measurements inside and outside Sweden, suggesting that the source is a nuclear power plant to be found in: "…Estonia, Latvia, and somewhere in that direction" (FBIS-WE, 860429: P1).

Following their consultations, Dahl and the heads of the technical agencies (SSI, SKI) hold a joint press conference at 4:00 pm. The press is briefed on the current thinking about the origins of the radioactive contamination detected during the day. The press corps is assured that the source is not one of the Swedish nuclear power stations and that firm knowledge of the probable sequence of events leading to the contamination is developing.

After the press conference, Dahl contacts Hans Blix, the Director General of the International Atomic Energy Agency (IAEA). Blix is a fellow Swede with a background in the Foreign Ministry.[25] Dahl informs Blix of the state of knowledge thus far and the nature of the Swedish suspicions. Dahl requests that Blix mobilize the IAEA to gather further information. She particularly urges him to focus on the same countries targeted in the Foreign Ministry inquiries.

The Finnish Ministry of the Interior orders provincial and regional emergency organizations to monitor radiation in their regions. However, the Finnish response is hampered by an ongoing civil service strike which has interfered with daily meteorological analysis routines (FBIS-WE, 860429:P2-P3).

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[25] Among other senior Ministry posts, Blix served briefly as Foreign Minister during the1970s.

Technical and Science Attache Per Olof Sjöstedt contacts the Soviet State Committee for the Utilization of Atomic Energy in Moscow and other Soviet regulatory agencies during the late afternoon. He is told that no information is available on possible nuclear accidents (FBIS-WE, 860429:P3; Bailey, 1989:7). The occurrence of such an accident is neither confirmed or denied. Swedish Ambassador Torsten Örn makes similar inquiries to a Soviet Foreign Ministry official attending a Swedish Embassy reception early that evening. The request is noted; no immediate information is forthcoming through that channel. The Swedish Foreign Ministry contacts Dahl and confirms that the inquiries she requested have been lodged with the Soviet authorities.

IAEA General Director Blix contacts Dahl and reports that he has been in contact with the ambassadors accredited to the IAEA. The diplomats have now been in touch with their home countries. For the time being no information is available, but they promise to continue inquiries.

At approximately 7:00 pm Swedish time, the Soviet silence is broken. A TASS telegram conveys a four-sentence communique from the Soviet Council of Ministers: "An accident has taken place at the Chernobyl power station, and one of the reactors was damaged. Measures are being taken to eliminate the consequences of the accident. Those affected by it are being given assistance. A government committee has been set up."[26]

Ambassador Oleg Khlestov, the Soviet representative to the IAEA in Vienna informs the agency General Director that a serious accident has occurred at the Chernobyl nuclear power station in the Ukraine (IAEA Bull., Summer 1986:62).

An emergency IAEA meeting on Chernobyl takes place in Vienna. The IAEA offers assistance and requests information from USSR on the consequences of the nuclear accident, as per the Swedish request (SVD, 860430).

Swedish experts formulate a list of detailed questions about the circumstances and consequences of the Chernobyl accident. These are submitted to the Soviet Foreign Ministry by the Swedish embassy in Moscow late Monday evening[27]:

Did the accident occur in a graphite modulated reactor?

How many channels in the reactor are damaged?

When did the primary event take place, the one which initiated the release and when did the release begin?

Is the reaction under control?

Has the graphite caught fire?

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[26] The quote is taken from Bailey (1989:7).

[27] In her May 12 statement to the Riksdsag, Dahl says that the list of questions was submitted on Tuesday morning.

Has the release of radiation to the environment ceased?

How much and which radioactive elements have been released?

(Dahl, KU 1986/7:251; author's translation).

An initial statement is issued by SSI Director General Gunnar Bengtsson: "The radiation will not exceed those levels allowed in nuclear power plants. Those who live in radon buildings are exposed to significantly higher doses than those measured today." (DN 860429:7; author's translation).

Birgitta Dahl appears on the *Aktuellt* nightly news program, chastising the Soviet Union for its silence: "It goes without saying that the Soviet Union has not acted correctly with regard to information about the nuclear accident. They should have informed us and other countries immediately." (FBIS-WE, 860501:P2) She calls for more information from the USSR in the short term. Furthermore, as far as the longer term is concerned, Sweden will "…be repeating our demand that the Soviet Union submit its reactor program to international checks". She firmly rejects the suggestion on the part of an anti-nuclear power group that Sweden shut down its own reactor program immediately: "This morning, when we could not rule out an a fault at Swedish installations, we did consider this. But now that we know that the fault was not here and that such a step is unnecessary." (FBIS-WE, 860501:P2).

At 10:45 pm, Danish Environment Minister Christian Christiansen sends a telegram via the Danish Foreign Ministry to the Soviet Government in Moscow requesting detailed information regarding the circumstances of the Chernobyl accident (FBIS-WE, 860502:P1). Norwegian officials second the Swedish and Danish information requests (FBIS-WE, 860429:P3-P6).

The day's activities conclude with a series of late-evening technical initiatives from several involved Swedish agencies. FOA carries out direct in-cloud measurements with a mobile germanium spectrometer, using a Navy helicopter as a platform. The results indicate that the contaminated cloud is to be found between 200 and 1000 m above sea level, with a maximum intensity at 700 m. (Reisch, 1987a:29-30). Once informed of the exact location of the accident site, experts at SMHI begin calculating source-oriented trajectories in order to describe the transport of radioactive releases from the stricken plant (Persson, Rodhe, & De Geer, 1986:2). Late SSI measurements show gradually increasing radiation levels. This is interpreted as suggesting that radiation releases are still taking place at the damaged Chernobyl reactor.

Tuesday, April 29
Sweden's Ambassador to the USSR, Torsten Örn, meets with the Soviet Foreign Ministry's Scandinavian bureau chief at 9:00 am. The Swedish technical inquiry list is officially submitted. Ambassador Örn expresses the Swedish Government's

displeasure that the Soviet government neglected to inform neighboring countries promptly of the nuclear accident at Chernobyl. Örn reminds the Soviet official that the Swedish alarm was triggered through national technical means, which indicated that radioactive releases with consequences for Swedish territory had taken place (IHT, 860502; DN 860430:6; Isberg, 1992:22). The Soviet representative does not provide any additional information on the accident, only reassurance as to the well-being of foreign nationals in Kiev.

In Stockholm, Soviet Embassy Third Secretary Iouri Gerassimov contacts SKI, SSI and The Royal Academy of Sciences (Vetenskapsakademien) for possible technical consultancy regarding techniques for nuclear plant fire fighting (IHT, 860430; Reisch, 1986:5). Swedish officials express willingness to assist and ask for the latest intelligence on the status of the Chernobyl emergency. Gerassimov does not offer any additional information. Similar requests are made by Soviet officials to authorities in the FRG (DN 860430:6).

Birgitta Dahl travels to Oskarshamn for the opening of a new intermediate facility for the storage of nuclear waste (CLAB). In her speech, she calls on the USSR to improve the security of the Soviet nuclear power plants and to participate in an enhanced international nuclear safety regime under the auspices of the IAEA (FBIS-WE, 860430:P6). She takes credit for pressing the USSR to disclose the Chernobyl accident (through direct diplomatic inquiries and via the IAEA) and links a response to the Swedish technical questions to the future character of the bilateral Swedish-Soviet relationship. She dismisses the idea that the Soviet nuclear accident will affect the time-table for Swedish denuclearization (DN860430:8[28]).

Dahl firmly rejects any comparison between Barsebäck and Chernobyl and the notion that the Danes are justified in their demands for decommissioning of the station. According to Dahl:

> Barsebäck is one of the world's safest nuclear power stations and cannot be compared at all with the Soviet power station. Among other things there is a filter to deal with possible leaks. In the Soviet power stations there is no protection at all around the reactor (FBIS-USSR suppl., 860509:N8).

However, Dahl concedes that Barsebäck's proximity to population centers will be one factor considered in the determining the order for Swedish denuclearization. She suggests that the Swedish-Danish agreement on Barsebäck information sharing and consultation may serve as a model for managing transboundary nuclear issues (DN860430:8).

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[28] The article summarizing Dahl's speech is run under the headline "Vi stänger inte våra kärnkraftverk i förtid" [Author's translation: We will not close our nuclear power plants ahead of schedule].

Dahl expresses surprise that Finland did not immediately warn Sweden when the first fallout arrived in Finland[29] and declines to speculate about why (FBIS-USSR suppl., 860509:N8)

At 11:30, Sven Löfveberg, head of the information division at SSI appears on a national radio magazine program. He reports radiation of up to 10 times the normal background rate, varying with precipitation. Assuming no further emissions, he suggests that levels are likely to drop gradually. However, he points out that uncertainty about the status of the fire at the plant raise the risk of further major releases. If the fire is not out "…there still might be big emissions from the reactor" (FBIS-WE, 860430:P6).

SSI begins testing milk from Gotland dairies. Gotland is selected since it lies in the path of the winds coming from the east. The results show increased levels of radiation but are deemed to be below acceptable tolerances[30] (SVD, 860430; FBIS-WE, 860430:P8). SSI and other Swedish agencies continue upgrading their alert and monitoring procedures. FOA schedules daily sampling flights at altitudes of between 100 and 800 meters in order to analyze the isotope composition and contamination levels in the clouds (Reisch, 1987a:30).

SSI holds an afternoon press conference[31]. Spokesmen for SSI suggest that most of the radioactive fallout will disperse within a week; measures suggest that levels are gradually declining. According to the SSI statement, there is no reason for modification of lifestyle or habits; it is not necessary to stay indoors or to take iodine tablets (Steen, 1987:109-110; FBIS-WE, 860430:P8; DN 860430:7). SSI issues information for prospective travelers to the USSR. SSI recommends travelers to avoid the area delimited by a circle of 100 km radius from Chernobyl. An even greater safety margin is recommended for downwind areas (DN 860430:7).

A taped interview with Jan Olof Snihs, head of SSI's Nuclear Energy Unit, is included in a 3:45 pm national radio broadcast. Snihs reports that

> We have done a [survey] showing that the level of radiation observed so far give no reasons for special measures. Nor can it be construed that they constitute any unacceptable risk for individuals. So we have not issued any particular recommendation for special measures (quoted in FBIS-WE, 860430:P7).

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[29] According to a report in Dagens Nyheter (860430:8), "Dahl riktade samtidigt kritik mot myndigheterna i Finland för att inte i tid ha informerat Sverige om radioaktiviteten i luften" [Author's translation: Dahl also directed her criticism at the Finnish authorities for not promptly informing Sweden of increased radioactivity in the air].

[30] SSI applied the ICRP system of derived reference levels in making such determinations (Gray, 1991:71; Svenson et al. 1986: D17, D20).

[31] Subsequently, daily press conferences are held at 1:00 pm. For the first week, representatives of SKI are also present to take questions from reporters (Steen et al, 1987:109-110).

He assures the interviewer that no special precautions regarding water use ("…drinking water is not much affected by these conditions") or children's movements (indoors/outdoors) are required for the time being (FBIS-WE, 860430:P7).

During the afternoon, Dahl hosts consultations with an inter-agency group including representatives from the Ministries of Industry, Defense, and Agriculture, as well as the Directors General of SSI and SKI. Key decisions on the legal and administrative basis for the Swedish emergency response are taken. There will be no declaration of a state of emergency. The normal agency organizational routines will be employed to protect the Swedish population and agricultural enterprises. SSI is delegated primary responsibility for inter-agency coordination. The command center is to be located in SSI's rooms in Haga Tingshus. The consolidated command structure will include those units of SKI playing an operational role as well (Isberg, 1992:23)[32].

The Norwegian Ambassador to the USSR, Olav Bucher-Johannessen, delivers a protest to the Soviet Foreign Ministry in Moscow, censuring the Soviets for their failure to issue a warning regarding the accident. No further information is forthcoming from the Soviet Foreign Ministry (FBIS-WE, 860505:P3). In response to an unrelated political crisis, the Norwegian government resigns due to lack of support for its economic program. (FBIS-WE, 860429:P6).

During the evening, Nordic political figures publicly call on the Soviet Union to explain why warnings to neighboring countries were not promptly forthcoming. Danish Prime Minister Poul Schluter labels the Soviet attitude "unacceptable" and Soviet behavior "inexcusable". Schluter states that the Nordic countries are making of use of diplomatic channels to press the Soviet Union for an explanation. Furthermore, he calls for Nordic cooperation in lobbying for nuclear accident early warning and information exchange agreements among the states in the region. (FBIS-WE, 860429:P6). The Danish Foreign Ministry also announces that it has begun talks with E. Germany regarding an agreement on nuclear incident/accident information exchange. The initial consultations began on April 28.

The Finnish Government appoints a committee to investigate the circumstances and implications of the Chernobyl accident. However, a decision is also taken to refrain from joining several of the other Nordic countries in publicly demanding an explanation from the USSR. The policy will be to seek information in other ways. The Interior Ministry contacts the Soviet nuclear power authorities in less public attempts to gather information. In addition, inquiries regarding the possibility of evacuating Finnish nationals in the Kiev

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[32] The central command center was gradually built up over the course of the crisis. In addition to staff from SSI and SKI, expertise from FOA, the Civil Defense Board (civilförsvarstyrelsen), and SMHI was integrated into the team. In addition, close coordination developed with a number of other national and local authorities (Svenson et al, 1986:D39).

area are made through diplomatic channels. A spokesman for the Trade and Industry Minister Seppo Lindblom and other ministry spokesmen reject Swedish Energy Minister Dahl's alleged criticism of Finland's initial silence on the early radiation measurements. These officials claim that the levels measured on Sunday evening were low enough that notification of neighbors or other actions were deemed unwarranted (FBIS-WE, 860430:P1-P2).

The UK offers help and technical assistance to the USSR and requests information, via the British Ambassador in Moscow. British expertise may be useful due to the experience with a burning graphite reactor core at Windscale in 1957 (FBIS-WE, 860430:Q1). British authorities also issue a travel advisory (FBIS-WE, 860430:Q1).

The FRG's Chancellor Kohl, who is traveling in India, offers German assistance. During the morning, Federal Interior Minister Zimmerman meets with the Soviet Ambassador Kvitsinskiy in Bonn. Kvitsinskiy assures Zimmerman that the situation at Chernobyl is "under control"[33] and that there is no reason for the FRG to be concerned. The Soviet envoy promises to pass on the German offers of assistance to his superiors and to keep the German Government apprised of developments. To date, West German measurements have yet not detected unusual levels of radiation. Consultations between Soviet diplomats and German experts take place on power plant fire-fighting (FBIS-WE, 860430:J1).

Poland restricts milk sales and mandates iodine treatment for children (IAEA Bull., Autumn 1986:33).

IAEA Director General Hans Blix receives a cable from M. Petrosyants, the Chairman of the Soviet State Committee on the Utilization of Atomic Energy. Petrosyants briefs Blix, assuring him that "appropriate measures are being taken" to cope with the consequences of Chernobyl, that affected individuals are being cared for, and that a governmental commission of inquiry has been set up to investigate the accident. Blix responds with a cable expressing regret over the accident and offering the IAEA's assistance including the transmission of information. In addition Blix proposes sending an agency safety expert to Moscow for a briefing and arranging a meeting between Soviet representatives and safety experts from member countries (IAEA Bull., Summer 1986:62).

The Scandinavian and a number of other European countries begin "spontaneously" sending their radioactivity measurements to the IAEA. The agency takes on an unprecedented operational role as a central distribution center for measurement data and other information regarding the developing situation (IAEA Bull., Summer 1986:62).

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[33] In fact, what has come to be known as the "battle of Chernobyl" in the Soviet literature was still raging. See Medvedev (1990:41-72) for an account of that campaign. This inaccurate information would be bitterly resented by members of the W. German government.

Wednesday, April 30

Soviet Ambassador to Sweden Boris Pankin meets with Jan Eliasson, head of UD's political division during the morning, at Soviet request (Isberg, 1992:23)[34]. Pankin reports that the other three Chernobyl reactors have been shut down and that "the risk of fallout is greatly reduced"[35] (IHT, 860502). He submits that the initial Soviet silence was due to underestimation of the seriousness of the incident[36]. He also promises that any new information affecting the Swedish threat situation will be forthcoming (Dahl, 1986). The Soviet Ambassador requests that this information and assurance be passed on to Swedish Prime Minister Carlsson. Eliasson reminds Pankin of the Swedish request for technical information, emphasizing that this information would be extremely useful in calibrating the Swedish response to Chernobyl. Finally, Pankin reportedly[37] requests authorization to send burn victims to the Karolinska hospital for treatment, if necessary. Eliasson indicates that Sweden is willing to provide assistance and stresses that Sweden views this catastrophe as an international rather than a bilateral issue (Isberg, 1992:23).

This meeting, like the Bonn meeting the previous evening is apparently part of a broad-based Soviet diplomatic damage control effort. A similar morning meeting takes place in Vienna between Soviet Ambassador Efremov and Austrian Chancellor Sinowatz (FBIS-WE, 860501:E1). Later in the day, Soviet Ambassador Vorontsov France meets with French President Mitterand in Paris (FBIS-WE, 860501:K1). During the early evening, an hour-long meeting takes place in London between Soviet Ambassador Zamyatin and British Prime Minister Margaret Thatcher. Thatcher rebukes the Soviet envoy for his government's secrecy, pressing Zamyatin for more information. Thatcher offers full British cooperation and any necessary technical assistance. She sends a message to Gorbachev indicating that the degree of Soviet openness in providing information on the nuclear accident will be perceived as a test of the sincerity of his desire for a richer dialogue with the West. (FBIS-WE, 860501:Q1).

SSI now recommends that stagnant water supplies at summer cottages and similar locations not be used for drinking. This applies particularly to the eastern part of Sweden from Uppsala to Umeå. Tap water may be consumed as usual. Indications of increased levels of radiation in milk and mother's milk have been

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[34] A conflict between accounts appears here. According to a May 2 article in Svenska Dagbladet (FBIS-USSR suppl., 860508:N7) by W. Silberstein, the Pankin-Eliasson talks had been scheduled well in advance of the Chernobyl accident.

[35] Information from Swedish and US experts (based on satellite photographs) contradicts Pankin and indicates that the situation on the ground at Chernobyl is not yet under control (IHT, 860502).

[36] FBIS-USSR suppl., 860508:N7 (Dahl statement).

[37] Subsequent reports that a Swedish Foreign Ministry spokesman denied that any official request regarding the Karolinska hospital was made, seem to contradict this description. It is possible that an 'informal' inquiry was made during the Pankin-Eliasson meeting.

detected, but the levels are low enough that the institute does not recommend any special precautions (FBIS-WE, 860501:P4).

Livsmedelsverket (The National Food Administration) [LMV] issues a ban on food imports from countries which may have been affected by Chernobyl fallout. The ban covers potatoes, vegetables, and newly slaughtered meat from the USSR, Bulgaria, Poland, Hungary, Rumania, and Czechoslovakia (FBIS-WE, 860501:P4; NEA/OECD, 1987:177).

Energy Minister Dahl gives a detailed briefing on the Chernobyl disaster at a meeting of the Cabinet (FBIS-USSR suppl., 860508:N7). The topic of how to proceed with the USSR is discussed. A routine for emergency information sharing is established between the cabinet staff (regeringskansliet), the engaged Swedish government agencies, and the IAEA. This system would remain in place until May 11. SSI provides daily reports to the Ministry of Industry and/or the Ministry of Agriculture. Ministers Dahl and Carlsson (Defense) are to be continually briefed by staff. Dahl is delegated responsibility for briefing the Prime Minister (Isberg, 1992:23). In addition, comprehensive information will be provided to the Riksdag on May 12, when Dahl responds to Parliamentary questions on Chernobyl and Sweden's nuclear energy program (FBIS-USSR suppl., 860508:N7).

Measurements indicate radiation levels of up to 200 times the normal background rate in some parts of Finland; health authorities ban the drinking of rainwater in these areas. Vuorinen, the Director of the Finnish Institute of Radiation Protection, holds a press conference, where he states that the institute does not regard the accident as serious from a Finnish perspective. He also admits that monitoring efforts have been impeded by the civil servants strike and announces that 10 research assistants will be returning to work the following day in order to facilitate the effort. Vuorinen states his intention to share the Finnish data with other Nordic countries and with the IAEA (FBIS-WE, 860430:P2-P3).

Austria reports heightened levels of radiation in a number of regions (FBIS-WE, 860430:E1). The Austrian Health and Environmental Ministry assembles an expert group and begins issuing recommendations. The group warns against consumption of fresh vegetables, pasturing of cattle, use of children's sandboxes[38], and recommends measures for personal hygiene (Gray, 1991:71).

Elsewhere in Europe, the political reactions to Chernobyl mount. The West European Foreign and Defense Ministers criticize Soviet secrecy and demand complete information about the incident, as part of a two day West European Union (WEU) meeting: "…member countries have drawn the attention of the Soviet authorities to their duty to provide full information about the causes and

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[38] An initial recommendation by Austrian experts that children be kept indoors is later rescinded (FBIS-WE, 860430:E1).

consequences of the accident". This agenda item was initiated by West German Foreign Minister Genscher. Genscher publicly calls upon the USSR to shut down other reactors of the Chernobyl type "until the causes of the accident have been clarified". A Danish government spokesman publicly criticizes the Soviet Union for its reticence in disclosing the incident.[39] The Belgian Minister of External Relations, Leo Tindemans, calls for European nuclear power plant safety standards and a system to facilitate the exchange of nuclear safety information (FBIS-WE, 860430:J1). The WEU directs the EC to begin efforts to facilitate the evacuation of EC citizens who may be caught in the disaster zone in the USSR.

A number of European governments, including Finland, France, Austria, Italy and the UK, begin making preparations for special flights to evacuate their nationals from the disaster area in the USSR. On the initiative of the special committee on Chernobyl, the Finnish Foreign Ministry issues a travel advisory for parts of the Soviet Union and Eastern Europe (FBIS-WE, 860430:E1, P2-P3). The West German Foreign Ministry also issues an advisory for the Kiev region. In addition, heightened levels of radiation are also discovered in parts of the FRG, particularly in Bavaria. A meeting of the state Environment Ministers takes place near Wiesbaden in order to coordinate responses (FBIS-WE, 8600501:J1-2).[40]

Thursday, May 1
The Soviet Embassy requests a meeting with Swedish Foreign Ministry officials in Stockholm. The request is promptly granted. A senior Soviet diplomat meets with an official from the Ministry's Political Division, at UD headquarters. A general status report on the Chernobyl emergency is turned over to the Swedish representative. In contrast to the inquiries made two days previously, the Soviet diplomat assures his Swedish host that "the Soviet union has sufficient material, scientific and technical resources to handle the consequences of the breakdown"[41] (IHT, 860502). At present, no assistance from other countries is required. The Swedish diplomat reminds his host that the list of technical questions submitted several days before has still not been answered. He indicates that the general report now received cannot be regarded as a satisfactory response to that request (Isberg, 1992:23).

Interagency consultations take place on the issue of compensation to farmers adversely affected by SSI's restrictions on animal husbandry take place among officials from the Finance, Industry and Agriculture Ministries (Isberg, 1992:23).

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[39] These quotes are drawn from IHT (860502).

[40] See Czada (1991) for an account of the Chernobyl crisis management in the West German federal context.

[41] Sw. Foreign Ministry spokesman Ulf Håkansson provided the quote cited in IHT.

Swedish Prime Minister Ingvar Carlsson makes his first May Day speech as Prime Minister at Visby on the island of Gotland. A substantial portion of the speech focuses on the implications of Chernobyl. Carlsson calls for improved exchanges of information between countries with nuclear power programs. He points out that nuclear power programs must be run according to the strictest of safety standards and that operating countries must provide "…comprehensive information" to neighboring states in the event of an accident. He observes that the Soviet Union has not lived up to these standards in this case. Carlsson reiterates his commitment to phasing out nuclear power not later than 2010 (Carlsson, 1986a:25-26). Carlsson's advocacy of international cooperation to improve information sharing in the event of nuclear accidents is echoed by Foreign Minister Sten Andersson in his May Day speech (FBIS-USSR suppl., 860508:N8).

The Danish Institute of Food Hygiene bans food imports from the Soviet Union, Poland, Czechoslovakia, Rumania, Bulgaria, and Hungary. The ban is to cover cooking oil, wine, vegetables, fruit, spices, wheat, and candy. (IHT, 860502; FBIS-WE, 860502:P1).

Due to rising radiation levels during the day, measures are taken in a number of W. German states. Bans on the sale of fresh milk are put into effect as are restrictions on cattle grazing. In addition, the Federal Government Health Ministry bans the import of fresh food products from the USSR and Poland, unless the items have been specifically tested for radioactive contamination and are found to be within acceptable tolerances(FBIS-WE, 860502:J1) .

The Dutch Foreign Office issues travel advisories for parts of Poland and the USSR. The British authorities begin monitoring radiation levels in milk.

Friday, May 2
A telephone conference takes place between Minister Dahl, the SSI General Director, the SKI General Director, and their senior colleagues on safety measures for the protection of agriculture. The government agency representatives seek clarification of principles to be applied in making policy decisions. Should safety or economic cost be prioritized in the formulation of intervention measures? Dahl decides to consult with Prime Minister Carlsson before issuing such politically sensitive instructions. Dahl consults with the Prime Minister. Subsequently, she instructs agency chiefs that safety should be prioritized and that the specific decisions remain the responsibility of the agencies in question[42] (Dahl, 1987:251-252).

SSI issues recommendations on threshold levels for milk and other domestic

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[42] According to Isberg (1992:24), what he describes as "the exceptionally strict safety requirements mandated by the authorities" was linked to fears at that time that additional radioactive releases might be forthcoming from the stricken Chernobyl reactor.

food products based on the WHO/ICRP guidelines (SVD, 860514). In addition, SSI recommends dairy farmers to refrain from putting their milk cows out to pasture pending measurement and analysis. The recommendation covered the whole country, but not meat cattle or sheep (Reg. Skr. 1987/88:96:13).

The Norwegian King asks Gro Harlem Bruntland to form a government (FBIS-WE, 860505:P1).

The Italian Ambassador to the USSR meets with the Soviet Deputy Foreign Minister in Moscow, passing on a message from Italian Prime Minister Craxi to General Secretary Gorbachev offering technical assistance. The offer is politely declined; the situation at the Chernobyl site is once again described as under control. Back in Italy, the Italian Civil Protection Ministry issues a set of precautionary diet and food-handling recommendations. Fruit is to be thoroughly washed. Cattle should not be fed with fresh fodder. Vegetables are to be avoided. Children under ten years old should not be fed fresh milk; powder UHT milk prepared before May 2 are recommended instead. Furthermore, Health Minister Degan bans by decree the import of animals, animal products, and vegetables from the Ukraine. The import of animals and game from East European and Scandinavian countries is also prohibited. Government certificates stating that products were processed prior to April 30 will be required (FBIS-WE, 860505:L1-l2).[43]

The World Health Organization (WHO) schedules a meeting of radiation experts for Tuesday, May 6 in Copenhagen. The session will focus on medium to long term impacts of the Chernobyl nuclear releases in Europe (FBIS-WE, 860502:A1) .

Saturday, May 3
Swedish Energy Minister Dahl visits the inter-agency task force command center, led by SSI, in Haga Tingshus. She is briefed on the ongoing situation. The risks of further releases at Chernobyl which might affect Sweden are emphasized.

SKI formulates a number of additional technical inquiries regarding the unstable situation at Chernobyl. The queries are delivered directly to A. Petrosyants, Chairman of the Soviet State Committee on the Utilization of Atomic Energy and subsequently to the Foreign Ministry via the Swedish Embassy in Moscow. The embassy also briefs Swedish nationals on the Chernobyl situation, compensating for the relative information vacuum in the Soviet media (DN, 860507).

West German Foreign Minister Genscher calls for an early warning system for reactor accidents as a confidence-building measure in Europe in a Radio Free Berlin interview. He points out that the Chernobyl incident illustrates the extent to which states rely on one another for nuclear reactor safety; open and

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[43] See Libertore (1993) for a study of the Italian administrative response to Chernobyl.

comprehensive exchange of information is ultimately in the Soviet interest as well (FBIS-WE, 860505:J3). In addition the German government advises nationals to avoid contaminated areas of the USSR and Rumania. Government spokesman Norbert Schaefer states that the FRG has not yet received detailed information from the USSR regarding the accident. As a result, the Government has called on the Soviet Union to allow an international commission to inspect the stricken Chernobyl facility and report on the state of affairs there. Officials in Berlin seize a truck cargo of mildly contaminated milk from the GDR. Restrictions on cattle grazing and consumption of vegetables are added in some West German states (FBIS-WE, 860505:J1-J2).

Austrian Health Minister Kreuzer orders an import ban on dairy products, fruits and vegetables from the USSR, Hungary, Czechoslovakia, Poland, and Rumania (FBIS-USSR suppl., 860509:N1).

The World Health Organization (WHO) European office in Copenhagen begins an attempt to assemble Europe-wide data on radiation levels (DN, 860507).

Sunday, May 4

Livsmedelsverket (The National Food Administration) broadens the earlier ban on food imports from countries which may have been affected by Chernobyl fallout. The ban now covers potatoes, vegetables, fish and meat from the USSR, Bulgaria, Poland, Hungary, Rumania, and Czechoslovakia. Unlike the previous ban, this one covers products prepared prior to the accident as well. All shipments from these countries will be turned back at the ferries (FBIS-WE, 860505:P6).

Finnish radiation protection authorities recommend that rainwater not be consumed by people or animals, or used in saunas, in the Southern and Eastern parts of the country. Travel advisories remain in effect (FBIS-WE, 860505:P1).

Austrian Health Minister Kreuzer requests provincial Governors to prohibit feeding cattle with fresh fodder and rainwater. A variety of measures are taken at the provincial level (FBIS-USSR suppl., 860509:N1).

British Foreign Secretary Geoffrey Howe warns against exploiting the Chernobyl disaster for anti-Soviet propaganda purposes. Instead, the incident should be used as an argument for greater openness from the Soviet leadership (FBIS-USSR suppl., 860509:N10).

The Soviet Ambassador to the IAEA, Oleg Khlestov, officially invites agency Director General Hans Blix and one or two colleagues to visit the USSR for emergency consultations (IAEA Bulletin, Summer 1986:62).

Monday, May 5

An emergency meeting of the permanent representatives of the EC Countries takes place in Brussels to coordinate responses to the Chernobyl accident. The group directs the EC Commission to draw up a plan for the monitoring of food

imports from Eastern Europe and food trade among the EC states themselves[44]. A Dutch proposal for a common certification procedure including threshold radiation levels for imports is passed on to the Commission. A Commission spokesman notes the absence of a common policy and observes that national responses currently range from no special measures (UK, Portugal), to import certificates (Italy), to reinforced controls on East European imports (FRG) (FBIS-WE, 860506:U1).

IAEA Director General Blix and colleagues[45] arrive in Moscow for consultations with Soviet nuclear safety officials.

Tuesday, May 6

Ten tons of French anti-radiation paint are sent by air to the USSR for use in the Chernobyl clean-up effort. Arrangements are also made to send advanced West German remote controlled nuclear salvage vehicles to Chernobyl. (FBIS-USSR suppl., 860508:N4; 860509:N4).

Austrian Interior Minister Moritz calls on schools to refrain from sponsoring outdoor activities for the time being (FBIS-USSR suppl., 860509:N1). Health Minister Kreuzer instructs Provincial Governors to ban sales of vegetables grown outdoors and recommends that abstention from bathing in open air pools.

The IAEA delegation meets with high level Soviet officials in Moscow, including the Deputy Foreign Minister and the Deputy Minister of Health (IAEA Bulletin, Summer 1986:62).

The World Health Organization (WHO) assembles an expert brain trust for a day long meeting at the organization's Copenhagen headquarters. Participants include doctors, physicists, chemists, meteorologists, and psychiatrists from East and West. In attendance as a consultant to the organization is Bo Lindell, the former SSI chief[46]. The group concludes that the short term danger for Europe in general is over and the long term health risks are microscopic. Some minor local measures such as washing certain vegetables (frilandsgrönsaker) and avoiding consumption of milk and rainwater for some weeks forward may be advisable in some of the most contaminated areas. The expert group calls for coordinated international reaction after any future nuclear accident, through immediate information exchanges. (DN, 860507; FBIS-USSR suppl., 860508:N3).

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[44] According to Gray (1991:65), an attempt to was made by the EC Commission's emergency coordinator to organize a policy meeting immediately following the Swedish alarm on April 28. However, due to the holidays it proved impossible to assemble a qualified group of food contamination controllers, radiobiological experts, and trade specialists from all the member countries until May 5.

[45] These are Leonard Konstantinov, Deputy Director General for the Department of Nuclear Energy and Safety and Morris Rosen, Director of the Division of Nuclear Safety. See Petrosyants (1986) for a more detailed description of the IAEA visit.

[46] Lindell led one of the workshops at the November 1981 WHO (Brussels) conference on nuclear accidents and radiological protection (WHO, 1984).

The G-5[47] group economic summit takes place in Tokyo. The leaders of the largest Western economies discuss the Chernobyl disaster at the request of FRG Chancellor Helmut Kohl (FBIS-WE, 860515:J1). Kohl proposes an international safety conference to develop higher safety standards, safety checks, and an early-warning system (FBIS-WE, 860514:J1) (See also FBIS-USSR suppl., 860509:N3). Their deliberations result in a joint statement on Chernobyl which is included in the communique. The statement reiterates their commitment to safe nuclear power, building on the existing international safety regime, and commits member states to reporting and exchange of nuclear information. (IAEA Summer '86:63-64; FBIS-WE, 860506:Q1).

The Commission of the European Communities submits a proposal to the Council of Ministers suspending imports of a broad range of food products (including fruit and vegetables, milk and milk products, fresh meat, animals for slaughter, game and freshwater fish) from six East European countries until May 31 (Bull. EC 5/1986:9).

Wednesday, May 7

A number of decisions are taken by the Swedish Cabinet. The Energy board[48] is instructed to investigate the Chernobyl incident in order to examine the implications for the Swedish nuclear energy program. The Cabinet also creates a special scientific advisory group[49] to monitor and assist the investigation (Isberg ,1992:25; Dahl, KU 1986/87). The Cabinet calls for several international initiatives in the nuclear safety area. Improved information sharing and cooperation in coping with nuclear accidents are emphasized. The Swedish representatives to the IAEA are to be instructed to pursue these matters aggressively.

SKI receives recent satellite images[50] of the Chernobyl site. According to SKI analyst Lars Högberg, the images generate concern among experts that the Chernobyl 4 reactor may still be burning, which could endanger the adjacent Chernobyl 3 reactor (FBIS-USSR suppl., 860508:N7).

The Danish Parliament passes a resolution, submitted prior to Chernobyl by the Social Democrats, requesting the Danish Government to urge Sweden to

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[47] At this session the group is officially expanded to include Italy and Canada, transforming the G-5 into the G-7.

[48] The energy board is chaired by Minister Dahl and has representatives for the five riksdag parties, trade unions, industry, the research sector, municipalities (kommunerna), and and environmentalists. See KU 1986-7: 523 and prop 1986-87:18.

[49] This group is chaired by G. Svenson. Other members include Gunnar Bengtsson, Valfrid Paulsson, Hans Rode and a number of expert consultants and staff (including Lars Högberg). See Svenson et al (1986:1-2) for more detailed information..

[50] Apparently these images were taken by the French SPOT satellite (Dahl; Rikdsagen Statment May 12, 1986:6).

shut down the Barsebäck plant, as well as Greiswald in East Germany (FBIS-USSR suppl., 860508:N2) .

Austrian Prime Minister Gratz raises the issue of seeking compensation from the USSR in a television interview. He states that international lawyers in Austria, and in all of the affected states in Europe, are considering this matter. He draws lessons from Chernobyl, pointing out that the previous focus on transnational impacts with regard only to plants located near borders must be abandoned in light of the widespread Chernobyl contamination (FBIS-USSR suppl., 860508:N1).

West German Chancellor Helmut Kohl chairs a special cabinet meeting on the consequences of Chernobyl(FBIS-USSR suppl., 860509:N3). Interior Minister Zimmerman issues a public statement explaining the current situation and justifying the West German policy response. He suggests that the government's policy was based on two factors: 1) Continuing uncertainty due to the lack of comprehensive Soviet information and 2) the nuclear medicine principle of keeping radioactive exposure as low as possible (FBIS-USSR suppl., 860508:N5).

A number of developments occur in other European countries. In the Netherlands, a number of government coalition parties launch parliamentary initiatives to postpone a decision on the construction of new nuclear power plants pending an analysis of the Chernobyl accident (FBIS-WE, 860515:F1). Italian Prime Minister Craxi receives a communication from General Secretary Gorbachev, assuring him that Italy would be kept informed of progress made on the Chernobyl clean-up (FBIS-USSR suppl., 860508:N6). Jerzy Urban, a Polish Government spokesman, condemns the EC ban on imports from Eastern Europe. He asserts that Poland exhibits roughly similar levels of contamination as Sweden, according to the IAEA. Therefore, he concludes that maintaining bans on Polish products while allowing Swedish imports suggests political rather than health motivations on the EC's part (FBIS-USSR suppl., 860508:M6).

The IAEA Delegation meets with a number of Soviet officials including Deputy Prime Minister B. Shcherbina, the Chairman of the newly appointed Government Committee to investigate the Chernobyl accident, and the Minister of Energy. (IAEA Bulletin, Summer 1986:62).

Permanent representatives to the EC deliberate in Brussels over the EC Commission proposal to ban food product imports from Eastern Europe. There is significant disagreement over which countries to include[51]. The Commission, acting under its own authority, bans the importation of bovine livestock and fresh meat from seven countries with territories within a 1000 km radius of the accident site: Bulgaria, Czechoslovakia, Hungary, Poland, Rumania, the USSR, and Yugoslavia. The ban is to remain in effect until May 31 (Bull. EC 5/1986:9).

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[51] For details, see (FBIS-USSR suppl., 860508: N8.)

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Thursday, May 8

SSI reports falling levels of contamination in Sweden. Grass samples taken on the island of Gotland show markedly reduced levels of radiation (FBIS-USSR suppl., 860509:N8).

A Finnish Foreign Ministry statement denies allegations that Finland delayed in providing information regarding Chernobyl to other countries. Finnish measurements were released immediately following the Swedish disclosure of the heightened radiation levels detected there. However, the statement also observes the need for better communication in the future between Finland, the USSR, and the IAEA (FBIS-USSR suppl., 860509:N2).

In the UK, Parliament debates the proposed EEC ban on food imports from Eastern Europe(FBIS-USSR suppl., 860509:N9).

The IAEA delegation led by Hans Blix travels to Kiev with Soviet officials to view the city's reaction to the accident and to discuss the rescue work with involved practitioners.[52] Wearing protective clothing, the delegation flies by helicopter over the accident site at Chernobyl. They approach to within 800 meters of the plant, maintaining an altitude of 400 meters (IAEA Bulletin, Summer 1986:62).

The WHO regional office Europe, located in Geneva, issues a statement on the environmental and health effects of the accident outside the USSR (IAEA Bulletin, Summer 1986:62,64).

Friday, May 9[53]

The Swedish Center party calls for the immediate decommissioning of first the Ringhals 2 reactor, then the Barsebäck nuclear power plant, and a rapid and explicit timetable for total denuclearization. Deputy Chairman Olof Johansson holds a press conference and states: "We take the view that the accident in Chernobyl is such a serious incident that it justifies raising nuclear energy in the Riksdag."(FBIS-WE, 860514:P3)

A meeting of OECD country nuclear experts[54] takes place in Paris. The experts are summoned by the OECD Nuclear Energy Agency's Safety Committee. Sweden is represented by Lars Högberg from SKI. A key topic is

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[52] According to Petrosyants (1986:7) the on-site inspection was the result of a direct request by Blix. According to the same account, E. Velikhov (the Vice-President of the Soviet Academy of Sciences and a key advisor to Gorbachev on science & technical issues) was among the Soviets accompanying the IAEA delegation on its on-site inspection.

[53] According to Persson, Rodhe, & DeGeer's (1986) analysis, a second three day period of heavy deposition of contamination on Swedish territory begins. This deposition is due to meteorological conditions (wind and rain patterns) and the pattern of additional releases from the damaged Chernobyl reactor in the period following the initial explosion.

[54] Minister Dahl (1986:6) emphasizes the importance of trans-governmental expert consultations (such as the NEA/OECDmeeting) in assessing the risks of further Chernobyl releases in her May 12 briefing to the Riksdag.

concern about a possible additional accident in the Chernobyl 3 reactor, adjacent to the gravely damaged Chernobyl 4. (DN 860509). Swedish authorities continue seeking operational information via a number of channels, including the US Nuclear Regulatory Commission [NRC] and diplomatic pressure in Moscow. In addition SKI has contacted Satellitbild in Kiruna for possible photographic materials. (DN 860509)

Elsewhere in Europe individual governments continue to take measures to cope with the consequences of Chernobyl. France unilaterally bans food imports from seven East European countries, claiming that the EC is moving too slowly on this matter (FBIS-USSR suppl., 860512:N1). Italian authorities isolate several Soviet ships calling at Taranto due to an excessive degree of radioactive contamination (FBIS-USSR suppl., 860512:N6). Polish Government spokesman Jerzy Urban condemns the EC import bans as politically motivated, especially in light of rigorous checks carried out by Poland on export food (FBIS-USSR suppl., 860512:M1). Polish authorities report declining radiation levels (FBIS-USSR suppl., 860513:M2). Yugoslav spokesmen express similar sentiments (FBIS-USSR suppl., 860512:M4).

The Soviet Government issues a statement via TASS denouncing insinuations that Soviet export goods might be dangerously contaminated as "fabrications" and suggesting that Western import restrictions are unwarranted and contrary to fair trade practices (FBIS-USSR suppl., 860509:L5). Soviet representatives also seek technical expertise on tunnel construction in Austria, as part of the Chernobyl clean-up. This is interpreted as an indication that a serious core meltdown has occurred, causing the core to burn through the concrete foundations of the installation and sink into the earth and threatening the water table (FBIS-USSR suppl., 860513:N1-N2; Medvedev, 1990).

The IAEA delegation gives a press conferences in Moscow and in Vienna, reporting on its visit to the USSR. A joint USSR-IAEA communique and an IAEA summary account of the accident, its consequences, and remedial actions taken, are released. IAEA official Morris Rosen reports that releases from the damaged Chernobyl 4 reactor are now relatively low, suggesting that the situation is stabilizing (FBIS-USSR suppl., 860509:L1). IAEA Director General Hans Blix praises the quantity and quality of information on the Chernobyl disaster now being provided by the USSR (FBIS-USSR suppl., 860509:L2). The Soviets begin providing daily reports to the IAEA from a radiation measuring station 37 miles (60 km) from Chernobyl and from six other points on the Western border. (IHT 860510-11). The IAEA declares its willingness to forward these reports to radiation protection authorities in affected countries.

Saturday, May 10
SSI receives Europe-wide radiation measurement data from the British NRPB. (SVD, 860511). Torkel Bennerstedt, an SSI spokesman expresses surprise over

the low threshold values being applied in the EC in an interview with Dagens Nyheter. According to Bennerstedt, Sweden (like Norway and Finland) is applying the authoritative WHO guidelines which set a limit for iodine 131 in milk at 2000 bq./liter, while the EC is setting a much stricter limit of 500 bq./liter. Bennerstedt states that "We can not understand why they have such low limits" (author's translation) and suggests that the EC limits may be influenced by trade policy considerations (DN 860511:6).

The Danish OOA, an anti-nuclear group, calls for a meeting with Swedish Prime Minister Ingvar Carlsson during his scheduled visit to Denmark next week (DN860511:6).

Prime Minister Craxi of Italy, speaking in Genoa, calls for international cooperation to improve nuclear safety standards and emphasizes the obligation of states to inform their neighbors of nuclear accidents. He criticizes the USSR for not living up to this obligation (FBIS-WE, 860515:L2). Demonstrations against nuclear power in Rome draw an estimated hundred thousand participants (DN 860511:6).

The FRG refuses to agree to intra-EC trade limits of 1000 bq/kg for leafy vegetables[55] and 500 bq/liter for milk proposed by the Commission, claiming the limits were set too high. This necessitates a decision by the EC Foreign Ministers on the matter. Advanced W. German nuclear power plant salvage equipment, including three remote control manipulators (with track-laying vehicles) are flown to the USSR (FBIS-USSR suppl., 860512:N2-N3).

Sunday, May 11

The SSI analysis group deliberates over recent measurements of radioactivity in several regions of Sweden. They declare Stockholm county safe for cattle grazing (DN 860512)

The Danish Environmental Board announces that as of Monday, all Danish cattle may be put out to pasture for grazing (DN860512).

Monday, May 12

A heated debate on the Swedish government's response to the Chernobyl accident and the implications of the accident for the Swedish nuclear power program takes place in the Riksdag. Energy Minister Dahl responds to a number of parliamentary questions and briefs the Riksdag on the crisis management measures taken to date. She calls for international cooperation to work towards preventing nuclear accidents through international safety standards and information sharing. She focuses on an enhanced role for the IAEA as the centerpiece of a new international safety regime. Dahl stresses the importance

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[55] Bonn sought a limit of 350 bq/kg for all fruits and vegetables). Interestingly enough, Italy subsequently rejects the same proposal claiming the limits were set too <u>low</u> (FBIS-USSR suppl., 860512:N3-N6)

of agreements on early notification and assistance in the event of nuclear accidents (Dahl, 1986:6-12).

Opinions are divided as to interpretation of the implications of Chernobyl for the future of the Swedish nuclear power program. The Center party (e.g. Olof Johansson) and VPK (e.g. Lars Werner) push for immediate denuclearization, drawing the conclusion that nuclear power is inherently unsafe. The Liberal Party (e.g. Ingemar Eliasson) emphasizes the new appreciation for the growing technological/environmental interdependence which requires new levels of international cooperation. The Conservative Party (eg. Per Unckel) indicts the totalitarian Soviet society for its inefficiency and disregard for human life, rejecting the comparison with the allegedly technically superior and safer Swedish nuclear power program. The Social Democratic Government, represented by Dahl, adopts a compromise position emphasizing commitment to denuclearization. However, changes in the timetable will depend on the findings of the Energy Board's study. Other important points of controversy in the debate include the adequacy of the government's response, the future of the Barsebäck plant and the recent decision to conduct a major and costly renovation for the Ringhals 2 reactor.[56]

The SSI analysis group declares Sörmland fit for cattle grazing (DN 860513:6).

The West German Government issues a nation-wide "all clear", submitting that radiation readings all over the country now permit resumption of normal lifestyles (FBIS-USSR suppl., 860513:N2). Franz-Josef Strauss, the CDU/CSU Chairman in Bavaria, calls upon Chancellor Kohl to raise the reactor safety issue at the UN with an eye to making operating states liable for damage caused beyond state borders (FBIS-WE, 860514:J1).

The EC Council of Ministers adopt the Commission May 6 proposal banning food imports from Eastern Europe.[57] The Commission also proposed to the Member States a recommendation setting out tolerances to be observed in intra-community trade in the most sensitive products. In addition, the Commission called upon the Members States not to export food products which they would not permit to be sold in their home markets and to acknowledge eachother's monitoring activities.

The EC Member States are unable to agree on common tolerance limits. However, they do adopt the following statement:

> Until such time as agreed values based on available scientific data have been defined, the Member States undertake not to apply to agricultural

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[56] See Rikdags Prot. 1985/86:137 for transcripts of the debate.

[57] In fact, the Council broadens the categories of food covered by the Commission's proposed ban and adds Yugoslavia to the list of affected countries (Bull. EC 5/1986:9)

products and foodstuffs coming from other states maximum permitted levels which are more restrictive than those applied in the case of national products (Bull. EC 5/1986:9).

The EC Member States agree to provide measurement data and reports on public health measures taken to the Commission, in keeping with provisions of the EURATOM treaty (Gray, 1991:65). The Commission is directed to "supplement basic standards for public health protection, and also to propose to the Council a procedure for dealing with similar emergencies in the future" (Bull. EC 5/1986:9). The EC also issues a common travel advisory for several East European countries and parts of the USSR (FBIS-USSR suppl., 860513:N1).

IAEA Director General Hans Blix briefs the IAEA board of Governors and all of the national missions on his delegation's visit to the USSR (IAEA Bulletin, Summer 1986:63).

Tuesday, May 13
Austrian Foreign Minister Leopold Gratz begins a two day visit to Sweden which will include meetings with Foreign Minister Sten Andersson and Foreign Trade Minister Mats Hellström (FBIS-WE, 860514:E1). Gratz calls for international cooperation in order to promote nuclear safety and information exchange in the event of nuclear accidents. He suggests two possible approaches: under the auspices of the IAEA or through enhancement of the European agreement on transboundary air pollution (FBIS-USSR suppl., 860515:N5).

The Swedish Ambassador to the USSR, Torsten Örn, attends an information session on Chernobyl for Western ambassadors in Moscow. The ambassadors receive a briefing on the state of the rescue work on site and the levels of radioactive contamination in the western border areas of the Soviet Union. Örn meets with Boris Scherbina, Chairman of the Soviet Government Commission into the Chernobyl accident and other Soviet technical experts. Örn reminds his Soviet hosts that the Swedish technical questions submitted more than two weeks ago remain unanswered. No response is forthcoming on that issue (Isberg, 1992:24; DN 860515:6).

Swedish LMV expresses its willingness to reduce the Swedish tolerance limits for radiation in foodstuffs,[58] in order to bring Swedish exports into conformity with the stricter limits recommended by the EC Commission. This policy change was in response to a request by the EC Commission (delivered to the Swedish Foreign Ministry Trade division and processed by SSI and LMV the previous week) that Sweden follow the EC's reduced threshold values in order to avoid monitoring problems with food exports from EFTA to the EC

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[58] Swedish foodstuffs had been allowed a maximum of 2000 bq/kg for radioactive iodine while a limit of 500 bcq/kg was recommended by the EC Commission. For a comprehensive overview of measures taken and intervention levels in the OECD countries, see NEA/OECD (1989: 80-97).

(SVD, 860514). The higher Swedish limits had already resulted in an Italian ban on meat and hard bread imports from Sweden (FBIS-USSR suppl., 860515:N5). LMV announces an increased level of checks on imported food following discovery of unexpectedly high contamination in Italian vegetables (DN860514:6; SVD 860514).

SSI announces that it has, for the first time since the Chernobyl accident, detected plutonium in rainwater samples collected at Forsmark (FBIS-USSR suppl., 860515:N5). The quantities are said to be so low as to be relatively insignificant from a policy perspective.

Prime Minister Ingvar Carlsson makes a statement rejecting the idea of holding a new referendum on nuclear power (DN 860514:6).

The Finnish Ministry of Agriculture and Forestry recommends that cattle be kept in and prevented from grazing until May 26 (FBIS-USSR suppl., 860515:N2).

W. German Chancellor Kohl declares his intention to launch an initiative for international nuclear safety standards in the UN General Assembly and to send a letter to General Secretary Gorbachev urging Soviet cooperation in this area (FBIS-USSR suppl., 860513:N3). Federal Economics Minister Martin Bangemann estimates that Chernobyl will cause a billion DM marks in damages to German farmers. In Hamburg, circa 15,000 persons demonstrate against nuclear power. Violent incidents take place (FBIS-WE, 860514:J1-J2).

The permanent mission of the USSR to the IAEA submits an accident status report to the agency's headquarters in Vienna (IAEA Bulletin, Summer 1986:63)

Wednesday May 14
Prime Minister Ingvar Carlsson meets with Danish Prime Minister Schluter in Copenhagen. Carlsson makes a surprise announcement that a commission will investigate the possible closing of the controversial Swedish Barsebäck[59] nuclear facility, taking into account the economic and environmental impacts. The results of the study, to be conducted by the Energy Board, are expected by the end of the year. Schluter expressed satisfaction with this study and his preference that the plant be shut down, as two million Danes live in close proximity to the plant. Schluter distanceshimself from the majority in his own Parliament, which is calling for the immediate decommissioning of the plant. Schluter concedes that this must be a Swedish decision (FBIS-WE, 860514:P1). The leaders agree that international efforts are needed to develop the best possible safety standards and to create a system for warning and information exchange in the event of nuclear accidents. The leaders also discuss the prospects for a Nordic Nuclear-Free Zone and a bridge over the Öresund (FBIS-WE, 860521:P1).

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[59] During a joint press conference in Copenhagen, the lights briefly went out. Allegedly, Ingvar Carlsson quipped that he hoped the blackout was not caused by a failure at Barsebäck (FBIS-WE, 860521:P1).

Mikhail Gorbachev makes a 26 minute television speech to the Soviet people concerning nuclear safety and the lessons of Chernobyl. He calls for creation of an international cooperative regime for nuclear safety led by the IAEA and including enhanced roles for the WHO and UNEP. He targets improved early warning and emergency mutual assistance in the event of nuclear accidents as a particularly vital area, suggesting that an international IAEA conference would be an appropriate forum for discussing these matters. Gorbachev says that the USSR is prepared to support and participate in such initiatives.[60] Gorbachev criticizes Western reactions to the accident as immoral and motivated by anti-Sovietism.

FRG Chancellor Kohl describes the implications of Chernobyl on German nuclear policy in a speech delivered in Bonn, rejecting the notion of a unilateral W. German denuclearization: "It is not now a matter of the German exit from nuclear energy, but the entry into a new stage of internationally binding safety norms" (FBIS-WE, 860514:J1). He argues that shut down of the particularly safe W. German plants would be absurd as long as the country is surrounded by less safe reactors run by nations committed to nuclear power. Kohl contends that the crucial task is to bring the less safe facilities up to international standards. The German Greens call for immediate denuclearization. The Social Democrats want an inquiry and phased withdrawal from nuclear pwer. Kolhl's line wins support in a Bundestag resolution (FBIS-WE, 860515:J1-J8). Chancellor Kohl sends letters to thirty-one state and government heads, as well as to the IAEA and the EC, declaring the FRG's willingness to host an international conference on nuclear reactor safety (FBIS-WE, 860527:J1). FRG-GDR talks take place on nuclear power information exchange (FBIS-WE, 860515:J8).

An allegedly minor leak is detected at the Italian Caorso nuclear power plant near Rome. The plant is shut down for a ten day period for repairs (FBIS-WE, 860515:L4).

The IAEA issues a statement on the status of the Chernobyl plant based on a report received from the Soviet permanent mission to the agency the previous day. According to the Soviets, radiation releases from the plant have "sharply diminished." Efforts are in progress to "… eliminate the consequences of the accident through additional consolidation of the reactor's foundation, cooling the reactor, encasing it concrete, and decontamination of territory, buildings, and facilities at the power station and in nearby areas..." (IAEA Bulletin, Summer 1986:63).

Thursday, May 15
A Swedish Foreign Ministry Legal Department working paper on the legal grounds for Swedish demands for compensation from the USSR for damages

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[60] Gorbachev's statement is quoted extensively in the IAEA Bulletin (Summer, 1986:62-63).

caused by Chernobyl is completed. The paper finds that it will be difficult to claim compensation on the basis of either of the two international conventions on nuclear liability as the USSR is party to neither one. There are some grounds for a suit based on principles of international customary law enunciated in other international instruments and declarations. However, they point out that such a suit could lead to a precedent which might serve to increase Swedish liability in the event of an accident at a Swedish facility with transboundary consequences, such as at Barsebäck.[61]

The Swedish Ambassador in Moscow, Torsten Örn, reminds the Soviets once again that the Swedish technical questions still have not been satisfactorily answered(Isberg, 1992:24).

Finnish President Mauno Koivisto rejects alleged criticism by Swedish Energy Minister Dahl of Finland's failure to respond swiftly to Chernobyl fallout (especially the failure to communicate initial findings to neighboring countries). Koivisto claims that new information suggests that the increased radioactivity actually reached Sweden first. Koivisto cites this as an example of a pattern of Swedish paternalism and condescension toward Finland (FBIS-WE, 860515:P1).

Swedish Energy Minister Dahl responds in a conciliatory fashion to Finnish President Koivisto's criticism of Swedish behavior and attitude exhibited in the post-Chernobyl period, suggesting that the matter is in fact a "tempest in a teapot". Dahl claims that despite unverified reports that Finland detected the radiation prior to Sweden, she consistently refrained from commenting on that matter. She suggests that the press had been "persecuting her" in a vain attempt to elicit such a comment. She declines to respond to Koivisto's allegation of Swedish paternalism and condescension: "We have very good cooperation at both civil servant and government level, and I have not acted in any way that could be taken as criticism of Finland." (FBIS-WE, 860521:P3)

SSI General Director Gunnar Bengtsson confirms reports of findings of radioactive contamination up to ten thousand times the normal background rate in the Gävle area. He submits that there is no cause for alarm, comparing the levels to those experienced in x-ray examinations or as a result of exposure to some types of building materials (FBIS-WE, 860516:P2).

The Swedish Lantbruksstyrelsen [The National Farm Board] organizes a working group ('radiakgruppen') to consider the issue of compensation to farmers suffering economic losses or extra costs as a result of the Chernobyl accident. The group includes representatives of Lantbruksstyrelsen, local agricultural authorities, and the national farmer's and dairy associations (Reg. Skr. 1987/88:96:14).

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[61] See Bring and Ahlstrand (1986). Foreign Ministry international law counsel Bo Johnson Theutenberg draws similar conclusions in a DN interview (860515:7). For a compendium of legal documents and analysis bearing on this and related issues, see Sands (1988).

The Finnish government directs senior officials to study information and coordination issues in crisis situations, in order to learn from the Chernobyl experience (FBIS-WE, 860515:P2) .

In a speech before the Nationalrat [Parliament] Austrian Chancellor Sinowatz confirms Austria's intention to seek compensation from the USSR under international law, suggesting that the Soviets had not exercised due care in their management of their nuclear power program. However, he concedes that the chances of success are not high; due to the underdevelopment of international law in this area. He also calls for an "international convention on mutual information and coordination of security measures" for nuclear accidents. In addition, he raises the possibility of negotiating with the FRG in an attempt to cancel the planned Wackersdorf recycling plant. On the domestic front, Sinowatz announces that the mothballed Zwetendorf nuclear power plant will be dismantled by year's end (FBIS-USSR suppl., 860515:N5). Foreign Minister Gratz calls for a Comprehensive Test Ban treaty, in an address delivered in Vienna. Once again he criticizes Soviet secrecy concerning Chernobyl (FBIS-WE, 860515:U1).

Greek Prime Minister Papandreou publicly criticizes the initial Soviet silence on Chernobyl, the lack of knowledge about how to cope with nuclear accidents, and suggests that the incident illustrates how catastrophic a nuclear conflict is likely to be. He calls for Greek participation in international efforts to deal with the risks of nuclear weapons and nuclear power (FBIS-WE, 860515:S1).

The IAEA announces a series of "urgent meetings" to be held over the next six weeks to consider immediate implications of Chernobyl.

A special meeting of the European Parliament's Committee on Energy, Research, and Technology takes up the implications of Chernobyl. The meeting is attended by several Commission members as well as many members of the Committee on the Environment. Three broad lines of opinion emerge on nuclear energy. Center-Right groups argue for improvement of safety measures, focusing their criticism on the USSR. Socialist and Communist groups pushed for a progressive reduction of reliance on nuclear power. The Rainbow Group advocated immediate shut down of nuclear stations and the development of alternative energy sources.

Following the committee meeting, an emergency debate in the European Parliament is devoted exclusively to addressing the implications of the Chernobyl disaster. Twelve motions for resolutions are presented; two are approved.[62] The resolutions condemn the Soviet behavior in the early phase of the disaster, call for increased international cooperation in the nuclear safety area, and demand

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[62] For the texts of the "Resolution on Chernobyl" and the "Resolution on the adverse repercussions of the Chernobyl nuclear disaster on the agricultural sector", see the *Bulletin of the European Communities* (5-1986:12)

compensation from the USSR for damages suffered as a result of Chernobyl. The Committee on Energy, Research, and Technology announces the intention of holding a special session on nuclear energy in late 1986 or early 1987.

In an unusually rapid dissemination of scientific findings, Swedish scientists publish the first article on the Chernobyl radioactive releases in the prestigious *Nature*[63] journal.

Friday, May 16

SSI (Jan-Christer-Lindhe) reports that local contamination in Norra Uppland, Gästrikland, and southern coastal areas in Norrland is more serious than had previously been thought. All food products produced in these areas should be checked before being passed on to consumers(FBIS-WE, 860519:P3). SSI recommends that the threshold value for milk be set at 300 bq./kg (Reg. Skr. 1987/88:96:14).

Soviet Foreign Ministry spokesman Vladimir B. Lomeiko declares that the USSR will not pay compensation to West European farmers for radiation which may have reached their property (IHT 860517_18).

A dispute arises between W. German Interior Minister Zimmerman and Soviet Ambassador Kvitsinksiy. The Soviet envoy allegedly referred to an early statement by Zimmerman suggesting that there was no immediate danger to West German residents due to Chernobyl as an argument against German claims for compensation for Chernobyl damages. Over the next few days, the dispute results in the exchange of a series of official communications and German allegations that Kvitsinksiy lied when he reported on April 29 that the situation at Chernobyl was "under control" (FBIS-WE., 860520:J2-J3).

Sunday, May 18

SSI announces that restrictions on dairy cattle grazing will remain in place in a number of provinces (including Gästrikland, Hälsingland, Västmanland, and Uppland) (FBIS-WE, 860519:P2).

West German Chancellor Kohl criticizes Gorbachev's attacks on the reactions of Western states to Chernobyl in his May 14 speech, suggesting that a focus on how the USSR intends to compensate states suffering damages would have been more appropriate. Rioting occurs at the Wackersdorf nuclear facility, resulting in injuries to more than a hundred policemen (FBIS-WE., 860519:J1-2) and even larger numbers of demonstrators.

Tuesday, May 20

West German Chancellor Kohl discusses the Chernobyl incident in an official meeting with Soviet Ambassador Kvitsinskiy (FBIS-WE, 860522:J1). Economics

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[63] See Devell et. al (1986).

Minister Bangemann publicly rejects the Soviet negative reaction to German claims for compensation as inappropriate. He expresses the opinion that the Federal Government should continue to press its claim (FBIS-WE, 860520:J4).

French officials announce that radiation levels have returned to the range of pre-Chernobyl values for the whole of France. In an unrelated incident, five workers at the COGEMA nuclear processing plant at La Hague are seriously contaminated due to an accident (FBIS-WE, 860521:K1).

The IAEA convenes a meeting of "allied" functional organizations with responsibilities in the field of health and environmental protection, including WHO, UNEP, UNCSEAR (The United Nations Scientific Committee on the Effects of Atomic Radiation). The group has access to IAEA and WHO compiled measurements of the radiation releases associated with Chernobyl. They agree to cooperate on a post-accident radiological impact study (IAEA Bulletin, Summer 1986:63).

Wednesday, May 21

The FRG Cabinet announces an initial allocation of 200 million DM for an emergency fund to aid farmers and truck farmers with income losses due to Chernobyl (FBIS-WE, 860523:J1). French President Mitterand and FRG Foreign Minister Genscher meet in Paris to discuss the post-Chernobyl era. The two agree that intensified East-West cooperation must be a high priority (FBIS-WE, 860522:K1).

A special session of the IAEA Board of Governors on nuclear safety and the implications of Chernobyl, convened at the request of the Federal Republic of Germany, opens. The Board adopts policy goals in four areas, to be implemented under the oversight of Director General Blix:

1) To convene an international post-accident review meeting including a broad range of expert participants within three months.

2) To establish representative groups of governmental experts to draft "on an urgent basis" two international agreements. The first should commit parties to early notification and comprehensive information about about nuclear accidents with possible transboundary effects. The second would obligate parties to coordinate emergency response and assistance activities in the event of a potentially transboundary nuclear accident. The point of departure for these treaties should be the existing IAEA guidelines.

3) To constitute a long term expert working group to develop measures to enhance nuclear safety cooperation.

4) To convene rapidly a conference of governmental representatives to consider a broad range of nuclear safety policy issues (IAEA Bulletin, Summer 1986:61).

In addition the IAEA International Nuclear Safety Group is asked to prepare a report, including recommendations for further strengthening the IAEA's nuclear safety program, to be presented to the Board at the scheduled Sept. 22 meeting (*IAEA Bulletin*, Autumn 1986:63).

The Finnish Ambassador to the IAEA calls for a comprehensive investigation into all aspects of coping with the Chernobyl accident and for international measures to create a warning system to detect future nuclear accidents (FBIS-WE, 860528:A1)

Thursday, May 22
Swedish authorities including SSI, the Farming Board, and the National Farmers Union recommend that farmers in several heavily affected areas (Gävleborg, Uppsala, and Västmanland) cut hay and grazing grass and bury it due to high levels of cesium isotopes. The Agricultural Ministry recommends that farmers dump milk from 25,000 cows (FBIS-WE, 860523:P1; 860527:P2).

The cabinet directs a special state secretary group to take over coordination of the measures to be taken as a result of fallout over Sweden. The group is chaired by a representative of the cabinet staff (statsrådsberedningen) and includes state secretaries from the Ministries of Agriculture, Industry, and Interior (civildepartementet) (Dahl, 1987:252; Isberg, 1992:25).

Friday, May 23
In an interview published in the Finnish *Hufvudstadsbladet* newspaper, Swedish Foreign Minister Sten Andersson suggests that the Finnish irritation with Swedish statements and attitudes expressed by President Koivisto is probably the result of misunderstandings. According to Andersson, the Swedes are prepared to do their utmost to clear up these matters. He stresses that the Swedish political leadership does not look down on Finland and that he personally respects President Koivisto (FBIS-WE, 860527:P2).

The Danish Folketing [Parliament] formally demands the closing of the Swedish Barsebäck nuclear power facility (FBIS-WE, 860527:P1).

The EC Commission presents a proposal,on measures to apply upon the (May 31) expiration of the emergency rules imposed on May 12 banning imports of fresh agricultural products from seven East European Countries, to the Council of Ministers . Under the Commission's plan, the 12 EC countries would make random checks of all food imports in order to screen for Chernobyl contamination until May 31, 1987, lifting the blanket ban on East European imports (FBIS-WE, 860529:U1).

Monday, May 26
At a meeting of the sixth CSCE inter-parliamentary conference in Bonn, FRG Chancellor Helmut Kohl argues that the Chernobyl experience demands a

substantial improvement in international information and notification practices. Kohl states that the FRG is ready for unlimited cooperation in the sphere of nuclear technology (FBIS-WE, 860530:J2).

Tuesday, May 27
Following a meeting of Utrikesnämnden (the Advisory Council for Foreign Affairs), Swedish Foreign Minister Sten Andersson announces that Sweden will not be able to seek compensation from the USSR for Chernobyl damages by referring to international agreements. He submits that in the future it will be necessary to look to international conventions and regulations in order to settle demands for compensation in the event of radioactive fallout (FBIS-WE, 860528:P2).

Norwegian Prime Minister Gro Harlem Bruntland calls for a reevaluation of national sovereignty in light of the Chernobyl nuclear accident, during a speech to the UN commission she chairs:

Chernobyl could have happened anywhere, and it has shown in the most dramatic fashion how the world is a global village. Has any country the right to use a technology that exposes its neighbours to risks, even if the likelihood of an accident is slight? (FBIS-WE, 860528:A1)

May 29
The Swedish Cabinet directs an inter-agency group led by the director of the Nature Conservation Agency (naturvårdsverket) to manage coordination of post-Chernobyl policy at the agency level (Isberg, 1992:25). The Cabinet also decides to make a preliminary allocation of twenty-five million crowns to be made available to the National Agricultural Board (Lantbrukstyrelsen) for advance payments to farmers and garden enterprises suffering damages from Chernobyl, pending calculation of final settlements (Reg. Skr. 1987/88:96:14).

Heightened levels of radiation are detected on workers conducting repairs at the Oskarshamn nuclear power plant. The source of the radiation is known (FBIS-WE, 860529:P2).

West German Interior Minister Zimmerman meets with IAEA Director Hans Blix in order to coordinate the German-sponsored international ministerial level meeting on nuclear safety lessons from Chernobyl. The conference is scheduled to be held in Vienna in September in conjunction with the IAEA annual conference (FBIS-WE, 860530:E1).

The IAEA INSAG[64] group begins a two-day working session to review the early Chernobyl data and issue-specific working papers (IAEA Bulletin, Summer 1986:63).

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[64] International Nuclear Safety Advisory Group.

May 30

Lantbruksstyrelsen places announcements in Swedish local newspapers informing farmers and others of the availability of advance compensation payments. Applications are to be made via county agricultural boards (lantbruksnämnderna)(Reg. Skr. 1987/88:96:14).

The EC Council of Ministers adopts the May 23 Commission Proposal with some modifications[65]. The ban on imports is replaced by a check on imports on the basis of maximum permitted levels[66]. The new regulations are broader than their predecessors, applying to all fresh and processed agricultural products and to all non-member countries. They are to remain in effect until September 30, 1986. The Council establishes a principle of parallelism between the tolerances adopted for imports and the those for domestic production. The Council confirms its directive to the Commission to mandating the development of common standards for radioactivity in foodstuffs.

Epilogue

Feverish activity continues at all levels during the summer and fall of 1986. While it is beyond the scope of this narrative to describe these activities fully, some highlights are presented below.[67]

Sweden: On June 6, modifications in the legal framework allocating responsibility for coping with nuclear emergencies are adopted by the Riksdag[68]. By June 25, cows are permitted to graze freely all over Sweden (Jensen & Lindhe, 1986:31). Further changes are made in the directives for SSI, in conjunction with the establishment of the National Rescue Authority [Statens Räddningsverk; SRV] (Steen et al, 1987:67). During the month of July, Statens Räddningsverk (SRV) is formally created[69]. SSI submits suggestions for studies and preparedness measures at the July meeting of the Energy Board. These are adopted by the board and passed on the the cabinet for action. (KU 1986-7:525) (see also prop 1986-7:18).

Ingvar Carlsson makes a major foreign policy speech emphasizing Chernobyl on August 1 (Carlsson, 1986b). SSI's Jan-Olof Snihs represents Sweden at a

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[65] The Council changed the radioactivity levels and the expiration date proposed by the Commission (Bull. EC 5/1986:10).

[66] "The accumulated maximum radioactivity due to caesium-134 and -137 must not exceed 370 becquerels/kg for milk and food preparations for infants and 600 becquerels/kg for all other products concerned." (Bull. EC 5/1986:10)

[67] For overviews of the international scene in the period following Chernobyl, see Ramberg (1986) and Barkenbus (1987)

[68] See *Förordningen med instruktion för SRV* (1986:424).

[69] See Prop (1984/85:161) *Angående inrättande av räddningsverket* and Steen et al (1987:67).

meeting of the OECD Nuclear Energy Agency taking place during September 1-2 (OECD/NEA, 1987:179, 183). On September 18, the Swedish Cabinet decides in principle to sign the draft IAEA conventions on mutual aid and information sharing in the event of nuclear accidents. Sweden signs the *Early Notification* Convention[70] on September 26 at the special session of the IAEA General Conference (see below) and expresses the intention to abide by the agreement on an interim basis. Sweden also signs the *Mutual Assistance* Convention at the same time and place (Swedish Foreign Ministry, 1990a:339).

On October 9, a *Coordination and Cooperation Agreement* is made for allocation of responsibility between SKI, SSI, and SRV. A transition period of up to two years is mandated, after which prime coordination responsibility will rest with SRV. SSI will retain the responsibility for organizing an analysis group for measurement data, consequence assessments, and in conjunction with SSI, provide an advisory function in the case of accidents at Swedish nuclear power plants.[71] Bilateral agreements with Norway and Denmark on the exchange of information and warnings regarding nuclear plants are signed in Oslo on October 21 (Swedish Foreign Ministry, 1990:339).

A Cabinet decision is taken in November to develop an information handbook designed for the use of government agencies engaged in coping with radiological accidents. SRV is assigned coordinating responsiblity while SSI, and SKI are to provide technical expertise (Steen, et al., 1986:22-23). The planned deadline for completion is by the beginning of 1988. In December, the Riksdag adopts a package of measures in response to Chernobyl including improvements in readiness, measures to mitigate the consequences of the radioactive fallout, and international measures (Reg. Skr. 1987/88:96:3).

EC: On June 16, The EC Commission submits an outline communication to the Council of Ministers on the consequences of the incident. The document notes that the Chernobyl accident highlights the need for international action to cope with nuclear emergencies and the possibility that such accidents may result in transboundary consequences. The Commission proposes to the Council "a set of new measures which would take account of the European dimension of nuclear developments, helping the Community to minimize the risks associated with nuclear power and enabling it to react quickly in an emergency" (Bull. E.C. 6-1986:79). The communication covers five areas: health protection, intrinsic and operating safety, emergency procedures, international action and research. Included are endorsements of the two emerging IAEA conventions.

The European Council of Ministers meets in the Hague, June 26- 27 and

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[70] The convention is ratified by the Swedish Government on January 29, 1987 (Swedish Foreign Ministry, 1990b: 339).

[71] For more detail, see Steen et al. (1987:13,40)

adopts conclusions on the consequences of Chernobyl. The Council calls for efforts to improve coordination at both within the Community and at the international level(Bull. E.C. 6-1986:79). The European Parliament adopts four resolutions on September 11, concerning the Cattenom nuclear power station, the consequences of the Chernobyl reactor accident, and post-accident health measures (Bull. E.C. 9-1986:64).

On September 30, the EC Council of Ministers extends the May 30 regulations restricting imports of agricultural products originating in non-member countries until February 28, 1987. On October 19, The European Parliament adopts a resolution calling for a European conference on nuclear safety and the coordination of the peaceful uses of nuclear energy. The EC Commission issues a formal opinion under Article 37 of the EURATOM treaty concerning the French Cattenom nuclear power station, located in proximity to the territory of the FRG and Luxembourg on October 22. The European Parliament adopts two resolutions on October 23 concerning the sinking of a Soviet nuclear submarine off the coast of the USA and the risk of the radioactive contamination of the oceans (Bull. E.C. 10-1986:57).

The EC Commission submits a report on the Chernobyl nuclear accident and its consequences in the framework of the EC to the Council of Ministers and the European Parliament on November 12. The report supplements the outline communication submitted in June. Among other conclusions, the report finds that no nuclear power plants now operating within the jurisdiction of the Community are likely to be as unstable as the Soviet RBMK reactors (Bull. E.C. 10-1986:57). On November 24, the EC Council of Ministers discusses the environmental implications of nuclear safety.

IAEA[72]: The IAEA Board of Governors convenes a meeting of government experts, attended by 286 participants from 62 member states and 10 international organizations, which meets from July 21 to August 15. The group works on drafting two proposed international conventions: *The Convention on the Early Notification of a Nuclear Accident* and *The Convention on Emergency Assistance in the Case of a Nuclear Accident or Radiological Emergency*. The conventions are based on existing IAEA guidelines for notification and mutual assistance in the event of nuclear accidents. On August 14, the USSR submits an extensive (70pps.) post-accident report to IAEA (SVD 860815). From August 25-29, the IAEA convenes an international post-accident review meeting on Chernobyl. The meeting is attended by over 600 technical experts from 62 countries and 21 national and international organizations.

From September 24-26, a special session of the IAEA General Conference

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[72] Except where otherwise noted, this information is drawn from a chronology published in the IAEA Bulletin (Winter 1986: 42-43).

meets to discuss measures related to nuclear safety and radiological protection. 693 delegates attend, including ministers of energy, industry, or environment from more than 20 countries. The two IAEA conventions are opened for signature on the final day of the meeting and are unanimously adopted by the delegates. The regular session of the IAEA General Conference is convened from September 29- October 3. An expanded nuclear safety program for the agency is adopted. An Expert Working Group meeting on nuclear safety takes place from November 3-7. The group reviews agency programs in nuclear safety and outlines priorities for international cooperation in this area. The IAEA Board of Governors meets on December 8 to approve nuclear safety programs for 1987 and to begin planning for subsequent years.

Appendix B
CM Europe Case Bank

Crisis Management in Sweden: Theory and Practice

Sundelius, B., Stern, E. and Bynander, F. (Eds.). (1997). Krishantering på Svenska: Teori och Praktik. Stockholm: Nerenius & Santérus Förlag AB.

Bengt Sundelius and Eric Stern	The Whisky on the Rocks Crisis, 1981
Eric Stern	The Chernobyl Fallout Crisis, 1986
Bengt Sundelius Eric Stern Fredrik Bynander	The Currency Crisis of 1992

CRiSMART Research Analysts

Dan Hansén	The Palme Murder 1986
Lina Svedin	Red River Flood: Canada 1997
Lindy Newlove Eric Stern Lina Svedin	The Auckland Power Outage: New Zealand 1998
Ahn-za Hagström	The Gothenburg Dance Hall Fire
Jesper Grönvall	The EU Commission and the Mad Cow Crisis: 1996
Annika Brändström	The JAS Fighter Plane Crash: Sweden 1993
Susann Ullberg	The Boliden Dam Accident: Spain 1998

Group I: Sweden

Stern, E. and Bynander, F. (Eds.). (1998). Crisis and Internationalization: Eight Crises Studied from a Cognitive Institutional Perspective. Volume 2. Stockholm: The Swedish Agency for Civil Emergency Planning.

Fredrik Bynander	Submarine Hunt: Sweden 1982
Jesper Grönvall	Mad Cow Crisis:1996

Annelies Hasper	Estonia Ferry Accident:1994
Fredrik Lindvall	Operation Weserübering: 1940
Ulrika Löfgren	Swedish Hostage Cases: 1987, 1992, 1994
Anna Sundberg	Terror Bombings, France, 1995
Lina Svedin	Nordic MC Wars: 1994-97
Susann Ullberg	Lima Crisis: 1997

Group II: Estonia

Stern, E. and Nohrstedt, D. (Eds.). (1999) Crisis Management in Estonia: Case Studies and Comparative Perspectives. Volume 3. Stockholm: The Swedish Agency for Civil Emergency Planning.

Indrek Elling	Planned Referendum for Estonian Autonomy Russian-Speaking Population in Northeastern Estonia: July 1993
Marten Kokk	Kurd Refugees in Estonia
Raimond Made	The Bankruptcy of Tartu Commercial Bank
Piret Mürk Eleka Rugam	Aspects of Information Management in a Crisis: The Major Accident with Peacekeepers in Autumn 1997
Allan Sombri	Oru Peat Factory Bankrupt Crisis
Indrek Treufeldt	Weapon Robbery at Joelahtme: December 1997
Jaan Tross	Plane Hijacking in Tallinn: 1994
Daniel Vaarik	Sudden Decline of Tallinn Stock Exchange

Group III: Nordic

Ásthildur Bernhardsdóttir	Two Avalanches in Iceland
Annika Brändström	Minks or Submarines: The Dilemma in the Swedish Hunt for Submarines (1993)
Dan Hansén	West-German Embassy Occupation in Stockholm: 1975
Michael Karlsson	Catalina Crisis

Thérèse Kärde	Environmental Accident in Halland Tunnel
Lindy Newlove	Ice Storms in Canada
Daniel Nohrstedt	Kidnapping in Dagestan
Linda Nordin	The Bosnian Conflict and the Transatlantic Crisis
Anja Stegen	Thule Crisis

Group IV: Latvia

Hansén, Dan & Stern, Eric K. (2000). Crisis Management in a Transitional Society: The Latvian Experience. Volume 12.

Talavs Jundzis	Institutional History of Crisis Management in Latvia
Andris Runcis	The Citizenship Issue as a Creeping Crisis in Latvia
Andris Maurans Agrita Veide	Risks in a Transitional Society: Focus on Infectious Diseases
Lindy Newlove Guntis Tribis Peteris Drukis	The Talsi Tragedy
Zaneta Ozolina	Crisis Prevention or Invention: Latvia's Response to the Proposed Russian Security Guarantees
Aivars Stranga Daina Bleiere	Latvian and Russian Crisis of 1998
Inta Lase	The Bankruptcy of Bank Baltija
Ramona Lamberte	Spring Floods of 1998

Group V: Poland

Piotr Chmielewski	The 1997 Flood Disaster in Poland
Lucyna Golc	Legal Acts Regulating the Sphere of Civil Protection in Poland
Irena Jackiewicz	The Administrative and Self-Government Reforms in Poland: Crisis or Development?
Adrian Cybula	Hard Coal Miners' Occupations (December 1998-January 1999)

Witold Patoka   Polish Crisis 1980-82

GroupVI: Estonia

Eleka Rugam   Illegal Kidney Transplants

Piia Pumm   Radioactive Waste in Baltic Sea

Marten Kokk   Prisoners Release Experiment-Policy Fiasco

Paavo Paal   Hijacking in 1994 (Tross)

Taavo Lumiste   Special Operations Group

Lülika Raudhein   Water Supplying Crisis in Ivangorod in 1998

Toomas Riim   Russian Reactions to Proposed Russian Security
                      Guarantees

Group VII: Poland

Karolina Tchorzewska The 1997 Flood Disaster Case Study (Raciborz)
Anna Rozdeiczer
Lukasz Stolarski

Malgorzata Werner   The Conflict Over the Gravel Heap in Auschwitz
Katarzyna Zarnecka

Justyna Cieslik   The Analysis of Polish Reactions to Yanajev Coup in
Jakub Biernat   the USSR (August 19-21, 1991)
Maciej Kochanowicz

Mariusz Stus   The Great Flood of 1997 (Wroclaw)
Sebastian Fraczek
Sebastian Wierzbicki

Monika Milej   The Role of the Press During the 1997 Floods: A
Olga Markiewicz   Comparative Analysis of Trybuna and Rzeczpospolita

Group VIII: Sweden

Joakim Niklasson   Norrmalmstorgs Bank Robbery: 1973

Per Karlsson   Bulltofta Hijack: 1972

Eva-Karin Ohlsson   Dioxin Crisis: 1999

Cecilia Wergeni   Kosovo Refugee Crisis

Britta Ramberg	Earthquake Turkey: 1999
Anja Teikmans	Beef War: 1999
Ahn-Za Hagström	Malexander Police Murders: 1999
Karin Bengtsson	French Nuclear Tests: 1995

Group IX: Russia

Prof. A.V. Mozgovaya	The Ecological Disaster in Karabash, Chelyabinsk
Elena Shlikova	Social Protection Issues: The Use of Non-Professional Rescuers at the Chernobyl Liquidators
Prof. Boris Porfiriev	Managing the Major Crisis: Alleviation of the Neftegorsk Earthquake Disaster of 1995 in Russia
Prof. A.V. Mozgovaya K. Gavrilov A. Gorodnitcheva M. Darhovskaya M. Elimova A. Tolmatch Elena Shlikova	Types of Crises and Crisis Management Mechanisms in the Mirror of Russian Mass Media

Group X: Lithuania

Haroldas Brozaitis	Threats of State Default in Lithuania: 1999
Edita Dranseikaité	The Closure of Ignalina Power Plant
Gitana Gumauskaite	Illegal Migration in Lithuania: 1996-1997
Miroslavas Maconka Birute Petraitiene	The Spring Flood in 1994 Hurricane Anatolijus: 1999
Giedris Smaizys	Social Security Crisis in Lithuania: 1995
Laimonas Talat-Kelpsa	Soviet-Imposed Economic Blockade: 1990
Ruta Zvinklyte	Russian Economic Crisis of 1998-1999
Edita Miciukeviciute	Road Blockage in Lithuania in 2000 and Its Management

Group XI: Slovenia

Robert Kus	The Collapse of the Kolizej Building in Ljubljana
Marjan Malesic	The War in Slovenia: June – July 1991
Julij Jeraj	The Gas Explosion in an Apartment Complex in Maribor
Drago Napotnik Milos Bizjak Marjan Malesic	The Impact of the Kosovo Crisis on Slovenia: The Allied Forces Against FRY
Dorijan Marsic	The Fire at Dar Inc. in the City of Koper
Milos Bizjak Milena Dobnik Jeraj Marko Polic	The Earthquake in the Region of Soca
Iztok Prezelj	The November Floods in 1998
Vladimir Prebilic	The Ecological Accident at the Ortnek Oil Processing Plant
Marko Polic	The Crisis That Was Not: The Management of the Y2K Problem
Marko Polic	The Fire at the Gorenje Galvanization Plant in Velenje

Bibiliography

Unpublished sources

National Nuclear Power Inspectorate (SKI)

Notes taken by Director General O. Hörmander, L. Högberg and A. Larsson during April-May, 1986.

Curricula vitae

Archive and Library of the National Radiological Protection Institute (SSI)
Bengtsson, G. (1986) "Vad kan vi lära av Tjernobyl" (SSI -Rapport 86-14).

Correspondence and telephone log/summaries regarding Chernobyl

SSI Nytt (Personnel Newsletter)

Curricula vitae

Forsmark Nuclear Power Station

Forsmark Kuriren (FK) (Personnel Newsletter)

Press releases, chronology and clippings

Nilsson, R. memo "Chernobyl: Radioactive Fallout Around Forsmark" (author's translation) registered May 9, 1986.

Wahlström, L. "Twelve years with radiation protection at Forsmark Nuclear Power Plant" Presentation to the *Conference on Radiation Protection in Nuclear Power Stations* Commission of the European Communities, Luxembourg (Nov.30- Dec. 1, 1992).

Ministry for Foreign Affairs

Bring, O. and Ahlstrand, (1986) "Eventuella svenska skådestånds anspråk gentemot Sovjetunionen till följd av reaktorolyckan i Tjernobyl" [Utrikesdepartementets rättsliga avdelning, intern PM, 15 Maj]

Official publications

Bulletin of the European Communities [Bull. E.C.]

Documents on Swedish Foreign Policy (see Utrikesfrågor).

IAEA Quarterly Bulletin

OECD/NEA (1987) The Radiological Impact of Chernobyl in the OECD Countries.Paris: OECD.

OECD/NEA (1989) Nuclear Accidents: Intervention Levels for the Protection of the Public. Paris: OECD.

Regeringens skrivelse [Reg. skr.] (1987/88:96) "Om uppföljning av vissa åtgärder m.m. efter Tjernobyl olyckan".

Riksdagstrycket

SMHI Meteorologi

Statens Offentliga Utredningar SOU (1995:135) "Ubåtsfrågan, 1981-1994" Ubåtskommissionen, Stockholm: Fritzes.

Statens Offentliga Utredningar (SOU) (1996:189) *Efter Estonia*. Rapport av Utredningen för vägledning efter Estoniakatastrofen. Stockholm: Fritzes.

Statens Offentliga Utredningar (SOU) (1997:7) *Byråkratin i backspegeln: Femtio år av förändring på sex förvaltningsområden*. Rapport till Förvaltningspolitiska Kommissionen. Stockholm; Fritzes.

Statens Strålskyddsinstitut (SSI) (1979) *Effektivare Beredskap*: *vol. 1 Huvudrapport*. Stockholm.

Statens Strålskyddsinstitut (1983) *Utvärdering av erfarenheter i samband med störtningen av den ryska satelliten Kosmos 1402*. Report no. a83-10. Stockholm

Statens Strålskyddsinstitut (1985) *Människor, myndigheter, massmedier: Att informera vid en stor olycka*. Stockholm.

Statens Strålskyddsinstitut (1988) *Strålning, Olyckor, Samhälle: Handbok för informatörer vid kärntekniska olyckor*. Stockholm.

Statskontoret (1984) *Utvärdering av beredskapsarbetet mot kärnkraftsolyckor.* Report 1984:26. Stockholm

Steen, G. et al (1986) *Beredskap efter Tjernobyl: Utvärderingsrapport* Stockholm: Statens Haverikommission.

Steen, G. et al (1987) *Beredskap efter Tjernobyl: Slutrapport*. Stockholm:

Statens Haverikommission.

Svenson et al. (1986) *Efter Tjernobyl: Konsekvenser för energipolitik, kärnsäkerhet, stråskydd och miljöskydd*. Rapport från Expertgruppen för kärnsäkerhet och miljö [DsI 1986:11]

Utrikesdepartementet (Ministry for Foreign Affairs) (1990) *Utrikesfrågor 1986 och 1987* (Documents on Swedish Foreign Policy) Stockholm: Utrikesdepartementet.

WHO (1984) Nuclear Power: *Accidental Releases – Principles of Public Health Action*. Copenhagen: World Health Organization Regional Office for Europe.

Mass media publications

Dagens Nyheter (DN)

Foreign Broadcast Information Service (FBIS) Translations of newspaper articles and broadcasts. Western Europe report and USSR special supplement on Chernobyl.

International Herald Tribune (IHT)

Pressklip (clipping service)

Svenska Dagbladet (SD)

Uppsala Nya Tidning (UNT)

Books, articles, and other published accounts of the Chernobyl crisis

Aner, S. (1986) *Tjernobyl och Sverige*. Göteborg: Bokskogen.

Anno 1986-1988 Årsböcker. Malmö: Bokförlaget Corona.

Amnå, E. & Nohrstedt, S.A. (1987) *Att administrera det oförutsedda.* Stockholm: SPF.

Ahlbom, H. (1986) "Är Forsmark skadat?". *Elteknik*, 11:21.

Bailey, C. (1989) *The Aftermath of Chernobyl*. Dubuque: Kendall/Hunt.

Barkenbus, J. (1987) "Nuclear Power Safety and the Role of International

Organization", *International Organization* 41:475-490.

Blix, Hans (1987) "The Chernobyl reactor accident: the international significance and results" in *SIPRI Yearbook* pp.425-432. London: Oxford University Press.

Beach, H. (1990a) "Perceptions of Risk, Dilemmas of Policy: Nuclear Fallout in Swedish Lapland" *Social Science Medicine* vol.30(6): 729-738.

Beach, H. (1990b) "Coping with the Chernobyl Disaster: A comparison of social effects in two herding areas" *Rangifer* (special issue) no. 3:25-34.

Carlsson, I. (1986a) Maj-tal i Visby, *Utrikesfrågor* 1986, pp.24-26. Stockholm: Utrikesdepartementet.

Carlsson, I. (1986b) August 1 Speech to the League of Christian Social

Democrats at Solna, reprinted in *Documents on Swedish Foreign Policy* 1986 pps. 26-41. Stockholm: Swedish Ministry for Foreign Affairs.

Czada, R. (1991) Muddling through a nuclear-political emergency: multilevel crisis management in West Germany after radioactive fallout from Chernobyl. *Industrial Crisis Quarterly* 5:293-322.

Dahl, B. (1986) Statements in conjunction with the May 12 Riksdag debate [Prot. 1985/86:137, pps. 5-12 and following].

Dahl, B. (1987) Testimony to KU [1986/87:33; bilaga A 11], pps. 248-259.

Devell, et. al (1986) "Initial Observations of Fallout from the Reactor Accident at Chernobyl". Nature 321:192-3.

Drotz-Sjöberg, B. (1993) "Medical and psychological aspects of crisis management during a nuclear accident" in Stefenson, B, Landahl, P.A., Ritchey, T. eds. (1993) *Proceedings of the International Conference on Nuclear Accidents and Crisis Management* pp.33-48 (Stockholm, March 16-18). Stockholm: Kungliga Krigsvetenskapsakademien.

Forskningsrådsnämnden (FRN) *Tjernobyl och vår hälsa.* (Källa /27). Stockholm

Gray, P. (1991) "Agriculture and Trade" in Segerståhl, ed. *Chernobyl: A Policy Response Study*, sid.61-83. Berlin: Springer verlag.

Hultåker, Örjan (1986) "Det falska larmet vid Forsmark den 6 mars 1986" *SSI-Rapport* 86:5. Stockholm: SSI.

Isberg, M. (1992) "Regeringsarbetet i krissituationer". Unpublished draft.

Isberg, M. (1993) "Regeringsarbetet i krissituationer" in Stefenson, ed. *Kan Vi Bli Bättre?* Stockholm: Kungliga Krigsvetenskapsakademien.

Jensen, M. and Lindhe, J.C. (1986) "Sweden: Monitoring the [Chernobyl]

Fallout". IAEA Bulletin, Autumn: 30-32.

Liberatore, A. (1993) "Chernobyl Comes to Italy: The Reciprocal Relationships of Radiation Experts, Government Policies, and the Media" in Barker, A. and Peters, G. eds. *The Politics of Expert Advice: Creating, Using and Manipulating Scientific Knowledge for Public Policy*, pp. 33-48. Edinburgh: The University of Edinburgh Press.

Lindström, S. (1992) "The Brave Music of a Distant Drum: Sweden's Nuclear Phase Out" *Energy Policy* July, pp.623-631.

Löfveberg, S. (1986) *En strålande vår: Dagbok om Tjernobyl*. Malmö: Utbildningsproduktion.

Medvedev, Z. (1990) *The Legacy of Chernoby*l. New York: W.W. Norton & Co.

Nohrstedt (1991) "The Information Crisis in Sweden after Chernobyl" *Mass Media, Culture, and Society* vol.13:477-497.

Nohrstedt, S. (XXXX) "Informationskrisen efter Tjernobyl: En processperspektiv". Published, undated mimeo supplied by the author.

Persson, C., Rodhe, H. & De Geer, L.E. (1986) "Tjernobylolyckan: En Meteorolgisk analys av hur radioaktivitet spreds till Sverige". *SMHI Meteorologi*, nr 24:1-45.

Petrosyants, A. (1986) "The Soviet Union and the Development of Nuclear Power: An Overview of Plans and the Chernobyl Accident". *IAEA Bulletin*, Autumn:5-8.

Ramberg, B (1986) "Learning From Chernobyl". *Foreign Affairs* 65(2):304-328.

Read, P. (1993) *Ablaze: The Story of Chernobyl.* London: Mandarin.

Reisch, F. (1986) "Premieres detections de l'accident" *Annals des Mines,* November: 4-14.

Reisch, F. (1987a) "The Chernobyl Accident: Its Impact on Sweden". *Nuclear Safety*, 28 (1), pps. 29-36.

Reisch, F. (1987b) "Hot Foot in Sweden". *Nuclear Engineer International*, January: 23.

Sands, P. ed. (1988) *Chernobyl: Law and Communication*. Cambridge: Grotius Publications Ltd.

Schönhofer, F. (1991) "Monitoring and Assessment" in Segerståhl, ed. *Chernobyl: A Policy Response Study,* pps. 21-42. Berlin: Springer verlag.

Segerståhl, B. ed. (1991) *Chernobyl: A Policy Response Study,* pps. 21-42. Berlin: Springer verlag.

Sjöquist, E. and Eckered, T. (1986) *Världen efter Tjernobyl: Vad betyder kärnkraftsolyckan för oss*. Stockholm: Timbro.

Stefenson, B, Landahl, P.A., Ritchey, T. eds. (1993) *Proceedings of the International Conference on Nuclear Accidents and Crisis Management* (Stockholm, March 16-18). Stockholm: Kungliga Krigsvetenskapsakademien.

Westerståhl, J. and Johansson, F. (1987) *Svensk Kärnkraft Efter Tjernobyl: En undersökning av expertåsikter, massmedier, och folkopinion*. Stockholm: SNS förlag.

Interviews[1]

Gunnar Bengtsson, Director General of the National Radiological Protection Institute (SSI). December 12, 1996.

Stefan Brolin, Chief Reactor Block 2 at Forsmark Nuclear Power Plant. December, 6, 1996.

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[1] The positions described are those occupied, or roles played, during the Chernobyl Fallout Crisis.

Birgitta Dahl, Minister of Energy and Environment. November 28, 1996.

Henning Danielsson, Chief Reactor Block 1 at Forsmark Nuclear Power Plant. November 22, 1996.

Lars-Erik De Geer, Nuclear Physicist at the National Defense Reseach Institute (FOA) section 215. March 16, 1993.

Lennart Franzon, Head of the Information Department at Forsmark Nuclear Power Plant. March 1993 and December, 1996.

Lars Högberg, Main division chief at the National Nuclear Power Inspectorate (SKI). December 5, 1996.

Alf Larsson. Member of the Operational Analysis Group at the the National Nuclear Power Inspectorate (SKI). December 3, 1996.

Alf Lindfors, Chief Reactor Block 3 at Forsmark Nuclear Power Plant. December, 6, 1996

Lennart Lindström, Division Director (formerly called Reactor Inspector) for Forsmark at the the National Nuclear Power Inspectorate (SKI). November 28, 1996 (by telephone).

Sven Löfveberg, Head of the Information Department at the National Radiological Protection Institute (SSI). December, 1996.

Göran Mandeus, Head of the Information Department at the National Nuclear Power Inspectorate (SKI). January 16, 1997.

Rune Nilsson, Assistant to K.E. Sandstedt at Forsmark Nuclear Power Plant. November 22, 1996.

Frigyes Reisch, Member of the Operational Analysis Group at the National Nuclear Power Inspectorate (SKI). November 27, 1996.

Karl Erik Sandstedt, Managing Director of Forsmark Nuclear Power Plant. September 17, 1993.

Jan Olof Snihs, Deputy Director General at the National Radiological Protection Institute (SSI). January 3, 1997.

Lars Wahlström, Radiation Protection Specialist at the Forsmark Nuclear Power Plant. November 30, 1996.

Torsten Örn, Swedish Ambassador to the Soviet Union. December 11, 1996 (by telephone).

Literature

Abelson, R. and Levi, A. (1985) "Decision Making and Decision Theory" in G.

Lindzey and E. Aronson eds. *The Handbook of Social Psychology* 3rd.ed. 1:231-309. New York: Random House.

Agrell, W. (1985) *Bakom Ubåtskrisen*. Stockholm: Liber.

Aldag, R. Fuller, S. (1993) "Beyond Fiasco: A Reappraisal of the Groupthink Phenomenon and A New Model of Group Decision Process" *Psychological Bulletin* 113: 533-552.

Allison, G. T. (1971) *Essence of Decision: Explaining the Cuban Missile Crisis*. Boston: Little, Brown, and co.

Allison, G. T. and Zelikow, P. (1999) *Essence of Decision: Explaining the Cuban Missile Crisis* 2nd. ed. New York: Longman

Anderson, P.A. (1987) "What Do Foreign Policy Makers Do When They Make A Foreign Policy Decision? The Implications For the Comparative Study of Foreign Policy" in C.F. Hermann, C.W. Kegley, and J.N. Rosenau eds. *New Directions in the Study of Foreign Policy* pp. 285-308. Boston: Allen and Unwin.

Andeweg, R.B. (1988) "Centrifugal Forces and Collective Decision Making: the Case of the Dutch Cabinet" *European Journal of Political Research* 10: 125-151.

Andeweg, R.B. (1993) "A Model of the Cabinet System: The Dimension of the Cabinet Decision Making Process" in J. Blondel and F. Muller-Rommel eds. *Governing Together: The Extent and Limits of Joint Decision Making in West European Cabinets*. pp. 23-42. London: MacMillan.

Andrew, C. (1995) *For The President's Eyes Only: Secret Intelligence and The American Presidency From Washington to Bush*. New York: Harper Collins.

Angel, R. (1991) *Explaining Economic Policy Failure: Japan in the 1969-1971 International Monetary Crisis*. New York: Columbia University Press.

Anton, T. (1980) A*dministered Politics: Elite Political Culture in Sweden.* London: Martinus Nijhoff.

Art. R. (1973) "Bureaucratic Politics and American Foreign Policy: A Critique" *Policy Sciences* 4:467-490.

Axelrod, R. (1984/1990) *The Evolution of Cooperation*. New York: Penguin Books.

Bates, R. et al (1998) *Analytic Narratives*. Princeton: Princeton University Press.

Bachrach, P. and Baratz, M.S (1970) *Power and Poverty: Theory and Practice.* New York: Oxford University Press.

Baldwin, D. (1985) *Economic Statecraft*. Princeton: Princeton University Press.

Bales, R. (1950) *Interaction Process Analysis*. Reading: Addison-Wesley.

Bendor, J. and Hammond, T. (1992) "Rethinking Allison's Models", *American Political Science Review*, 86 (June): 301-322.

Bennett, A. and George, A. L. (1998) "Process Tracing with Notes on Causal Mechanisms and Historical Explanation" Paper delivered to the Diplomatic History and International Relations Theory Conference at Arizona State University, January.

Berger, P. and Luckmann, T. (1966) *The Social Construction of Reality.* London: Anchor Books/Doubleday.

Berman, L. S. (1982) *Planning A Tragedy: The Americanization of the War in Vietnam.* New York: W.W. Norton and Company.

Bernstein, E. and Berbaum, M. (1983) "Stages in Group Decision Making: the Decomposition of Historical Narratives" *Political Psychology* 4 : 531-561.

Bernthal, P. and Insko, C. (1993) "Cohesiveness Without Groupthink: the Interactive Effects of Social and Task Cohesion" *Group and Organization Management* 18:66-87.

Beschloss, M. (1991) *The Crisis Years : Kennedy and Khruschev 1960-1963.* New York: Harper and Collins.

Bettenhausen, B. and Murninghan, J. (1985) "The Emergence of Norms in Competitive Decision-Making Groups" *Administrative Science Quarterly* 30: 350-372.

Bildt, C. (1991) "Ubåtskränkningar mot Sverige — Bakgrund, mönster, och motiv" *Kungliga Krigsvetenskapsakemiens Handlingar och Tidskrift* pp.29-55.

Billings, R. and Hermann, C.F. (1998) "Problem Identification in Sequential Policy Decision Making. The Re-representation of Problems" in Sylvan and Voss, eds. *Problem Representation in Foreign Policy Decision Making* pp.53-79. Cambridge: Cambridge University Press.

Bion, W.R. (1961) *Experiences in Groups and Other Papers.* New York: Basic Books.

Bissell, R. (1996) *Reflections of a Cold Warrior: From Yalta to the Bay of Pigs.* New Haven: Yale University Press.

Blight, J. (1990) *The Shattered Crystal Ball*. Savage, Maryland: Rowman and Littlefield.

Blight, J. and Kornbluh, P. (1998) *The Politics of Illusion: The Bay of Pigs Invasion Reexamined.* Boulder: Lynn Rienner.

Blondel, J. and Müller-Rommel, F. eds. (1993) *Governing Together: The Extent and Limits of Joint Decision-Making in Western European Cabinets.* London: MacMillan.

Blumler, J. and Gurevitch, M. (1995) *The Crisis of Public Communication*. London: Routledge.

Bouchard J. (1991) *Command in Crisis*. New York: Columbia University Press.

Bovens, M. and P. 't Hart (1996) *Understanding Policy Fiascoes*. New Brunswick: Transaction.

Brecher, M. (1974) *The Foreign Policy System of Israel*, New Haven: Yale University Press.

Brecher, M. (1977) "India's Devaluation of 1966: Linkage Politics and Crisis Decision Making" *British Journal of International Studies*. (April).

Brecher, M. (1993) *Crises: in World Politics Theory and Reality*. New York: Pergamon.

Brecher, M. (1999) "International Studies in the Twentieth Century and Beyond: Flawed Dichotomies, Synthesis, Cumulation" *International Studies Quarterly* 43(2): 213-264.

Brecher, M. and Wilkenfeld, J. (1997) *A Study of Crisis*. Ann Arbor: The University of Michigan Press.

Bruner, J.S, (1957) "On Perceptual Readiness" *Psychological Review* 64:123-152.

Bryder, T. (1998) *The Human Face of Politics: Essays on Political Psychology and Politicised Culture in the Twentieth Century*. Copenhagen: Copenhagen Political Studies Press.

Brändström, A. (1999) "Minks or Submarines?" Mimeo, Project CM Baltic, Swedish Institute of International Affars.

Buzan, B. (1991) *People, States and Fear* 2nd ed. Boulder: Rienner

Buzan, B., Waever, O. and de Wilde, J. (1998) *Security: A New Framework of Analysis*. Boulder: Rienner.

Bynander, F. (1998) *Crisis Analogies, A decision Making Analysis of the Swedish Hårsfjärden Submarine Incident of 1982*. Research Report 29; The Swedish Institute of International Affairs, Stockholm.

Bynander, F. (1998b) "The 1982 Swedish Hårsfjärden Submarine Incident: A Decision-making Analysis" *Cooperation and Conflict* 33(4):367-407.

Carlsnaes, W. (1992) "The Agency-Structure Problem in Foreign Policy Analysis" *International Studies Quarterly* 36: 245-270.

Calvert, R. (1998) *Explaining Social Order: Internalization, External Enforcement, or Equilibrium in Soltan, Uslaner and Haufler, eds. Institutions and Social Order* pp. 131-162. Ann Arbor: The University of Michigan Press.

Cannon, L. (1991) *President Reagan: The Role of a Lifetime* New York: Touchstone/ Simon and Schuster.

Chase, V., Hertwig, R. and Gigerenzer, G. (1998) "Visions of Rationality" *Trends in Cognitive Science* 2(6): 206-214.

Cissna, K. (1984) "Phases in Group Development: the Negative Evidence" *Small Group Behavior* 15:3-32.

Clark, W.R. (1998) Agents and Structures: Two Views of Preferences, Two Views of Institutions. *International Studies Quarterly* 42:245-270.

Coase, R. (1984) "The New Institutional Economics". *Journal of Institutional and Theoretical Economics* 140:229-31.

Collier, D. (1991) "The Comparative Method: Two Decades of Change" in Rustow and Erickson eds. *Comparative Political Dynamics: Global Research Perspectives*. New York: Harper Collins.

Comfort, L. ed. (1988) *Managing Disaster: Strategies and Policy Perspectives.* Durham: Duke University Press.

Craig, G. and George (1983), *A.L. Force and Statecraft*. New York: Oxford University Press.

Craig, G. and George, A. L. (1995) *Force and Statecraft* 3rd ed. New York: Oxford University Press.

Crozier, M. (1964) *The Bureaucratic Phenomenon*. Chicago: The University of Chicago Press.

Crocker, C. and Hampson, F. eds. (1996) *Managing Global Chaos: Sources of and Responses to International Conflict.* Washington, D.C.: US Institute of Peace Press.

Crowe, W. (1993) *The Line of Fire*. New York: Simon and Schuster

David, C.P. (1993) *Foreign Policy Failure in the White House.* Washington, D.C.: The University Press of America.

Davidson, A. (1990) *In the Wake of Exxon Valdez.* San Francisco: Sierra Club Books.

Destler, I.M., L. Gelb, and A. Lake (1984) *Our Own Worst Enemy: The Unmaking of American Foreign Policy.* New York: Simon and Schuster

Detter de Lupis, I. (1989) *International Law* (preliminary ed.) Stockholm: Stockholm Institute for Research in International Law/Juristförlaget.

Deutsch, M. and Gerard, H.B. (1955) "A Study of Normative and Informational Influences Upon Individual Judgment" *Journal of Abnormal and Social Psychology* 53:100-107.

Draper, T. (1991) *A Very Thin Line: The Iran-Contra Affairs*. New York: Hill and Wang.

Dror, Y. (1988) "Decisionmaking under Disaster Conditions" in L. Comfort, ed. *Managing Disaster: Strategies and Policy Perspectives pp.255-273*. Durham: Duke University Press.

Dror, Y. (1986) *Policymaking Under Adversity*. New Brunswick: Transaction.

Eckstein, H. (1975) "Case Study and Theory in Political Science". In *Strategies of Inquiry: Handbook of Political Science* Vol. 7, F. Greenstein and N.Polsby, eds. pp. 79-138. London: Addison-Wesley.

Edelman, M. (1988) *Constructing the Political Spectacle*. Chicago: Chicago University Press.

Farnham, B. (1997) *Roosevelt and the Munich Crisis: A Study of Political Decision-Making*. Princeton: Princeton University Press.

Fearon, J. (1998) "Domestic Politics, Foreign Policy and Theories of International Relations" *Annual Review of Political Science* 1:289-313.

Festinger, L. (1950) "Informal Social Communication" *Psychological Review* 57: 271-282.

Fiske, S.T. and S. E. Taylor (1991) *Social Cognition* 2nd ed. New York: McGraw-Hill.

Flin, R. (1996) *Sitting in the Hot Seat: Leaders and Teams for Critical Incident Management*. New York: John Wiley and Sons.

Flowers, M.L: (1977) "A Laboratory Test of Some Implications of Janis' Groupthink Hypothesis" *Journal of Personality and Social Psychology* 33:888-95.

French, J.and Raven, B. (1959) "The Basis of Social Power" in D. Cartwright ed. *Studies in Social Power*, pp. 150-167. Ann Arbor: Institute of Social Research.

Fuller, S. and Aldag, R. (1997) "Challenging the Mindguards: Moving Small Group Analysis Beyond Groupthink" in 't Hart, P., Stern, E., and Sundelius, B. eds. *Beyond Groupthink* pp.55-94. Ann Arbor: University of Michigan Press.

Gabriel, R. (1985) *Military Incompetence: Why the American Military Doesn't Win*. New York: Hill and Wang.

Gaddis, J.L. (1992-1993) "International Relations Theory and the End of the Cold War". *International Security*. 17(3) (Winter): 5-58.

Gaenslen, F. (1980) "Democracy Vs. Efficiency: Some Arguments From the Small Group" *Political Psychology* 2(1):15-29.

Gaenslen, F. (1992) "Decision-Making Groups" in Singer, E. and Hudson V. eds. *Political Psychology and Foreign Policy*. pp. 165-193. Boulder, Colorado: Westview Press.

Gaenslen, F. (1993) "Decision Makers As Social Beings: Consensual Decision Making in Russia, China, and Japan". Paper Prepared For the 89th Annual Meeting of the American Political Science Association, September, Washington, D.C.

Gardner, H. (1987) *The Mind's New Science*. New York: Basic Books.

George, A.L (1979a) "Case Studies and Theory Development: the Method of Structured, Focused Comparison" in Lauren, P. *New Approaches in History, Theory, and Policy* pp.43-68. New York: The Free Press.

George, A.L (1979b) "The Causal Nexus Between Cognitive Beliefs and Decision Making Behavior: The 'Operational Code' Belief System", in Falkowski, ed. *Psychological Models in International Politics* pp.95-124. Boulder: Westview Press.

George, A. L. (1980) *Presidential Decisionmaking in Foreign Policy: The Effective Use of Information and Advice.* Boulder: Westview Press.

George, A. (1984) "Crisis Management: The Interaction of Political and Military Considerations". *Survival* 26:223-234.

George, A. L. (1986) "The Impact of Crisis-Induced Stress on Decision Making" in *The Medical Implications of Nuclear War*, Washington, DC: National Academy Press.

George, A. L. (1991) "The Cuban Missile Crisis" in A. L. George, ed. *Avoiding War: Problems of Crisis Management* pp. 222-268. Boulder: Westview Press.

George, A. L. (1993a) "The Cuban Missile Crisis: Peaceful Resolution Through Coercive Diplomacy" in A. L. George and J. Simons (eds.) *The Limits of Coercive Diplomacy* 2nd. ed., pp. 111-132. Boulder: Westview Press.

George, A. L. (1993b) *Bridging the Gap: Theory and Practice in Foreign Policy.* Washington, D.C.: United States Institute of Peace Press.

George, A. L. (1997) "From Groupthink to Contextual Process Analysis" in 't Hart, Stern, and Sundelius, eds. *Beyond Groupthink* pp.35-54. Ann Arbor: University of Michigan Press.

George, A.L. and McKeown, T. (1985) "Case Studies and Theories of Organizational Decision Making" *Advances in Information Processing in Organizations* vol.2: 21-58.

George, A.L. and Smoke, R. (1974) *Deterrence in American Foreign Policy: Theory and Practice.* New York: Columbia University Press.

George, A. L. and Stern, E. (1998) "Presidential Management Styles and Models" in A.L. George and J. George *Presidential Personality and Performance.* pp.199-280. Boulder: Westview Press.

Geva, N. and Mintz, A. eds. (1997) *Decision-making on War and Peace: The Cognitive-Rational Debate.* Boulder: Rienner.

Glad, B. (1989) "Personality, Political, and Group Process Variables in Foreign Policy Decision-Making: Jimmy Carter's Handling of the Iranian Hostage Crisis". *International Political Science Review*. 10(1):35-62.

Gladstein, D. (1984) "Groups in Context; A Model of Task Group Effectiveness" *Administrative Science Quarterly* 29: 499-517.

Gladstein-Ancona, D. (1987) "Groups in Organizations: Extending Laboratory Models" in C. Hendrick (ed.), *Group Processes and Intergroup Relations*, pp. 207-230. Beverly Hills: Sage.

Goertz, G. (1994) *Contexts of International Politics*. Cambridge: Cambridge University Press.

Goldmann, K. (1988) *Change and Stability in Foreign Policy: The Problems and Possibilities of Detente*. Princeton: Princeton University Press.

Goldmann, K. (1996) "International Relations: An Overview" in R. Goodin and H.-D. Klingemann, eds. *A New Handbook of Political Science*, pp. 401-427. Oxford: Oxford University Press.

Green, D. and Shapiro, I. (1994) *Pathologies of Rational Choice Theory: A Critique of Applications in Political Science*. New Haven: Yale University Press.

Grönvall, J. (1998) "The Mad Cow Crisis" in Stern and Bynander, eds. *Crisis and Internationalization*, pp.240-285. Stockholm: The Swedish Agency for Civil Emergency Planning.

Habeeb, W. (1988) *Power and Tactics in International Negotiation*. Baltimore: Johns Hopkins University Press.

Habermas, J. (1973/76) *Legitimation Crisis* (translated by T. McCarthy). London: Heinemann.

Hall, P. and Taylor, R. (1998) "Political Science and the Three New Institutionalisms" in Soltan, Uslaner and Haufler, eds. *Institutions and Social Order* pp. 15-44. Ann Arbor: The University of Michigan Press.

Hamilton, D. Devine, P. and Oström, T. (1994) "Social Cognition and Classic Issues in Social Psychology" in Devine, Hamilton, och Ostrom, eds. *Social Cognition: Impact on Social Psychology* pp.2-13. New York: Academic Press.

Haney, P. (1995) "Structure and Process in Analysis of Foreign Policy Crises" in P.J. Haney, J.A.K. Hey, and L. Neack, eds. *Foreign Policy Analysis*. pp.99-116. Englewood Cliffs: Prentice Hall.

Haney, P. (1997) *Organizing for Foreign Policy Crises: Presidents, Advisers, and the Management of Decision Making*. Ann Arbor: The University of Michigan Press.

Hansen, D (1998) "The Occupation of the West-German embassy in Stockholm, April 24, 1975". Mimeo. Project Crisis Management Baltic, Swedish Institute of International Affairs.

Hansen, D. (1999) "In the Interest of a Nation: The Attempt to Capture Olof Palme's Murderer". Mimeo, Department of Government, Uppsala University.

't Hart, P. (1990/1994) *Groupthink in Government. A Study of Small Groups and Policy Failure*. Amsterdam: Swets and Zeitlinger; Baltimore: Johns Hopkins University Press.

't Hart, P. (1993) "Symbols, Rituals and Power: The Lost Dimensions of Crisis Management" *Journal of Contingencies and Crisis Management* (I): 36-50.

't Hart, P. (1997) "From Analysis to Reform of Policy-making Groups" in 't Hart, Stern, and Sundelius, eds. *Beyond Groupthink* pp.311-336.

't Hart, P., Rosenthal, U. and Kouzmin, A. (1993) "Crisis Decisionmaking: The Centralization Thesis Revisited" *Administration and Society* 25(1):12-45.

't Hart, P. Stern, E. och Sundelius, B. eds. (1997) *Beyond Groupthink: Political Group Dynamics and Foreign Policymaking*. Ann Arbor: The University of Michigan Press.

't Hart, P., Stern, E., and Sundelius, B. (1998) "Crisis Management: An Agenda for Research and Training in Europe" *Cooperation and Conflict* 33(2):207-224.

Hasper, A. (1998) "The MV Estonia Catastrophe" in Stern and Bynander, eds. *Crisis and Internationalization*, pp.286-315. Stockholm: ÖCB.

Heclo, H. (1977) *A Government of Strangers: Executive Politics in Washington.* Washington, D.C: Brookings.

Heclo, H. and Madsen (1987) *Principled Pragmatism: Politics and Policy Making in Sweden.* Philadelphia: Temple University Press.

Hellberg, A. and Jörle, A (1984) *Ubåt U137. Tio Dagar Som Skakade Sverige.* Stockholm: Atlantis.

Henig, R. (1992) "Flu Pandemic" *New York Times Magazine*, Nov. 29: 28-31, 55, 64-67.

Hermann, C.F. (1963) "Some Consequences of Crisis Which Limit the Viability of Organizations" *Administrative Science Quarterly* 8: 61-82.

Hermann, C.F ed. (1972) *International Crises: Insights From Behavioral Research.* New York: Free Press.

Hermann, C.F. (1988) "The Impact of Single Group Decision Units On Foreign Policy" Paper Presented at the Annual Meeting of the International Studies Association, St. Louis Missouri, March 29 - April 2.

Hermann, C.F. (1989) "On International Crises and National Security" in T. Kolodziej, and P. Morgan eds. *Security and Arms Control*, pp. 357-385. New York: Greenwood Press.

Hermann, C.F. (1993) "Avoiding Pathologies in Foreign Policy Decision Groups" in D. Caldwell and T. McKeown eds. *Force, Diplomacy, and Leadership* pp.179-207. Boulder: Westview.

Hermann, M.G. (1979) "Indicators of Stress in Policymakers During Foreign Policy Crises" *Political Psychology* 1(1):27-46.

Hermann, M.G. (1980) "Explaining Foreign Policy Behavior Using Personal Characteristics of Political Leaders" *International Studies Quarterly* 24:7-46

Hermann, M.G., and Preston, J.T. (1994a) "Presidents, Advisors, and Foreign Policy: the Effect of Leadership Style On Executive Arrangements" *Political Psychology* 15 (1): 75-96.

Hermann, M. G. and Preston, J.T. (1994b) "Presidents and Their Advisers: Leadership Style, Advisory Systems, and Foreign Policy Making" in E. Wittkopf ed., *Domestic Sources of American Foreign Policy*. pp. 340-356 New York: St. Martin's Press.

Hermann, M.G. and Hermann, C.F. (1989) "Who Makes Foreign Policy Decisions and How: An Empirical Inquiry" *International Studies Quarterly* 33: (3) 361-387.

Hermann, M., Hermann, C.F., and Hagen, J. (1987) "How Decision Units Shape Foreign Policy Behavior," in Hermann, Kegley and Rosenau, *New Directions in the Study of Foreign Policy*, pp.309-338. Boston: Allen and Unwin.

Higgens, E.T. and Bargh, J. (1987) "Social Cognition and Social Perception" *Annual Review of Psychology* 38:369-425.

Higgins, T. (1987) *The Perfect Failure: Kennedy, Eisenhower and the CIA at the Bay of Pigs*. New York: Norton.

Hill, C. (1994) "Academic International Relations: The Siren Song of Policy Relevance" in Hill and Beschoff, eds. *The Two Worlds of International Relations* pp.3-28. London: Routledge.

Hobden, S. and Wynn Jones, R. (1998) "World System Theory" in Baylis and Smith eds. *The Globalization of World Politics* pp.125-146.

Hogg. M.A. and Abrams, D. (1988) *Social Identifications: A Social Psychology of Intergroup Relations and Group Processes*. London: Routledge.

Hollander, E. (1958) "Conformity, Status, and Idiosyncrasy Credit" *Psychological Review* 65:117-127.

Hollander, E.P. (1964) *Leaders, Groups, and Influence*. New York: Oxford University Press.

Hollis, M. and Smith, S. (1990) *Explaining and Understanding International Relations*. Oxford: Clarendon Press.

Holsti, O.R. (1972) *Crisis, Escalation, War*. Montreal: McGill-Queens University Press.

Holsti, O.R. (1989) "Crisis Decision Making" in P.E. Tetlock, et al eds. *Behavior, Society, and Nuclear War* pp.8-84 New York: Oxford University Press.

Hoyt, P. (1997) "The Political Manipulation of Group Composition: Engineering the Decision Context". *Political Psychology* 18:771-790.

Hoyt, P. and Garrison, J. (1997) in 't Hart, P., Stern, E., and Sundelius, B. eds. *Beyond Groupthink* pp.249-274. Ann Arbor: University of Michigan Press.

Hult, K. (1993) "Advising the President" in Edwards, Kessel, and Rockman, eds. *Researching the Presidency* pp. 111-159. Pittsburgh: University of Pittsburgh Press.

Janis, I.L. (1982) *Groupthink: Psychological Studies of Policy Decisions and Fiascoes*, 2nd ed. Boston: Houghton Mifflin.

Janis, I.L. (1989) *Crucial Decisions: Leadership in Policymaking and Crisis Management*. New York: the Free Press.

Janis, I.L. and Mann, L. (1977) *Decision Making: A Psychological Analysis of Conflict, Choice, and Commitment*. New York: Free Press.

Jervis, R. (1976) *Perceptions and Misperceptions in International Politics*. Princeton: Princeton University Press.

Jervis, R. (1989) "Political Psychology: Some Challenges and Opportunities" *Political Psychology* 10(3):481-493.

Jervis, R. (1997) *System Effects: Complexity in Political and Social Life*. Princeton: Princeton University Press.

Kaarbo, J. and Gruenfeld, D. (1998) "The Social Psychology of Inter- and Intragroup Conflict in Governmental Politics" *Mershon International Studies Review* 42.226-233.

Kahneman, D., Slovic, P., and Tversky, A. eds. (1982) *Judgment Under Uncertainty: Heuristics and Biases*. Cambridge: Cambridge University Press.

Kaplan, M. and Miller, C. (1987) "Group Decision Making and Normative Versus Informational Influence: Effects of Type and Issue and Assigned Decision Rule" *Journal of Personality and Social Psychology* 53: 306-313.

Katzenstein, P. ed. (1996) *The Culture of National Security: Norms and Identity in World Politics*. New York: Columbia University Press.

Karlsson, M. (1995) *Partistrategi och utrikespolitik*. Dissertation. Dept. of Political Science. Stockholm University.

Karlsson, M. (1998) "Catalina-affären 1952" CM Baltic Mimeo. Stockholm Swedish Institute of International Affairs.

Keeney, Ralph. (1992) *Value Focused Thinking.* Cambridge: Harvard University Press.

Kegley, C.W. (1987) "Decision Regimes and Comparative Study of Foreign Policy" in C.F. Herman, C.W. Kegley and J.N. Rosenau eds., *New Directions in the Study of Foreign Policy,* pp. 247-268. Boston: Allen and Unwin.

Keohane, R. ed. (1986) *Neo- Realism and Its Critics.* New York: Columbia University Press.

Keohane, R. and Nye, J. (1977) *Power and Interdependence.* Boston: Little, Brown.

Keohane, R. and Nye, J. (1987) "Power and Interdependence Revisited". *International Organization* 41(4)

Khong, Y.F. (1992) *Analogies at War.* Princeton: Princeton University Press.

King, G., R. Keohane, and S. Verba (1994) *Designing Social Inquiry.* Princeton: Princeton University Press.

Kingdon, J.W. (1984) *Agendas, Alternatives and Public Policies.* Boston: Little, Brown and Company.

Kleiboer, M. (1998) *The Multiple Realities of International Mediation.* Boulder: Rienner.

Kärde, T. (1998) Hallandsåsen. CM Baltic Mimeo. Stockholm: Swedish Institute for International Affairs.

Larson, D.W. (1985) *The Origins of Containment: A Psychological Explanation.* Princeton: Princeton University Press.

Larsson, T. (1986) *Regeringen och dess kansli.* Lund: Studentlitteratur.

Lasswell, H. (1948) *The Analysis of Political Behavior.* London: Routledge and Kegan Paul.

Lawrence, P.R. and Lorsch, L. (1969) *Organization and Environment: Managing Differentiation and Integration.* Homewood, Ill.: Irwin.

Layder, D. (1993) *New Strategies in Social Research.* Cambridge: Polity

Lebovic, J. (1998) "Consider the Source: Organizational Bias in Estimates of Foreign Military Spending" *International Studies Quarterly* 42: 161-174.

Lebow R.N. (1981) *Between Peace and War: The Nature of International Crisis.* Baltimore: John Hopkins University Press.

Lebow, R. and Stein, J.(1993) "Afghanistan, Carter, and Policy Change: The Limits

of Cognitive Models" in Caldwell, D. and McKeown, T. eds. *Force, Diplomacy, and Leadership* pp.95-127. Boulder: Westview.

Lebow, R. and Stein, J. (1994) *We All Lost the Cold War*. Princeton: Princeton University Press.

Lebow, R.N. (1987) *Nuclear Crisis Management: A Dangerous Illusion.* Ithaca: Cornell University Press.

Legro, J.W. (1994) "Military culture and inadvertent escalation in World War II" *International Security*, 18 (4), Spring 94: 108-142.

Lepgold, J. (1998) "Is Anyone Listening? International Relations Theory and the Problem of Policy Relevance" *Political Science Quarterly*. 113(1):43-62.

Levine, J. and Moreland, R. (1990) "Progress in Small Group Research" *Annual Review of Psychology* 41: 585-634. Palo Alto, CA: Annual Reviews.

Levine, J.M., Resnick, L.B. and Higgins, E.T. (1993) "Social Foundations of Cognition" in L.W. Porter and M.R. Rosenzweig, (eds.) *Annual Review of Psychology* 44: 585-612.

Levy, J. (1991) "The Role of Crisis Management in the Outbreak of World War I" in George ed. *Avoiding War: Problems of Crisis Management* pp. 62-102. Boulder: Westview.

Levy, J. (1994) "Learning and Foreign Policy: Sweeping a Conceptual Minefield" *International Organization*. 48 (spring:279-312.

Levy, J. (1997) "Prospect Theory and the Cognitive-Rational Debate" in Geva, N. and Mintz, A. eds. *Decision-making on War and Peace: The Cognitive-Rational Debate* pp.33-50. Boulder: Rienner.

Lijphart, A. (1971) "Comparative Politics and the Comparative Method" The *American Political Science Review*. 65:682-693.

Lindblom, C. (1990) Inquiry and Change. New Haven: Yale University Press.

Longley, J. and Pruitt, D. (1980) "Groupthink: A Critique of Janis' Theory" in L. Wheeler ed. *Review of Personality and Social Psychology* 1:74-93. Beverly Hills: Sage.

Macrae, J. and Zwi, A. (1992) "Food as an Instrument of War in Contemporary African Famines" *Disasters* 16(4):299-321.

Maoz, Z. (1990) "Framing the National Interest: the Manipulation of Foreign Policy Decisions in Group Settings" *World Politics* 43: 77-111.

Maoz, Z. (1997) "Decisional Stress, Individual Choice, and Policy Outcomes: The Arab-Israeli Conflict" in Geva, N. and Mintz, A. eds. *Decision-making on War and Peace: The Cognitive-Rational Debate* pp163-182 Boulder: Rienner.

March, J.G., and Olsen, J.P. (1989) *Rediscovering Institutions: The Organizational Basis of Politics.* New York: The Free Press.

Maruyama, N. (1990) "Economic Crisis in Japan's Foreign Policy: the 1973 Oil Crisis" Paper presented at the Annual Meeting of the International Studies Association, Washington, D.C., April 10-14.

Markus, H. R. and S. Kitayama (1991) "Culture and the Self: Implications For Cognition, Emotion, and Motivation" *Psychological Review* 98: 224-253.

Markus, H. and Zajonc, R. (1985) "The Cognitive Perspective in Social Psychology" in Lindzey, G. and Aronson, E. eds. *The Handbook of Social Psychology* vol.1:137-230. New York: Random House.

McCauley, C. (1989) "The Nature of Social Influence in Groupthink: Compliance and Internationalization" *Journal of Personality and Social Psychology* 57: 250-260.

McClelland, C. (1972) "The Beginning, Duration, and Abatement of International Crises" in C.F. Hermann ed. *International Crises: Insights from Behavioral Research*, pp.83-105). New York: The Free Press.

McGrath, J. et. al (1993) "Groups, Tasks, and Technology" *Small Group Behavior* 24(3):406-420.

McGrath, J. and Kravitz, D. (1982) "Group Research" *Annual Review of Psychology* 33: 195-230.

McKeown, T. (1999) "Case Studies and the Statistical Worldview: Review of King, Keohane, and Verba's Designing Social Inquiry..." *International Organization*. 53(1):161-190.

Mefford, D. (1987) "Analogical Reasoning and the Definition of the Situation: Back to Snyder for Concepts and Forward to Artificial Intelligence for Method" in Hermann, Kegley and Rosenau eds. *New Directions in the Study of Foreign Policy*, pp.221-246. Boston: Allen and Unwin.

Metselaar, M. and Verbeek, B. (1997) "Beyond Decision Making in Formal and Informal Groups: The Dutch Cabinet and the West New Guinea Conflict" in 't Hart, P., Stern, E., and Sundelius, B. eds. *Beyond Groupthink* pp.95-112. Ann Arbor: University of Michigan Press.

Minix, D.A. (1982) *Small Groups and Foreign Policy Decision Making.* Washington: University Press of America.

Mintz, A. (1997) "Foreign Policy Decisionmaking: Bridging the Gap between the Cognitive Psychology and Rational Actor 'School'" in Geva, N. and Mintz, A. eds. *Decision-making on War and Peace: The Cognitive-Rational Debate* pp. 1-10. Boulder: Rienner.

Mintzberg, H., Raisinghani, and Theoret, A. (1976) "The Structure of 'Unstructured' Decision Processes" *Administrative Science Quarterly* 21:246-275.

Mitroff, I and Kilmann, R. (1985) *Corporate Tragedies*. London: Praeger.

Mitroff, I. Pearson, C. and Mitroff, A. (1993) *Crisis Management: A Diagnostic Guide for Improving Your Organization's Preparedness*. San Francisco: Jossey Bass.

Mor, B. (1993) *Decision and Interaction in Crisis: A Model of Crisis Behavior.* London: Praeger.

Moreland, R. and Levine, J. (1988) "Group Dynamics Over Time: Development and Socialization in Small Groups" in J.E. McGrath ed. *The Social Psychology of Time: New Perspectives* pp. 151-181 London: Sage.

Morgan, G. (1986) *Images of Organization.* Beverly Hills, Ca.: Sage.

Morgenthau, H.J. (1948) *Politics Among Nations: the Struggle for Power and Peace.* New York: Knopf.

Morrow, J. (1994) *Game Theory for Political Scientists*. Princeton: Princeton University Press.

Morrow, J. (1997) "A Rational Choice Approach to International Conflict" in N.Geva, and A. Mintz eds. *Decision-making on War and Peace: The Cognitive-Rational Debate* pp.11-32. Boulder: Rienner.

Moscovici, S. (1985) "Social Influence and Conformity" in Lindzey, G. and Aronson, E. eds. *Handbook of Social Psychology* 3rd ed. 2:347-412. New York: Random House.

Moscovici, S. and Doise, W. (1994) *Conflict and Consensus: A General Theory of Collective Decisions*. London: Sage Publications.

Moscovici, S., Mucci-Faina, A, and Maas, A. eds. (1994) *Minority Influence.* Chicago: Nelson Hall Publishers.

Mullen, B. and Copper, C. (1994) "The Relation Between Group Cohesiveness and Performance: An Integration" *Psychological Bulletin* 115(2):210-227.

Nemeth, C., and Staw, B. (1989) "The Trade Offs of Social Control and Innovation Within Groups and Organizations" in L. Berkowitz ed. *Advances in Experimental Social Psychology* 22: 175-210. New York: Academic Press.

Neustadt, R. and May, E. (1986) *Thinking in Time: The Uses of History for Decision Makers*. New York: The Free Press.

Niklasson, J. (1998) "En olycka kommer sällan ensam – en studie om svensk krishantering". Department of Political Science (C/D thesis), Gothenburg University.

Nisbett, R. and Ross, L. (1980) *Human Inference: Strategies and Shortcomings of Human Judgment*. Englewood Cliffs, NJ: Prentice Hall.

Nohrstedt, D. (1998) "Managing Crisis Abroad: The Brolin Kidnap" CM Baltic Mimeo. Stockholm: Swedish Institute for International Affairs.

North, D. (1990) *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.

Nutt, P. (1989) *Making Tough Decisions.* San Francisco: Jossey Bass.

Oneal, J. (1982) *Foreign Policy Making in Times of Crisis*. Columbus: The Ohio State University Press.

Onuf, N.G. (1989) *World of Our Making: Rules and Rule in Social Theory and International Relations*. Columbia, SC: University of South Carolina Press.

Paige, G.D. (1968) *The Korean Decision.* New York, The Free Press.

Paige, G.D. (1969) "The Korean Decision" in Rosenau, ed. *International Politics and Foreign Policy*. New York: The Free Press.

Perrow, C. (1984) *Normal Accidents: Living with High Risk Technologies.* New York: Basic Books.

Peters, B.G. (1995) *The Politics of Bureaucracy* 4th ed. White Plains, N.Y.: Longman.

Peterson, S. (1996) *Crisis Bargaining and the State: The Domestic Politics of International Conflict*. Ann Arbor: The University of Michigan Press.

Petty, R. and Caccioppo, J. (1986) *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. Berlin: Springer Verlag.

Pfeffer, J. (1981) *Power in Organizations*. Marshfield, MA: Pittman.

Post, J. (1991) "The Impact of Crisis-Induced Stress on Policy Makers" in George, ed. *Avoiding War*, Boulder: Westview Press.

Powell, W. and DiMaggio, P. eds. (1991) *The New Institutionalism in Organizational Analysis*. Chicago: The University of Chicago Press.

Powell, C., Purkitt, H., and Dyson, J. (1987) "Opening the Black Box: Cognitive Processing and Optimal Choice in Foreign Policy Decision Making" in Hermann, C.F., Kegley, C. and Rosenau, J. eds. pp.203-220. *New Directions in the Study of Foreign Policy*. Boston: Allen and Unwin.

Prados, J. (1991) *Keepers of the Keys: A History of the National Security Council From Truman to Bush*. New York: William Morrow.

Pressman, J.L. and Wildavsky, A. (1984) *Implementation: How Great Expectations in Washington are Dashed in Oakland.* Berkeley: University of California Press.

Purkitt, H. (1992) "Political Decision Making in Small Groups" in E. Singer and V.P. Hudson eds. *Political Psychology and Foreign Policy*, pp. 219-245. Boulder: Westview Press.

Ragin, C. (1987) *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*. Berkeley: The University of California Press.

Ragin, C. (1994) *Constructing Social Research.* London: Pine Forge Press.

Reeves, R. (1993) *President Kennedy*. New York: Simon and Schuster.

Rein, M. and Schon, D. (1991) "Frame-reflective Policy Discourse" in Wagner et al, eds. *Social Sciences and Modern States*, pp.262-289 Cambridge: Cambridge University Press.

Richardson, J.L. (1994) *Crisis Diplomacy: The Great Powers Since the Mid-19th Century.* New York: Cambridge University Press.

Ripley, B. (1993) "Psychology, Foreign Policy and International Relations" *Political Psychology* 14:403-416.

Ripley, B. (1995) "Cognition, Culture, and Bureaucratic Politics" in L. Neack, J. Hey and P. Haney, eds. *Foreign Policy Analysis: The Second Generation* pp.85-97. Englewood Cliffs, N.J.: Prentice-Hall.

Rosati, J.A. (1981) "Developing A Systematic Decision-Making Framework: Bureaucratic Politics in Perspective" *World Politics* 33 (2) 234-252

Rosati, J.A. (1995) "A Cognitive Approach to the Study of Foreign Policy" in Neack, L., J.A.K. Hay and P.J. Haney eds. *Foreign Policy Analysis: Continuity and Change in Its Second Generation*, pp. 49-70. Englewood Cliffs: Prentice Hall.

Rose, R. (1994) *Inheritance in Public Policy: Change Without Choice in Britain*. New Haven: Yale University Press.

Rosenau, J. (1992) *Turbulence in World Politics: A Theory of Change and Continuity*. Princeton: Princeton University Press.

Rosenthal, U. and 't Hart, P. (1991) "Experts and Decisionmakers in Crisis Situations" *Knowledge* 12: 350-373.

Rosenthal, U. and 't Hart, P. eds. (1998) *Flood Response and Crisis Management in Western Europe: A Comparative Analysis.* Berlin: Springer Verlag.

Rosenthal, U. et al (1989) "From Case Studies to Theory and Recommendations: A Concluding Analysis" in Rosenthal, Charles and 't Hart *Coping With Crises: The Management of Disasters, Riots, and Terrorism*. pp.436-472. Springfield, Illinois: Charles C. Thomas.

Rosenthal. U. et al (1994) *Complexity in Urban Crisis Management: Amsterdam's Response to the Bijlmer Air Disaster*. London: James and James.

Rosenthal, U. and 't Hart, P. and Charles M.(1989) "The World of Crises and Crisis Management" in *Coping With Crises: The Management of Disasters, Riots, and Terrorism.* pp.3-33. Springfield, Illinois: Charles C. Thomas.

Rosenthal, U. Charles, M. and 't Hart, P. eds. (1989) *Coping With Crises: The Management of Disasters, Riots, and Terrorism.* Springfield, Illinois: Charles C. Thomas.

Rosenthal, U., t Hart, P. and Kouzmin, A. (1991) "The Bureau-Politics of Crisis Management" *Public Administration* 69 (2): 211-233.

Rutherford, M. (1996) *Institutions in Economics: The Old and the New Institutionalisms.* Cambridge: Cambridge University Press.

Sabatier, P. (1987) "Knowledge, Policy-Oriented Learning and Policy Change" *Knowledge* 8(June):649-692.

Sabatier, P.(1993) "Top-down and Bottom-up Approaches to Implementation Research" in Hill ed. *The Policy Process: A Reader* pp.266-93. New York: Harvester Wheatsheaf.

Sagan, S. (1991) "Rules of Engagement" in George, ed. *Avoiding War* pp.443-70. Boulder: Westview.

Sagan, S. (1993) *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons*. Princeton: Princeton University Press.

Sampson, M. (1987) "Cultural Influences On Foreign Policy" in C.F. Hermann, C.W. Kegley, and J.N. Rosenau eds. *New Directions in The Study of Foreign Policy*, pp. 384-405. Boston: Allen and Unwin.

Sayer, A. (1992) *Method in Social Science: A Realist Approach.* 2nd ed. London: Routledge.

Scharpf, F. (1989) "Decision Rules, Decision Styles, and Policy Choices" *Journal of Theoretical Politics* 1:149-176.

Schmitt, C. (1996) *The Concept of the Political* (transl. by G. Schwab). Chicago: University of Chicago Press.

Schön, D. (1983) *The Reflective Practioner: How Professionals Think in Action*. Basic Books.

Schlesinger, A. (1965) *A Thousand Days*. Boston: Houghton-Mifflin Co.

Scott, W. R. (1992) *Organizations: Rational, Natural, and Open Systems.* Englewood Cliffs, N.J: Prentice Hall.

Senge, P. (1990) *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday/Currency.

Sjöblom, G. (1993) "Some Critical Remarks on March and Olsen's Rediscovering Institutions" *Journal of Theoretical Politics* 5(3)397-407.

Slatter, S. (1984) *Corporate Recovery: A Guide to Turnabout Management.* New York: Penguin.

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Smith, H.K. (1988) *The Power Game: How Washington Works*. New York: Ballantine Books.

Smith, S. and Clarke, M. eds. (1985) *Foreign Policy Implementation*. London; Boston, Mass.:Allen and Unwin.

Smith, S. (1985) "The Hostage Rescue Mission" in S. Smith and M. Clarke, eds. *Foreign Policy Implementation*, pp. 11-32. London: George, Allen and Unwin.

Snyder, G. and P. Diesing (1977) *Conflict Among Nations.* Princeton: Princeton University Press.

Snyder, R.C, Bruck, H., and Sapin, B., eds. (1963) *Foreign Policy Decision Making.* New York: The Free Press.

Snyder, R.C. and Paige, G.D. (1958) "The United States Decision to Resist Aggression in Korea: the Application of An Analytic Scheme" *Administrative Science Quarterly*, 3:341-78.

Soltan, K. (1998) "Institutions as Products of Politics" in Soltan, K., Uslaner, E., and Haufler,V. eds. *Institutions and Social Order*, 45-64. Ann Arbor: The University of Michigan Press.

Soltan, K., Uslaner, E., and Haufler, V. (1998) "New Institutionalism: Institutions and Social Order" in Soltan, Uslaner and Haufler, eds. *Institutions and Social Order* pp. 3-14. Ann Arbor: The University of Michigan Press.

Soltan, K., Ulslaner, E., and Haufler, V. eds. (1998) *Institutions and Social Order.* Ann Arbor: The University of Michigan Press.

Sprout, H. and Sprout, M. (1972) *The Analysis of International Politics.* New York: The Free Press.

Staw, B. Sandelands, L. and Dutton, J. (1981) "Threat-Rigidity Effects in Organizational Behavior: A Multi-Level Analysis" *Administrative Sciences Quarterly* 26: 501-524.

Stein, J. and Welch, D. (1997) "Rational and Psychological Approaches to the Study of International Conflict: Comparative Strengths and Weaknesses" in Geva, N. and Mintz, A. eds. *Decision-making on War and Peace: The Cognitive-Rational Debate* pp. 51-80. Boulder: Rienner.

Steinbruner, J. (1974) *The Cybernetic Theory of Decision*. Princeton: Princeton University Press.

Steiner, P.(1989) "In Collusion With the Nation: A Case Study of Group Dynamics at Strategic Nuclear Policymaking Meeting". *Political Psychology* 10 (4): 647-673.

Stern, E. (1990) *The U137 Incident: A Study in Swedish Crisis Management.* Stockholm: International Graduate School.

Stern, E. (1992) "Information Management and the Whiskey on the Rocks Crisis" *Cooperation and Conflict*, 27: 45-96.

Stern, E. (1993a) "Dissecting Crisis Decision: A Neo-Institutional Approach". Paper Presented at the European Consortium for Political Research Joint Sessions. Leiden, the Netherlands.

Stern, E. (1993b) "Environmental Crisis and Security", paper presented at the meeting of the Nordic International Studies Association (Oslo, Aug.)

Stern, E. (1997a) "Probing the Plausibility of Newgroup Syndrome: Kennedy and the Bay of Pigs", in P.'t Hart, E. Stern, and B. Sundelius eds. *Beyond Groupthink: Political Group Dynamics and Foreign Policymaking*, pp.153-189. Ann Arbor: University of Michigan Press.

Stern, E. (1997b) "Crisis and Learning: A Conceptual Balance Sheet", in *Journal of Contingencies and Crisis Management* 5(2): 69-86.

Stern, E. and Bynander, F. eds. (1998) *Crisis and Internationalization: Eight Cognitive-Institutional Crisis Studies*. Stockholm: The Swedish Agency for Civil Emergency Planning

Stern, E. and Nohrstedt, D. eds. (1999) *Crisis Management in Estonia: Theory and Practice.* Stockholm: The Swedish Agency for Civil Emergency Planning.

Stern, E. and Sundelius, B. (1992a) "Managing Asymmetrical Crisis: Sweden, the USSR, and U137" *International Studies Quarterly* 36:213-239.

Stern, E. and Sundelius, B. (1992b) "Decision Making in the U137 Crisis: A Group Dynamics Perspective," paper presented at the Annual Meeting of the International Studies Association, Atlanta.

Stern, E. and Sundelius, B. (1992c) "Framing, Sequencing, and Synchronizing: Dissecting Occasions for Decision during the Swedish U137 Crisis". Paper presented at the ECPR Standing Group on International Relations Conference, Heidelberg.

Stern, E. and Sundelius, B. (1993) "Penetrating the Elusive Small Decision Group: An Analytical Tool Set and Case Findings" Paper Presented at the European Consortium For Political Research Joint Sessions, Leiden, the Netherlands.

Stern, E. and Sundelius, B. (1994) "The Essence of Groupthink" *Mershon International Studies Review* 38:101-107.

Stern, E. and Sundelius, B. (1997a) "Understanding Small Group Decisions in Foreign Policy: Process Diagnosis and Research Procedure", in P.'t Hart, E. Stern, and Sundelius, B. eds. (1997) *Beyond Groupthink: Political Group Dynamics and Foreign Policymaking*, pp. 123-150. Ann Arbor: University of Michigan Press.

Stern, E., and Sundelius, B. (1997b) "Sweden's Twin Monetary Crises of 1992:

Rigidity and Learning in Crisis Decision Making" *Journal of Contingencies and Crisis Management* 5(1):32-48.

Stern, E. and Verbeek, B. eds.(1998)"Whither the Study of Governmental Politics in Foreign Policymaking: A Symposium" *Mershon International Studies Review* 42:205-255.

Stewart, P., Hermann, M. and Hermann, C.F. (1989) "Modelling the 1973 Soviet Decision to Support Egypt" *American Political Science Review* 83(1):35-59.

Sundelius, B. Stern, E. and Bynander F. (1997) *Krishantering på Svenska.* Nerenius and Santérus Förlag AB, Stockholm.

Svedin, L. (1998) "Motorcycle Gang Wars in Sweden and Norden 1994-1997" in Stern and Bynander, eds. *Crisis and Internationalization*, pp.204-239. Stockholm: The Swedish Agency for Civil Emergency Planning.

Sylvan, D. and Voss, J. eds. (1998) *Problem Representation in Foreign Policy Decision Making*. Cambridge: Cambridge University Press.

Tajfel, H. (1982) "Social Psychology of Intergroup Relations" *Annual Review of Psychology* 33:1-39.

Tannenbaum, A. (1966/1992) "The Group in the Organization" Reprinted in V. Vroom and P. Deci eds. *Management and Motivation*, pp. 121-128. New York: Penguin Books.

Teorell, J. (1998) *Demokrati eller fåtalsvälde: Om beslutsfattande i partiorganisationer*. Dissertation. Dept. of Government, Uppsala University.

Tetlock, P.E. (1985a) "Accountability: the Neglected Social Context of Judgement and Choice" in K.L. Cummings, and B.M. Staw (eds.) *Research in Organizational Behavior*, 7: 297-332. Greenwich, CT: JAI Press.

Tetlock, P.E. (1985b) "Integrative Complexity of American and Soviet Foreign Policy Rhetorics: A Time-Series Analysis" *Journal of Personality and Social Psychology*, 49.

Tetlock, P. and Belkin, A. eds (1996) Counterfactual Thought Experiments in World Politics. Princeton: Princeton University Press.

Tetlock, P.E., R. Peterson, C. McGuire, S. Chang, and P. Feld. (1992) "Assessing Political Group Dynamics: A Test of the Groupthink Model" *Journal of Personality and Social Psychology* 63(3): 403-425.

Thompson, L. et al. (1988) "Group Negotiation: Effects of Decision Rule, Agenda, and Aspiration" *Journal of Personality and Social Psychology,* 54: 86-95.

Torstendahl, R. (1966) *Introduktion till historievetenskapen. Historia som vetenskap*. Stockholm: Natur och Kultur.

Tsebelis, G. (1990) *Nested Games: Rational Choice in Comparative Politics.* Berkeley: University of California Press.

Tucker, D. (1973) "Some Relationships Between Individual and Group Development" *Journal of Human Development* 16: 249-272.

Tuckman, B. (1965) "Developmental Sequence in Small Groups" *Psychological Bulletin* 63 (6) 384-399.

Tuckman, B. and Jensen, M. (1977) "Stages of Group Development Revisited" *Group and Organization Studies* 2 (4): 417-427.

Turner, J.C. (1987) *Rediscovering the Social Group: A Self-Categorization Theory.* Oxford: Blackwell.

Turner, J.C. (1991) *Social Influence.* Pacific Grove: Brooks Cole

Ullberg, S. (1998) "The Lima Crisis" in Stern, E. and Bynander, F. eds. *Crisis and Internationalization.* pp.163-203. Stockholm: The Swedish Agency for Civil Emergency Planning.

Vandenbroucke, L. (1984) "Anatomy of a Failure: the Decision to Land at the Bay of Pigs" *Political Science Quarterly* 99(3):471-491.

Vandenbrouke, L. (1993) *Perilous Options.* Oxford: Oxford University Press.

Van Evera, S. (undated) *Guide to Methodology for Students of Political Science.* Cambridge: Defense and Arms Control Studies Program, Massachusetts Institute of Technology.

Vaughn, D. (1996) *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA.* Chicago: The University of Chicago Press.

Verbeek, B. (1992) *Anglo- American Relations 1945-1956: A Comparison of Neo Realist and Cognitive Psychological Approaches to the Study of International Relations.* Dissertation, Department of Political and Social Sciences, The European University Institute.

Vertzberger, Y. (1990) *The World in Their Minds: Information Processing, Cognition, and Perception in Foreign Policy Decisionmaking,* Stanford, CA: Stanford University Press.

Vertzberger, Y. (1998) *Risk Taking and Decisionmaking: Foreign Military Intervention Decisions.* Stanford, CA: Stanford University Press.

Voss, J. and Dorsey, E. (1992) "Perception and International Relations: An Overview" in Singer and Hudson eds. *Political Psychology and Foreign Policy* pp.3-30. Boulder: Westview.

Voss, J. (1998) "On the Representation of Problems: An Information-Processing Approach to Foreign Policy Decision Making" in Sylvan and Voss eds. *Problem*

Representation in Foreign Policy Decision Making pp. 8-26. Cambridge: Cambridge University Press.

Wallerstein, I. (1996) "The Inter-State Structure of the Modern World System" in Smith, Booth, and Zalewski eds. *International Theory: Positivism and Beyond* pp. 87-107. Cambridge: Cambridge University Press.

Wallin, G., Ehn, P., Isberg, M., and Linde, C. (1999) *Makthavare i fokus.* Stockholm: SNS förlag.

Waltz, K.N. (1979) *Theory of International Politics*. New York: McGraw-Hill.

Weick, K. and Roberts, K. (1993) "Collective Mind: Heedful Interrelating On Flight Decks" *Administrative Science Quarterly* 18: 357-381.

Welch, D. (1989) "Crisis Decisionmaking Reconsidered" *Journal of Conflict Resolution* 33: 430-445.

Welch, D. (1992) "The Organizational Process and Bureaucratic Politics Paradigms: Retrospect and Prospect" *International Security* 17(2):112-146.

Welch. D. (1998) "A Positive Science of Bureaucratic Politics" *Mershon International Studies Review* 42:210-216.

Weldes, J. (1996) "Constructing National Interests" *European Journal of International Relations* 2:275-318.

Weldes, J. (1998) "Bureaucratic Politics: A Critical Constructivist Assessment" *Mershon International Studies Review* 42:216-225.

Wendt, A. (1987) "The Agent-Structure Problem in International Relations Theory." *International Organization* 41: 335-370.

Wheelan, S. and R. McKeage (1993) "Developmental Patterns in Large and Small Groups". *Small Group Research* 24 (1): 60-83.

Wildavsky, A. (1988) *Searching for Safety.* New Brunswick: Transaction.

Wilkenfeld, J. and Brecher, M. (1988) *Crises in the Twentieth Century Vol. II: Handbook of Foreign Policy Crises*. Oxford: Pergamon Press.

Williams, P. (1976) *Crisis Management.* New York: Wiley.

Williamson, O.E. (1975) *Markets and Hierarchies*. New York: Free Press.

Woodward, B. (1991) *The Commanders*. New York: Simon and Schuster.

Worchel, S., Coutant-Sassic, D., and Grossman, M. (1992) "A Developmental Approach to Group Dynamics" in S. Worchel, W. Wood, and J.A. Simpson eds. *Group Process and Productivity*, pp. 181-202. London: Sage.

Wrong, D.H. (1988) *Power: Its Forms, Bases and Uses.* Chicago: University of Chicago Press.

Wyden, P. (1979) *The Bay of Pigs: The Untold Story.* New York: Simon and Schuster.

Zelikow, P. (1994) "Foreign Policy Engineering: From Theory to Practice and Back Again" *International Security* 18(4):143:171.

Ziller, R. (1977) "Group Dialectics: the Dynamics of Groups Over Time" *Human Development* 20: 293-308.

ÖCB (1998) *Proceedings from the Partnership for Peace Seminar on Civil Aspects of Crisis Management: International Cooperation and Good Neighborly Relations,* Stockholm (September, 29 – October 2, 1997). Stockholm: The Swedish Agency for Civil Emergency Planning.

ÖCB (1999) *Documentation from the Civil Security and Crisis Management Research and Practice Workshop* at Strömsborg, Stockholm (March 18-19). Stockholm: The Swedish Agency for Civil Emergency Planning.

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