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Foundations of Effective Influence Operations

A Framework for Enhancing Army Capabilities

Eric V. Larson, Richard E. Darilek, Daniel Gibran, Brian Nichiporuk, Amy Richardson, Lowell H. Schwartz, Cathryn Quantic Thurston

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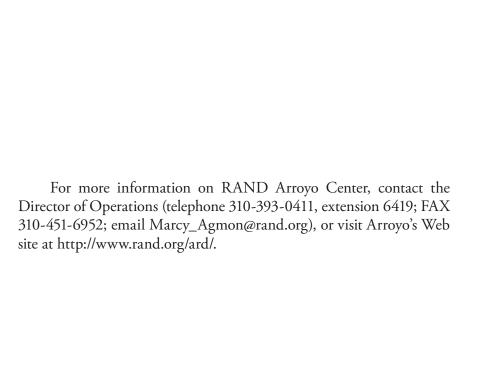
Preface

Since the end of the Cold War, there has been growing interest in improving the nation's ability to employ various forms of "soft power"—capabilities that might allow the United States to effectively influence the attitudes and behavior of particular foreign audiences while minimizing or avoiding combat entirely. The present study was undertaken to assist the U.S. Army in understanding "influence operations" and to identify approaches, methodologies, models, and tools that may be useful in planning, executing, and assessing influence operations.

This research was sponsored by the U.S. Army Training and Doctrine Command's (TRADOC's) Futures Center. It was conducted in the RAND Arroyo Center's Strategy, Doctrine, and Resources Program. RAND Arroyo Center, part of the RAND Corporation, is a federally funded research and development center sponsored by the United States Army.

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Summary

Since the end of the Cold War—and as witnessed by the U.S. military actions in the Gulf War, Kosovo, Afghanistan, and Iraq—the U.S. military is likely to prevail in conventional major combat operations against virtually any plausible adversary or combination of adversaries in a conventional military contest. Nevertheless, the United States has faced an entirely different set of challenges in securing the peace, which hinges less upon military prowess than on the ability to employ various forms of *soft power*.

Even before the attacks of September 11, 2001, there was a growing realization that the U.S. image in much of the Muslim world may have been facilitating the mobilization and recruitment of Islamic jihadists committed to the destruction of the United States. The subsequent difficulties the United States encountered in fostering stable political equilibria in Iraq and Afghanistan sparked additional interest in capabilities that might assist the United States in securing peace and stability by influencing target audiences while minimizing or avoiding combat entirely.

A good deal of attention presently is focused on how to improve the nation's capabilities to influence others. These capabilities include public diplomacy, strategic communications, information operations, and other means that can be used to influence attitudes, behaviors, and decisions—i.e., "win hearts and minds"—without resort to (or excessive reliance on) the use of force. As will be described, we use the term *influence operations* to describe such efforts, whether the target audience is a specific leader, select elites or members of a decisionmaking group,

military organizations and personnel, specific population subgroups, or mass publics. The aims of this study were fourfold:

- Define influence operations in an operationally useful way.
- Review the scholarly literature related to influence operations.
- Describe the elements of a general model for effective influence operations and provide a framework for integrating influence operations into military campaigns.
- Provide a description and critique of available approaches, methodologies, and tools that might assist in planning, executing, and assessing influence operations.

Defining Influence Operations

In Chapter One, we provide a definition of influence operations:

Influence operations are the coordinated, integrated, and synchronized application of national diplomatic, informational, military, economic, and other capabilities in peacetime, crisis, conflict, and postconflict to foster attitudes, behaviors, or decisions by foreign target audiences that further U.S. interests and objectives.

In this view, influence operations accent communications to affect attitudes and behaviors but also can include the employment of military capabilities, economic development, and other real-world capabilities that also can play a role in reinforcing these communications (see Figure S.1).

Somewhat serendipitously, our definition bears a striking resemblance to a recently approved definition of strategic communications:

Focused US Government efforts to understand and engage key audiences in order to create, strengthen, or preserve conditions favorable for the advancement of US Government interests, policies, and objectives through the use of coordinated programs,

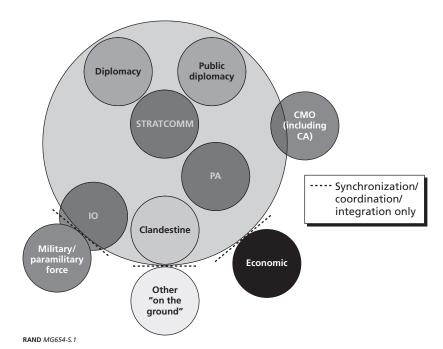


Figure S.1 Elements of Influence Operations

plans, themes, messages, and products synchronized with the actions of all instruments of national power (DoD, 2006, p. xii).¹

Thus, readers can generally conceive of influence operations as synonymous with strategic communications in the world of joint operations.

 $^{^{1}}$ By comparison, the Air Force definition, as of November 3, 2006 (U.S. Air Force Air University, 2006), was the following:

Informing and appropriately influencing key audiences by synchronizing and integrating communication efforts to deliver truthful, timely, accurate, and credible information: Strategic refers to source of information, message, messenger, audience, timeframe, and/or effect; Communication refers to both what you say and what you do; Requires focus on both internal and external communication efforts; and Requires both peacetime and wartime processes and capabilities.

Review of the Scholarly Literature

In Chapters Two through Five, we review the scholarly literature related to influence operations at the individual level (Chapter Two), the group and network level (Chapter Three), the adversary leadership coalition level (Chapter Four), and the mass public level (Chapter Five) and identify approaches, models, and tools that might assist in the planning, execution, and assessment of influence operations. The following are among the conclusions reached:

- Influencing Individuals. There is an abundance of theories and models that seek to explain individual-level attitudes, persuasive communications, and behavioral change, and although several appear to be relatively generalized and empirically robust, even the best of these have relatively modest explanatory power. In light of the uncertainties regarding which sorts of appeals are most likely to result in attitude or behavioral change, planners would do well to embrace an adaptive process that tests the relative efficacy of cognitive, emotional, and social appeals and that modifies communications accordingly.
- Influencing Groups and Networks. Among the more promising behavioral models at the group and network level are models of social power, opinion leadership, and the diffusion of innovations. These models can help to explain influence and the diffusion of ideas within groups and networks, and they suggest that targeting those who are influential and are opinion leaders constitutes an effective and efficient influence strategy. Research on factors affecting group performance and social choice theories of group decisionmaking suggests other points of leverage for influencing group dynamics and decisionmaking that are available to influence planners, including manipulation of information, agendas, and group decision rules.
- Influencing Adversary Leadership Coalitions. Scholars have identified a wide range of influence strategies, including deterrence and coercive diplomacy, to achieve political-military objectives against adversary leaders and coalitions, in addition to diagnostic criteria

for evaluating the likely efficacy of these strategies. Other scholars have developed agent-based rational choice or expected utility models that have a good predictive track record and appear to provide a sound basis for forecasting the outcome of influence efforts, developing policy and strategy, and identifying key stakeholder groups that should be targeted. Taken together, this body of work can assist planners in identifying which target audiences should be the focus of their efforts and which are less important.

Influencing Mass Publics. Planners can benefit from an understanding of the roles of opinion leadership and individuals' information environments in the diffusion of attitudes among mass publics, perhaps especially the credibility of different leaders and information channels and the processes by which members of the public become aware of messages, accept or reject these messages, and change attitudes or behaviors on the basis of the messages they receive.

These various literature areas provide a complementary and highly integrative set of microfoundations and macrofoundations for understanding the determinants of influence.

A General Model for Influence Operations

In Chapter Six, we identify nine key planning questions that can be used to guide the development of influence operations. These questions can generally be divided into those dealing with strategic-level issues and those dealing with target audiences.

The first four questions focus on the strategic-level picture and the underlying political dynamics related to achievement of U.S. coalition objectives:

• What are current U.S. objectives? Are current objectives likely to be achieved, and if not, what outcomes are most likely under present or plausible conditions?

- Which actors or groups are most influential in political-military outcomes?
- What strategies (e.g., force or negotiation) are most likely to influence these groups and yield desired outcomes?
- How much authority/influence do group leaders have over their supporters/followers?

These questions are likely to be of greatest interest to the White House, to National Security Council staff, and to such interagency actors as the Departments of State and Defense. They will also interest the regional component commander and joint force commander and most likely would need to be addressed by intelligence analysts working for the services, the Department of Defense, or the larger intelligence community.

Five additional questions need to be answered for each of the key target audiences identified during influence strategy development so that effective substrategies can be developed for each:

- Which sources and information channels do target audiences use and find most credible?
- How are target audiences' attitudes structured, and how stable are they?
- What messages are they already receiving?
- What message sources, content, and formats are most likely to be accepted and to foster change?
- How many messages need to be sent to them? What other actions need to be taken to achieve influence objectives?

Notwithstanding the vast uncertainties regarding the likely efficacy of influence efforts, we believe that this analytic protocol can help planners focus on key issues that need to be understood and to narrow the range of options to the most practical, effective, and efficient ones.

Analytic Tools for Supporting Influence Operations

Furthermore, we identify how various social science approaches and tools might be used to assist in answering these questions, focusing on those approaches and tools that we feel might be profitably employed in planning and executing influence operations but perhaps are not as well known as they deserve to be.

The first two tools may be helpful in assessing strategic-level issues:

- Agent-Based Rational Choice or Expected Utility Modeling appears to be highly suitable for use in developing influence strategies and illuminating the first three strategic-level questions. In particular, we view this tool as being useful for identifying which stakeholder groups are likely to be most important to a political outcome and, therefore, are most deserving of influence efforts. We judge this to be a mature technology that is ready for operational use in planning influence strategies and operations.
- Social Network Analysis (SNA) tools appear to be quite useful for describing, in a visual way, formal political or administrative, tribal, patronage, clerical, and other networks that, taken together, constitute a nation's authority structure. We see SNA tools as potentially useful in bootstrapping an understanding of these authority structures and in identifying key leaders (nodes) who should be targeted by influence efforts. There also is some recent theoretical work—as yet unsupported by empirical evidence that might provide the desired level of confidence that the theories are more than plausible guesses—that focuses on influence within networks and that ultimately may prove to be valuable to planners.

We also identify two approaches that we believe might be useful for assessing communications in a competitive information environment:

• Automated Content Analysis is an approach for analyzing texts that seems likely to be useful for influence operations. In particular, we see content analysis as a tool for tracking the content of foreign

leadership statements and media reports, for ascertaining whether strategic communications messages are penetrating key media, and for similar limited purposes. We judge automated content analysis to be a mature technology that should be relatively easy to adapt to operational use for these purposes.

• Semantic Network Analysis is another technique for analyzing texts that is primarily used by communications researchers. The approach is similar to social network analysis insofar as it uses nodes and links (or relational ties), the defining feature of which is that a connection of some form is established between the nodes. In the case of semantic networks, however, the links typically are between words or people using words. This approach ultimately may be helpful in developing tools for summarizing texts or assessing meaning, but we judge that the approach is still somewhat immature and will require further testing and refinement before it is likely to be operationally useful.

Finally, we identified an analytic approach that can be used to map attitude structures and to provide a generalized environment for reasoning about and designing persuasive communications.

Galileo Metric Multidimensional Scaling was one of the most interesting approaches we came across in our survey of social science approaches that might be suitable for supporting influence operations. In many ways, this theory was the closest any social science approach came to providing a framework for thinking about how to effect attitude changes for planning, conducting, and assessing the impact of influence operations on attitudes and behaviors. The approach is based on survey instruments that ask respondents to judge the distances (a proxy for similarities or differences) between relevant attitude objects (e.g., people, places, things, or events, toward which one may have an attitude). The approach uses advanced factor analytic techniques to construct a multidimensional map of attitude objects in a common cultural "space." These maps can be used for identifying potentially potent themes for influence messages and for measuring any resulting change. We judge that the operational utility of Galileo for the analysis of attitudes and influence messages should be tested and assessed for possible operational use.

Implications for Planners

Our reviews of the social science literature related to influence at the levels of the individual, group and network, adversary leadership coalition, and mass public and our case studies of influence in commercial advertising and marketing, American-style political campaigns, and public diplomacy (Appendixes A through C) suggest that there are a number of characteristics that seem to be associated with effective influence operations:

- They are aimed at achieving specific desired objectives and effects, typically a change in a key attitude, belief, preferred policy, or behavior.
- They are directed toward *key target audiences*, whether an individual, a decisionmaking group, a military unit, a population subgroup, or the mass public of a nation.
- They make use of the most effective combination of *information channels*—i.e., those channels that are both most likely to reach the target audience and are most likely to be viewed as unbiased and credible.
- They are mindful of *audience characteristics*, including preexisting attitudes and beliefs that may condition an audience's willingness to be influenced.
- They are *timed to influence actors before they decide or act*, in the case of leaders and decisionmaking groups, *or before attitudes crystallize*, in the case of mass audiences.
- They make use of messengers with compelling *source characteristics*—i.e., those whose professional or technical competence, likeability, credibility, trustworthiness, or confidence makes them effective spokespersons.
- They rely upon messages with *compelling message characteristics* i.e., those whose content, format, cognitive and emotional appeal, and other characteristics will most resonate with the audience.
- They *facilitate adaptation* by providing timely feedback on effects so that information channels, messengers, themes, messages, etc. can be modified to increase their persuasiveness.

In achieving these desiderata, planners should be mindful of three practical implications that result from the heterogeneity of the scholarly literature, the absence of a larger meta-theory of influence, and the situational or context dependence of persuasion efforts:

- 1. The various theories described above can provide only starting points for planners and operators; they will need to be adapted or fashioned to meet the specific requirements of each situation.
- 2. Even after detailed analysis, vast uncertainties are likely to remain regarding the efficacy of various alternative approaches to communication of messages to target audiences.
- 3. The vast uncertainties associated with the enterprise of influence lead to the requirement for an adaptive, robust, metrics-based planning, execution, and assessment process that can underwrite a capability to plan, test, and assess the results of different sorts of strategies, communications, and appeals and to modify the approach based on the results. The requirements of such a metrics-based process for influence operations are well beyond the scope of the present effort and are described in some detail in other, related work (Larson et al., forthcoming).

By constructing influence campaigns on solid theoretical and empirical foundations at the micro and macro levels, and testing and adapting target audience responses to these efforts, planners are far more likely to avoid pitfalls and, in some cases, even achieve their influence objectives.

However, as described in this report, the required level of intellectual and analytic effort for such endeavors can be substantial. The effort may in many cases not only outstrip the capabilities of planning staffs but also may require more intensive inputs and effort than their results perhaps merit.

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Abbreviations

ABP assumption-based planning

ANOVA analysis of variance

AOD Air Operations Directive

ATO Air Tasking Order

CA civil affairs

CBP capabilities-based planning
CENTCOM U.S. Central Command

CHAID chi-squared automatic interaction detector

CIA Central Intelligence Agency

CMO civil-military operations

COG center of gravity

DIME diplomatic, informational, military, and

economic

DoD Department of Defense

EBO effects-based operation

ELM Elaboration Likelihood Model

EUM expected utility modeling

EPA evaluation, potency, activity

FBIS Federal Broadcast Intelligence Service **FCC** Federal Communications Commission

IO information operations **JAOP** joint air operations plan **JFC** joint force commander

KEDS Kansas Event Data System

MAAP master air attack plan

OGC Office of Global Communications

OODA observe-orient-decide-act

OPLAN operational plan

public affairs PA

PSYOP psychological operations

SASO stability and support operations

SNA social network analysis

STRATCOMM strategic communications

STT strategies-to-tasks

TRADOC Training and Doctrine Command United States Information Agency USIA

weapons of mass destruction WMD

Introduction

Since the end of the Cold War—and as witnessed by the U.S. military actions in the Gulf War, Kosovo, Afghanistan, and Iraq—the U.S. military is likely to prevail in conventional major combat operations against virtually any plausible adversary or combination of adversaries in a conventional military contest. Nevertheless, the United States has faced an entirely different set of challenges in securing the peace, which hinges less upon military prowess than on the ability to employ various forms of *soft power*.¹

Even before the attacks of September 11, 2001, moreover, there was a growing realization that the U.S. image in much of the Muslim world may be facilitating the mobilization and recruitment of Islamic jihadists committed to the destruction of the United States and that additional efforts were needed to counter jihadists' anti-U.S. propaganda.² The subsequent difficulties the United States encountered in fostering stable political equilibria in Iraq and Afghanistan sparked additional interest in capabilities that might assist the United States in securing peace and stability during counterinsurgency and other operations by influencing target audiences while minimizing or avoiding combat entirely.

¹ In a thumbnail definition, these forms of power can be thought of as the diplomatic, informational, and economic elements of the DIME (diplomatic, informational, military, and economic) acronym. Former chairman of the National Intelligence Council Joseph S. Nye coined the term *soft power*, a concept he develops in Nye, 2004.

² According to some sources, one of the most significant responses to 9/11 was the greatly expanded propaganda program for the Middle East. See Battle, 2002.

As a result, a good deal of attention presently is focused on how to improve the nation's capabilities to influence foreign audiences through various types of communications.³ These capabilities include public diplomacy, strategic communications (STRATCOMM), information operations (IO), and other means that, it is hoped, can be used to influence attitudes, behaviors, and decisions—i.e., "win hearts and minds"—of target audiences without resort to (or excessive reliance on) the use of force.

Defining Influence Operations

We use the term *influence operations* to describe efforts to influence a target audience, whether an individual leader, members of a decision-making group, military organizations and personnel, specific population subgroups, or mass publics. Because there was no agreed-upon joint force or Army definition of influence operations at the time of our study, we developed our own:

Influence operations are the coordinated, integrated, and synchronized application of national diplomatic, informational, military, economic, and other capabilities in peacetime, crisis, conflict, and postconflict to foster attitudes, behaviors, or decisions by foreign target audiences that further U.S. interests and objectives.⁴

³ Merriam-Webster's online dictionary defines *influence* as "the act or power of producing an effect without apparent exertion of force or direct exercise of command."

⁴ Although there is no Joint or Army definition, it is worth mentioning that current Air Force doctrine considers influence operations to be one of three types of information operation, the other two being network warfare operations and electronic warfare operations. For the Air Force, influence operations include psychological operations, military deception, operations security, counterintelligence, public affairs operations, counterpropaganda operations, and supporting activities, including physical attack. According to this doctrine, "Influence operations are focused on affecting the perceptions and behaviors of leaders, groups, or entire populations. The means of influencing can be physical, informational, or both. The cognitive domain is composed of separate minds and personalities and is influenced by societal norms, thus the cognitive domain is neither homogeneous nor continuous" (U.S. Air Force, January 11, 2005, p. 3). In our usage, influence operations focus on the informational and cognitive, but often need to be integrated with the physical as part of larger influence

It is worth noting that our definition of influence operations has some resemblance to the joint operations definition for STRAT-COMM that was approved in December 2006, which also focuses on the communication of messages to target audiences that are synchronized with military or other actions and nonkinetic activities:

Focused US Government efforts to understand and engage key audiences in order to create, strengthen, or preserve conditions favorable for the advancement of US Government interests, policies, and objectives through the use of coordinated programs, plans, themes, messages, and products synchronized with the actions of all instruments of national power (DoD, 2006, p. xii).5

Insofar as this definition also focuses on communications activities that are synchronized with other activities, readers may wish to consider influence operations as being more or less synonymous with STRATCOMM as defined in the world of joint operations.

In our usage, influence operations primarily consist of nonkinetic, communications-related, and informational activities that aim to affect cognitive, psychological, motivational, ideational, ideological, and moral characteristics of a target audience, and include

- public affairs (PA)
- IO and most of its disciplines, but especially psychological operations (PSYOP)6

strategies. We also note that, by extension, U.S. influence operations can be integrated and synchronized with international activities, where these activities add value.

⁵ By comparison, the Air Force definition, as of November 3, 2006 (U.S. Air Force Air University, 2006), was

Informing and appropriately influencing key audiences by synchronizing and integrating communication efforts to deliver truthful, timely, accurate, and credible information: Strategic refers to source of information, message, messenger, audience, timeframe, and/or effect; Communication refers to both what you say and what you do; Requires focus on both internal and external communication efforts; and Requires both peacetime and wartime processes and capabilities.

⁶ We note that the subject of the relationship between PA and PSYOP is a hotly debated one, because of concerns within the PA community that the credibility of PA—which requires

- STRATCOMM activities⁷
- the public relations—oriented parts of civil-military operations (CMO), including civil affairs (CA).8

We use "influence operations" as an umbrella term that includes military activities (e.g., IO, PA, military support to diplomacy and public diplomacy, and parts of CA and CMO) and civilian ones (comprising both public and covert—or clandestine—efforts). Importantly, influence operations include non–Department of Defense (DoD) informational activities, such as the diplomatic and public diplomatic activities of the State Department and influence activities conducted by the U.S. intelligence community. The relationship between the various pieces of influence operations—especially PA and PSYOP—is a highly contentious subject (see Barnes, 2007).

While we argue that influence operations focus on communications, to be effective, these activities need to be synchronized, coordinated, and integrated so that communications and real-world "sticks" and "carrots"—and other means of influence—operate together as part of larger, coherent strategies.⁹

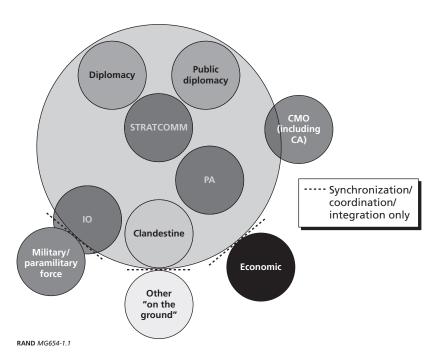
that spokespersons provide truthful, factual statements—might be compromised by those who perform PSYOP, whose messages might or might not reflect the truth. This is a complex subject whose resolution is well beyond the scope of the present study. For a press report on the subject as it related to Iraq, see Barnes, 2007. We also note that many of the subspecialties of IO (e.g., electronic warfare) are more oriented toward technical and tactical effects than influence.

- ⁷ In its September 2004 study of the subject, the Defense Science Board used the term "strategic communications" in the sense of "the ability of the U.S. to communicate with and thereby influence worldwide audiences," i.e., a global strategy for communicating ideas in a global battle of ideas. Strategic communications offices were established in the Office of the Chairman of the Joint Chiefs of Staff, the Coalition Provisional Authority in Iraq, and the Multi-National Force–Iraq, and a strategic communications and planning office was established in the State Department's Bureau of Public Affairs.
- ⁸ As described earlier, another way to think of them is in terms of the diplomatic, informational, and economic elements of the DIME acronym.
- ⁹ One of our reviewers suggested that this definition might be too demanding to be realistic. Our view is that although influence operations might fall short of meeting all of the standards inherent in this definition, one virtue of the definition is that it offers a basis for

Figure 1.1 portrays the elements of influence operations as the informational activities that are wholly or partially contained within the large circle, whether military or nonmilitary, and the kinetic military and other real-word activities that need to be integrated and synchronized with these communications to achieve their best effect.

As suggested by the figure, the various communications and other activities that are in the influence operations circle need to be coordinated and synchronized with such real-world kinetic activities as military or paramilitary operations, reconstruction and other civil affairs activities, economic development, and other creative activities that are conducted "on the ground."10

Figure 1.1 **Elements of Influence Operations**



understanding some of the characteristics that are associated with more-effective and lesseffective influence operations.

¹⁰ Kinetic military operations can, of course, include humanitarian relief operations.

Thus, not only do the campaign and message elements of influence operations need to be coordinated and synchronized across service, joint, combined, and interagency actors, but these activities also need to be coordinated and synchronized with policy changes and the full range of real-world activities actually being conducted, whether oriented toward security, reconstruction, economic or political development, or some other line of operation.

Put simply, because what we actually do often matters far more than what we say, influence operations frequently will focus on explaining and leveraging off tangible actions by casting them in a positive context and thereby building trust with an audience or by countering adversary claims about such actions with factual information that is buttressed by facts on the ground and averred by local opinion leaders whose credibility and trustworthiness is judged to be high.¹¹ Effective influence operations require a high degree of sophistication, coordination, and synchronization, to ensure that the various lines of operation work in harmony, and a high degree of sensitivity to the desirability of maintaining U.S. credibility with foreign audiences.

Study Questions and Approach

When our study began, there was no accepted joint operations definition of influence operations or agreed-upon conception of what influence operations entail. Accordingly, the U.S. Army Capabilities Integration Center (formerly the Training and Doctrine Command [TRADOC] Futures Center) requested that the RAND study team conduct a wideranging study that would provide the following:

- A definition of influence operations (provided earlier in this chapter)
- A review of the scholarly literature related to influence operations

¹¹ Although it may be desirable to convey information that is not factual to adversaries, there also are risks associated with making statements that are not truthful or factual.

- A description of the elements of a general model for effective influence operations and a framework for integrating influence operations into military campaigns
- A description and critique of available approaches, methodologies, and tools that could assist in planning, executing, and assessing influence operations.

Our study involved a number of lines of analysis.

First, we sought to understand the basic building blocks of influence operations, including a cross-cutting review of the literature on influence and persuasion and the various theories, models, and methodologies that are in use in the cognitive psychological, social psychological, communications, and political science fields.

Second, our effort also included case studies of three particularly relevant areas in which the key aim is influencing target audiences: advertising and marketing, political campaigns, and public diplomacy and propaganda. In each case, we describe how practitioners think about their target audiences and the overall strategies, approaches, and analytic activities that they conduct to assist in achieving their influence objectives.

Third, we identified a set of key analytic questions that need to be answered if we are to conduct effective influence operations, and we developed a framework that can be used for planning influence operations. This framework stresses the importance of clear and achievable objectives and an understanding of which target audiences should be the focus of influence efforts to achieve desired objectives.

Finally, we assessed a number of complementary planning approaches and methodologies that might be incorporated into campaign planning, execution, monitoring, and assessment and thereby provide a more systematic and metrics-based approach for integrating influence operations into military campaigns.

Many readers will notice that throughout this report we tend to emphasize strategic-level influence efforts, particularly those related to influencing mass publics—i.e., "winning hearts and minds" during stability and support operations. This emphasis is by design and flows from our view that these types of operations have presented some of the

greatest challenges in Iraq and Afghanistan. Moreover, the common view of the growing importance of the "strategic corporal" suggests that many political and similar considerations that previously were considered to be "strategic" have, in fact, been pushed down to the operational and tactical levels of war. Therefore, the reach of influence operations has had to expand commensurately.

Organization of This Report

This report is designed to provide readers with a policy-relevant *tour d'horizon* of scholarly work on influence, from its microfoundations in individual-level cognitive attitudes and persuasion up to macropolitical epiphenomena, such as attitude and behavioral change in mass populations. This report is organized as follows:

- Chapter Two presents a discussion of factors associated with attitude formation and change at the individual level and successful persuasion and influence. This discussion concludes with a description of an analytic approach that appears to rise above the wealth of notions seeking to explain individual-level attitude change. This approach may offer a general framework for planning and engineering attitude change.
- In Chapter Three, we discuss factors that appear to influence individuals within groups and decisionmaking through the lenses of recent empirical research on opinion leadership, group decisionmaking, social choice theory, and social networks.
- In Chapter Four, we turn to larger models of influence in international affairs, including a discussion of available strategies for influencing adversaries (and others) and a description of a family of rational choice models that can inform the development of influence strategies and offer some basis for determining whether and how influence objectives can be achieved.
- In Chapter Five, we discuss some of the challenges associated with influencing mass publics, including assessing the roles of opinion leadership, the media, and mass public opinion.

- · Chapter Six provides a framework for thinking about influence operations and identifies a set of key questions that can facilitate the planning of more effective influence operations.
- Chapter Seven provides conclusions and implications.

A number of appendixes also are included:

- Appendixes A through C draw lessons for influence operations from three very different domains in which the central aim is influencing target audiences to change their attitudes, beliefs, or behavior: commercial advertising and marketing, American-style political campaigns, and public diplomacy and propaganda.
- Appendix D provides a brief review of a number of planning approaches that may be suitable for use in planning, conducting, and assessing influence operations.

Influencing Individuals

In some cases, such as crisis management, influence operations planners will seek to influence the attitudes, beliefs, behaviors, and decisions of specific individuals—for example, political leaders—while in other cases, such as counterinsurgency, planners will focus on the other extreme and seek to influence large segments of mass publics to support the U.S. side or to withhold support from U.S. adversaries. In either case, an understanding of attitudes, beliefs, and how individuals respond to messages and actions is essential for effective influence operations; in other words, one of the microfoundations of influence can be found in individual-level considerations. This chapter provides essential background on what we view as some of the theoretical and empirical microfoundations of effective influence at the individual level of cognition, attitudes, and behavior.

A recent review of scholarship related to the conceptualization of attitudes, attitude formation and activation, attitude structure and function, and the attitude-behavior relation summarized a number of basic points about individual-level attitudes:¹

 There is general agreement that an attitude represents a summary evaluation of a psychological object (or attitude object—e.g., a person, thing, place, or event) captured in attribute dimensions,

¹ The following summary of research findings is paraphrased from Ajzen, 2001.

such as good or bad, harmful or beneficial, pleasant or unpleasant, and likable or dislikable.2

- Attitude evaluations appear to be composed of multiple components, engendering both a cognitive dimension and an affective one, but the contributions of affect and cognition to overall evaluations can vary with the attitude object and as a function of individual differences.
- Chronically accessible beliefs (i.e., those most easily retrieved from memory) provide the foundation for current, relatively stable attitudes, but various contextual factors can temporarily make certain beliefs more readily accessible and salient.
- There is some research suggesting that stronger attitudes are more stable over time, more resistant to persuasion, and more predictive of manifest behavior.
- There is some evidence linking attitudes to values (favorable valences associated with abstract concepts such as freedom and equality) and ample evidence linking attitudes to subjective norms.
- Much of the recent research related to the attitude-behavior connection has focused on the theories of reasoned action and planned behavior (described below) and has sought to elaborate on the relationship of attitudes and intentions to overt actions.

Today, most accept the view that an attitude represents an evaluative integration of cognitions and affects experience in relation to an object. Attitudes are evaluative judgments that integrate and summarize these cognitive/affective reactions. These evaluative abstractions vary in strength, which in turn has implications for persistence, resistance, and attitude-behavior consistency (Crano and Prislin, 2006, p. 347).

In a similar vein, Tourangeau and Rasinski (1988) state:

Within social psychology, there is an emerging consensus that attitudes are best understood as structures that reside in long-term memory and are activated when the issue or object of the attitude is encountered. . . . In our own work, we have found it useful to represent attitudes as networks of interrelated beliefs. Although we refer to the constituents of attitudes as beliefs, we use this term loosely to encompass memories of specific experiences, general propositions, images, and feelings.

A recent review of attitudes and persuasion research described attitudes thusly:

There are a great many individual-level academic theories about cognitive processing, attitude formation and change, attitude-behavior consistency, social influence, and persuasion that compete for our attention in understanding the mechanisms by which individuals' attitudes, beliefs, or behaviors can be influenced.

As will be described, these theories differ in the variables they emphasize in explaining attitudes and persuasion, each tends to find some empirical support in experimental work, and each can help to explain the conditions under which inertia in attitudes and behaviors can be overcome and attitude change can take place.3 Moreover, their generally modest explanatory and predictive power highlights just how situationally dependent the influence enterprise is; as will be seen, most of these models fall far short of living up to the present-day frequently used DoD slogan "perception management." The literature is vast, and the following does not discuss all of the various theories related to influence and persuasion, but it aims to cover some of the more relevant and influential theories and models that have implications for the influence enterprise:5

• Expectancy-Value Model. The most popular conceptualization of attitude—the expectancy-value model of Fishbein, Ajzen, and Feather—suggests that evaluative meaning arises spontaneously and inevitably as individuals form beliefs about an object. Fur-

Actions to convey and/or deny selected information and indicators to foreign audiences to influence their emotions, motives, and objective reasoning as well as to intelligence systems and leaders at all levels to influence official estimates, ultimately resulting in foreign behaviors and official actions favorable to the originator's objectives. In various ways, perception management combines truth projection, operations security, cover and deception, and psychological operations.

See also the Wikipedia (n.d.[b]) definition of perception management.

³ For a good review of various characteristics associated with attitude formation and change, see Crano and Prislin, 2006.

⁴ The DoD definition of perception management (DoD, 2007) actually is somewhat more measured in tone than the term itself:

⁵ For excellent reviews of attitude change and social influence, see Petty, Wegener, and Fabrigar, 1997; Wood, 2000; Cialdini and Goldstein, 2004; Crano and Prislin, 2006.

thermore, each belief associates the attitude object with a certain attitude, and the individual's overall attitude toward the object is determined by the subjective value of the object's attributes in interaction with the strength of the associations. This approach also provides a theoretical framework for examining resistance to persuasion that focuses on message acceptance, second-order impacts on attitudes not directly addressed in messages, and the evaluation of message attributes (see Fishbein, 1963; Fishbein and Ajzen, 1975; and Feather, 1982).6

- Elaboration Likelihood Model (ELM). Petty and Cacioppo's ELM is a dual-process model. It argues that attitudes guide decisions and other behaviors and that there are both central and peripheral routes to persuasion.7 According to the ELM, the ability and willingness of an individual to actually think about an argument and its supporting evidence explain the likely efficacy of each route in a given situation: When individuals are involved in trying to understand an argument and its supporting evidence (i.e., elaboration is high), the central route is more efficacious, whereas when individuals are not involved (i.e., elaboration is low), the peripheral route is a more effective approach.8
- The Semantic Differential and Evaluation, Potency, Activity (EPA) Model. Osgood's semantic differential and EPA model of communications and attitudes aimed to serve as a bridge between the communication of messages regarding attitude objects and the meaning that individuals assign to these attitude objects in larger attitude structures. Respondents evaluated different concepts and objects using ordinal scales, the results of which were factor ana-

For an application of this framework to resistance to persuasion, see Ahluwalia, 2000, pp. 217-232.

⁷ Dual-process models are in a family of models that hold that if receivers are able and properly motivated, they will elaborate, or systematically analyze, persuasive messages. If the messages are well reasoned, data based, and logical, they will persuade; if they are not, they will fail (Crano and Prislin, 2006, p. 348). Another example of a dual-process model is the heuristic/systematic model, which is described in Chaiken, Liberman, and Eagly, 1989.

See Petty and Cacioppo, 1996; TCW, 2004. Chaiken's heuristic system model also is a dual-source model (Chaiken, 1980).

lyzed, generally reducing to three underlying principal components: a component Osgood described as "evaluative" (e.g., good versus bad), one described as "potency" (e.g., assessing strength or weakness), and one described as "activity" (e.g., assessing activity versus passivity)—or, taken together, the EPA model. As documented in his books and papers, Osgood's ambitious research program resulted in a set of results demonstrating the underlying robustness of the EPA model as a tool for characterizing attitude structures and the applicability of the model across cultural milieus (Osgood, Suci, and Tannenbaum, 1961; Osgood, 1964). Perhaps more important, Osgood's path-breaking work also constituted a seminal early effort to represent attitude objects spatially in a larger, multidimensional attitude space.9

· Cognitive Dissonance Theory. Because of its historical import, we also note Festinger's cognitive dissonance theory. 10 In its original form, the theory argued that individuals who hold discrepant cognitions are motivated to reduce or eliminate the tension between these cognitions by trying to bring them back into alignment (see Festinger, 1957, 1964).11 This can be accomplished, for example, by changing one or more cognitions, adding new cognitions, or altering the relative importance (e.g., discounting) of certain cognitions. Subsequent research has suggested that the concept of cognitive dissonance does not explain dissonant generalized cognitions (e.g., political views) so much as cognitions that challenge one's generally favorable views of oneself: Individuals may be motivated to realign their self-concept or engage in

⁹ In particular, this work was highly influential in the development of Woelfel's Galileo theory and method, discussed later in this chapter.

¹⁰ For a discussion of the four versions of dissonance theory that recently have generated research interest, see Petty, Wegener, and Fabrigar, 1997, especially pp. 619-622. See also Osgood's model of attitude congruity (Osgood, 1960).

¹¹ A number of factors affect the perceived magnitude of the dissonance and motivation to address it, including the degree of discrepancy among cognitions, the number of discrepant cognitions, the number of consonant cognitions held by an individual, and the relative weights given to the consonant and dissonant cognitions, which may be adjusted by their importance in the mind of the individual (Stephenson, n.d.).

bolstering behavior when, for example, a freely chosen behavior results in some foreseeable negative consequence or if dissonance arises from the violation of self-integrity.¹²

Also of some interest are areas of study that seek to explain changes in attitudes and behaviors that are based on rational cognition and on systematic departures from strict rationality:

- · Bounded Rationality. Traditional economic theories of decisionmaking assumed that man was a rational, utility-maximizing, self-interested actor with perfect information. Herbert Simon's theory of bounded rationality argues instead that people are partly rational but that, given the vast complexity of the world and practical constraints on time and other resources for gathering information and making decisions, human rationality is necessarily bounded.13
- Judgment Under Uncertainty. Research by a number of psychologists has aimed to enrich Simon's intuition about bounded rationality by exploring exceptions to strict rationality. Experiments conducted by psychologists Daniel Kahneman, Amos Tversky, and Paul Slovic (1982), for example, have shown that individuals' use of heuristics and biases lead to departures from strict rationality in the form of expected utility calculations, but that many of these departures occur in systematic and predictable ways. 14

¹² See, for example, Aronson, 1969; Cooper and Fazio, 1984; Aronson, 1992; Wood, 2000, especially pp. 546-548.

¹³ Simon (1957, p. 198) argued that bounded rationality arose from the fact that "the capacity of the human mind for formulating and solving complex problems is very small compared with the size of the problems whose solution is required for objectively rational behavior in the real world—or even for a reasonable approximation to such objective rationality." For a review of Simon's contributions to political science and an analysis of his intended meaning for bounded rationality, see Bendor, 2003.

¹⁴ A popular example is the tendency of individuals to be risk seeking in prospects involving sure losses and risk averse in gambles involving sure gains (see Kahneman and Tversky, 1979; Levy, 1997. The work of the psychologist Philip Tetlock also is apposite.

Among the more prominent theories that address the issue of attitude-behavior consistency are two theories associated with psychologist Icek Ajzen: the theory of reasoned action and the theory of planned behavior. 15 The theory of reasoned action says that individuals' intentions are the best guides to their behavior and that their intentions are, in turn, guided by their attitudes toward the behavior and the subjective norm related to that behavior. The theory of planned behavior is an extension of the theory of reasoned action and adds a third variable—perceived behavioral control—as an additional predictor of behavior.16

A number of other theories seek to account for social influences on attitude formation and changes in behavior:

- Social Learning Theory. Miller and Dollard's social learning theory (1941) argues that behavioral change incorporates the principles of learning, which include reinforcement, punishment, extinction, and imitation of models (see also Bandura, 1977). Current variants of the theory generally hold that (1) response consequences (e.g., reward and punishment) influence the likelihood that a person will perform a particular behavior again in a given situation; (2) humans can learn by observing others; and (3) individuals are most likely to model behavior of others with whom they identify (see "Social Cognitive Theory," n.d.).
- Social Cognitive Theory. Albert Bandura's social cognitive theory (1973; 1986) holds that individuals learn by observing and modeling others' behavior. Bandura posits four conditions for learning by modeling others' behavior: (1) the individual must be paying attention to the model, (2) the individual must be able to remember the behavior that has been observed, (3) the individual must be able to replicate the behavior, and (4) the individual must be motivated to demonstrate the learned behavior (Ormrod, 1998).

¹⁵ For a review of recent research in this area, see Ajzen, 2001.

¹⁶ For a discussion of the theory of reasoned action, see Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980. The theory of planned behavior is described in Ajzen, 1985.

Also, likely to be of interest to some readers is a small literature dealing with a related set of factors that are associated with resistance to persuasive efforts.¹⁷

Engineering Attitude Change

While some general theories do stand out—the expectancy-value model, the elaboration likelihood method, social power theory, and the theory of planned behavior, for example—readers of the foregoing might well conclude that understanding individual- or group-level attitudes will require an ensemble of different theories, tools, and analytic activities to ascertain and foster desired shifts in attitudes and behaviors through appropriately tailored messages and policies. They would be largely correct in reaching this conclusion; as described above, the influence enterprise is vastly complicated and requires substantial analysis and testing to avoid the most obvious mistakes and pitfalls that have been identified by various research programs. There has, however, also been some effort to put forth analytic approaches that, like Osgood's EPA model, might provide a more general and systematic basis for mapping attitudes—and for planning communications that can shift these attitudes in desired ways.

One of the more interesting approaches to communication and attitude change we found was Joseph Woelfel's metric multidimensional scaling approach, which is called Galileo.¹⁸ In many ways,

¹⁷ Beyond Fishbein and Ajzen (1980), see for example, McGuire and Papageorgis, 1962; Anderson and McGuire, 1965; Voghs and Garrett, 1968; Ahluwalia, 2000.

¹⁸ See, for example, Woelfel and Fink, 1980; Woelfel et al., n.d.(a); Barnett, Serota, and Taylor, 1976; Barnett and Woelfel, 1979; Woelfel et al., n.d.(b); Woelfel, Hernandez, and Allen, n.d.; Woelfel, 1981; Danes, Hunter, and Woelfel, 1984. Most of these works are available from the Galileo Web site (n.d.).

Another approach worth mentioning was developed by Bud Whiteman of Booz Allen Hamilton. It includes a framework for assessing PSYOP mission effectiveness that systematically addresses the sorts of challenges that must be overcome for successful influence efforts to occur. That framework strongly resembles the simple model presented here. In brief, Whiteman provides a top-down methodology for quantifying PSYOP mission effectiveness based on PSYOP objectives, supporting PSYOP objectives, and appeals to target audiences. White-

Woelfel's theory was the closest that any social science approach came to providing the basis for an end-to-end engineering solution for planning, conducting, and assessing the impact of communications on attitudes and behaviors.¹⁹ This theory appears to provide a generalized framework for

- measuring attitudes, beliefs, cultural factors, and other psychological or cognitive phenomena through the use of paired comparisons of distances between objects using a standardized metric
- · visualizing attitude structures in a multidimensional space in which the distance between attitude objects connotes their similarity or dissimilarity, with attitude objects that are judged to be similar closer together and those judged to be dissimilar farther apart
- · assessing the degree of similarity in attitude structure within subgroups based on the dispersion around the average positions of attitude objects in multidimensional space
- assessing the level of crystallization, stability, or inertia in attitudes by comparing the average position of attitude objects in space at different time intervals and ascertaining whether differences are accountable to a lack of crystallization in beliefs about the objects or whether they actually reflect the movement of these objects in response to persuasive messages or other factors
- identifying the most effective and efficient campaign themes and messages for changing attitudes in a target audience by identifying where in multidimensional space an attitude object (e.g., "the United States") is relative to other concepts, such as "good" and

man treats the influence process in much the same way as we describe our influence model, and he computes separate probabilities for receipt, acceptance, and attitudinal or behavior change in accordance with a message. Target audiences can be divided into subgroups that differ in terms of their preconditioning to accept or reject a message, such that the intensity of messages required to change attitudes and behaviors can vary by group. Whiteman, 2004, represents a very useful contribution to thinking about the influence process in an end-toend way. Whiteman's model builds on Kerchner, Deckro, and Kloeber, 1999.

¹⁹ A great number of Galileo theory–related papers are available at the Galileo Web site (n.d.).

"evil," and what other attitude objects (e.g., "England") might be associated with "the United States" to move it to a more favorable position.

Galileo theory conceives of attitudes, beliefs, cultures, and other ideational phenomena as attitude objects in multidimensional space (Woelfel and Fink, 1980, p. x.):

[Galileo] defines cognitive and cultural processes as changes in the relations among sets of cultural "objects" or concepts. The interrelationships among these objects are themselves measured by magnitude estimation pair comparisons, and the resulting dissimilarities matrices are entered into metric multidimensional scaling programs. The result of this work is that each of the cultural objects is represented as a point in a multidimensional Riemann space. Cognitive and cultural processes may be defined within this framework as motions of these objects relative to the other objects within the space.²⁰

The Galileo metric multidimensional system's conversion of distances between objects to multidimensional maps of an attitude "space" can perhaps be best understood using a simple example. If we constructed a table of all pair-wise distances between major cities in the United States, conducted a factor analysis of these data, and then plotted the first two principal components of the factor analytic solution, the relative position of each city would be essentially identical to its relative position on a physical map.²¹ In a similar way, the distances between attitude objects can be used to construct a "map" of attitude objects in an individual's attitude space, on which the distance between attitude objects connotes their similarity or dissimilarity.

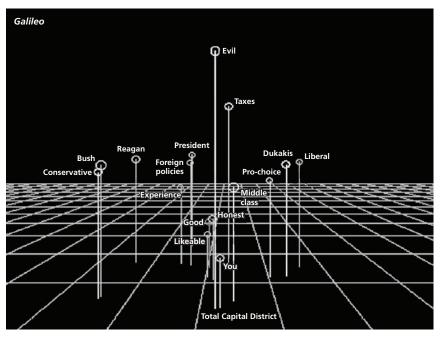
²⁰ To clarify, researchers obtain similarity ratio judgments of the distances between objects.

²¹ Because the United States is wider than it is tall, the first component of a factor analysis of the distances between all U.S. cities would be expected to correspond to longitude, the second to latitude.

To illustrate, Figure 2.1 presents, in a three-dimensional form, the results from a Galileo survey instrument that asked respondents for their judgments about a number of attitude objects related to the 1988 presidential contest between then-Vice President George H.W. Bush and then-governor of Massachusetts Michael Dukakis. In the figure, a variety of attitude objects related to the presidential campaign are projected in the same space, including

- evaluative criteria, such as conservative and liberal, pro-choice, honest, likeable, experienced, and evil
- people, including Bush, Reagan, Dukakis, and you (the respondent)

Figure 2.1 Attitude Objects in Multidimensional Space



SOURCE: Galileo Web site, n.d. RAND MG654-2.1

• other attitude objects, such as president, taxes, foreign policies, and middle class.

The figure shows that certain concepts cluster in natural ways. For example, Dukakis, Liberal, and pro-choice are all clustered together toward the right of the figure, suggesting that respondents generally viewed Governor Dukakis as embracing traditional liberal positions. By comparison, Bush, Reagan, and conservative are clustered toward the left side, suggesting that Bush was linked to his predecessor and traditional conservative positions. Finally, you (the respondent), likeable, honest, and good are all clustered together at the front of the figure, connoting that respondents to the survey generally viewed themselves in highly favorable terms.

As described above, the distances between objects in the figure connotes shared attributes: for example, *Reagan* appears to be closer to president (i.e., he was, after all, president at the time) than either Bush or Dukakis; Dukakis is more liberal and pro-choice than Bush is; and so on.

Procedurally, Galileo theory requires respondents to estimate the distance between pairs of attitude objects using a standard ratio-level metric of distances between attitude objects. For example, the survey instrument might state that the distance between good and evil is 100 and then ask the respondent to estimate the distance between other pairs of attitude objects (e.g., between bin Laden and evil, bin Laden and good, and so on) using that first metric between good and evil as a standard-length rod. The matrix of paired distances creates a coordinate system that can be transformed to principal axes using the eigenvectors associated with the matrix and yielding the sort of multidimensional "map" of the objects portrayed in Figure 2.1.22

In this framework, efforts to influence change amount to forcing objects to move in this multidimensional space by seeking to strengthen or weaken the connections (distances) between them. Thus, campaign strategies to move Bush or Dukakis closer to the respondent

²² Woelfel and Fink (1980, pp. 58–65) demonstrate how a matrix of distances between cities can be transformed into a two-dimensional map using this approach.

(you)—and thereby improve the prospects for gaining the respondent's vote—could include trying to more closely associate one or the other candidate with honesty, likeability, or goodness, characteristics that the respondent associates with him- or herself. Another strategy might be to more closely associate the candidate with being presidential (president), an attitude object that appears to be closer to the respondent than does either candidate. Galileo theory actually provides formal mathematical procedures for identifying the themes and messages that are most likely to move a candidate or other object in the desired direction.²³ To summarize, Galileo theory appears to us to be a potentially promising approach for mapping attitudes and reasoning about how best to tailor messages to shift key attitudes.

Influencing Individuals: Conclusions

This chapter has reviewed a number of individual-level theories about cognition, attitude formation, and attitude change that offer important insights into the processes that can lead to the persuasion of individuals to change relevant attitudes and behaviors. These theories provide a microfoundation for influence efforts at the individual, group, and mass level and, when used as diagnostic tools or frameworks for developing communications, may help planners of influence operations by focusing attention on the key variables that regulate the efficacy of persuasive communications.

Although some of the models just described are somewhat general in nature, the poverty of riches created by these competing models suggests the absence of a larger meta-theory or model that integrates and harmonizes these various perspectives—and their empirical support in a coherent and operational way (Raven, 1990). Such a meta-theory, if it integrated and harmonized the most robust theoretical and empirical findings, would seem to be exceedingly useful to planners.

²³ See, for example, Joseph Woelfel et al., n.d.(a); Barnett, Serota, and Taylor, 1976; Woelfel et al., n.d.(b).

Although such a larger meta-theory is beyond the scope of our study, it may be fruitful to step back from the details of the various theories and to conceive of each of these theories as generally falling into one of three main approaches, focusing on (1) emotions, values, and "hot" cognitive processes and the results of "targeting the heart"; (2) rational, cognitive, or "cool" processes and the results of "targeting the head"; and (3) pressures for social conformity (see Figure 2.2 and Wood, 2000).24

The figure suggests the following:

RAND MG654-2.2

In broad terms, a pure messaging strategy (e.g., appealing to 1. emotions) or various mixes of emotional, cognitive, and social appeals can be relied upon to accomplish influence aims.

Emotions/values Social/conformity (hot) Rational/cognitive (cool)

Figure 2.2 **Alternative Domains for Persuasive Appeals**

²⁴ Kazuo Yamaguchi (2000) provides a "non-expected" utility-based analysis of collective action. For a review of the literature on social influence and conformity, see Moscovici, 1985. For a relatively recent review of the social influence literature, see Cialdini and Goldstein, 2004.

- The efficacy of these appeals will depend heavily on factors that 2. are under the control of the planner and many situational factors that are completely outside of the planner's control.
- There is, as a result, likely to be an inherent trial-and-error qual-3. ity to influence efforts. This quality dictates the need for a robust capacity for assessing effects and adapting influence activities as feedback becomes available.

Given the heterogeneous nature of many target audiences and the substantial uncertainties regarding whether appeals to emotions and values, rational calculations, or social conformity will be most influential, influence campaign planners and message developers accordingly may wish to "hedge," through campaigns that utilize a mix of message types that test the efficacy of various communications approaches and by embracing a trial-and-error approach that tests the relative potency of each type of appeal and adapts the campaign based on the results.²⁵ And given the innumerable ways that influence campaigns can go awry, an adaptive approach to planning, execution, and assessment could offer planners the best chance for success.

Looking at the glass as half full, then, planners may expect that these various theories and models may be useful as diagnostic tools that can be used to help avoid some of the more obvious mistakes and pitfalls. And in some cases, planners may even find some useful concepts in the ensemble of available research theories that can strengthen the empirical basis for the development of persuasive communications underwriting influence strategies.

Perhaps even more challenging still is the fact that scholars and other practitioners have pretty consistently pointed to the dominance of situational factors that confound the ability of individual academic theories of attitude and persuasion to actually explain and predict

²⁵ Obviously, to keep them simple, planners might construct messages to target audiences that accent emotional, rational, or social conformity, but it would be possible to direct separate messages utilizing different appeal types to the same target audience—or to mix the nature of the appeals in these messages.

observed behaviors.²⁶ "We will not find a high correlation between attitude and behavior if situational pressures substantially contribute to the observed behavior—and they almost always do" (Kiesler, Collins, and Miller, 1969, pp. 29-30). This view has not fundamentally changed since then (Upmeyer and Six, 1989, p. 16):

In terms of cost considerations, an incredible amount of money is being spent in applied psychology, marketing, and survey research that can hardly be justified by the strength of the covariation presently found in attitude-behavior relationships.

"I know I'm wasting half of my advertising budget. I just don't know which half "27

This finding also is echoed in J.A.C. Brown's (1963, pp. 103, 148) analysis of propaganda in World Wars I and II,28 which concludes that situational factors were the dominant ones in determining the success or failure of wartime propaganda efforts:

[P]ropaganda is successful only when directed at those who are willing to listen, absorb the information, and if possible act on it, and this happens only when the other side is in a condition of lowered morale and is already losing the campaign. . . . War propaganda can often change attitudes but, unless the real situation is catastrophic, it rarely changes behavior; and propaganda which does not lead to action has very largely failed.

²⁶ For example, Crano and Prislin (2006) reported that Armitage and Conner's (2001) review of meta-analyses of the theory of planned behavior found that the constitutive elements of the theory explained 18 percent of the variance in intentions and 13 percent of the variation in subsequent behaviors, while Sheeran's (2002) review found that intentions explained 28 percent of the variance in subsequent behavior.

²⁷ Attributed to department store founder John Wanamaker (1838–1922), who was a pioneer in the use of newspaper advertising to promote his department stores.

²⁸ We are grateful to Ren Stelloh of PhaseOne Communications for bringing this analysis to our attention. Appendix C contains two case studies of influence in public diplomacy.

Moreover, despite the availability of sophisticated theoretical and empirical work, present-day businesses appear to be no better served by their advertising and marketing spending than those who were involved in wartime propaganda efforts. In fact, recent estimates suggest that business continues to waste about half of its spending on advertising.²⁹ Given the greater difficulties of "selling America" than selling soap, beer, and running shoes, it should, therefore, be little surprise that recent U.S. government public diplomacy initiatives that naïvely place their faith in "the magic of Madison Avenue" have yielded such modest results.30

Put simply—and at the risk of appearing overly pessimistic about the overall prospects for influence operations—there are many reasons to believe that the scholarly literature, for the level of the individual, contains more lessons about specific factors that account for a failure to influence, many of which are outside the control of planners, than general rules that can guide successful influence efforts.³¹

Relevant theoretical work includes Dorfman and Steiner, 1954; Weber, 1975; Sasieni, 1989. An interesting empirical effort to relate brand awareness to advertising efforts can be found in Brown, 1986.

²⁹ A trade association called the Interactive Advertising Bureau estimates that advertisers send messages that reach the wrong audience or none at all about half of the time, thereby wasting \$112 billion a year in America and \$220 billion worldwide, or just over half of the total estimated spending on advertising of \$428 billion per year. See "Special Report," 2006. For additional evidence that about half of advertising dollars are wasted, see Appendix A.

³⁰ The appointment of Madison Avenue advertising executive Charlotte Beers to run the U.S. State Department's public diplomacy effort was perhaps the most famous example, but the naïve view that an understanding of advertising techniques alone will be sufficient to influence foreign audiences persists in some circles. See "From Uncle Ben's to Uncle Sam," 2002; "Business: Selling the Flag; Face Value," 2004. Appendix A contains a detailed case study of commercial advertising and marketing approaches to influence.

³¹ A good example is the result that an individual's mood can affect the likelihood of message acceptance. See Wegener, Petty, and Klein, 1997.

Influencing Groups and Networks

The next level up from the individual involves influencing the behavior of individuals in groups and group-level dynamics, decisions, and other behaviors.\(^1\) As will be shown, the scholarly literature that addresses influence and decisionmaking processes within groups and social networks provides a different set of intellectual foundations, and some of the insights from this research illuminate what may constitute additional opportunities for influencing such processes.\(^2\)

Behavioral Perspectives Regarding Groups

As with the literature related to individual-level attitudes and behavior, the scholarship related to how people in groups influence one another and the factors that affect group dynamics and group decision outcomes is quite vast. The following is meant to provide a brief overview of some of the more important work in these areas:

 Social Power Theory. Social psychologist Bertram Raven has focused much of his research on defining and elaborating the concept of "social power" and on the development of a power/

¹ The term *group dynamics* was coined by the social psychologist Kurt Lewin, and it has been a recurring topic of scholarly inquiry for psychologists and sociologists. For a review of Lewin's contributions to the discussion on group dynamics, see Smith, 2001.

² Among the most frequently cited works on networks in national security affairs is Arquilla and Ronfeldt, 2001.

interaction model of interpersonal influence.3 The model holds that there are six bases of social power—informational, coercive, reward, legitimacy, expert, and referent power—in addition to several other, less direct methods of influence that a planner can employ in influencing a target audience, including manipulating environmental variables that constrain the audience and invoking or reducing the power of third parties (Raven, 1990, pp. 496-504). In this model, planners seeking to influence another party assess both their own motivations and those of the target audience, their available power bases, the costs of available influence strategies, and necessary preparations for the influence attempt. Then they make a choice regarding the mode of influence and assess the effects of the influence effort (Raven, 1990, pp. 504-511). In a similar fashion, the target audience also may assess motivations for resisting the influence effort and other related factors (Raven, 1990, pp. 511-513). The application of social power theory to influence tactics has expanded beyond Raven's original domain of interpersonal influence to intragroup and intergroup settings (see Bruins, 1999).

• Cialdini's Influence Model. Social psychologist Robert B. Cialdini (2000, 2006) identified what he described as six "weapons of influence": (1) reciprocation, the tendency for people to return a favor; (2) commitment, the tendency for people to honor a commitment; (3) social proof, the tendency for people to behave as they observe others behaving; (4) authority, the tendency to obey authority figures; (5) likeability, i.e., people are more easily persuaded by those whom they like; and (6) scarcity, perceptions of scarcity generate demand. Cialdini also argued for the "foot-inthe-door" phenomenon, which suggests that if small efforts at influence are successful, they can also be used for large efforts (see Cialdini and Schroeder, 1976).4

³ See, for example, French, and Raven, 1959; Raven, 1990.

⁴ A 1983 meta-analysis of foot-in-the-door research found that the phenomenon, although replicable, was weak and not nearly as robust as had been assumed, and that nearly half of

- Social Exchange Theory. The social exchange theory of psychologists J. W. Thibaut and H. H. Kelley (1959) is a general theory of interpersonal relations and group functioning that bases its analysis of social interactions on game theoretic assumptions regarding how people in groups influence each other through the exchange of rewards and costs, and the availability of resources. In this theory of interdependence, individuals try to maximize rewards and minimize costs, and they choose to develop relationships with others on the basis of their assessments of the expected outcome of developing a relationship relative to other possible relationships.
- Appeals to Fear and Attitude Change. One of the unique aspects of influence in military operations is the ever-present possibility of coercion through the threat or use of force, and there is some research on the efficacy of appeals to fear in communications. Hovland and his associates (1953), for example, provide some of the earliest theoretical analyses of fear arousal and persuasion (also, see Janis and Feshbach, 1953). Subsequent work has suggested that low and high levels of fear can interfere with the processing of messages and that moderate levels of fear may lead to the most effective persuasion (see Higbee, 1969; Keller and Block, 1996). Other work has elaborated on Hovland's original formulation and has sought to understand how the severity of a threat, its probability of occurrence, and the availability of coping strategies affect the persuasiveness of communications.7 We did not find any individual-level research distinguishing between short- and long-term effects of threats or coercion or the extent to which postcoercion resentment might affect long-term compliance.

the studies either produced no effect or the opposite effects from those desired. See Beaman et al., 1983.

⁵ The authors updated their model in Kelley and Thibaut, 1978.

⁶ The theory also considers such issues as the cohesiveness of groups, social power, and rivalry (Gladstone, 1961).

Rogers and Mewborn (1976) elaborate on the work of Hovland, Janis, and Kelley (1953). In addition, Das, de Wit, and Stroebe (2003) suggest that fear can serve as a motivator for those who feel vulnerable.

· Coercive Persuasion and Thought Reform. Finally, psychologists Kurt Lewin and Edgar Schein separately considered what may be the most extreme types of group influence, i.e., coercive persuasion and thought reform ("brainwashing") programs such as those used by the Chinese on Korean War prisoners of war. This work suggests that changing attitudes involves three distinct steps: (1) "unfreezing" current attitudes, (2) changing the attitudes, and (3) "refreezing" the new attitudes. Schein and Lifton found that even though these programs were conducted in an environment in which the Chinese tightly controlled virtually all aspects of the prisoner-of-war environment—including whether prisoners would live or die—the effects tended to be ephemeral at best (Schein, 1959, 1961; Lifton, 1961; also, Ofshe, 1992).

Before proceeding, it is worth mentioning that many of the individual-level behavioral theories of influence and persuasion discussed earlier also are highly relevant to the question of an individual's influence within a group setting. For example, the relative power of individuals that is addressed in Raven's social power/interaction theory also has been examined by social choice theorists, who have sought to quantify the distribution of power in committees and other small groups in terms of a power index (see Shapley and Shubik, 1954). Among the most prominent of these is the role of opinion leadership, a key construct that applies not just in small group settings but scales up to the level of mass public opinion.

Opinion leaders and opinion leadership have been among the most important concepts related to the influence of key individuals within groups, networks, communities, and larger society since the time of John Stuart Mill.8 Much of the scholarship in this area relies on Elihu Katz and Paul Lazarsfeld's (1955) two-step theory of commu-

⁸ As Mill observed: "The mass do not now take their opinions from dignitaries in Church or State, from ostensible leaders, or from books. Their thinking is done for them by men much like themselves, addressing them or speaking in their name" (Mill, 1869, p. 13). Key works on opinion leadership include Lazarsfeld, Berelson, and Gaudet, 1944; Lasswell, 1948, p. 37; Katz and Lazarsfeld, 1955; Rogers and Shoemaker, 1971; Willner and Willner, 1965; Burt, 1999; Valente and Davis, 1999.

nications, which seeks to explain the diffusion of innovations, ideas, or commercial products. In this model, opinions flow from opinion leaders to other individuals, and opinion leaders can be neighbors, relatives, coworkers, or friends in an individual's social system or political or other leaders whose views are reported in the media.9

Clearly, innumerable other individual-level characteristics that are discussed in the individual-level literature on persuasion, e.g., likeability or expertise, also can constitute sources of influence within group settings.10

Shifting topics, a recent review of the scholarly literature on group performance and decisionmaking offers a number of insights of potential interest to planners of influence operations:

- Group performance can be affected by such factors as inefficiencies in group decisionmaking processes, whether they resort to brainstorming, the motivation of members to contribute to group performance or to engage in "social loafing," the extent and nature of agreement on group goals, and the level of stress (Kerr and Tindale, 2004, especially pp. 625-632). In some cases, such as the level of stress facing an adversary decisionmaking group, the planner may be able to manipulate these factors to his or her advantage.
- Additional work suggests that although groups tend to outperform individuals in many domains, they also can fall prey to the same heuristic-based biases found at the individual level, and groups can either attenuate or exacerbate these individual-level decision biases (see Kerr and Tindale, 2004, p. 634, for a review of this work). Understanding and being able to manipulate such decision biases may constitute another source of influence.

⁹ For three sophisticated scholarly works that share much in their view of opinion leadership in public opinion formation, see Neuman, 1986; Zaller, 1992a; Brody, 1992. Also of interest are Rasinski, Tyler, and Fridkin, 1985; Childers, 1986; Burt, 1999.

¹⁰ Also worth mentioning is that a number of scholars have viewed groups as passing through different stages, from initial formation and selection of leaders to disestablishment of the group. We do not address this subject.

- Also of interest to planners is that groups that share information can improve the quality of their decisions, but that groups tend to be less-than-optimal users of information and often ignore information that is not widely shared among group members, which can lead to failures in uncovering hidden insights (Kerr and Tindale, 2004, pp. 636–638). Efforts to influence the information sets of group members or their willingness to share information may be another fruitful area.
- Some work, furthermore, suggests that group members who are "cognitively central," i.e., who have the highest degree of overlap between the information they hold and that held by other group members, also tend to dominate consensus-based group decision-making outcomes. Understanding which members of a group are central information brokers also may be important to planners (Kerr and Tindale, 2004, p. 638).¹¹

It also is important to note that some individual-level characteristics that have an important influence on which messages individuals attend to and which they are likely to accept also have been shown to be group characteristics (e.g., ideology). This insight can enable planners to tailor their influence campaigns and messages to distinct target groups, each of which consists of relatively homogeneous—on some basic characteristics—individuals (see, for example, Feld and Grofman, 1988).

Rational Choice Perspectives Regarding Groups

The literature concerning rational choice focuses on how individuals promote their interests within larger social or institutional settings and constraints, including within groups. Accordingly, it should be little surprise that the analysis of group deliberations and decisionmaking has been a prominent subject for theorists who have sought to under-

¹¹ A related finding from research in positive political theory (Gilligan and Krehbiel, 1989) suggests that experts, not those whose preferences are outliers, are granted the power by group members to shape group debates and outcomes.

stand the factors associated with the resolution of group-level decisionmaking processes and outcomes—whether micro-level outcomes, such as debates or elections within small committees, or elections and other macro-level political epiphenomena.

A recent review of social choice, rational choice, and positive political theory (i.e., the study of politics using formal methods such as game theory) divided these models into two classes—direct collective preference models and indirect game-theoretic models:12

In its simplest form, [rational choice theory] assumes an individual has well-defined preferences over a given set of alternatives and chooses any alternative with the property that no other alternative in the set is strictly more preferred by her; that is, the individual chooses a "best" alternative. In politics, however, it is rarely the case that only one individual's preferences are relevant for any collective choice; even dictators are sensitive to at least some others in the polity. Consequently, the first family of models in positive political theory, which we associate with the methods of social choice, examines the possibility that individual preferences are directly aggregated into a collective, or social, preference relation which, as in the theory of individual decision making, is then maximized to yield a set of best alternatives (where "best" is defined as being most preferred with respect to the collective preference relation). If a set of best alternatives for a given method of aggregation necessarily exists, then we have an internally consistent model of observed collective choices as elements from this set analogous to the model of individual choice, and it is in principle possible to ascertain whether the model does or does not provide a good explanation for what is observed in the real world of politics.

¹² Among the more notable contributions in this area are the historically important 18th and 19th century works of de Borda, Condorcet, and Dodgson (Lewis Carroll) and a number of works that created the new area of social choice theory, including von Neumann and Morgenstern, 1944; Black, 1948; Arrow, 1951; Shapley and Shubik, 1954; Downs, 1957; Black, 1958; Schelling, 1960 (rev. 1980); Buchanan and Tullock, 1962; Riker, 1972, 1986; Sen, 1977; Merrill and Grofman, 1999.

In [the] second family of models [indirect game theoretic models], individuals are no longer passive participants in the collective decision making, but rather make individual choices of behavior that then jointly determine the collective choice of outcome. These models then naturally fall into the methodology of game theory. . . . Unlike direct preference aggregation models, the game theory models do not presume that collective outcomes are best elements relative to some underlying social preference relation. Rather, they are the consequences of a set of mutually consistent individual decisions, within a given game. It is thus the composition of preferences and game structure that explains collective choices in this family of models and not, as in the first family, the application of an aggregation rule to preferences per se. (Austen-Smith and Banks, 1998, 260–262).¹³

Social choice theorists, therefore, generally look to individual decisions as the source of collective political outcomes, and they assume that individuals operate according to the logic of their own perceived rational self-interest. Put another way, group decisionmaking outcomes—whether at the small group or societal level—are the result of self-oriented actions that combine to yield collective outcomes.¹⁴

Much work in social choice and spatial politics (the representation and analysis of political actors' positions in spatial terms) has focused on predicting group decisionmaking outcomes for a single issue, a vote on leadership of a committee, for example, or a policy. The basic building blocks for rational choice models of politics for single issues are relatively modest: a specification of the relevant individuals or groups; a set of feasible alternatives or outcomes; and for each individual or group, a description of preferences over the set of outcomes (Austen-Smith and Banks, 1998, p. 263). Theoretical and empirical work also converges

¹³ Game theoretic models generally fall into two classes, cooperative and noncooperative. For a discussion of the differences between these models, see Kahan and Rapoport, 1984.

¹⁴ For excellent reviews of positive political theory/rational choice theory, see Austen-Smith and Banks, 1998; Amadae and Bueno de Mesquita, 1999.

¹⁵ Consideration of linked issues tends to generate a range of possible outcomes rather than a specific outcome. See, for example, Feld and Grofman, 1986.

on the finding that institutional constraints—such as group decisionmaking procedures, including agenda control, voting rules, and veto power—also have a powerful influence on group decision outcomes; it is, therefore, also important for planners to understand the institutional and other constraints on decisionmaking.¹⁶

The following finding is of special interest to planners (it echoes the work of social choice and spatial voting theorists): Some empirical research on group decisionmaking for single issues suggests that the preferred position of the median group member tends to dominate in groups using consensus-based and democratic decisionmaking processes.¹⁷ Put another way, in many democratic and consensus-based group decisionmaking environments, the best prediction of a group's decision will be the position of the average (median) group member or, when scaled up to mass publics, the median voter. 18 This insight suggests that an influence strategy that aims to shift the position of the median frequently will be the most desirable one.¹⁹

Moreover, in many cases, planners also may wish to combine behavioral-empirical and rational choice-theoretical approaches. For example, by using survey or other data, we can understand the relationship between subgroup characteristics and policy preferences, the relative salience of various policy issues (e.g., security, electric power, or economic development), or other parameters of interest for rational choice modeling efforts. Put another way, empirical work can inform

¹⁶ Voting rules can impose the constraint of requiring a dictator's or veto wielder's assent, for example, or plurality, majority, or unanimous consent.

¹⁷ Empirical work cited by Kerr and Tindale in support of median voter outcomes includes Crott, Szilvas, and Zuber, 1991; Davis, 1996. For contrasting reviews of the empirical support for the median voter theorem, see Romer and Rosenthal, 1979; Bueno de Mesquita and Stokman, 1994.

¹⁸ The median voter theorem is one of the most important concepts coming out of the social choice literature and was originally articulated in Black, 1948, and popularized in Downs, 1957.

¹⁹ As will be described later in our discussion of agent-based rational choice or expected utility models, for cases in which votes are not taken, weights can be assigned to stakeholders or groups to reflect their relative capabilities and their willingness to use these capabilities to promote their preferred outcomes. This process makes fairly accurate forecasts of policy outcomes.

rational choice modeling and vice versa, and each potentially has something to contribute to the planning of influence operations (Austen-Smith and Banks, 1998, p. 261).

Influence in Social Networks

Closely related to influence within groups and the role of social norms is an understanding of the political, military, tribal, religious, patronage, resource allocation, and other social networks that can promote different norms and can constitute the backbone of community, decisionmaking, control, normative behaviors, and influence in a society. Of particular interest to planners is an understanding of the degree of influence that leadership nodes in these networks exercise over their followers or subordinates and, more generally, how power flows within social networks.

One of the more promising areas of research related to influence in networks is work on the diffusion of innovations within networks.²⁰ The basic premise of this area of research is that new ideas and practices spread through interpersonal contacts, largely consisting of interpersonal communications.²¹ This research also highlights the importance of opinion leaders and suggests that the degree of influence wielded by an opinion leader is predicated in part on the potential adopters' assessment of the leader's credibility and trustworthiness. This research also suggests that early adopters of innovations may be marginal members of a network who provide bridges between networks (in social network analysis [SNA] vernacular, they are high in "betweenness") but that it is only when these innovations come to the attention of opinion leaders that diffusion accelerates. Some of this work suggests that a three-step process can be used to accelerate the diffusion of ideas in a network:

²⁰ See Rogers and Cartano, 1962; Rogers, 1979, 1995; Valente, 1993, 1995, 1996; Valente and Davis, 1999. Another work dealing with contagion or the spread of ideas within a network is Burt, 1999.

²¹ For a review of this literature and a very useful network analysis of the critical role of opinion leaders in the diffusion of innovations within a network, see Valente and Davis, 1999, pp. 56–57.

(1) identify the most influential members of a community, (2) match opinion leaders to the community members who are closest to them in the chain of information flow, and (3) assign "isolates" (individuals identified by no one as an opinion leader) to leaders randomly (Valente and Davis, 1999, p. 61).

The reason for the importance of social networks is that, to the extent that planners understand these networks, their influence operations may target selected, high-payoff nodes and thereby accomplish objectives much more effectively and efficiently than would be the case if operations were diffused across a much larger, more heterogeneous, and less specific set of targets:

- In highly *centralized* political and military systems, the persuasion of individuals at one or a few central nodes often may be sufficient to influence the compliance of the entire network, while their elimination may lead to the destabilization or collapse of the system (Freeman, 1979).
- In highly *hierarchical* systems, the successful persuasion of individuals high in the hierarchy often may be sufficient to influence the compliance of those beneath them, either through direct efforts to influence followers or through broader social influence efforts.²²
- The combination of early adopters, who bring in innovations or ideas from other networks, and opinion leaders, who promote these innovations, can accelerate their rate of diffusion within a network ²³

Our judgment is that the field of SNA offers many tools that can be used to graphically portray networks and facilitate the mapping and analysis of leadership, terrorist, tribal, or other networks, the under-

²² For discussions of hierarchy in a network, see Krackhardt, Blythe, and McGrath, 1994; Hummon and Fararo, 1995. For a relatively recent review of the social influence literature, see Cialdini and Goldstein, 2004.

²³ Valente and Davis (1999) present the results of computer simulations of diffusion over a network consisting of opinion leaders and followers, and they show that the rate of diffusion of innovations within networks is much greater when opinion leaders are early adopters.

standing of which is essential in the development of effective and efficient influence strategies.24

There also are a great many theoretically interesting calculations for analyzing network data and for identifying key players by virtue of their degree, closeness, betweenness, information, eigenvector centrality, or some other derived measure computed from network data.²⁵ But while some of these theory-based calculations may be useful for identifying prominent members of networks using standard measures of centrality, most have very little to say about the influence that these members may exercise over others in the network.²⁶

There has been some interesting recent theoretical work that offers hope that network analysts may develop measures of diffusion, contagion, and influence that can inform the development of influence strategies and targeting.²⁷ This theoretical work has not yet been confirmed by empirical analyses, however, and until there is empirical support for the use of these tools in prediction, it seems likely that SNA will make only a limited contribution to influence operations, largely restricted to the visualization of network data and informing targeting decisions.

Moreover, influence operations seem to require an understanding of hybrid, national-level networks that can represent both individual leaders and large groups of followers, in addition to estimates of the

²⁴ For example, it has been reported that Saddam's capture was the result of the efforts of an intelligence cell to provide a network mapping of the "pack of cards" of 55 top Iraqi leaders.

²⁵ For a comprehensive list of available SNA computer programs, see International Network for Social Network Analysis, 2005. Some other programs in use in the national security, intelligence, and law enforcement communities—such as Analysts Notebook and the Situational Influence Assessment Model (SIAM)—also provide network display and analysis capabilities. For instance, SIAM enables the creation of user-specified "influence net models" based on expert judgment about factors that will influence decisions and a forward-propagation algorithm for beliefs about the likelihood of specific factors being true. See, for example, Rosen and Smith, 2000.

²⁶ Analysts have tended to focus their attention on the problem of disrupting terrorist networks, although there is no conceptual reason that some of these approaches would not be helpful in designing influence operations. On the "key player problem," see Borgatti, 2003.

²⁷ Diffusion within networks is discussed in Young, 1999; Lopez-Pintado, 2004. See, for example, the treatment of influence in Avila and Shapiro, 2005; Clark et al., 2005; Hamill et al., 2007. See also Kempe, Kleinberg, and Tardos, 2003; Harrison and Carroll, 2002.

level of influence exercised by leaders over their followers. Importantly, contemporary SNA representations are limited to relatively small and relatively tractable networks. The theoretical and data requirements of analyzing hybrid network models that are relevant to influence operations are at present somewhat unclear, but until they are addressed, it would appear that SNA's contribution to influence operations is likely to remain limited to descriptive analyses and visualizations.

Influencing Groups and Networks: Conclusions

This chapter has described theoretical and empirical work that is relevant to influencing individuals within groups and to the deliberations and decisions of groups themselves. It has suggested that there are many factors—ranging from interpersonal influence or power, to agendas and voting rules, to imperfections in information or the distribution of information within a group—that can affect group deliberations and decisionmaking outcomes and that may offer opportunities for influence efforts. It also has suggested the importance—and the important limitations—of contemporary SNA theory in supporting influence operations. While there is clearly a need for a keener understanding of hybrid networks consisting of single leaders and relatively homogeneous groups of followers and for the processes by which attitudes diffuse or by which power flows within a network, these have not to date benefited from the scholarly attention they warrant. While SNA approaches and tools have a role to play in supporting influence operations, until some of these limitations are overcome, they appear likely to be relegated to a secondary role.

Influencing Adversary Leadership Coalitions

Of significant interest to planners and analysts supporting influence operations is how these operations—either singly or in concert with other policy actions—might influence an adversary's decisionmaking, either via direct efforts to persuade specific key leaders or indirectly via efforts to affect factional or coalition maneuvering that can bring additional pressure to bear on adversary leaders.

We next examine two aspects of this issue. First, we provide a brief review of work on actor-specific models that has identified standard influence strategies in international politics. We then discuss agent-based rational choice or expected utility models that build upon spatial voting, social choice, and expected utility theories and that do so in a form that facilitates predictions of policy outcomes based on the analysis of domestic and foreign stakeholders who may seek to influence those outcomes. As will be described, these models appear to offer great promise for exploring the availability of effective and efficient influence strategies.

Actor-Specific Models and Strategies

The work of political scientist Alexander L. George constitutes perhaps the most systematic exposition of influence theory in international relations and security affairs for cases outside the normal lanes of diplomacy, those in which the threat of or use of force is present. In its various formulations, this work repeatedly stresses the need for actor-specific behavioral models of adversaries, diagnostics for tailoring

influence strategies to achieve specific aims against specific adversaries, and attention to situational factors.1

George's research has explicitly considered the conditions for success or failure for a wide range of available political-military strategies, including

- deterrence
- · coercive diplomacy
- indirect forms of deterrence and coercive diplomacy
- reassurance
- conciliation
- · conditional reciprocity
- graduated reciprocation in tension reduction (GRIT)
- an-eye-for-an-eye strategies
- behavior modification strategies or conditional reciprocity
- · dealing with "spoilers" in mediating intrastate conflicts
- crisis management.²

Additionally, over the years, the arc of his work increasingly abandoned limiting assumptions, such as unitary state actors, to include more detailed consideration of such issues as how to influence specific leaders or bring about pressure from leaders' core constituencies. A point that was made in the earlier discussion of social networks and that will be taken up again in the discussion of mass publics bears repeating—to the extent that the leaders of specific constituencies or stakeholder groups can be influenced to support a particular position, the support of their core supporters also may be claimed.

Especially in interstate disputes and crises, focusing influence efforts on key leaders or decisionmakers frequently will be the most

¹ Other seminal contributions to an understanding of influence in international politics, crisis, and war include Schelling, 1960 (rev. 1980), 1966; Brodie, 1973.

² For a discussion of each of these strategies, see George, 2002. George's contributions to this area are legion, including George, Hall, and Simons, 1971; George and Smoke, 1973; George, 1980, 1991; George and Bar-Siman-Tov, 1991; Craig and George, 1995. Also relevant to the influence enterprise is George, 1973.

appropriate strategy.³ In other cases—perhaps especially those involving intrastate conflicts or nonstate actors—an indirect strategy may be more appropriate. Such indirect strategies can include the following:

- Intercession by an influential third party. Historical examples include the Bush administration's effort to enlist Russian help in convincing Saddam Hussein to withdraw from Kuwait in 1991 and more recent efforts to enlist Russian, Japanese, and especially Chinese assistance in the six-party talks with North Korea over Pyongyang's nuclear weapons programs.
- Strengthening the hand of moderates or weakening the hand of hard-liners. The relative influence of moderates and hard-liners in adversary decisionmaking may be susceptible to manipulation through a carefully crafted influence strategy that combines precisely targeted messages with appropriately discriminate concessions and/or threats. Good examples of this strategy are U.S. efforts to encourage moderate forces at the expense of extremists in Iran, Iraq, Afghanistan, Indonesia, the West Bank, and Gaza.
- Encouraging important constituents of the opposing regime to put pressure on their leaders. It may be possible to craft influence strategies that increase the pressure that leaders feel from their core constituencies. During the war in Kosovo, for example, the NATO coalition reportedly placed at risk various commercial enterprises in Belgrade that were owned by core supporters of Slobodan Milosevic, and this pressure may have contributed to Milosevic's decision to capitulate (see Hosmer, 2001).

The literature on strategies for influencing adversaries leads to a very similar set of conclusions about context dependence seen in many other areas of influence, including the need to understand actor-specific, group decisionmaking and other situational factors. For example, as

³ Such direct strategies can include classic deterrence and coercive diplomacy directed against adversary leaders and may be accompanied by either threats or positive inducements or both.

George (2002, p. 274) describes the role of carrots in deterrence and coercive diplomacy:

It must be emphasized that offering positive incentives to an adversary as well as threats is highly context dependent in both deterrence and coercive diplomacy. There can be no assurance that a combination of carrot and stick will be effective. The outcome depends on many characteristics of the two actors, the nature of the conflict between them, how well carrots and sticks are chosen and employed, and situational variables. For example, if important divisions exist in the leadership group of the adversary, a carrot and stick approach may encourage those leaders who favor some kind of settlement. When important domestic constituents of the leadership of the adversary state favor termination of the crisis, their views and actions may become more influential on decisions if their state is offered carrots as well as sticks.

As a result, George has frequently cited the need for general models of influence that can be used as diagnostic tools to account for actor-specific, situational, and other factors.

The implication for planners is that an exceedingly rich body of research is available that offers a diagnostic and prescriptive framework for informing the analysis and planning of influence operations. But these general models need to be adapted to the specific characteristics of each new influence effort as a result of differences in objectives, adversaries, and other characteristics of the situation.

Agent-Based Rational Choice Models

To be sure, outcomes in political-military contests are the result of conflicts and bargaining between the disputants (e.g., the United States and an adversary), but they also are greatly influenced by domestic fac-

tions or coalitions that have some influence on adversary leaders or by third parties, such as international or transnational actors.⁴

The use of agent-based rational choice or expected utility models can illuminate the underlying interest group relationships and dynamics—bargaining, coercion, coalition-building, and so on—that influence adversary decisionmaking. These models also can bound the range of likely outcomes for a policy dispute, identify key stakeholder groups that may offer leverage, and assist in choosing strategies that are most likely to influence the outcomes of political deliberations in ways that favor U.S. aims.

Of the various social science approaches we reviewed, agent-based rational choice or expected utility modeling (EUM) appeared to be the most mature and robust. We believe that one of those approaches should be employed in the development of influence strategies; our judgment is that it is a proven forecasting technique that is suitable for operational use for influence strategy development.

The expected utility model of principal interest originally was developed by political scientist Bueno de Mesquita in the late 1970s and early 1980s.5 A commercial version of the model, called Policon, was marketed through Data Resources Incorporated and used by the Central Intelligence Agency (CIA) from 1982 to 1986, and an in-house CIA version of the model, called FACTIONS, subsequently was developed by the Directorate of Science and Technology's Office of Research and Development (Feder, 1995, p. 274). Some academic versions of the

⁴ During the war in Kosovo, for example, Milosevic appears to have been under tremendous pressure from his core supporters to take actions that would end the bombing campaign, which was destroying a key source of their economic wealth. See Hosmer, 2001.

⁵ The model was adapted to two main applications: international conflict and political forecasting. Regarding applications for interstate conflict, see for example, Bueno de Mesquita, 1980, 1981, 1985, and 2000; Bueno de Mesquita and Lalman, 1992. On applications for coalition politics, see Bueno de Mesquita, 1984; Bueno de Mesquita, Newman, and Rabushka, 1985, 1996; Bueno de Mesquita and Stokman, 1994.

model also are available,6 and several commercial ventures currently market the tool as part of their consultancies.⁷

The input data required by the model are readily specified by subject matter experts:

- Identification of the key political stakeholder groups within or outside the country who may seek to influence the policy
- A specified range of policy alternatives that encompass key stakeholder groups' preferred outcomes8
- The policy preference on the issue of each group
- Estimates of the relative political, economic, or military capabilities that each group may employ to influence the policy decision
- Estimates of the importance (salience) each group attaches to the issue, signifying the group's willingness to expend political capital to influence policy outcomes (Bueno de Mesquita, 1984).9

The model endogenously calculates each stakeholder group's (1) risk orientation, (2) basic orientation toward other actors, and (3) esti-

⁶ Congressional Quarterly Press (as of December 2007: www.cqpress.com) has a Webbased online version that is available to instructors and students using Bueno de Mesquita's textbook on international politics. Also, a version of the model, called EUGene (Expected Utility Generation and Data Management Program) and developed by D. Scott Bennett and Allan C. Stam III, is available online (as of December 2007: www.eugenesoftware.org) for the analysis of datasets dealing with international conflict and cooperation.

Different commercial versions of the model are in use or marketed by Decision Insights, Inc. (formerly Policon), Policy Futures LLP, and the Sentia Group. Sentia Group's Senturion model is described in Abdollahian et al., 2006.

The model assumes that issues are unidimensional, such that preferences can be represented on a line segment, and that preferences are single-peaked, so that the associated utilities for potential outcomes diminish steadily the farther in Euclidean distance a possible settlement is from a player's preferred outcome. Each actor's risk orientation is estimated endogenously from his or her position relative to the predicted outcome, such that actors may perceive the same situation very differently.

An actor's salience, which can range between 0 and 1, discounts the actor's capabilities. For example, an actor whose capabilities are judged to be 100 and whose salience is 1.0 has an effective capability on the issue of 100, whereas an actor whose capabilities are 100 but whose salience is only 0.5 has an effective capability on the issue of 50.

mates of potential gains or losses in utility from alternative bargains that might be struck with other actors. Finally, it calculates what proposals will be offered and accepted.¹⁰

The intellectual foundations of expected utility models are found in theoretical work on social choice, spatial voting, and game theory. In their typical contemporary form, expected utility models really consist of two distinct models: first, a weighted spatial voting model forecasts an outcome using whatever voting rule has been specified; 2 second, the model simulates the actual bargaining between actors or groups that are seeking to influence the outcome of the policy issue leading to the predicted outcome. Thus, using a small number of inputs—only three estimates per stakeholder group—the model forecasts an outcome on the policy issue and simulates the interactions between actors—including bargaining and threats—that are expected to be part of the process that will lead to that outcome. Given a base forecast, planners can then explore policy changes—changes in a U.S. position or salience, for example, or in another actor's position or salience—that can shift the political outcome in favorable ways.

Actors are assumed to trade off political security and policy gains, with the model inferring each actor's risk orientation—risk acceptance or aversion—from his or her position relative to the forecast outcome. Risk aversion is deemed to increase the closer the actor is to the forecast outcome, while risk acceptance is deemed to increase the farther the actor is from the forecast outcome.

¹¹ Among the foundations are Black's (1958) median voter theorem, Riker's (1962) work on political coalitions, and Banks' (1990) theorem about the monotonicity between certain expectations and the escalation of political disputes.

¹² Most commonly, this is the Condorcet winner, which occupies the median voter position and in which actors are weighted by their effective political power, but it also can take the form of qualified majority voting, majority voting with veto, or other voting rules.

¹³ Although the specifics sometimes vary somewhat because of the evolution of the model, descriptions of the logical foundations and underlying equations of expected utility models can be found in Bueno de Mesquita, 1997, 2000; Bueno de Mesquita, Newman, and Rabushka, 1985, 1996; Bueno de Mesquita and Stokman, 1994, pp. 71–104; Kugler, Abdollahian, and Tammen, Technical Appendix, n.d.

EUM has been used extensively within the U.S. intelligence community¹⁴ and by academic scholars to forecast political outcomes on various policy issues, and it has developed an impressive track record in accurately predicting political outcomes. Although many readers are likely to remain skeptical of the claims that follow, a number of different sources have reported a high level of accuracy for forecasts using this approach:

- Bueno de Mesquita (1984, p. 233) reported that "around 90 percent of the real-time forecasts based on this model have proven correct both with respect to the predicted policy decisions and with the circumstances surrounding those decisions."
- Feder (2002) reported that, during his career at the CIA, he used the model on more than 1,200 issues dealing with more than 75 countries and that, in a sample of 80 issues involving more than a score of countries, the voting model alone was accurate almost 90 percent of the time; as an example, he reported that a 1993 analysis of the likely Italian budget deficit forecast a deficit of 70 trillion lira, within 1 percent of the deficit that ultimately was approved by the Italian government (Feder, 1995).
- Feder (1995, p. 118) cites Organski and Eldersveld's (1994) evaluation of real-time forecasts on 21 policy decisions in the European community, in which the authors concluded that "the probability that the predicted outcome was what indeed occurred was an astounding 97 percent."
- More recently, in the fall of 2002, Kugler and his associates conducted an EUM-based analysis of the imminent war between the United States and Iraq. This analysis predicted a U.S. victory and the collapse of Hussein's regime, but also forecast a prolonged insurgency largely centered around former regime elements and other disaffected Sunnis; an updated analysis immediately after the conclusion of combat operations forecast the break between

¹⁴ Stanley Feder (1995) reports that the version of the expected utility model in use within the CIA's Directorate of Intelligence has been used in well over 1,000 policy issues of interest to the Directorate of Intelligence.

Ahmed Chalabi, a U.S. protégé, and the U.S. government, among other developments (see Efird and Kugler, 2002; Kugler and Tammen, 2003; Baranick et al., 2004).15

Agent-based rational choice or expected utility model-based analyses appear to offer a unique set of capabilities for illuminating the influence of various stakeholders who might be targeted for influence operations, for simulating forecasts of the political outcomes under different circumstances and policies, for suggesting the political dynamics that will lead to forecast political outcomes, and for identifying the sorts of policy changes—and level of resources—that are needed to influence outcomes in favorable ways. These capabilities are all essential for effective influence operations.

Influencing Adversary Leadership Coalitions: Conclusions

This chapter has provided an overview of work that addresses strategies for influencing adversaries and, taken as a whole, provides a rich set of diagnostic tools for assessing the likely efficacy of alternative influence strategies. We also discussed agent-based rational choice models, whose capabilities and predictive track record suggest that they have an important role to play in the exploration and development of alternative influence strategies for achieving U.S. objectives.

Before concluding the chapter, we highlight several other features that appear to be somewhat distinctive to influence operations against adversary leadership coalitions and that need to be emphasized:

 Political outcomes result not just from statements that are made by participants in policy debates, but also through the negotiation, policy concessions, horse-trading, bullying, coalition formation, and other essentially political activities that typically are conducted, whether in public or in the proverbial smoke-filled

¹⁵ One of the present authors (Larson) provided expert data on Iraqi stakeholder groups that were used in EUM simulations and analyses.

- room. Understanding and seeking to influence these dynamics are key elements of strategic-level influence operations against adversaries.
- Not all participants or stakeholder groups involved in a debate are equally important to the resolution of that debate. Participants may differ in the political capital they have available. For example, some actors (or their coalitions) will be quite influential, while others are quite marginal. Given the likely constraints on resources available for influence operations, identifying which stakeholders matter and which do not is critical.
- Finally, each stakeholder group's objectives, stakes in the outcome, risk orientations, decisionmaking style, preferred strategies, and other factors may differ. Therefore, it frequently is necessary to "tune" influence strategies to specific individuals and stakeholder groups.

Having illuminated analytic approaches for identifying which stakeholder groups are key, in the next chapter, we turn to the challenges of influencing large numbers of these groups.

Influencing Mass Publics

In some cases, especially those in which planners seek to influence "hearts and minds" of indigenous populations in a counterinsurgency campaign or to counter ideological support for terrorism, it may be desirable to target population subgroups, or even mass populations. These efforts need to be built on a firm understanding of the factors that regulate individual-level attitude change in target audiences, which were described earlier. But they also require an understanding of the larger social, political, cultural, and information environment and an understanding of the key fault lines among different segments of the public.¹

To animate what needs to be accomplished in the act of influencing mass publics, we present a simple model for influencing mass publics. The model captures many of the key situational and other factors that must be considered in such an undertaking, including events and leadership statements, media reporting, and the processes of attitude change (see Figure 5.1).

The model essentially treats opinion change as "the net outcome of a chain of behavioral steps. As a minimum it requires (a) adequate reception (through attention and comprehension) of the persuasive

¹ The factors involved in influencing mass public opinion are complex, and the discussion here only skims the surface of the available literature. Readers interested in additional detail may find some of the following works, most dealing with American public opinion, useful: Milbrath, 1984; Neuman, 1986; Brody, 1992; Page and Shapiro, 1992; Zaller, 1992b; Popkin, 1994; Kinder, 1998; Kuklinski et al., 1998; Mcgraw, 1998; Graber, 2003; Aldrich et al., 2006; Heath, Fisher, and Smith, 2005; and many of the references cited in the section on individual-level influence.

Direct observation Handbills Unmediated Town halls communications Posters Email/internet/SMS bypassing mass media Radio/TV broadcasts • Other direct means Media "filters" Individuals' Individuals' U.S. messages awareness "filters" Target Others' messages audience Negative Beliefs, Neutral Mass communications Positive attitudes, through the media preferences, and behaviors Probability of Probability of awareness of accepting or news and/or rejecting U.S. or others' events message message Negative events • Education · Inertia or strength Neutral events of prior beliefs Positive events Media consumption Source cues Political Motivation sophistication Other factors · Other factors Mass communications -Indirect communications

Figure 5.1 A Simple Model of Influence for Mass Publics

Through opinion leaders Tea room, mosque, workplace, etc.

RAND MG654-5.1

message; and (b) yielding to what is comprehended" (McGuire, 1968, p. 1139). The model also highlights both the various hurdles that must be overcome for an effort to influence to be successful, and the various reasons that efforts to influence a target audience frequently may fail. In this regard, the model may serve as both a general guide for good practice and as a diagnostic tool for identifying where problems can arise. We will next use this model as a diagnostic tool to describe some of the challenges associated with the hypothetical case of influencing members of the Iraqi public.

The figure captures three alternative approaches to influencing, in this example case, the Iraqi public's beliefs, attitudes, preferences, and behaviors, as shown on the far right of the figure.

Beginning with the use of the mass communications path near the center of the figure, the United States seeks to communicate a variety of messages to the Iraqi public. These could include messages that aim to convince this audience that the United States and its coalition partners have honorable intentions, to demonstrate that U.S. goals do not include permanent occupation of Iraq, to persuade Sunnis and others to forgo violence in favor of participation in the political process, and to persuade the public that insurgent propaganda contains fabrications or messages that have other aims.

These U.S. messages compete with other, potentially more credible and compelling messages in the Iraqi information environment. More important, they may compete with events on the ground that can either lend support to a U.S. message (e.g., building new sewers that confirm U.S. claims that it is trying to help rebuild Iraq) or may raise questions about its credibility (e.g., a scandal, such as occurrences at Abu Ghraib, or civilian noncombatants deaths that are believed to result from U.S. action). Given the range of sources and factors that can influence attitudes, true "perception management" of Iraqis would seem to be a fairly unrealistic goal.

The next hurdle encountered in the mass communications model is that U.S. messages must penetrate the veil of the media in their intended, undistorted form. Labeled "media filters" in the figure, this part of the process can be problematic, either because media organizations refuse to carry the message in any form or because the message becomes distorted—through poor translation or purposeful manipulation. For example, in Iraq, many of the newspapers and other media organizations are associated with ideological or religious currents that make them more or less likely to report messages that come from, or are favorable to, the U.S. coalition. Thus, a key challenge will be reaching audiences that choose information channels that are essentially hostile to U.S. aims and messages.

Assuming that the message passes through the media filter in an unadulterated form, the next hurdle is getting the target audience to perceive or receive the message. The probability that individuals will become aware of a specific message conveyed by the mass media is affected by a number of factors. These include the availability of that

message in the larger information environment (i.e., the frequency with which it is repeated in various mass and other media), whether the message is presented in an eye-catching way, and whether it is encountered in a variety of forms. But perception also is a function of individual-level differences in cognitive ability, education, political interest, knowledge or sophistication, media consumption habits, and other, similar factors. Again, an individual may not become aware of a message unless it is transmitted over information channels that he or she actually uses and it is repeated with sufficient frequency so that he or she encounters the message. Moreover, a recurring finding is that it is the moderately informed who are most likely to be persuaded—well-informed people typically have already committed to a position on an issue, while poorly informed people rarely encounter messages designed to alter their loyalties (Kinder, 1998, p. 183).

Assuming further that an individual has become aware of the message, the next hurdle is to help the individual understand, evaluate, and accept the message. As discussed at the beginning of this chapter, there are a great many factors that affect the probability that an individual will accept or reject a message. These factors cover a wide range: whether he or she is actually motivated to process the message, the strength or level of crystallization of (or inertia in) his or her attitude, the extent to which the message comports or conflicts with deeply held beliefs or values, how message content is presented, whether the message is sourced to individuals who are credible and likable, and other situational factors.² In Iraq, Salafist Sunnis and Shi'a devotees of Muqtada al-Sadr may, for example, be far less likely to accept messages from the U.S. coalition than Kurds or more-secular Shi'a.³

Assuming that the individual has accepted the message, the next hurdle is to persuade the individual to change his or her attitudes to be consistent with the message or to act in a way that is consistent with

² To provide a sense of the number of factors that can affect reception and acceptance, PhaseOne Communications, for example, has developed a diagnostic protocol for analyzing messages that uses more than 170 variables.

³ To the extent that al-Sadr's followers also are less well educated than other Shi'a, they may be less likely to receive and understand these messages.

the message. Again, motivation; comportment; or conflict with prior attitudes, beliefs, and behaviors; and a variety of other factors affect the likelihood that individuals will make the desired change. For example, short of some sort of accommodation on a variety of issues—the nature of Iraqi federalism, division of oil earnings, and so on-many Iraqi Sunnis are unlikely to choose to resolve their grievances via a peaceful political process. This example highlights the importance of concrete policy actions that are consistent with a message and can improve its credibility and acceptance.

Successful use of the mass communications path is further complicated by the ready availability of various alternative competing information channels, individual-level differences in beliefs about the reliability and credibility of different information channels, and ultimately, uncertainties about which of the available information channels audience members choose to rely upon for information.⁴

Also shown in Figure 5.1, the mass communications path is not the only path that is available for influencing a target audience; it also is possible to use *unmediated* or *indirect* communications:

- The top part of the chart describes *unmediated communications* that are not filtered by mass media organizations. This path eschews efforts to place messages in mainstream media and emphasizes various alternative means of getting messages to a target audience. In the case of Iraq, these have included leaflets, handbills, posters, tactical PSYOP patrols, and various other means. Even though this path avoids the editorial and other decisions that may prevent a message from being carried by the mainstream media, it presents the same challenges regarding the competitive information environment, message awareness, acceptance or rejection, and attitude or behavior change that was presented in the mass communications path.
- The bottom part of the chart describes *indirect communications*, in which the focus of communications is elites and opinion leaders.

The role of source credibility in persuasion is discussed in Hovland and Weiss, 1951; Sternthal, Phillips, and Dholakia, 1978; Mondak, 1990; among other works.

This path depends on the willingness of elites and opinion leaders to be persuaded and who, having been persuaded to accept a message, are willing to communicate that message to their followers. In the case of Iraq, convincing tribal, religious, or other local opinion leaders to accept a message may be an effective and efficient way to reach an entire community.

Opinion Leadership and Media Communications

The role of opinion leaders—whether political, social, religious, tribal, or otherwise—is a central consideration in the development of mass attitudes and also for planning influence operations. Members of groups naturally tend to follow their group leaders and reject the leadership of groups that they view less sympathetically.

A great amount of scholarship on American public opinion suggests that individuals use partisan, ideological, or other heuristic cues to help them make sense of larger policy debates. These individuals typically are more inclined to accept the stated positions of their natural leaders (for example, leaders of the individual's own political party—who are likely to be judged as being more credible, likable, etc.—than the leaders of an opposing party) than their natural opponents. The implication for influence operations planners is that the statements of favored local opinion leaders generally will be far more credible than those of U.S. or coalition leaders and that the trust and credibility of individual local leaders also is likely to vary by religious, sectarian, tribal, or other group norms. It is, therefore, important to have a capability to track the tone and content of these statements to be able to ascertain the effects of leaders' messages on their followers.

In a similar vein, analysts supporting influence operations frequently will be interested in ascertaining which events and U.S. and other official statements and behavior are being reported Analysts also want to know whether and how their operations are affecting the tone

⁵ Examples of convergent scholarship in this area include Neuman, 1986; Brody, 1992; Zaller, 1992b; Popkin, 1994.

and content of media reporting. Although there are many techniques for identifying themes in texts, the technique of content analysis is a fairly mature one that can be of some assistance for this purpose. ⁶ By comparison, the technique of semantic network analysis does not yet appear to have demonstrated its operational utility, but, with further advances, it also might prove useful for influence operations assessment. Each will be discussed below.

Moreover, although this is not explicitly represented in the simple model, it also bears mentioning that a number of American public opinion researchers have noted the influence on political attitudes of trusted opinion leaders who are personally known to an individual coworkers, friends, and family members, for example. The importance of this channel relative to the other channels is not particularly well understood.

Content Analysis

Content analysis of communications is an analytic technique that can assist in the assessment of leadership statements and media reporting by providing quantitative measures of changing tone and content.

Content analysis was used by the Federal Broadcast Intelligence Service (FBIS) of the Federal Communications Commission (FCC) during World War II to monitor and report on the broadcasts of opponents, allies, and neutrals in order to summarize what was said and to infer intentions, strategy, and calculations behind propaganda communications (Riddel, 1992). The difficulty of acquiring information about adversary policies and strategy and mass attitudes through other channels, especially in the Far East, made content analysis of mass communications media a key source of information on foreign governments' wartime policies.7 The opaque nature of the Soviet leadership ensured that content analysis would continue to be used as an ana-

⁶ For a review of about a dozen techniques for identifying themes in texts, see Ryan and Bernard, 2003.

⁷ George (1973, p. ix) reports that 81 percent of the FCC inferences about Nazi intentions, strategy, and calculations, which were made with the help of content analysis, proved to be accurate when later compared with captured records.

lytic tool for assisting in making inferences about power relationships and policy changes. More recently, application of the technique has spread beyond the province of political science, psychology, sociology, and communications research to applied analysis in commercial and government settings.

Among the many applications of content analysis that may be of interest to analysts supporting influence operations are the following:

- · Assessing the changing content of Osama bin Laden's speeches and statements to assist in detecting strategy or policy changes, warnings of major attacks, or psychological changes8
- Tracking changes over time in the tone—positive or negative—of foreign official or media references to the United States, its leaders, institutions, or policies9
- Tracking the media penetration of key U.S. themes or topics including those that have been proffered as part of a STRAT-COMM "drumbeat"—to ascertain the degree to which messages are "getting through" to the media 10
- Tracking cooperative and conflict behavior in interstate relations in peacetime, crisis, and war, including signals of escalatory or deescalatory intentions11
- Gauging the possible level of resistance to a prospective invasion (Lasswell, 1938)

⁸ Knowledge by a subject that his words and actions are being monitored closely can, however, affect the content of his or her statements. Such knowledge is a form of "theory opaqueness," which provides opportunities for manipulation.

⁹ For a pioneering application, see Lasswell, 1947, which reports Lasswell's content analyses of a number of foreign newspapers between 1939 and 1941.

¹⁰ A recent analysis of media reporting on civilian casualties and collateral damage in the U.S. and foreign press can be found in Larson and Savych, 2006.

¹¹ See, for example, Holsti, 1972; McClelland, 1961, 1964, 1977; Wilkenfeld et al., 1980; Brecher, Wilkenfeld, and Moser, 1988; Wilkenfeld, Brecher, and Moser, 1988; Brecher and Wilkenfeld, 1997; Gerner and Schrodt, 1998. Much of the work done by Wilkenfeld, Brecher, and associates was sponsored by the Defense Advanced Research Projects Agency's Cybernetic Technology Office. On the limits of the event data that have been compiled by international relations scholars, see McClelland, 1983.

• Assessing latent or emerging policy divisions between political interest groups in a foreign nation.¹²

Content analysis is a set of procedures for transforming unstructured (and usually textual) information into a format that allows analysis—especially, quantitative analysis.¹³ According to the U.S. Government Accountability Office (GAO), 1989, p. 6:

Content analysis is a set of procedures for collecting and organizing information in a standardized format that allows analysts to make inferences about the characteristics and meaning of written and other recorded material. Simple formats can be developed for summarizing information or counting the frequency of statements. More complex formats can be created for analyzing trends or detecting subtle differences in the intensity of statements.

The typical steps involved in conducting content analysis are (1) identifying the specific objectives of the analysis, (2) determining what material should be included in the content analysis, (3) selecting the units of analysis (e.g., newspaper story or document), (4) developing coding categories, (5) testing the validity and reliability of the coding scheme, including coding a sample of the material to test inter-coder reliability, (6) coding the material, and (7) analyzing and interpreting the results.14

In fact, there are a number of ways to go about conducting content analysis:

• Human-Coded Generation of Data. The traditional approach to generating content analysis data is to have the coding done by human coders (usually graduate students) who have been thor-

¹² See, for example, FBIS, 2004. Content analysis could reveal differences in tone in reporting on the Iranian nuclear issue in Iranian conservative, mainstream, and progressive media, for example.

¹³ Among the more comprehensive discussions of content analysis are Berelson, 1962; North, 1963; Stone et al., 1966; Holsti, 1969; Weber, 1985; Krippendorff, 2004.

¹⁴ This list was adapted from GAO, 1989, p. 8.

oughly trained in the coding rules that are to be used and whose inter-coder reliability (i.e., the amount of agreement or correspondence among two or more content analysis coders about how a text or some other material should be coded) has been established. This is, however, a very expensive and time-consuming approach to coding texts.

- *Using Automated Systems to Generate Data*. There also are a number of academic and commercial software programs that can assist in performing content analysis of textual data.¹⁵ Automated systems excel at detecting the presence of words and phrases in texts and generally are deemed to be far more efficient than humans in these tasks.¹⁶ By comparison, humans generally do a much better job of ascertaining the actual *meaning* of texts, detecting irony and humor, and other higher-level tasks.
- Analyzing Data from Online Information Retrieval Services. Many online information retrieval services provide full-text or keyword search capabilities and the ability to limit searches by date or source document.¹⁷ Analysts can thus perform searches and count the number of news stories or other reports that contain specified words or themes in one or more sources (including many foreign sources) for a fixed period of time (e.g., by day or month), so that trend lines can be constructed that are suggestive of the changing level of reporting on the words or themes of interest.¹⁸

¹⁵ Among the software packages GAO examined in its 1989 report were askSam, Textbase Alpha, AQUAD, TEXTPACK PC, Micro-OCP, WordCruncher, and WordPerfect (see GAO, 1989, "Software for Content Analysis," Appendix II). . For example, a Google search for "content analysis software" in January 2005 yielded a much longer list. Software programs like the Kansas Event Data System (KEDS) also might be adapted to other purposes.

¹⁶ In 1990, Schrodt and Donald reported that a set of 500 rules used in automatically coding events data from press reporting in NEXIS had a 70–80 percent accuracy rate. Schrodt also reports that his TABARI software is 70 times faster at coding events than his KEDS software, and that "TABARI running on a G3 [computer] does in one second what a human coder does in about three months. This is a wall-clock speedup of around a factor of 7.8-million" (Schrodt, 2001).

¹⁷ For example, Lexis-Nexis, Proquest, and DIALOG.

¹⁸ See, for example, Larson and Savych, 2005.

- Performing Secondary Analyses of Content Analysis of Data. Although the results may not be timely enough to be relevant for policy or military analyses, some academic organizations post their data sets¹⁹ or provide an interface that enables users to search for news reports that may be of interest. 20
- Using Content Analysis Findings from Other Organizations. There are a small number of research organizations that routinely conduct content analyses of U.S. media or produce reports that sometimes have results that are useful to analysts.²¹

Once content analysis of data has been generated, a number of analyses in support of influence operations can be undertaken, including trend analyses of media reporting or leadership statements over time; analyses of the co-occurrence of words or themes in texts; analyses of the correlations between changes in the occurrence of a word or theme and changes in target audience beliefs, attitudes, or behaviors; and cluster or factor analyses that can assist in grouping text sources. We judge automated content analytic tools to be ready for operational use in a variety of these sorts of applications.

Semantic Network Analysis

Semantic network analysis grows out of content analysis and is a technique primarily used by communications researchers. Semantic network analysis is similar to social network analysis insofar as it uses nodes and links (or relational ties), the defining feature of which is that

¹⁹ For example, Schrodt, director of KEDS at the University of Kansas, posts the results of his research program's automated coding of newswire reports on various international issues, using a coding scheme that is derived from Charles McClelland's World Event Interaction Survey conflict-cooperation coding scheme (Schrodt, Davis, and Weddle, 1994; KEDS Web site, 2006).

²⁰ The Vanderbilt Television News Archive (n.d.) lets users identify television news reports by keyword or phrase in the abstract for each report.

²¹ Organizations that routinely report the results of content analyses of U.S. television reporting include the Center for Media and Public Affairs in Washington, D.C., and the Tyndall Report. FBIS also occasionally produces content analyses of media reporting.

a connection of some form is established between the nodes.²² In the case of semantic networks, however, the links typically are between words or people using words: a word-by-word (or theme-by-theme) matrix of words or themes in a body of text can be treated as nodes, and the connection weights become the links; alternatively, a personby-person matrix can indicate how many words or themes any two people used in common (see Schnegg and Bernard, 1996; Rosen et al., 2003; Hanneman, 2001). Once the data are reduced to matrices, such as a complete paired comparison similarities matrix, they can then be subjected to sophisticated statistical analyses and portrayal as multidimensional graphs (see Rosen et al., 2003).

A common approach in semantic network analysis is for the computer program to read through text with a user-defined window of nwords. A "neuron" is created for each new word encountered, and the connections between words are strengthened or weakened depending on whether the words co-occur in the same window.²³

The text is considered as a sequence of symbols organized into words and sentences. This sequence is moved through a window of variable length (from two to twenty symbols can be seen simultaneously), shifting it by one symbol at a time. The snapshots of the text fragments visible through the window are recorded in dynamically added neurons. The created hierarchical neural network contains several layers: those fragments that occur in text more than once are stored in neurons that belong to the higher levels of the network. This neural network realizes frequency-based multi-level dictionaries of different text elements (letters, syllables, stems, morphemes, words, and phrases). Words are selected as basic operational elements, while other elements are used as auxiliary information during the analysis (Megaputer Intelligence, Inc., 2007).

And the Galileo Company's CATPAC is described as follows:

CATPAC is a self-organizing artificial neural network that has been optimized for reading text. CATPAC is able to identify the most important words in a text and determine patterns of similarity based on the way they're used in text. It does this by assigning a neuron to each major word in the text. It then runs a scanning window through the text. The neuron representing a word becomes active when that word appears in the window, and remains active as long as the word remains in the window. Up to n words can be in the window at once, where n is a parameter set by the user. As in the human brain, the

²² There are a number of semantic network software tools available, including CATPAC (Categorization Package) by the Galileo Company, TextAnalyst by Megaputer, and Semantica SE by Semantic Research, Inc.

²³ For example, a product called TextAnalyst describes the process as follows:

Because the most common words in text (e.g., and, the) typically are not very helpful in understanding the main themes of the text, this technique can require significant effort to identify the many words that should be excluded from the analysis and to winnow down the themes that are the focus of analysis. The sorts of results generated by the technique at present, moreover, generally seem to be of greater academic than policy interest or operational utility.²⁴ Nevertheless, semantic network analysis would appear to be a worthy contender for further testing and development, and it could at some future time be suitable for operational application.

Assessing Mass Public Opinion

As described in the model in Figure 5.1, effective influence operations require an understanding of a wide range of individual- and group-level characteristics that regulate the diffusion of mass attitudes associated with support or opposition for U.S. objectives and policies. Without such an understanding, efforts to gain the support of a critical mass of the populace—e.g., win the support of the median voter—may prove impossible.

In particular, the model suggests that it is important for planners to understand the likelihood of an individual becoming aware of a message. Such an understanding requires data on how the individual relates to his information environment. Important attitudinal variables that are associated with message awareness include the credibility and trustworthiness of different media channels (e.g., TV stations, newspapers, magazines), which media individuals actually consume and the extent of their media consumption (e.g., the average daily number of

connections between neurons that are simultaneously active are strengthened following the law of classical conditioning. The pattern of weights or connections among neurons forms a representation within CATPAC of the associations among the words in the text. This pattern of weights represents complete information about the similarities among all the words in the text (Woelfel, 1998).

²⁴ Examples of semantic network analysis can be found in Kim and Barnett, 1994; Kim, 2005; Peace Research Institute in the Middle East, n.d.; Rosen et al., 2003.

newspapers read or TV news programs watched), and their political interest, knowledge, and sophistication.

The model also suggests the importance of individual-level cultural values or other norms and attitudes that may serve as filters regulating the likelihood that a given message, once received, will be accepted or rejected. To understand such norms requires some level of knowledge about the underlying structure of mass public attitudes and the factors that constrain these attitudes. Such an understanding can facilitate identification of distinct subgroups that may require different communication approaches to ensure that messages reach them or different content to reduce the likelihood of message rejection.

Factors that can constrain attitudes include demographic characteristics, such as gender, race, ethnicity, or tribe; religion; sect; culture; philosophical or ideological viewpoint; political affiliation; subscription to a specific cultural narrative; or sympathy with some other intellectual current or system (e.g., Islamism) that helps individuals order and make sense of their worlds. To the extent that a specific system of thought dominates the thinking of a subgroup, planners can tailor their messages to resonate with core precepts of that system.

There are a number of other attitudes that also can be of significant interest to planners. These include attitudes toward various national leaders, including their credibility, likeability, or trustworthiness; views on the relative importance of problems that respondents believe their country is facing; beliefs about the benign or malign nature of U.S. policies or the aims and conduct of U.S. coalition forces; and attitudes and preferences regarding all manner of political and policy issues that relate to support for U.S. or adversary aims. Moreover, all of these characteristics of mass publics need to be understood with a sufficient level of detail and fidelity to detect subgroup distinctions, to baseline and track relevant attitudes, to tailor campaign messages and policies to different groups, and to assess the results of influence efforts. Of course, in the context of a military campaign, there are many challenges to ensuring that the sorts of attitudes that are presented in focus groups and surveys are sincere ones.

There are numerous techniques that can be employed for collecting the necessary data to baseline, track, and assess attitudes and the

results of influence operations. These can include face-to-face meetings that take place during patrols; focus groups with locals to clarify their views and formulate an understanding of the underlying structure of their attitudes, policy preferences, and behaviors; and survey research that can facilitate the creation of quantitative baselines and trend analyses of key attitudes or that can predict attitude change based on a knowledge of underlying attitude structures and, thereby, inform the development of appropriately targeted and tailored influence campaigns and messages.²⁵ Despite some difficulties in conducting focus groups and attitude surveys in such dangerous environments as Afghanistan and Iraq, there appear to be few alternatives for developing the sort of detailed understanding of attitudes that is necessary for effective influence operations.

Lessons from Case Studies

To supplement our review of the literature on influencing mass publics, we conducted a series of case study analyses of how commercial advertising and marketing, American-style political campaigns, and public diplomacy efforts seek to differentiate and persuade mass publics. The detailed results of our case studies are provided in Appendixes A through C, but the main lessons of influence efforts in these domains can be summarized as follows:

- They are aimed at achieving specific desired objectives and effects, typically a change in a key attitude, belief, preferred policy, or behavior.
- They are directed toward key target audiences, whether an individual, a decisionmaking group, a military unit, a population subgroup, or the mass public of a nation.
- They make use of the most effective combination of information channels—i.e., those channels that are both most likely to reach

²⁵ For recent work using a combination of trend analysis and respondent-level modeling of attitude data to predict policy-relevant attitudes with a fairly high degree of fidelity, see Larson et al., 2004; Larson and Savych, 2005, 2006.

the target audience and most likely to be viewed as unbiased and credible.

- They are mindful of *audience characteristics*, including preexisting attitudes and beliefs that may condition an audience's willingness to be influenced.
- They are *timed to influence actors before they decide or act*, in the case of leaders and decisionmaking groups, *or before attitudes crystallize*, in the case of mass audiences.
- They make use of messengers with compelling *source character-istics*—i.e., those whose professional or technical competence, likeability, credibility, trust or confidence, or high Q score make them effective spokespersons.²⁶
- They rely upon messages with *compelling message characteristics* i.e., those whose content, format, cognitive and emotional appeal, and other characteristics will most resonate with the audience.
- They *facilitate adaptation* by providing timely feedback on effects, so that information channels, messengers, themes and messages, and the like can be modified to increase their persuasiveness.

Before proceeding, it is important to note that there are ample reasons for caution regarding whether these lessons from peacetime examples translate particularly well into the chaotic environment of wartime, stability, and reconstruction operations such as those witnessed in Iraq and Afghanistan.

First, the U.S. government and military are not selling goods and services in a competitive environment (Wolf and Rosen, 2004). In Iraq in late 2005, for example, the United States was (1) attempting to generate a high level of turnout for the December 15, 2005, Iraqi national elections, while simultaneously trying to encourage patience with the U.S. role as an occupying power until the Iraqis could manage the insurgency themselves and (2) trying to foster a stable (and dem-

²⁶ The *Q score* measures the appeal of a person in terms of the number of those who recognize the person and the number of those who mention the person as one of their favorite people.

ocratic) political equilibrium that would enable U.S. forces to begin withdrawing.

Second, the involvement of the military—and the ever-present possibility of being the object of coercion or simply getting caught in the crossfire—make these situations qualitatively different from peacetime influence efforts.²⁷ Put simply, the introduction of violence can bring a coercive and even life-threatening quality to influence efforts that is absent in peacetime influence efforts. And because the threat or use of force can endanger safety and physical survival, appeals backed by force are likely to be far more compelling than appeals based on logic, emotion, or social norms. 28 With a few notable exceptions, however, scholars generally have not focused on the role of coercion in the act of persuasion.²⁹

Influencing Mass Publics: Conclusions

This chapter has focused on approaches that can help to overcome some of the difficulties associated with understanding mass publics. We began with a discussion of a simple model of influence for mass publics that highlights the various hurdles that influence operations need

²⁷ See the summary of appeals to fear and attitude change in Chapter Two.

²⁸ Psychologist Abraham Maslow (Wikipedia, n.d.[a]) suggested a hierarchy of values from foundational values, such as physical survival and safety; to love; esteem; and selfactualization—in which the basic concept is that the higher needs in the hierarchy come into focus only when all the needs that are lower down in the pyramid are mainly or entirely satisfied. In the context of PSYOP, Whiteman (2004) has suggested that "[m]ore basic needs toward the bottom of Maslow's pyramid would be rated as having greater influence relative to needs toward the top of the pyramid." We are grateful to Whiteman for sharing a copy of his paper with us. See also Millen, 2006–07.

²⁹ Beyond the role of fear in persuasion discussed in Chapter Two, there also is a fair amount of relevant work on the psychological effects of the threat or use of force in the international relations field. See Millen, 2006-07; George, Hall, and Simons, 1971; George and Smoke, 1973; George, 1991, 2002; Craig and George, 1995. Other works in this genre include Schelling's classic, 1960 (rev. 1980); Byman, Waxman, and Larson, 1999; Byman and Waxman, 2002; Defense Science Board, 2003. Among other works, the question of influence during wartime is covered in some detail in Brodie, 1973; Kecskemeti, 1978; Cimbala and Dunn, 1987; Sigal, 1989; Pape, 1996.

to successfully overcome to influence attitudes, beliefs, and behaviors. We then returned to the subject of leadership, which was discussed earlier, regarding influence within groups and networks, and argued that tracking opinion leadership (and media reporting) and employing opinion leaders in the influence enterprise are highly desirable elements of a larger influence strategy. Specifically, we argued that quantitative content analyses of leadership and media content were essential to understanding the changing tone and content of these communication streams. Finally, we discussed the role of public opinion polling and attitude surveys as a way to track and diagnose reasons for success or failure in influencing attitudes, beliefs, and behaviors. In particular, we see attitude surveys as an efficient way to assess whether influence messages are reaching target audiences, whether messages are being accepted, and whether they are resulting in the desired changes in attitudes, beliefs, and behaviors.

A Framework for Influence Operations

The preceding chapters reviewed the theoretical and empirical literature related to influence at the individual, group and network, leadership coalition, and mass public levels. We next provide a framework for planning and conducting influence operations that is based on the various social science approaches, tools, and methodologies we reviewed and on the key lessons from our case studies.

Planning Requirements

Our research led to a set of nine key planning questions that can generally be divided into those dealing with strategic-level issues and those dealing with target audiences. We believe that these questions can provide an efficient, top-down basis for developing influence strategies that can contribute to the achievement of U.S. objectives.

Questions About Strategic Issues

The first four questions generally focus on the strategic-level picture and the underlying political dynamics related to achievement of U.S. coalition objectives:

- What are current U.S. objectives? Are current objectives likely to be achieved, and if not, what outcomes are most likely under present or plausible conditions?
- Which actors or groups are most influential in political-military outcomes?

- What strategies (e.g., force or negotiation) are most likely to influence these groups and yield desired outcomes?
- How much authority/influence do group leaders have over their supporters/followers?

These questions are of greatest interest to the White House, to National Security Council staff, and to such interagency actors as the Departments of State and Defense. They will also interest the regional component commander and joint force commander and most likely would need to be addressed by intelligence analysts working for the services, the Department of Defense, or the larger intelligence community.

What are current U.S. objectives? Are current objectives likely to be achieved, and if not, what outcomes are most likely under present or plausible conditions?

Of substantial interest to policymakers and military commanders is whether current political and campaign objectives are achievable with the current strategy and resources, whether adjustments to strategy or resources will be needed, or whether objectives are essentially unattainable given any realistic strategy or level of resource commitment.

In the case of Iraq, for example, it would have been useful to policymakers and commanders to know that U.S. and coalition forces likely were sufficient to overthrow Hussein's regime and force the collapse of Iraqi regular forces but insufficient to restore security in the leadership vacuum that followed, and that a prolonged insurgency should be expected to organize around Hussein's security forces, former regime elements, and disaffected Sunni supporters.1 With such knowledge, a concerted influence strategy might have been developed to deal with these challenges prior to the war.²

Ambassador L. Paul Bremer, administrator of the Coalitional Provisional Authority in Iraq, reportedly requested additional troops to manage the deteriorating security situation in Iraq early in his tenure (Wright and Ricks, 2004, p. A1).

Baranick et al., 2004, present EUM results that forecast the defeat of Saddam's regime, the collapse of the Iraqi military, and the emergence of a prolonged insurgency. One of the present authors (Larson) conducted the analysis of Iraqi political society and provided data for this effort.

As was described in Chapter Four, agent-based rational choice or expected utility models appear to us to be ideally suited to addressing these questions and the next. Through analysis of stakeholders and simulation analyses of coalition maneuvering on a set of policy issues, planners can gain important insights into the most likely outcomes, the efficacy of the U.S. position, and whether capabilities are likely to prove sufficient for achieving U.S. objectives.

Which actors or groups are most influential in political-military outcomes?

As suggested earlier, given that available resources are finite, it is important that influence operations focus on those actors and groups that will be most influential to overall outcomes. Again, agent-based rational choice or expected utility models can be employed to gauge the sensitivity of outcomes to adjustments in various stakeholders' positions, resources, or salience, which can illuminate high-payoff areas for the development of policy and strategy options.

What strategies (e.g., force or negotiation) are most likely to influence these groups and yield desired outcomes?

In a similar vein, it is critically important to understand whether a conciliatory strategy relying exclusively on positive inducements, a strategy of threats or use of force, some mix of positive and negative inducements, or some form of conditional reciprocity is most likely to succeed in influencing various actors and stakeholder groups and what results might reasonably be expected from these efforts. Put another way, differences among actors or stakeholder groups may require a differentiated set of substrategies, one for each target.

Diagnostic tools for evaluating the suitability of different influence strategies, as discussed in Chapter Four, and agent-based rational choice or expected utility models may be helpful in illuminating the best strategies for influencing the highest-payoff stakeholder groups.

How much authority/influence do group leaders have over their supporters/followers?

As described in Chapter Three, leadership, influence, followership, and group discipline are all important determinants of the basic approach to influence operations at the group and network levels of analysis.

To illustrate, in the best case, the United States would be able to identify a single leader with high social power or influence for each stakeholder group or network, persuade each to cooperate in helping the United States to achieve its aims, and know that each leader's followers were sufficiently well-informed to know about their leader's position and sufficiently disciplined to follow their leader in cooperating with the United States. This approach would be the most efficient one because, in theory at least, all it requires is influencing one person (the leader) from each group.

In the worst case, on the other hand, planners would need to try to separately influence each member of a group in the hope of getting most of that group to go along with U.S. aims. This approach is far less efficient, because it could require influencing thousands or even millions of individuals. Moreover, within-group heterogeneity may necessitate further efforts to understand subgroup characteristics that will condition the likelihood of being aware of a message, accepting the message, or acting upon the message in a desired way. Among the more valuable models at this level of analysis would appear to be social power/interaction theory, social choice, and opinion leadership models.

Questions About the Target Audiences

Once planners have identified the key stakeholder groups that are to be targeted, including the nature of influence within these groups or networks, five additional questions need to be answered for each of the key target audiences identified during influence strategy development so that effective substrategies can be developed for each:

- Which sources and information channels do target audiences use and find most credible?
- · How are target audiences' attitudes structured, and how stable are they?
- What messages are they already receiving?
- What message sources, content, and formats are most likely to be accepted and to foster change?

How many messages need to be sent to them? What other actions need to be taken to achieve influence objectives?

Each question is discussed below.

Which sources and information channels do target audiences use and find most credible?

As was described in Chapter Two, for influence operations to succeed, the first challenge is ensuring that messages reach their intended target audiences. At the most basic level, this means transmitting the messages via information channels that members of the target audience actually use and find credible.

In the best (but perhaps not the most realistic) case, individuals would rely upon a single source for news and political information, such as a newspaper, television, or a radio station, and believe that the information received through this channel was highly credible. In this case, if the message could be successfully inserted into this source, it would reach a very large percentage of its intended audience.

In the worst case, individuals would rely upon a great many sources for news and political information, many of which might be discounted as being not entirely reliable or credible. This situation would vastly complicate the choice of which information channels to use to transmit the messages to the intended audiences and the chances of achieving a high probability that they receive the messages.

Closely related to the credibility of alternative information channels are the credibility and trustworthiness of different opinion leaders; although this issue needs to be addressed in group- or network-level analyses, a higher level of resolution and fidelity may be needed at this stage.

To satisfactorily address these questions, a mix of focus groups, public opinion attitude surveys, and other means that can illuminate respondents' media usage, the credibility of various leaders, and other factors would be required to map these unique characteristics to distinct stakeholder groups.

How are target audiences' attitudes structured, and how stable are they?

In influence operations that aim to affect adversary or other leaders' decisions, it is important to act before key decisions have been made (i.e., "getting inside the OODA [observe-orient-decide-act] loop"). Part of this means that planners need to understand the administrative, organizational, and other procedures and processes that establish the decisionmaking environment for these leaders, their decisionmaking rules or doctrine, and any factionalization of the leadership over the issue being decided. But it also may require actor-specific behavioral models that capture how individuals' cognitive, psychological, emotional, or normative priors affect their susceptibility—or lack of susceptibility—to being influenced (George, 2002).

The analogue for mass publics is understanding how cognitive, psychological, cultural, emotional, or normative factors combine in individuals' attitudes and preferences on an issue. Also important is understanding which attitudes are essentially inert, stable, and unchangeable, because, for example, they reflect deeply held religious or ethical values or mores, cultural taboos, or shibboleths or because they are already crystallized as a result of having been thought seriously about (the issue already being understood). Effective influence operations will focus on key attitudes, to be sure, but planners should not waste resources striving to change attitudes that are exceedingly unlikely to change.

Prominent among the general approaches for addressing this question is Woelfel's metric multidimensional scaling approach to representing attitudes in multidimensional attitude space, which has the additional felicitous feature that it appears to provide an environment for assessing the efficacy of different messages in fostering attitude or behavioral change.

What messages are they already receiving?

Most individuals in Western—and many non-Western—societies live in highly competitive, media-saturated environments that deliver a wide range of messages to key target audiences. Understanding the messages that target audiences already may be receiving in their information environment is therefore essential, so that the nature of any

competition in the "war of ideas" is fully understood, but also because effective messages may seek to increase the likelihood of message acceptance by repeating certain themes or arguments that already have been accepted by an audience as being true and credible.

We view content analysis of leadership and media streams and focus group analyses and attitude surveys to tap audience exposure to or awareness of content as providing robust approaches for addressing this question.

What message sources, content, and formats are most likely to be accepted and to foster change?

As described in Chapter Two, message acceptance turns on a host of message-related and situational factors. These include sourcing of messages to individuals who are trusted and liked by the target audience, avoiding unnecessary complexity that would increase the cognitive demands on the audience, and ensuring that the format and content of a message motivate the audience to pay attention to the message and ultimately to accept and act on it.

The answer to this set of questions depends greatly on what sort of attitudinal or behavior change is sought. The various characteristics of the target audience—cultural, religious, cognitive, and otherwise—may present either opportunities or challenges for increasing the potency of the message.

As described above, the use of various generalized individual-level theories, including employment of metric multidimensional scaling techniques, coupled with focus groups or attitude surveys, can offer insights into these questions.

For example, the following sorts of steps could be used to make operational use of metric multidimensional scaling or similar techniques as an environment for designing and assessing the impact of influence operations:

- Identifying the objectives of influence efforts with respect to each target audience
- Developing appropriate survey instruments that are easy to administer in order to understand how culture, attitudes, and cognitions are structured within target audiences

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- Conducting surveys of, or experiments with, target audiences using the instrument
- Analyzing the resulting data to understand how attitude objects are arranged in this larger multidimensional cultural space and to identify the most promising candidate themes for inclusion in messages
- Refinement and testing of messages containing the highest-payoff themes
- Conducting follow-up surveys of, or experiments with, target audiences and assessing the impact of the messages on target audiences
- · Refining or revising the campaign, as needed.

To be clear, it seems most likely that, given its highly technical nature, metric multidimensional scaling analyses probably would not be conducted by U.S. Army or DoD personnel, but rather would need to be conducted by academic or commercial researchers. Our judgment is that Galileo appears to us to be worthy of further testing to establish its utility to and suitability for influence operations. Once this has been accomplished, if the basic data collection and analysis challenges also can be overcome, Galileo theory may well prove to be a highly useful tool for planning and assessing influence operations.

How many messages need to be sent to them? What other actions need to be taken?

While the number of times a message is sent to an individual clearly affects the probability that the individual will become aware of the message, and the number may affect the likelihood that the individual will accept and act on messages that he or she is already predisposed to accept and act upon, there is little evidence that simply repeating a message will break down a preexisting inclination to reject the message. Even in its most extreme form—thought reform (what is popularly referred to as "brainwashing"), in which virtually every aspect of an individual's life can be controlled and manipulated by his or her captors—permanent changes in attitudes and behaviors have proved elusive. To expect greater success in pluralistic information environ-

ments in which the target audience does not consist of prisoners of war would be unwarranted.

As was described in Chapters Two and Five (and will be discussed in more detail in Appendixes A, B, and C), receptivity to messages can vary greatly in a heterogeneous population. At some point, additional messages may actually prove to be counterproductive, even for those who are most predisposed to accept them.

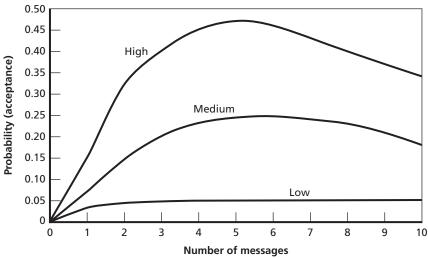
For example, a November 2004 article on White House political advisor Karl W. Rove reported the following interesting observation on the relationship between the number of communications and their impact:

Rove's direct-mail experience had provided him with a nuanced understanding of precisely what motivates ticket-splitters. According to Karl Rove & Co. data on the 1994 Texas governor's race, Rove was aware, for instance, that households that received a single piece of mail turned out for Bush at a rate of 15.45 percent, and those that received three pieces at a rate of 50.83 percent. Turnout peaked at seven pieces (57.88 percent), after which enthusiasm for Bush presumably gave way to feelings of inundation, and support began to drop (Green, 2004).

Figure 6.1 suggests how the probability of message acceptance might be affected by the number of messages for three different notional groups: those who are highly predisposed to accept and act on the message ("High"), those who are moderately predisposed to accept the message ("Med"), and those who generally have a low predisposition to accept the message (or high predisposition to reject it) ("Low").

The figure shows the diminishing—and then negative—returns to sending additional messages, each of which has a different doseresponse curve. The implication is that a message campaign will be most effective and efficient for those who already are highly predisposed to accept the message and least effective and efficient—even to the point of potentially not being worth the effort—for those who have a low predisposition to accept the message (or high predisposition to

Figure 6.1 Notional Probability of Accepting a Message Based on High, Medium, or **Low Predisposition**



RAND MG654-6.1

reject it).3 And in most cases, there are either diminishing or even negative returns to sending additional messages.

As in Rove's case, influence operation planners would need a strong capability to track messages and assess the relationship between the number and variety of messages and the probability of individuals becoming aware of and accepting these messages. Again, focus groups and attitude surveys would appear to be the most systematic way of collecting such information, but face-to-face interactions by patrols might help to illuminate this question.

³ This sort of result also can be observed in so-called "rallies" in support for presidents: Those most likely to rally are members of the president's own party or core, and those least likely are his political opponents.

Some Additional Planning Considerations

Effective influence operations generally require a top-down planning and assessment process that links metrics in a systematic way to political and campaign objectives and to the political, military, and other activities that are conducted to promote these objectives. From a functional perspective, the planning and execution of successful influence operations involve a number of discrete steps:

- Specifying the political and campaign objectives. Political objectives are specified by the president and his senior advisors and staff, while campaign objectives, tasks, and metrics are specified by the joint force commander and his or her staff.
- Developing and planning an influence strategy supporting these objectives. The influence strategy should identify the key target audiences that need to be influenced to achieve each objective and the specific aims (e.g., "reject the insurgency") and substrategies (e.g., negotiation or coercion, carrots, and sticks) with respect to each target audience. It also should identify the communication channels, themes, and messages to be directed at each target audience and how influence activities will be coordinated and synchronized.
- Executing the influence strategy. Synchronizing influence operations with policy adjustments, carrots and sticks, kinetics, etc. should be included.
- Monitoring and assessing the influence strategy.
- Adapting the influence strategy as necessary.4

In applying these steps, moreover, planners need to consider the element of time: It matters greatly whether planners are seeking to influence target audiences in peacetime, crisis, conventional warfare, or stability environments:

The subject of a metrics-based planning and assessment process is beyond the scope of the present effort but is discussed in detail in Larson et al., forthcoming.

- In *peacetime*, influence operations seek to shape the environment by persuading, dissuading, deterring, and reassuring—activities that are supported by intelligence and analytic efforts to assess the attitudes, behaviors, intentions, and capabilities of target audiences.
- Influence operations during a *crisis* may aim to persuade or coerce an adversary or to control escalation, again supported by intelligence and analytic activities.
- Influence operations during *major combat operations* generally aim to terminate the war on favorable terms.
- Influence operations during *stability operations* generally aim to reestablish a stable postwar political equilibrium by persuading and reassuring actors that their best interests lie in peaceful political processes, for example, and dissuading or deterring them from joining or supporting insurgents and others who oppose U.S. and coalition aims.

It is important to point out two additional considerations in planning and conducting influence operations over time.

First, the transitions—e.g., from peacetime to crisis, crisis to major combat operations, or major combat to stability operations—may not be clearly delineated. It is quite likely, for example, that even as major combat operations are concluded and give way to security, stability, and reconstruction operations in one sector, they may still be continuing in other sectors. Put another way, rather than constituting distinct phases, different mixes of these activities may be observed over time and in different locations.

Second, although they frequently are executed to support the achievement of intermediate objectives, influence operations must be planned and conducted in a way that takes the long view of the ultimate political and operational end-state that is desired. In the case of military operations that aim at regime change, for example, influence operations conducted through peacetime, crisis, and war should seek to minimize the challenges of facilitating the emergence of a moderate, stable, peaceful, and otherwise acceptable postwar political society by

seeking to influence political actors who will be important in achieving U.S. postwar security, political, economic, and other objectives.

As described in this report, to achieve their strategic and campaign objectives, planners may need to influence individuals, small groups or networks, leadership coalitions, or mass publics. Whereas our presentation of the social science literature in Chapters Two through Five took a building-block approach, moving in turn from the individual level up to the level of mass publics, the functional requirements of influence operations require that planners generally work in the opposition direction, from their goals and objectives to a decomposition of what needs to be done to achieve those goals and objectives.

A Framework for Influence Operations: Conclusions

Above, we tied together the various social science theories, models, and empirical results at levels of the individual, group or network, leadership coalition, and mass public in the form of a set of analytic questions that planners need to answer for effective influence operations to be possible. We also identified specific analytic techniques for answering these questions. The next chapter summarizes the implications of our research on influence operations for the Army and for joint operations and offers conclusions.

Implications for Planners

As described in this report there are a number of characteristics that seem to be associated with effective influence operations:

- They are aimed at achieving specific desired objectives and effects, typically a change in a key attitude, belief, preferred policy, or behavior.
- They are directed toward *key target audiences*, whether an individual, a decisionmaking group, a military unit, a population subgroup, or the mass public of a nation.
- They make use of the most effective combination of *information channels*, i.e., those channels that are both most likely to reach the target audience and are most likely to be viewed as unbiased and credible.
- They are mindful of *audience characteristics*, including preexisting attitudes and beliefs that may condition an audience's willingness to be influenced.
- They are *timed to influence actors before they decide or act*, in the case of leaders and decisionmaking groups, *or before attitudes crystallize*, in the case of mass audiences.
- They make use of messengers with compelling *source characteristics*, i.e., those whose professional or technical competence, likeability, credibility, trustworthiness or confidence, or high Q score make them effective spokespersons.
- They rely upon messages with *compelling message characteristics*, i.e., those whose content, format, cognitive and emotional appeal, and other characteristics will most resonate with the audience.

• They *facilitate adaptation* by providing timely feedback on effects so that information channels, messengers, themes, messages, etc. can be modified to increase their persuasiveness.

Our study suggests that in achieving these desiderata, planners have available to them a wide range of models and theories that might be fruitfully employed to plan and design influence operations. The study furthermore suggests that it is possible for planners to employ many of these tools in a way that systematically narrows the focus to those target audiences for which the greatest leverage or payoff can be found.

Planners also should be mindful, however, of three practical implications that result from the heterogeneity of the scholarly literature, the absence of a larger meta-theory of influence, and the situational or context dependence of persuasion efforts at various levels:

- 1. The various theories described above can provide only starting points for planners and operators; they will need to be adapted or fashioned to meet the specific requirements of each situation.
- 2. Even after detailed analysis, vast uncertainties are likely to remain regarding the efficacy of various alternative approaches to communication of messages to target audiences.
- 3. The vast uncertainties associated with the enterprise of influence lead to the requirement for an adaptive, robust, metrics-based planning, execution, and assessment process that can underwrite a capability to plan, test, and assess the results of different sorts of strategies, communications, and appeals and to modify the approach based on the results. The requirements of such a metrics-based process for influence operations are well beyond the scope of the present effort and are described in some detail in other, related work (Larson et al., forthcoming).¹

¹ Appendix D reviews a number of different planning methodologies that may be of interest to planners.

By constructing influence campaigns on solid theoretical and empirical foundations at the micro and macro levels, and testing and adapting target audience responses to these efforts, planners are far more likely to avoid pitfalls and, in some cases, even achieve their influence objectives.

However, as described in this report, the required level of intellectual and analytic effort for such endeavors can be substantial. The effort may in many cases not only outstrip the capabilities of planning staffs, but also may require more intensive inputs and effort than their results perhaps merit.

Case Study of Influence in Advertising and Marketing¹

Introduction

A 2004 study of advertising spending (Maddox, 2004, p. 23) projected that U.S. businesses would spend \$278 billion on advertising in 2006, with an expected direct sales impact of \$2.3 trillion. This reliance on advertising to sell goods and services in the United States fuels a rich literature on how to develop and market products and services that people will buy. The lessons learned from advertising have been adapted to benefit a variety of other fields, including nonprofit fundraising and creating social change, and are also useful in the area of influence operations.

A substantial part of influence operations is convincing individuals or communities that a certain action (or inaction) is in their best interest. Influence operations may be used to dissuade an enemy from fighting in favor of capitulating; to inform civilians how to stay out of the fray and away from danger; or, after the war is over, to persuade locals to support the rebuilding effort, push for democracy, and to take charge of their own safety. In each case, the U.S. government is seeking to persuade or compel local forces, officials, or civilians to adopt a belief that they might not otherwise hold or to engage in behaviors that they might not otherwise engage in. In some respects, these efforts are much like traditional marketing, in which the producer uses specific

¹ This appendix was authored by Amy Richardson.

tools to convince the consumer to purchase a product at a certain price. In this appendix, we address how lessons learned in marketing goods and services may be applied to the work of influence operations.²

A number of relevant commercial analogues exist to the introduction of influence operations in a new theater. A single example will be used to illustrate the point.

A U.S. influence operations campaign might be like the launch of a new line of products that fall under a single brand. For example, imagine that the Coca-Cola Company is introducing a new brand of coffee drinks, which include a variety of flavors. The Coca-Cola Company is well known, but the brand it develops may or may not be, depending on whether the link to the parent company is emphasized. The company must develop anew all the brand elements—the name, the line of products, the packaging, the key messages for why this brand is better than the competitors—and ultimately, the advertising.

In the domain of influence operations, the U.S. name typically is well known, and it may elicit either positive or negative associations in different target audiences that may facilitate or hinder the acceptance of U.S. messages, and these associations may themselves be very difficult to change.3 Other facets of influence operations efforts may not be fully formed, however. For example, the overarching goals and messages of the influence operations efforts that form the brand identity democracy, freedom, economic empowerment, safety—are all viable candidates for status as the one primary message that influence operations may choose to promote. In a similar vein, the specific actions that influence operations take to support an overall message (capitulate versus fight, not support the insurgency, join the local police force) may be likened to the individual elements of the brand line of products. These individual items may be targeted to different audiences and

For a comparable effort in this vein, see Helmus, Paul, and Glenn, 2007.

³ In the worst case, influence operations may most closely approximate crisis communication efforts of commercial firms. For example, U.S. efforts to recover from scandals such as those at Abu Ghraib or incidents involving civilian deaths may share some characteristics of Dow Chemical's response to the Bhopal tragedy or accounting firm responses to accounting scandals. We would like to thank RAND colleague Jeff Marquis for this point.

might have somewhat different benefits, but all support the central message of the brand.

While there are enough similarities between marketing and influence operations to believe that they share some best practices, there are many and large differences. Marketing is, for the most part, about selling goods and services, while influence operations are about selling ideas; marketing is typically conducted in a positive or neutral environment, while influence operations frequently take place in a hostile setting and face a highly skeptical or disapproving target audience; marketing efforts are generally given enormous latitude to make decisions about the brand, the product, the advertising, and the market, while for influence operations, many of these decisions have already been made; and marketing done poorly has implications for the brand and company, while influence operations done poorly can result in the loss of life for coalition or enemy forces and for civilians.

Despite these differences, however, the central goal in marketing and influence operations—to influence decisionmaking—is the same, and marketing tools are suitable for both fields. The purpose of this appendix is to describe those tools and to examine how they might be used to the advantage of influence operations. First, this appendix takes a detailed look at how a typical brand is developed and marketed, focusing particularly on the research that supports each step. Second, it explores how similar research might be conducted for an influence operations campaign. Third, it considers other cases in which traditional marketing tools have been adapted for nontraditional fields and what lessons we can learn from these cases for influence operations. Fourth, it looks at what expectations we can have from marketing efforts both in their traditional and nontraditional forms and some of the common pitfalls of marketing that can handicap those efforts. Finally, it concludes with a discussion of the advantages and impediments to developing a marketing campaign that are specific to influence operations. While significant, these impediments do not stand in the way of a well-run influence operations campaign, and they may be reduced over time.

Building a Brand

There is a very systematic process that many businesses follow in developing a new brand. Of course, few individual efforts will follow all of these steps exactly, but together they form the outline for a typical launch of a new line of products.

First, the members of a brand team will develop the specific brand. To do this, they will

- identify **needs** in the market that are not met by the products currently offered
- identify **products** that can best fill those needs
- identify and understand the **target** consumers for the new line of products
- develop possible **concepts** for the brand⁴
- test those concepts to identify the one with the greatest profit potential.

The brand team members will then develop the advertising. To do this, they will

- develop a variety of **advertising** campaigns and a marketing plan to support the product launch
- test those campaigns to determine the one that is most consistent with the brand and target audience.

If the brand is expected to be sufficiently profitable, the brand team members will then

- **launch** the product
- evaluate its performance.

Here a *concept* refers to all the information connected to a product or service—the name, product, logo, personality, tagline, claims, and all other elements that together form a certain set of expectations that will be associated with the brand.

For most of these steps, research can provide invaluable guidance. Below we describe each of these steps in greater detail and the research that may be used to support them.

Brand Development

Identifying Unmet Needs. The first step in developing a new product line is to understand what is out there and what needs are not being met by current products. A brand will surely fail if it is does not fill an unmet need.

Ethnographic Research. Formally, ethnographic research focuses on the study and systematic recording of human cultures. In marketing, ethnographic research is used to understand how people incorporate products into their lives, how they think about the products in the context of their lives, their homes, their family, etc. This research typically involves observation of individuals in their own environment, rather than a research facility, in the context of where and when they would be using a specific product (at home in the morning for breakfast cereal, perhaps midday at the office for nicotine replacement products). Ethnographic research is ideal at the early stage of brand development, particularly for categories that elicit emotional responses from the consumer, such as baby shoes, photo albums, even shampoo and herbal supplements, for which the researcher can observe and explore those emotional triggers. This research is also well suited to cases for which a brand team is trying to build a better "mousetrap." For example, Energizer used ethnographic research to identify unmet needs in the market for hearing aid batteries by watching the difficulties that hearing aid users faced in changing their batteries. With this input as the basis for developing a new product, it launched EZ Change, which quickly rose to become the leading product in the category (Johnson, 2004).

Focus Groups. Focus groups are small group discussions led by a trained moderator. They are a staple of marketing research and can be very useful in helping identify unmet consumer needs. These focused discussions may include brainstorming about new products and discussions about what consumers like and dislike about current offerings. The discussions are typically conducted with respondents who fit

the target audience (broadly defined) for the product. Moderators will often use projective techniques to encourage respondents to approach the topic in new ways. For example, a moderator might ask respondents: if this condition (e.g., heartburn, sleeplessness) were an animal, what animal would it be? if this product lived somewhere, where would it live? what are some similarities and differences between this product and a car? These techniques can help identify what people like and do not like about the current offerings and what needs they have that are not currently being filled.

Need-Gap Analysis. This type of analysis is quantitative research to identify the unmet needs that exist in the marketplace within a specific category of products. For this research, the brand team members develop a list of "needs"—problems that a consumer might like to have solved or wants that a consumer might like to have filled by products in the category—using the research described above and input from others involved with the brand. Then, a random sample of people are asked (1) how important it is that a product in the category fills those needs (e.g., that a sleep aid is "not habit forming," that a cereal "stays crunchy") and (2) whether products currently in the category meet those needs. The responses are then examined to identify areas in which there is an important, but unmet, need. (For more information, see Kotler, 1991, p. 319.)

Identifying the Product. After the members of the brand team have identified the need they intend to fill, they must identify a product to fill that need that is acceptable to the consumer.

Product testing is done among a random sample of people to ensure that consumers perceive it to work and have no major complaints about it. For this research, a random sample of people who express an interest in buying the product (or who have the need the brand team is trying to fill) is recruited to try or use the product. Depending on the nature of the product, respondents may try the product immediately, or they may take it home with them and are then called later to gauge satisfaction. This testing is not designed to detect efficacy of the product (which requires clinical trials), but simply consumer perceptions of the product's strengths and weaknesses.

Identifying and Understanding the Target. The brand team members must also narrow the scope of their target so that they may tailor the brand image and the advertising to reach that target. Once the target is identified, the brand team members must then develop a very clear and rich picture of that target.

Survey. Simple survey techniques may be used to identify those who are most likely to use the product. For this research, a national random sample of people is contacted to determine whether they have the need that the product intends to fill and how satisfied they are with products that are currently available (those who perceive an unmet need are likely to be the primary target). Additional questions on the survey also help the brand team develop a profile of the target members' demographics (sex, age, race, income, education, geographic location), consumption habits (where they shop, how often, whether they currently use products in the category, how often, how much, which ones), media habits (what they read, listen to, and watch), and other aspects of their character (whether they are information seekers, early adopters, new homeowners, etc.).

Focus Groups. Focused group discussions (as described above) among target consumers are useful to understand how people who might use the product think about the category, how they might use the product, how they shop for it, etc.

Developing Concepts for the Brand. The brand team members will then need to determine the brand positioning—how they intend to talk about the brand (e.g., fast-acting, rich-tasting, a good value, etc). In doing so, the brand team members will want to develop multiple strategies, or possibilities, from which they can choose the most promising. The various brand elements (positioning, packaging, target, etc.) together are called the *concept*. Concepts may vary by the promises that brands make, the targets they are trying to reach, the names of the brands, the offerings in the line, the price, the packaging, and many other ways.

Focus Groups. Focus groups are also useful here to generate ideas about how to develop or refine the concept. For this research, respondents are chosen from the target population and, depending on the point at which the research is conducted, invited to think about the

product in particular. Many of the same projective techniques used earlier are useful here, but the emphasis here is not on unmet needs but rather ideal positioning of the product.

Conjoint Analysis. Quantitative input is also very helpful at this critical point of brand development. Conjoint analysis is an experimental design used to measure the trade-offs that people make in choosing products by measuring the utility of each potential brand attribute. With conjoint analysis, respondents are shown different combinations of brand attributes (for a car, for example: color, price, size, power, fuel efficiency, and model style) and asked about their interest in purchasing the "product" defined by each combination. For example, a respondent might be asked how likely they would be to purchase a red, four-door, hybrid car for \$25,000, then how likely they would be to purchase a yellow, seven-seat, SUV for \$30,000. The combinations are developed using an experimental design. Responses to each of the combinations are then analyzed to develop an understanding both of the importance of each type of attribute (color versus style) and of the preferred description within each attribute (red versus green). The brand team can use this information to develop various concepts that are likely to appeal to consumers.

Testing Concepts. Once the brand team and advertising agency together have developed a number of brand concepts, those concepts are tested among those in the target audience.

Focus Groups. Here, focus groups are useful to understand why certain concepts most resonate with consumers. For example, focus groups can help identify specific elements of each concept that engage, distract, confuse, or annoy the consumer. For this research, respondents are shown the various concepts and asked their reactions to the overall concept and to the specific language and graphics (which one they like best and why, whether they found anything confusing, unbelievable, etc.).

Survey. A survey can also be useful to identify which concepts are most likely to attract consumers and lead them to buy the product. Here respondents are shown concepts and asked how likely they would be to purchase the product and are asked related questions.

Volumetric Forecasting. The best research at this stage, however, is quantitative research that includes volumetric forecasting, which combines survey data, marketing plan data, and modeling to produce estimates for unit and dollar sales in the first year of the product launch. The benefit of this form of research over survey research alone is that it distinguishes those products that are broadly but weakly liked from those that appeal to a smaller group but that are so well liked among them that their purchases will more than make up for the relatively smaller size of the group. Here the emphasis is on which concept will generate the greatest sales volume.

For this research, different samples of respondents are shown the different concepts under consideration and asked a series of standard questions: For example, How likely would you be to purchase this product? How much do you think you would like this product? Do you think it is a good value for the money? What size unit would you buy when you bought it the first time? Their responses and the strength of those responses (very, somewhat, etc.) are recorded. These responses are then transformed using demographic information about the respondent into a truer measure of their intent to purchase (older people, for example, typically overstate their willingness to buy a product by more than their younger counterparts do). The adjusted data are then combined with marketing plan information (advertising plans, distribution plans) to generate an estimate of sales for each concept in the first year.

Advertising Development

After the concept and all brand elements have been determined, the advertising agency, with input from the brand team, must develop multiple ad campaigns consistent with that brand. This step uses previous research but requires additional research.

Testing Advertising Campaigns

Once a variety of advertising campaigns have been designed, they must be tested for their ability to persuade someone to buy the product and to communicate the brand image in a way that is consistent with the strategy.

Focus Groups. Focus groups may be used here to understand what appeals to consumers about the various campaigns and possibly to give the advertisers ideas for how to improve the campaigns. In these groups, respondents are chosen from the target audience and shown print, radio, or TV ads (or storyboards and rough versions of the TV ads) and asked about the ads and the brand as conveyed by the ad.

Eye Tracking (for Print and Radio). *Eye-tracking* is a methodology in which the ad is embedded into its natural context and evaluated for its ability to engage the reader (or listener). For print, respondents are told they are evaluating a new magazine. Their eye movements are tracked (with a camera embedded into a reading light) as they flip through the magazine and then they are asked a number of questions about the magazine and the ads. Next they are then shown the specific ad (forced exposure), and their eye movements are tracked as they look at the ad to see what they read and notice on the page. They are then asked another series of questions about the ad. For radio, they are told they are evaluating highway signs and that the radio is on to make the situation more realistic. The ad is evaluated for whether someone changes the channel while the ad is on, and respondents are asked a series of recall questions afterwards. As with print, they are again exposed to the ad specifically and asked questions about it. This methodology helps the advertisers understand first whether the ad catches the readers' or listeners' attention and then whether they read through the ad in the way the brand team and agency hope.

Persuasion Testing (for TV). Persuasion testing is useful to identify quantitatively whether the ad will generate a trial of the product. The methodology is similar to that for print and radio testing. A random sample of respondents is shown what they are told is a pilot TV show. To make the experience more realistic, they are told, ads are embedded in the show. Before and after the show respondents are asked about their preference for products in different categories, including the brand of interest among the other products in the category. Ads are evaluated by their ability to generate incremental preference for the product.

Developing the Marketing Plan

In addition to refining the advertising campaign, at this point the marketing plan is developed, including the kinds and levels of advertising, the promotions, the distribution, etc. This plan is developed using previously conducted research on the target audience and brand and within constraints of the budget and other factors to develop an optimal marketing plan. This step requires no new research.

Launch and Tracking

Executing the Marketing Plan. The marketing plan is then executed. This requires no new research.

Evaluating Performance. Just before and soon after the brand has launched, the brand team will develop estimates for performance for the brand in the first year.

Volumetric Forecasting (Before Launch). Volumetric forecasting just before launch is useful to develop the most accurate estimates of brand volume once the entire marketing plan and advertising have been finalized. These estimates may also be used to make a go/no go decision, to influence expectations for the brand, and to help in communications with retailers and in public relations materials. The methodology used here is the same as before, except that respondents are given the product to try and then asked how likely they would be to buy the product after trying it (they may also be given the product in earlier tests, but they certainly will at this point). Respondents who say they are interested in buying the product are then given it to take home and called back two weeks later to gauge their reaction.

Test Marketing. Sometimes before a product is launched nationally, it will be tested in a few cities. This research is useful to forecast sales for a national launch in a more real-world setting and to do a dry run for all of the elements of the entire brand team (marketing, sales, production, distribution, etc.). For a test market, the brand company chooses four cities that are similar to each other and the United States demographically. Two cities are chosen to be the test markets and two the control markets (two of each are chosen in case something unexpected happens in one). The brand is distributed in the two test markets as it would be nationally and advertised as it would be national

ally. Sales are tracked, and typically surveys are conducted to monitor awareness of the brand, consideration of it, purchase of it, repeat purchase, and attitudes about the brand. Forecasts may then be made for a national launch.

Awareness and Attitude Tracking (After Launch). After a national launch, periodic surveys are conducted to evaluate true consumer response to the brand, to track the key steps to purchase and repeat (awareness of the brand, consideration, preference, purchase, and repeat), and to get a sense of who is buying the product and why, who among the target is not buying it and why, what people remember, if anything, from the advertising, etc. For this research, a national random sample is contacted and asked a series of questions about the brand and category. The first wave of this research must be conducted before the brand is introduced to establish a benchmark.

Sales Tracking (After Launch). If a company does nothing else, it will track sales, promotions, and distribution of the brand throughout the country after launch. This research measures actual sales of the brand, price paid, whether the product was on the shelves, etc. For this research, data are collected from most of the major (and many minor) retailers, including grocery stores, drug stores, mass merchandisers, and convenience stores and supplemented with in-store checks on distribution and store promotions. The brand team then analyzes the research for information about which stores are selling a disproportionate share of the product and why, which promotions appear to be most effective, whether there are any problems with distribution of the product, how the competitors are responding to the launch, etc.

Lessons from Nontraditional Marketing

Ultimately, however, influence operations are in the business of marketing not products, but ideas. For this reason, lessons from three other sectors—cause marketing, sin marketing, and political marketing may be the most useful analogues for understanding how marketing principles can benefit influence operations.

Cause Marketing

Cause marketing may be defined as follows:

Using the skills of advertising to effect social change, to benefit individuals or society at large. . . . it is advertising in the service of the public (Earle, 2000, p. 3).

Like influence operations, it asks its target audience not to buy something, but to buy into something—to avoid cigarettes, alcohol or drugs, not to litter or leave a campfire unattended, to conserve resources, or to protect personal information. Perhaps most pertinent to influence operations, one category of cause marketing campaigns relates to health and safety issues, such as preventing childhood asthma or getting help for relatives with Parkinson's Disease.

The methodology and tools used in product marketing are directly relevant to cause marketing and influence operations. In fact, they may be even more critical in these fields for a few reasons. It is harder to sell an idea than a product, the audience is often harder to understand, the constraints on what may be included in the message are more significant, and the budget is often smaller.

Cause marketing and influence operations share another burden: There is evidence that a bad cause marketing campaign is worse than no campaign at all. Researchers have found, for example, that featuring people doing drugs in ads or featuring the drugs themselves can lead to greater drug use. Some kids watching an ad that featured other kids doing drugs concluded that, "those kids are just like me and they seem like they are having fun." Or a former addict can be moved to try drugs again because of such ads (Earle, 2000, p. 11). Similarly, if a message from influence operations strikes the wrong tone or is misinterpreted, it can be a great recruiting tool for the other side.

To avoid these pitfalls, there are some important lessons to learn. First, research to prepare for a cause marketing or influence operations campaign is very complex and requires great care. The target audience may be difficult to recruit, to involve in discussions, to read, and to reach. The very best team should be used in this endeavor. Second, research is more crucial here than anywhere. Getting the message

and its tone right can be the difference between success and failure. Third, because the audience is fickle and complex, it may be necessary to develop different messages for different targets (e.g., for cause marketing, kids, adults, nonusers, and addicts; for influence operations, women, men, and majority and minority party members). Also, these messages cannot just be variations on a theme—they must be built from the ground up as independent efforts. While McDonalds can use a German ad ("I'm lovin' it") with success in America, that strategy is unlikely to work for cause marketing or influence operations. Fourth, unlike product advertising, the target audience for a cause marketing or influence operations campaign might not be the ultimate target. Often these campaigns target parents to curb teen smoking, for example, or the loved one of an addicted gambler rather than the gambler directly. This strategy might be fruitful for influence operations, too.

Sin Marketing

Ironically, the (almost) flipside of cause marketing, *sin marketing*, shares a number of characteristics with influence operations as well. Indeed, where the United States faces a skeptical or hostile audience whose basic point of view arises from religious, cultural, or social norms, sin marketing may accord fairly closely with U.S. brand identification by foreign audiences.

Sin marketing is the marketing of such socially unacceptable products as tobacco, alcohol, firearms, gambling, and pornography (Davidson, 2003). For these products, the marketing environment is neither positive nor neutral but outright hostile. Individual consumers may be (and clearly are) supportive of the products, but not in a public way. Similarly, individual members of enemy forces and civilians in those countries may be privately supportive of U.S. actions, but they are reluctant to share that sentiment publicly.

Under these circumstances, there are a few steps that may be taken to improve the chance of a successful outcome. First, it is best to be as precise as possible in targeting and advertising to those who are most receptive to the message so as to minimize public expressions of the social unacceptability of that message. High-visibility campaigns will only lead to public denunciation of that campaign and may dissuade

some from supporting the campaign who might have otherwise. The use of email and Web sites—which offer anonymity, a direct connection to the consumer, convenience, and sophisticated database management techniques—can be very effective in creating a safe space for communicating a controversial message.

Second, it may be wise to "de-link" the parent company from the product. Typically this technique is used to protect the parent company and its other brands. For example, Altria, the parent company of Philip Morris, downplays the fact that it makes both Kraft Foods and Marlboro cigarettes to protect the Kraft brand (and, indeed, Philip Morris chose the name Altria after deciding that its name had been so tarnished by its association with cigarettes). But for influence operations, it may make sense to downplay the association between the message and the source (the U.S. government) to protect the message if anti-American sentiment might lead to added resistance to accepting the message.

Third, the use of symbols can be effective both as a more acceptable icon in advertising (e.g., the Nike "swish") and to help reshape an image (e.g., Camel was a blue-collar cigarette brand before Joe Camel was used to sell the cigarette to teens, and Marlboro was an unsuccessful women's brand before the Marlboro Man was used to turn it into a successful men's brand. Indeed, icons can be very powerful even if the message is not controversial, as demonstrated by the pink ribbons for breast cancer awareness and treatment.

Fourth, for sin marketing, or for influence operations in which the United States faces a hostile audience, public relations are much more important than for mainstream products. There is a greater need both to improve the image of the products and the brand and to do damage control to minimize the impact of bad press. It may be the case that public relations under these conditions are even more important than in more traditional forms of advertising. For example, the Miller Brewing Company has found that the dollars it spends on public relations are far more cost-efficient than those it spends on advertising and has changed its cost mix accordingly (Mandese, 2003). Efforts to improve the brand image usually focus not on convincing society that the products are not bad, but rather that the company that sells the products is

committed to the responsible use of these products and is giving back to the community some of the money that is made in selling these products. For influence operations, these efforts would include those that demonstrate that the United States is acting in the interests of the locals, even when that conflicts with its own goals, and making other selfless gestures that are meaningful to society.

Political Marketing

Although the subject is discussed in greater detail in the next appendix, there also are some lessons from the world of political campaigns that apply to influence operations that we briefly touch upon here.

As with traditional marketing for a new brand, launching a successful new influence operations campaign requires a sophisticated understanding of the competition, anticipation of the competition's actions, and advanced planning on how to react to those anticipated actions. Sometimes the competition with another brand can be so fierce that it defines the success of the launch. This was the case with the launch of Nicoderm by SmithKline Beecham, which went head to head with Nicotrol, and, in fact, political campaign advisers were part of the inner circle in the early years of Nicoderm's launch.

Where political campaigns excel is in being prepared for, and even disarming in advance, any attacks that might be made. To do this, political campaigns do extensive research on the competition, far more than in traditional marketing. They build into initial communications points that address anticipated criticism from detractors, guided by the belief that the best defense is a good offense. For influence operations, this would mean extensive research on insurgents or detractors not just to understand how they plan to undermine the military mission, but also the battle for the hearts and minds of the civilians.

Expectations for Advertising

But is all this effort worth it? What, if anything, can we expect from advertising? With the diffusion of information sources and the constant barrage of advertising, can a message get through?

Marketing

If a marketer is asked those questions about a specific campaign, chances are he or she will tell you, "I have no idea." In a recent survey of 135 senior-level marketers sponsored by the Association of National Advertisers, 87 percent say they have "little confidence in their ability to predict the impact that their TV advertising and marketing efforts have on sales" (McClellan, 2005). In advertising lore, this sentiment is paraphrased as: "I know that only half my advertising works; I just don't know which half."5

Indeed three well-designed studies to answer this question found that advertising works about half the time. One study conducted by John Philip Jones (2004, pp. 117-119) found that for 20 percent of brands, mostly small ones, advertising increases sales significantly (on average doubling sales), for another 20 percent, mostly large brands, advertising helps maintain and sometimes increases sales, but not as noticeably, and for the remaining 60 percent, advertising has no impact. Jones (2004, pp. 63-65) also found that whatever effect advertising has, it occurs primarily after first exposure, and that additional exposures result in diminishing returns: 70 percent of sales from an ad occur with only one exposure in a seven-day period, another 20 percent with additional exposure, and only an additional 10 percent with three exposures or more. Findings from another series of studies, "How Advertising Works" conducted by Information Resources, Inc. (see Hu, Lodish, and Krieger, 2008), are consistent with Jones's research, concluding that advertising works about half the time, and mostly for new and growing brands.

More recently, Deutsche Bank commissioned a study of 23 household, personal-care, food, and beverage brands and found that TV advertising generated a positive return on investment in the first year only 18 percent of the time and over a longer period 45 percent of the time. Positive returns were mostly found among the newer brands or brands with substantially new products (e.g., Crest Whitestrips and Swiffer). But a few mature brands, such as Gatorade, Tide, and Bud Light, also had strong returns, which Deutsche Bank attributed to

⁵ Attributed to department store founder John Wanamaker (1838–1922).

good advertising (Neff, 2004). Brand loyalty, however, also could have played a role.

Nontraditional Marketing

For nontraditional marketing, positive results are also evident but may take longer to see. Changing ideas and values is possible, but this happens slowly, particularly when those beliefs are strongly held and particularly when there are strong social incentives not to accept the alternative view. Since 1992, Massachusetts has reduced adult smoking by 41 percent, two and one-half times the national average (Massachusetts Office of Health and Human Services, n.d.). The state attributes much of this success to its advertising. However, this impact has required a steady stream of advertising over a ten-year period.

In a set of findings that resonates strongly with the social power model that was described earlier, how quickly results can be expected depends on five variables through which social changes occur:

- Predisposition: whether the message conflicts with traditional beliefs and values that are proving satisfactory
- Perception: whether the message appears to have advantages now or in the future that can be intelligently demonstrated
- Other people: whether the message is introduced by people considered important and competent and who have consulted the target audience or its respected leaders
- Personality traits: whether the message is in accord with the modal personality traits (e.g., adaptable versus rigid) of the society or with a goal the target audience is seeking
- Learning: whether the message makes demands whose components the target audience has already learned or feels confident it can learn (e.g., does it have a history with democracy or believe that it can adapt to democracy) (Zaltman, Kotler, and Kaufman, 1972, pp. 68-70).6

Note that there is a rich psychological literature on how to effect changes in attitudes (through presentation of facts versus more emotional techniques, behavior modification techniques, group dynamics, etc.).

There are two conclusions IO planners should draw from this list. First, the road ahead is steep. It is likely that for any given effort, none of these forces will naturally be working in a campaign's favor. Second, to see quicker change, efforts need to be made to try to manipulate these variables in ways that benefit the aims of the influence operations. Can the message be framed to more closely coincide with traditional beliefs? Are there individuals who may be enlisted to help spread the message and who would have credibility with the target audience? Very careful planning and a deep understanding of the culture into which these ideas are introduced are required. If these factors cannot be turned to an advantage, expectations should be set that effects will take longer to see.

How Things Can Go Wrong

The odds of success in the advertising world are not highly favorable, and an advertiser's fate depends to a large extent on the cards that he or she is dealt. For example, it is much easier to increase sales on a new brand than on a mature or declining brand, and it is much easier if the competition is not already well established (and well funded). These odds may be improved somewhat, however, by avoiding a few key pitfalls, as discussed below.

Not Enough Research

Brand teams may be very skilled at many things, but few can accurately assess consumer preferences consistently. One study by Leo Bogart (1995) examined the predictive powers of 83 advertising decisionmakers (brand managers, advertising managers, agency account executives, and creative, media, and research people) and found that while these experts could judge well whether the ad would be noticed, they were poor forecasters of its selling ability. (This point also illustrates that the relationship between memorable advertising and effective advertising is weak.) Research is needed to understand the target audience and how it responds to the product, the packaging, the taglines, the price, etc. One famous example illustrates this point. While in blind taste

tests the new formulation of Coca-Cola was preferred, brand users had a very negative reaction when it was associated with the Coca-Cola brand. Surprised by this reaction, the company had to pull the new formulation and launch a major public relations effort to undo the damage. Given the inherent uncertainties arising from the dominance of context-dependent factors in outcomes, whether there can ever be enough research to accurately predict the results of influence efforts remains an important question.

Misinterpretation of the Research

Perhaps the best way to make this point is using a quotation from David Ogilvy, a well-known advertising executive: "Research is often misused by agencies . . . as a drunkard uses a lamppost—not for illumination, but for support!" Research can be, and often is, manipulated to conform to a certain view not found in the data alone and with detrimental consequences to the success of the brand. It is critical that each member of a brand team work to maintain objectivity in interpreting the research.

Ignoring the Research

Sometimes, those responsible for designing the advertising may even be hostile to the research, believing that it encumbers their creativity. But to be effective, advertising must be both entertaining and motivating. Entertaining ads may win awards, but alone they do not sell products. For this reason, the brand team members must be ever vigilant in reminding their agency of the advice from Mark Twain to "kill your darlings," the words or phrases (or in this case, the advertising elements) that you are keeping in just because you love them and not because they support the message.

Too Many, or Competing, Messages

Finally, many brand teams err by trying too many approaches at the same time. To be successful, marketing and advertising needs to stick to a single message. That focus can help the brand build equity among

⁷ The "keep it simple, stupid" (KISS) principle is an apt one.

consumers much more quickly (few would hear the phrase "Just Do It" and not think of Nike) and help consumers evaluate whether the product is right for them. No one has learned this lesson better than political campaign advisors, who are constantly reminding their clients to "stay on message."

Influence in Advertising and Marketing: Conclusions

This appendix has examined the well-honed marketing tools that contribute to successful advertising in the private sector, but also in more nontraditional fields. Our case study of advertising and marketing offers the following lessons for influence operations:

- Practitioners exhibit great clarity in their aim of selling a good or service by fostering a specific purchasing behavior.
- Advertisers and markets seek to differentiate and segment their markets and audiences (e.g., early adopters versus others) and develop appeals that are most likely to resonate with each.
- Practitioners rely heavily on a wide range of sophisticated techniques to understand and try to predict consumer behavior.
- Practitioners also rely upon a mix of emotional, cognitive, and creative appeals that are tested and refined to maximize their impact.
- The high costs of advertising and the highly competitive advertising and marketing environment make it a high-stakes enterprise that frequently leads to clear winners and losers.
- Finally, in contrast to the enthusiasm and hype often encountered, advertising and marketing techniques' potential contributions to information and influence operations should create modest expectations; for every stunning advertising success story, there is likely to be at least one catastrophic failure.

There are parallel steps in the design of a new product line and the design of an influence operations campaign. Ideally, those designing that campaign would work to understand what unmet needs exist in

the population; what actions the United States could take to fill those needs; what targets are most receptive to that message; what language best communicates the message; which information vehicles are best designed to distribute that message; and, after the campaign, which aspects of the campaign were the most and least successful. While successful execution of these individual steps certainly does not guarantee the success of an overall campaign, it is fair to say that failure in any one of them could easily lead to the overall failure of a campaign.8

⁸ For a rather enthusiastic view of the contributions Madison Avenue advertising and marketing approaches might make to winning the popular support of foreign publics, see Helmus, Paul, and Glenn, 2007. For a somewhat less optimistic—and more empirical analysis of the specific attitudes, beliefs, and other factors that drive or constrain popular support for the United States in one theater of operation (South Korea), see Larson et al., 2004.

Case Study of Influence in Political Campaigns¹

Introduction

Political campaigns lie at the heart of the American political system. Campaigns present voters with information and a choice of candidates in a democratic process; they are characterized as intense activities, zero-sum, winner-takes-all games. As described in the last appendix, political campaigns also can be thought of as a special case of cause marketing, in which the cause is a candidate or proposition.

Political campaigns require getting a message across to voters. To do that, campaigns must define what the message is and devise a strategy to reach voters who will be swayed by that message. How these essential activities are carried out depends on whether the campaign is strictly party centered or candidate centered:

- In the case of party-centered campaigns, the message is the party platform, one or several planks, and the voters to be reached are those who make up the party's core constituency and others to whom the message might appeal.
- For candidate-centered campaigns, the task is more complex.
 Candidates must decide at an early stage whether they will stick to the party's message or devise their own. They must also decide

¹ This appendix was written by Daniel Gibran.

what particular issues or other factors voters are most concerned with and who precisely are those voters.2

In general, the main objective of political campaigns is straightforward: to mobilize a majority (or plurality) of voters to vote for (or against) a candidate. Underneath this broad objective, there is a range of nested subobjectives for political campaigns:

- Influence people who are predisposed to vote for the candidate to register, without influencing those predisposed to vote against the candidate to do so.
- Influence registered voters inclined to vote for the candidate to turn out at the polls, and influence others to stay home.
- Influence voters to vote for (or against) a candidate.3

Thus, the principal focus of contemporary political campaigns is not only to energize the party's base but also to persuade voters to go out and vote on Election Day.

The landscape of American political campaigns has changed dramatically over the last three decades. Public opinion polling, for example, is now the key to nearly every facet of campaigning. And a campaign cannot even be contemplated without ample access to technology and a vigorous research undertaking. These changes have also restructured the focus of campaigns.

While candidates are ultimately responsible for their campaigns, they cannot compete effectively, let alone win, without professional help. In sum, political consultants have become indispensable to modern political campaigns in America, and their craft is based on "customary activities that are modified by the trial and error of individual practice" rather than on any theoretical underpinnings (Johnson-Cartee and Copeland, 1997, p. xix).

² There is, for example, some evidence suggesting that simply increasing an individual's exposure to a candidate can increase liking. Negative campaigning also can affect voters'

³ We note that such objectives as influencing voters to stay home counter cherished American values and can be viewed as subverting the democratic process.

"No other area of American politics," write Shea and Burton (2001, p. 3), "has so drastically changed over the last few decades than the manner in which candidates pursue votes." Where once the political party, the center of campaign activity for over 150 years, served as the organizational foundation of American politics, its role today has been diminished somewhat to servicing the needs of a running candidate through financial contributions and expertise. It appears that political consultants and, to a lesser extent, political action committees now occupy the center stage of the American political campaign process. In short, contemporary campaigns are not fully party centered, nor are they strictly candidate centered, rather they are more consultant centered (Shea and Burton, 2001, p. 12).

The role of political consultants underscores the paramount task of campaigns, i.e., to connect with voters. The consultants and their teams devise the strategies, implement the tactics, and manage the campaign. All of these activities, however, are still being conducted alongside the political party, which continues to provide the platform for the campaign process.

As will be described, the political campaign process is a very highly developed and sophisticated art form in America. It is costly and involves a large cadre of committed supporters working over an extended time period during an election. It is a fierce contest carried out within circumscribed rules and legal boundaries that were established over hundreds of years. It uses state-of-the-art communications techniques, such as the Internet, television, direct mail, and phone banks, and sophisticated methodologies to assess voters' attitudes toward particular messages and candidates.

Campaign strategists/consultants divide the electorate in a variety of ways—by demographic characteristics, economic interests, geographic location, gender, income, and education. The goal is to use survey research and polling data to determine what appeals will work with audiences and have the running candidate address those audiences with the appropriate message. And the message is communicated through both the free and paid media.

This appendix is an attempt to describe, among other things, how political campaigns achieve their objectives of electing a candidate

and, in particular, how they assess the electorate, how they develop and pursue winning strategies, the types of techniques and research tools they use, and the multiple roles they play in the entire process. It draws on the current literature and identifies various theoretical and practical considerations that go into political campaigns. It also offers some thoughts on potential lessons for the U.S. military and its influence operations efforts in places such as Iraq and Afghanistan.

This discussion will be organized according to a framework that is easily adaptable to various situations, as follows:

- Assess the electorate.
- Identify target groups.
- Measure baseline attitudes.
- Develop, test, and field messages.
- Measure again, and adapt messages to changing circumstances or developments.

Assessing the Electorate

Assessing the Political Terrain

An assessment of the electorate begins with the knowledge and understanding of what campaign consultants refer to as the landscape, the environment, or the political terrain. Understanding this context or landscape is key to distinguishing the tractable elements from the intractable ones. Who else is on the ballot, what do the demographics look like, what office is being contested? These are some of the questions that define the terrain and must be addressed before discussion of campaign strategy and tactics (Shea and Burton, 2001, p. 25). While campaigns are about strategy, they are also about the terrain on which the strategy operates. In many respects, they are like military campaigns. The literature likens a political campaign to what military commanders do when preparing for a war. Take geography for example. No modern campaign strategy can be launched successfully, whether at the national or at the state and local levels, without geographic considerations. The physical characteristics of a district, such as its size,

density, and location, mold campaign activities and constitute a crucial step in the evaluation process.

Demographics

One very important assessment technique is demographic research describing the characteristics of the electorate, which is very different from opinion polling, which focuses on attitudes.⁴ Demography is the study of population, and demographers quantify a population's size, growth, education, gender, race, ethnicity, income, and other features in order to construct a profile of the target population.

All political campaigns need demographics, and any winning strategy is influenced by the knowledge of a district's demographic profile: its mix of race, ethnicity, consumer preference, education levels, gender distribution, and a range of other attributes that define the electorate. How a campaign collects and uses this information at the aggregate level can determine a candidate's success or failure. Accordingly, to target the right voters, political campaigns rely on demographic research. Demographers assume that "populations are heterogeneous," that this "heterogeneity can be used to divide voters into separate analytic groups," and that "membership in a demographic group suggests shared concerns" (Shea and Burton, 2001, pp. 43-44). There typically is a fairly strong correlation between party preference and wealth, race, and occupation, for example.

Demographic inference remains a business of probabilities, not certainties. For political campaigns, conjectures and assumptions about the relationship between characteristics of the electorate and their likely voting behavior are tested and refined using a variety of statistical tools. These tools help campaign planners discover which groups are likely to matter the most in building a winning coalition, so that these groups can be targeted with the most appropriate messages. In other words, aggregation of the collected data on individuals helps

⁴ A campaign planner's need for demographic information is aptly illustrated in the 1986 film, Power, when Gene Hackman, playing the role of an aging political campaigner, approaches a former colleague, Richard Gere, now a "new-style" political consultant, and requests crucial information on how to make his candidate competitive. Hackman lacked one of the basic tools of the new craft.

campaign researchers to understand the character of larger groups. For example, white males as a group tend to vote differently than say unmarried black women, and, as a group, older people are more likely to vote than are younger people. Rather than shooting in the dark, analysis of demographic data can help a campaign to target its message at those voters in a district whom it is most likely to be able to persuade and avoid wasting scarce campaign resources on those it is unlikely to influence. In sum, good demographic research, an indispensable tool in a campaign's arsenal, compiles and provides a general understanding of an electorate.

In addition to the *Statistical Abstract of the United States*, the *U.S.* Census remains the major source of demographic information for political campaigns. While Census data are not perfect, they do provide a wide variety of demographic characteristics that are useful to the political researcher. These data are presented in two basic formats, namely, summary data and micro-data. Summary data sets are based on specific geographic units, such as states, cities, and townships, and are considered standard information. Micro-data sets, on the other hand, are a completely different type of resource. A researcher can restructure micro-data information to perform queries on individual-level surveys. Thus, the key to using Census data is the search for demographic correspondence and specificity. Once data are gathered, they can be imported into a database and displayed on a spreadsheet, or they can be represented in a more complex way through a relational database management system that the researcher can use for linking data sets. This combination of individual-level data with demographic information provides campaign consultants with better insights on subgroups and, thus, helps them to convey their messages to the right voters. In short, demographics provide very useful information, and campaign strategies are shaped by such information.

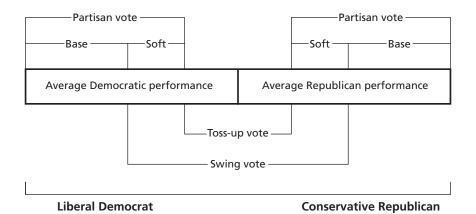
Developing and Pursuing Winning Strategies

A strategic visualization of the district is a general theory of electioneering, applicable at all campaign levels. In devising winning strategies, political consultants constantly seek a clearer and better understanding of an electoral district. Electoral history provides some guidelines: A district that votes two-thirds Republican in a national election in 2004 will in all probability vote the same way in 2008. This postulate "helps campaign professionals see what precincts have a highly partisan vote and which fluctuate between Republicans and Democrats" (Shea and Burton, 2001, p. 76). Thus, campaign professionals know through historical data that some districts vote Republican or Democrat by roughly the same percentage year after year and that some states are more favorable to third-party candidates, and they use this understanding in the development of their campaign strategy.

A typical visual representation of an electorate shows a district that generally splits its vote 50-50 between Republicans and Democrats. This configuration is illustrated in Figure B.1.

The figure shows that only about 20–25 percent of the electorate (the base-partisan vote) is a lock for either political party. About 16 percent on each side (the soft-partisan vote) *probably* will vote for each party, and 16 percent of the vote (the toss-up) is completely up for grabs. This model underscores an important political truth: In a com-

Figure B.1
Diagramming an Electorate



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petitive election, a small group of generally uncommitted voters can decide the outcome. Thus, electoral targeting is a perennial quest for the deciding vote (the median voter) that resides with a small group.⁵

Campaigns can differ in how they go about attempting to capture the median voter. Perhaps the most striking recent example of differences in strategy is to be found in the 2004 presidential contest between Republican incumbent George W. Bush and Democratic challenger John Kerry. By all accounts, the Bush strategy was to mobilize turnout from his base of Republican conservatives, evangelical Christians, and others who already were predisposed to vote for him and to avoid diluting his message to appeal to more-moderate voters. By comparison, the Kerry strategy appears to have been composed of a mix of comparable efforts to mobilize the Democratic faithful and efforts to increase Kerry's appeal to moderates who were, for example, concerned about national security issues.

Developing a winning strategy thus depends on knowing the number of potential voters residing in a district. In addition to mapping the district, i.e., by examining its social, economic, and political cultures, the campaign would want to know how many people are registered to vote, what party they belong to, and how many eligible voters actually vote on Election Day. Through statistical analyses of data gleaned from the historical record and current aggregate data, campaign professionals decide what strategies to pursue.

To underscore the accomplishments of the running candidate and translate his or her achievements into practical and appealing connectors to voters, campaign researchers often prepare two sets of documents, one containing simple, straightforward information about the

⁵ The vagaries of Electoral College politics complicate this simple voting rule in that a single candidate wins all of the electoral votes for states in which he or she enjoys a majority or plurality. Three-way contests typically are decided by a simple plurality of voters. In the 1992 three-way contest between incumbent George H.W. Bush and challengers Bill Clinton and Ross Perot, for example, Arkansas governor and presidential aspirant Bill Clinton won 43 percent of the popular vote, while incumbent George Bush won about 38 percent, and third-party challenger Ross Perot won about 19 percent. The winner-take-all nature of the electoral vote count made the result even more lopsided, however: Perot failed to win a single state, leaving Clinton with 370 electoral votes, and Bush 168, a better than two-to-one advantage.

candidate for general use; the other a more detailed version of the candidate's life, public service, and accomplishments (Shea and Burton, 2001, pp. 66–67). While not a legal requirement, the elaborated version is prepared for possible use when it is needed and serves a useful purpose in meeting the opposition's challenge and answering media queries.

Of the various strategies mentioned so far, opposition research is perhaps the most interesting and has direct relevance to influence operations efforts to counter adversary propaganda. In contemporary politics, a campaign strategy that fails to engage in opposition research is ill-equipped to exploit the opposition's vulnerabilities. While both incumbents and challengers in a race use opposition research as an offensive weapon, it seems to be a particularly useful stratagem for the latter when a race is tight and when political symbolism takes hold most strongly when it is confirmatory of an underlying belief.⁶

Not all opposition research is implemented in service to mudslinging. Republican consultant Terry Cooper observed that opposition research is an increasingly important tool in the campaign for the challenger who is less known to the electorate. Such research, he said "is valuable because of voter inertia—the tendency of the vast majority of the electorate to re-elect the incumbent or vote for the better-known candidate unless someone gives them good reason to do otherwise" (Cooper, 1991, p. 18). But what exactly is opposition research, and why is it considered a useful campaign strategy?

Opposition research "is public-records research on the political, business, professional and personal background of candidates" (Reger, 2003, p. 215). A highly technical and complex process, it involves information gathering and analysis of publicly verifiable documents. It embraces both the prospective and retrospective aspects of evaluation. The first aspect is based on anticipatory assumptions, what the candidate promises to do for voters, and his or her qualifications and personality. A good example of this prospective lens is when presidential can-

⁶ A widely cited example was the image of Democratic presidential contender Michael Dukakis wearing an oversized helmet while riding in a tank. The image was meant to burnish his credentials as strong on defense, but generally was viewed in the opposite light.

didate Bill Clinton promised a "bridge to the 21 century" to American voters. Retrospective evaluations look at past actions in order to judge a candidate's future behavior. For example, when Ronald Reagan asked during a debate with president Carter, "Are you better off now than you were four years ago?" he was directing voters to look at the Carter administration's past problems.

Political campaigns focus on the retrospective because the past is not only "considered a strong predictor of the future," it is also less complex for voters to decipher (Shea and Burton, 2001, p. 60). Opposition research, therefore, is an information-gathering process that leverages "a message by specifically attacking an opponent's weakest points" (Cooper, 2003, p. 204). According to Rich Galen (2003, p. 199), it "is the process of finding out as much about your opponent as your opponent probably knows about you." In nearly all instances, it seeks out bits and pieces of factual information that, when given a certain interpretation, conveys a negative message of the opponent to the electorate by pointing out shortcomings in past behavior. In doing so, it "taps into the process of retrospective evaluation" (Shea and Burton, 2003, p. 60). The rationale is based on the premise that a message that focuses on an opposition candidate's past has a powerful appeal to voters, even while they decry negative campaigns. In the election process all across America, opposition research now occupies a special place among campaign professionals, and for those running an underdog campaign, it is a highly essential ingredient in the strategic mix.

The utility of opposition research lies in its persuasive appeal to factual information placed in a proper perspective. Merely regurgitating a statement of fact about an opposition candidate is not very useful. For example, a research report on presidential hopeful Michael Dukakis stating that while he was governor of Massachusetts supported a "furlough" program is an interesting piece of fact but not very helpful as it lacks perspective. Using this same fact, if this report should state that Dukakis "supported a furlough program that allowed first-degree murderers to have furloughs, including Willie Horton," the appeal to voters would be more persuasive (Reger, 2003, p. 216). And that was precisely what was done.

Opposition research is simply knowing where the opponent stands vis-à-vis one's own position and then hitting him or her at his or her weakest points. It is not necessarily about "dirty tricks," although the information is quite often presented in a slightly twisted form to make the facts more appealing to voters and damaging to the opponent. And although retrospective in most instances, the facts are skillfully manipulated to serve a partisan end.

Advertising is another strategy political campaigns use to energize their base and get their candidate's message across to voters. Johnson-Cartee and Copeland (1997, p. 149) noted: "political advertising has become almost synonymous with political campaigning." Since becoming part of the campaign staple, research studies have confirmed that political advertising is both effective and an important component of the political process (Johnson-Cartee and Copeland, 1997, p. 150). However, advertising's efficacy does not span the entire spectrum of the voting public or of all types of elections. Research conducted in 1975 and after "has demonstrated that the effectiveness of political advertising [was] strongest in low-level and local races such as primary elections, nonpartisan races, and races for state positions and campaigns for the House of Representatives" (Johnson-Cartee and Copeland, 1997, p. 153). Effects also operate on different levels according to a typology devised by Kaid. They can be cognitive, what people know; affective, how people feel about what they know, and behavioral, how people act based on what they know and feel (Kaid, 1981). Devlin (1986) examined the purposes for which political advertising can be effectively used and constructed a "typology" of potential goals. He recognized the following goals. Political advertising

- develops name recognition for a candidate
- acts as a reinforcing agent for those who have selected a candidate to support
- may be used to redefine the perceptions of a candidate or party
- is used because it is conceived as expected behavior for a candidate.

Political advertising is an important aspect of the American electoral landscape. It providers voters information on candidates, and according to Johnson-Cartee and Copeland (1997, p. 155), it "is effective, strategic, and necessary" Per Johnson-Cartee and Copeland (1997, p. 162), advertising strategies fall into one of four categories of ads, namely:

- Positive ads: designed to position the candidate and improve his 1. or her name recognition; they also state the candidate's perspectives on issues and promote his or her leadership qualities.
- Negative ads: used to question the opponent's fitness for office by casting him or her in an inferior position, hence unfit to hold office.
- Reactive response ads: designed to answer the opposition's nega-3.
- Proactive inoculation ads: used to undermine, deflect, and reduce the power of anticipated negative attacks.

While the majority of political ads fall into the first two categories, there has been a steep increase in negative ads over the past several years. In the last two general elections, for example, negative ads dominated the airwaves, with many of them being "uncreative, meanspirited, heavy-handed, tasteless, insulting or just plain stupid" (Seder, 2003, p. 379).

One of the latest and perhaps hottest trends in political campaign strategy is the use of mass-produced videos, DVDs, and the Internet. Given the exorbitant cost of television advertising and "increased audience fracturing" (Faucheux, 2003, p. 392), many campaigns have been forced to devise new and innovative strategies to extend their target range. The political use of videos has many advantages, ranging from cost savings and potency of an extended message to pinpoint target distribution and momentum creation. And they can be used at appropriate times to define a candidate's image and central message, for fundraising, for recruiting and mobilizing volunteers, and for targeting messages to special groups of voters (Faucheux, 2003, pp. 392-393). During the 2004 general election, the Internet's use for fundraising, opinion formation, interest mediation, message dissemination, and feedback was spectacular. For example, it is widely believed that Howard Dean's early success during the 2004 Democratic primary run can be attributed to his skilful use of the Internet in mobilizing the Democratic base of liberals, particularly in the area of fundraising. In a similar vein, in the 2000 Republican primary, a political consulting firm reportedly "helped raise \$6.4 million online for John McCain's presidential campaign" (Ireland and Nash, 2003, p. 605).

Techniques and Analytic Tools

Political campaigns are said by practitioners to be more art than science and, to the extent that they are a science at all, an inexact one. This is not to say that scientific methodologies and tools are irrelevant or unimportant to political campaigns. To be sure, campaign managers do rely on scientific techniques to inform their strategies and tactics. But the process as a whole is infused more with tried and successful practices than with hard science. However, the tools or mechanics of political campaigns have changed dramatically over the past several years, with the adoption of new communication technologies such as the Internet, direct mailing, and phone banks. "These innovations," writes Andrea Rommele (2003, p. 8), "have occurred alongside an intensification of existing methods of divining voters' thoughts, such as opinion polls and focus groups." The following focuses on some of the more specific techniques political campaigns use: focus groups, polling, direct mail, and message design and word choice.

Focus Groups

Focus groups have come of age in political campaigns. Their wide use in the commercial marketplace is well documented, and only in the mid-1980s did this technique become commonplace in major political campaigns. Today, it is a standard research tool in almost all races and with "their electronic cousin, dial meter groups, have become the hot, even faddish, new tool in the pollster's arsenal" (Johnson, 2001, p. 102). They reveal useful information about attitudes, fears, and

preferences—information that helps campaigns structure their messages with optimal resonance.

The focus group is a structured conversation. Krueger (1988, p. 18) defines it as "a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, nonthreatening environment." To achieve this meticulously planned discussion, eight to twelve individuals, carefully chosen to fit a targeted demographic or political cluster, are asked both general and specific questions by a skilful "moderator adept at bringing out participants' responses through open-ended questions and associational techniques" (Johnson, 2001, p. 102). The selection of participants is a carefully planned undertaking. This sharing of a set of common characteristics creates a homogeneous group, which in turn fosters the permissive, nonthreatening environment needed for cohesion and smooth functionality. Moreover, small group participation and dynamics are also considered important features of focus groups.

With members seated around a table, the moderator works from a carefully prepared script, soliciting responses from participants in a variety of ways. The discussion is recorded either on audio or on videotape so that a transcript and a detailed analysis become available to members for comments. Thus, "it is the transcript of the focus group that serves as the source of the actual data from a focus group" (Johnson-Cartee and Copeland, 1997, p. 141). The transcript provides a sense of the views, both rational and emotional, of participants and conveys insights that can prove very useful in campaign strategy.

While the focus group method is in vogue in political campaigns, it is not the panacea for all campaign ills. In a number of instances, however, it has unearthed the magic bullet, that "piece of information that turns a fledging campaign into a winner" (Hunter, 2003, p. 190). The Willie Horton episode in the 1988 presidential campaign, its particular twist and raw emotional appeal, were revealed in a focus group. A *Time* magazine report recalled the scene:

The moderator began asking rhetorical questions. "What if I told you that Dukakis vetoed a bill requiring schoolchildren to say the Pledge of Allegiance? Or, that he was against the death penalty?

Or that he gave weekend furloughs to first-degree murderers?" "He is a liberal!" exclaimed one man at the table. "If those are really his positions," a woman added, "I'd have a hard time supporting him" ("Nine Key Moments," 1988).

The result: Bush, who had been 16 points behind Dukakis in the polls, pulled ahead and won. While focus groups can provide useful insights, they seem most useful in providing campaigns with information that was overlooked or misread by the campaign team.

Polling

Polling is an important element of modern survey research. A multibilliondollar enterprise in the business sector in which it was pioneered many years ago in the form of consumer testing of products, polling has become the cornerstone of U.S. elections. It is an efficient means by which political campaigns come to understand what issues are really important to voters. Moreover, campaigns conduct polls to test and fine-tune their central message or theme to ensure clarity and appeal. Polling is costly, an expensive undertaking that every campaign budgets for because of its strategic value. It is one of the best ways to "gain accurate data about the attitudes and perceptions of the electorate. When political operatives want reliable information about voter attitudes, polling is considered a necessity" (Shea and Burton, 2001, p. 100). It has become the key to every facet of campaigning and office holding. "Candidates and office-holders," opines Dennis Johnson (2001, p. 90), a practitioner of the art, "increasingly rely on the weathervane of public opinion to point to the mood of the public, adjust to its nuances, and use the public as a sounding board for campaign and policy themes." According to veteran Democratic pollster William Hamilton (1995, p. 178), polling is the "central nervous system" of modern political campaigns.

Polling has several uses.⁷ It begins with assessments of name recognition and candidate preference. It helps to identify and accurately pinpoint voters' concerns. In other words, it helps a campaign organi-

⁷ See Shea and Burton, 2001, pp. 101–102, for a complete list of the uses of polling.

zation find the right issues to focus on. Polling also conveys the electorate's sense of the candidates, how they are perceived, and what behavior, inappropriate or otherwise, would be of concern. Another use of polling is the information it unearths about voters' underlying attitudes about various social and political values. At its best, "polls allow campaign managers to gauge the potential effectiveness of strategies and tactics" (Shea and Burton, 2001, p. 102).

Political campaigns conduct several types of polls during an election run, ranging from benchmark surveys that illuminate preexisting beliefs and attitudes to trend surveys and tracking polls that can be used to assess the success of the campaign. Focus groups are widely used in the beginning of a campaign, setting the stage for the benchmark survey. This survey is the first major poll taken by a campaign to provide baseline measures on a variety of issues. It allows for a detailed analysis of strengths and weaknesses, message relevance, and fine-tuning of the campaign theme. It normally consists of a large sample, has a long list of questions, and is conducted about eight to twelve months before the campaign starts in earnest. This provides campaign consultants with sufficient time for analysis and strategy optimization. Trend surveys, less cumbersome than the benchmark poll, are usually taken four or five months after the first major poll. They are conducted when there are discernable movements or changes in the campaign, such as commercials run by the opponent. In some campaigns, a follow-up poll is conducted around the halfway point for the purpose of uncovering and correcting any strategic mistakes. During the last weeks of a campaign, tracking polls are conducted to determine late trends or movements of public preference. They are short and cover a limited range of questions.

Campaigns use a number of statistical techniques to analyze polling data for the purpose of fine-tuning their candidate's message; data analysis has become a crucial part of modern political campaigns.

The analysis of means and standard deviations is a simple but useful approach for understanding the distribution of responses on a variable, and it can help campaigns determine subgroup differences and illuminate the sorts of messages that might resonate with particular voters.

Analysis of variance (ANOVA) and chi-squared automatic interaction detector (CHAID) analysis are multivariate techniques that segment a sample according to the relationship between the dependent variable in the analysis and a set of predictors or independent variables. CHAID is a technique that "examines all possible splits of the dependent variable by performing classification and segmentation analysis using significance testing. It is a method [campaign researchers] use for profiling a candidate's base, opposition and, most importantly, the swing voters" (Wilson, 2003, p. 171). CHAID analysis identifies where the swing voters live; their income level, gender, and education; and who among them are likely to turn out on Election Day and vote. By employing this technique, campaign strategists are able to identify and craft the messages that resonate best with these swing voters.

Simple and multiple correlation analysis can help reveal associations between variables, e.g., the relationship between respondents' voting intentions and the messages they remember; regression analysis can help model relationships between variables and make predictions regarding important phenomena, such as which voters are most likely to respond positively to direct mail and phone calls.⁸

Direct Mail

Direct mail has become an increasingly important means of communicating messages to possible supporters. Direct mail is influenced by what political consultants call *targeting*: Rather than sending out mail to all potential voters in a district, for maximum effect, a campaign targets those who *could* vote for the campaign's candidate if it just worked harder to get their votes. This category of voters, those who *could* vote for the campaign's candidate, becomes the target for direct

⁸ Other, more sophisticated techniques also are used in some rare cases. For example, ratio-scaled metric multidimensional scaling "allows the investigator [political researcher] to specify the precise messages which are likely to yield the most positive audience response" (Woelfel et al., n.d.[a], p. 10). Another sophisticated method that is seeing some use is the neural net, a software program that mimics the architecture of the human brain and memory. Like the brain, it is made up of cells or neurons that can learn and make associations. Neural nets "can help to recognize patterns that are not linear in nature . . . [and] to sort out voter history data which tends to be messy, nonlinear and very important in predicting behavior" (Malchow, 2003, p. 235).

mail. Direct-mail campaigns can involve sending multiple messages to the target audience, although, at some point, sending additional messages may prove to be counterproductive.

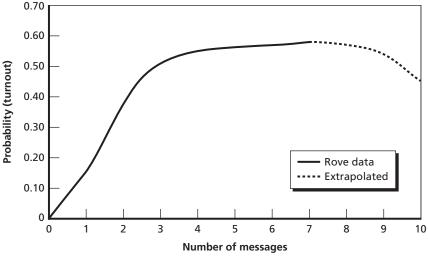
Green (2004) cites the estimates of presidential political strategist Karl Rove regarding the effects of direct mail during the 1994 Texas governor's race. Figure B.2 plots these data as solid lines along with notional extrapolations in dashed lines.

As shown in the figure—and similar to what was described in our review of the empirical literature on the effects of advertising and marketing in Chapter Three—the greatest return occurs with the first messages, and the dose-response function is characterized by diminishing, and then negative, returns.

Message Design and Word Choice

Campaigns seek to boost their candidates profiles and appeals to voters by ensuring a high level of message relevance. Developing the right message, one that appeals to voters' needs and connects issues with peoples' concerns and their lives, one that is relevant and timely, is the

Figure B.2 Impact of Direct Mail During 1994 Texas Governor's Race



RAND MG654-B.2

"paramount task of the campaign" (Johnson, 2001, p. 66). The artful form and the personal manner in which messages can be portrayed to potential voters are indeed fascinating and compelling. Consider the following statements (Johnson, 2001, p. 66):

- Senator A forced the U.S. Environmental Protection Agency to close eight toxic waste dumps; now our communities are healthier and our children are much safer.
- Twelve hundred new jobs have come to our community thanks to Senator A's tough action and leadership in Washington.

The idea informing this art form is to make a political message relevant to the needs of voters by showing them how their aspirations can be met by the candidate. In other words, ensuring message relevance helps voters to understand and connect with an issue that is meaningful to them. For example, most voters are not interested in the esoteric debates of a complicated World Trade Organization agreement that a running candidate participated in, but rather, how that candidate fought for jobs and higher wages during the negotiations. The strategy most likely to win votes is the one that connects a candidate's campaign message to the needs of the electorate. In sum, voters must understand the relationship of the message to their lives and community.

The power of language to persuade and the precise choice of words to exploit their inherent emotional appeal have entered the fray of political campaigns. During the 2000 presidential election, for example, incumbent George W. Bush reportedly adopted an approach developed by Republican pollster and tactician Frank Luntz, which reportedly was "Forget action. Improve your image by revising the way you talk. Let them eat words" (see Tannen, 2003, p. 30). The Republican strategy was very simple but extremely powerful. In a number of speeches on the campaign trail, President Bush adopted this strategy. Words such as "children," "dream," "hope," and "love" were used repeatedly to stir emotions and galvanize support, while other words

⁹ Georgetown University linguistic professor Deborah Tannen examined the linguistic lessons from Republican political strategist Frank Luntz.

were used to invoke fear.¹⁰ The strategy worked, according to Luntz, because "politics remains an emotional arena, and television has made fear a salable commodity. But fear alone is not enough. The commodity Americans most desire—and the one in shortest supply—is hope" (quoted in Tannen, 2003, p. 30). The strategy's success appears to have been the result of a combination of appeals that resonated with would-be voters, and ensuring that they would be remembered and internalized through constant repetition.

Influence in Political Campaigns: Conclusions

The lessons from our case study of U.S. political campaigns include the following:

- The objectives of political campaigns typically are quite clear: mobilize a majority (or plurality) of voters to vote for (or against) a candidate by: (1) influencing people to register (or not), (2) influencing registered voters to turn out at the polls (or stay home), and (3) influence voters to vote for (or against) a candidate.
- Political campaigns make substantial efforts to
 - understand the political landscape in detail
 - differentiate among target audiences (e.g., core supporters who are almost sure to vote for a candidate versus others who might vote for the candidate)
 - identify the best communication channels to reach audiences

¹⁰ In a speech delivered on education in New Hampshire, for example, Bush followed a strategy of inculcating fear and promising hope when he reminded parents, "In an American school year there are more than 4,000 rapes or cases of sexual battery, 7,000 robberies and 11,000 physical attacks involving a weapon. . . . We must restore the American dream of hope, the diminished hopes of our current system. Safety and discipline are essential. But when we dream for our children, we dream with higher goals. We want them to love learning. And we want them to be rich in character and blessed in ideals." He went further, "Everyone must have a first-rate education, because there are no second-rate children, no second-rate dreams" (quoted in Tannen, 2003, p. 30).

- craft and test messages that will resonate with each target audience through carefully tailored cognitive, affective, or socially compelling appeals
- monitor developments and adapt to campaign twists and turns using a variety of methods (focus groups, polling, town halls, and smaller meetings with the candidate).
- Political campaigns primarily communicate messages to their audiences through paid (i.e., advertising) and free media (i.e., news reporting), and through direct mail, phone banks, and other means of directly reaching prospective voters.

Although efforts have been made to export U.S.-style political campaigning approaches to other political societies, it is not at all clear which concepts, approaches, and lessons of contemporary U.S.-style political campaigning cleanly transfer to less developed polities such as those in Iraq and Afghanistan, which might reasonably be adapted to these environments, and which are irrelevant.¹¹ Nevertheless, the basic approach described above appears to have substantial relevance to influence operations and STRATCOMM.

¹¹ For example, the poor security situation in Iraq makes it impossible to hold large rallies with candidates because they may be targeted by bombers. See Raphaeli, 2004.

Case Studies of Influence in Public Diplomacy¹

The traditional American view on national strategic influence operations is that they are justified only during times of war and should be gotten rid of as quickly as possible once the war is over. This view accounts for the rapid demolition of U.S. information activities after World War I, World War II, and in many ways after the Cold War.² It also accounts for the shifting definitions that have been given to a consistent set of activities over the second half of the 20th century, with the idea seemingly being that changing the names makes these activities more palatable to the American people.

In classical terms, strategic influence activities are broadly considered to be synonymous with public diplomacy or propaganda. The term "propaganda," however, has become quite tainted in the United States and other Western societies insofar as its popular usage assumes that propaganda must consist entirely of falsehoods, and it is rarely used by U.S. government officials to describe their activities.³ This contrasts with its classical usage, which suggests that propaganda may either be

¹ This appendix was authored by Lowell Schwartz.

² During World War II, the Office of War Information was in charge of all domestic and international information activities. After the war concluded, this office was liquidated, and information activities in occupied countries were turned over to the Army. In this capacity, the Army, under Brigadier General Robert Alexis McClure in Germany, put in place a "de-Nazification" program, which included rigorous controls on all German domestic media. For details of this highly successful program, see Ziemke, 1975; Cragin and Gerwehr, 2005, pp. 28–30.

³ According to the commander of the Fourth Psychological Operations Group, "we call our stuff information and the enemy's propaganda" (Gerth and Gall, 2005).

truthful or not, but principally distinguishes between types of propaganda (white, black, or grey) in terms of source disclosure.4 The "odor" associated with the term—and the broader sweep of activities conducted under the umbrella of strategic influence operations—is accountable to a host of legitimate concerns that relate to trust in government, possible government manipulation of the press, efforts to mislead the American public about government policies, and other concerns. Coupled with such cultural touchstones as Orwellian doublespeak and the highly congenial environment for conspiracy theories about the effectiveness of mass "mind control," "brainwashing," "perception management," and other dubious phenomena,5 revelations about government strategic influence activities have tended to result in a high degree of press, including elite and public attention and concern whenever they occur.6 Trust in a government's credibility is a key issue.

Accordingly, the most common name used today for public strategic influence activities at the national level is public diplomacy. According to the State Department, "Public diplomacy seeks to promote the national interest of the United States through understanding, informing and influencing foreign audiences." Perhaps a better definition is from Hans N. Tuch (1990, p. 3), who defined public diplomacy as "official government efforts to shape the communications environ-

DoD defines "propaganda" as "any form of communication in support of national objectives designed to influence the opinions, emotions, attitudes, or behavior of any group in order to benefit the sponsor, either directly or indirectly"; "white propaganda" as "propaganda disseminated and acknowledged by the sponsor or by an accredited agency thereof"; "black propaganda" as "propaganda that purports to emanate from a source other than the true one; and "grey propaganda" as "propaganda that does not specifically identify any source" (DoD, 2007).

⁵ A scholar of brainwashing of American prisoners of war during the Korean War suggested that the popular image of brainwashing as entailing "extensive delusion and excessive [mental] distortion . . . is a false one" (Schein, 1961).

⁶ Debates about the objects and limits of strategic influence operations have been extensive both within and outside the Pentagon. See, for example, Schmitt and Dao, 2002; Schmitt, 2002a, 2002b, 2003; Shanker and Schmitt, 2002, 2004. Gerth and Gall, 2005, details the furor that arose with the creation of the Office of Strategic Influence in February 2002 and the December 2005 revelations that the Pentagon was using private firms to assist in the development of strategic influence campaigns.

ment overseas in which American foreign policy is played out, in order to reduce the degree to which misperceptions and misunderstandings complicate relations between the U.S. and other nations."

Public diplomacy differs from PA in that PA is generally directed at informing *domestic* audiences while public diplomacy is focused on *foreign* audiences. Public diplomacy also differs from traditional diplomacy in two ways. First traditional diplomacy emphasizes private interactions with foreign governments, while public diplomacy deals primarily with overt nongovernmental organizations and individuals. Second, public diplomacy often presents many differing views including those of private American individuals and organizations in addition to official U.S. government views. Public diplomacy can include activities such as cultural exchanges, educational programs, and media broadcasts.

Public diplomacy can be considered to be white propaganda, in which the source is identified correctly and the information tends to be factual and accurate. U.S. government activities such as the Voice of America and State Department information programs would fit under the definition of white propaganda. Strategic influence activities also include what are known as special activities, another form of national strategic influence operations. Historically, these would fit under the definition of black propaganda, in which the presumed source of the information is false or unknown. Black propaganda activities include clandestine radio stations, the spreading of rumors, and the planting of newspaper stories.

Case Studies

We used two case studies to illuminate the basic parameters of strategic influence operations. The first case study reviews the United States strategic influence efforts against the Soviet Union during the early

Necial activities also might be labeled covert actions and are defined by Sec. 503 (e) of the National Security Act as "activities conducted by the U.S. Government to influence political, economic, and military conditions abroad, where it is intended that the role of the United States Government will not be apparent or acknowledged publicly."

years of the Cold War. The second considers U.S. efforts before Operation Iraqi Freedom to convince world opinion that Hussein's weapons of mass destruction (WMD) capability had to be eliminated, either through international inspectors or through his removal from power. Each case study will briefly consider the objectives, strategy, intended audiences, instruments of communications, and methodologies used to assess the impacts of the strategic influence operations.

Case Study 1: The Strategic Influence Campaign Against the Soviet **Union During the Early Cold War**

U.S. strategic influence efforts against the Soviet Union began at approximately the same time as the grand strategy of containment was put in place. In many ways, the diplomat George Kennan was the principal intellectual architect both of U.S. containment strategy and the strategic influence efforts that went along with it.8

For Kennan, political warfare fit into his broader strategy of reducing Moscow's power and influence by building up a "counterforce" to Soviet power. In Kennan's view, this counterforce consisted of economic, military, and information activities that would put the Soviet Union in a disadvantageous position and eventually drive the Soviet Union to the bargaining table. Kennan's overall objective of the campaign then was not necessarily to win the hearts and minds of the people of Eastern Europe or the Soviet Union, but instead to use propaganda and other means to stir up trouble behind the Iron Curtain, thereby forcing the Soviet Union to draw on resources to maintain its hold over the territories it controlled (Grose, 2000; Mitrovich, 2000). This strategy became especially important after the February 1948 communist coup in Czechoslovakia.

It is worth noting that the limited objectives that Kennan outlined for the strategic campaign were not shared by all government officials. They believed that what they termed "psychological warfare" could roll back Soviet power and eventually win the Cold War. Their hope was that a combination of diplomatic, economic, and military

⁸ In particular, see Kennan, 1946, and "The Sources of Soviet Conduct," 1947.

efforts could drive a wedge between the Soviet regime and the Soviet people, causing a revolt and the removal of the Soviet government.⁹

Kennan outlined his program for political warfare in a May 1948 memo for the State Department. It contains some features that go well beyond strategic influence operations, but it is worth mentioning them in order to get a broader perspective of Kennan's proposals. Kennan's political warfare program involved three broad categories of projects, some of them overt and some covert. The first set of projects were "liberation committees" made up of private Americans citizens who were asked to organize selected émigré leaders. These émigré leaders were to be given access to printing and radio facilities to communicate with their fellow countrymen behind the Iron Curtain.

This first set of programs was the inspiration for and the organizing principle behind the National Committee for a Free Europe and the American Committee for Liberation from Bolshevism, the organizations that sponsored Radio Free Europe and Radio Liberation. Radio Free Europe and Radio Liberation were short-wave radio stations, run by émigrés and partly funded by the CIA, which envisioned themselves as alternative national radio stations to the Communist-run ones. They presented themselves as what the national radio stations would sound like if they came from a free country. For example, Radio Hungary broadcast in Hungarian and had a full slate of news, entertainment, and commentary programs.

The second set of projects, many of which remain classified, were not related to communication but rather were outright paramilitary actions, such as guerrilla units, sabotage forces, and other subversive activities to undermine Soviet power in Eastern Europe and inside the Soviet Union itself. These were to be carried out through private American organizations, which would establish contact with national underground representatives in free countries and, through these intermediaries, pass on assistance and guidance to resistance movements behind the Iron Curtain.

The final set of programs were efforts to support indigenous anticommunist elements in threatened countries of the free world. The

⁹ This view was prominent in the CIA (see Thomas, 1995).

principal concern here was the takeover or weakening of democratic countries by communist forces supported by the Soviet Union. Specially cited were France and Italy, which remained unstable in 1948. These efforts were quickly put to work in Italy in an intensive campaign to assist the Christian Democratic party to an election victory over the Communist party in Italy. On the overt side, President Truman broadcast a warning over Voice of America that no economic assistance would be forthcoming if the communists won the election. The United States also supplied food, and Italian Americans mounted a letter-writing campaign encouraging their families to support noncommunist parties. On the covert side, the CIA launched a powerful propaganda effort. The CIA supplied newsprint and information to pro-Western newspapers. Among the stories the CIA placed in Italian newspapers were truthful accounts of the brutality of Soviet forces in the Soviet sector of Germany and the communist takeovers in Poland, Czechoslovakia, and Hungary. On Election Day, the Christian Democratic party won a crushing victory, with 48.5 percent plurality of the vote.

By late 1950, U.S. troops were fighting both North Korean and Chinese forces on the Korean peninsula. This ongoing conventional war had a major impact on U.S. information and propaganda policies, because these polices were increasingly thought of in military terms. 10 The wide-ranging term psychological operations gained favor in DoD and the CIA to describe all diplomatic, economic, military, and ideological acts designed to achieve specified objectives. 11 PSYOP, according to advocates, included the information activities of the State Department, the psychological warfare efforts of DoD, and the covert operations of the CIA.¹² The specific objective that advocates had in mind was "the eventual rolling back of their [Soviets] illicit conquests" and the win-

 $^{^{10}\,}$ Parry-Giles (2002, pp. 75–96) calls this "militarized propaganda."

¹¹ Shawn J. Parry-Giles calls this "militarized propaganda." See Parry-Giles, 2002, pp.

¹² In Korea, DoD took the lead engaging in PSYOP in the hopes of undermining Chinese and Korean troops' will to fight.

ning of the Cold War through a combination of diplomatic, informational, military, economic, and other means.¹³

Despite all of the talk of taking the offensive against the Soviet Union, the United States lacked the psychological tools to do so. In a progress report in 1952, the Truman administration noted that only "the Voice of America and Radio Free Europe clearly emerged from the reports as programs which effectively reached the people of either or both the USSR and the Satellites" (Psychological Strategy Board, 1952). Covert operations behind the Iron Curtain, despite the vast resources devoted to them, remained amateurish and deadly only to the agents who undertook them. Efforts to undermine the Albanian, Romanian, and Soviet regimes through support of underground movements were quickly detected and broken up (Thomas, 1995, p. 69). ¹⁴ The final blow to this policy was the unwillingness of the United States to support Hungarian forces revolting against Soviet occupation in 1956.

The unsuccessful revolution in Hungary in 1956 and the shift of Soviet policy after the death of Stalin led to a new U.S. foreign policy strategy and a new strategic influence policy. The second Eisenhower administration moved away from a national security policy based on promoting revolutionary change (liberation) in the Soviet Union and instead embraced a new national security policy based on an evolutionary approach to reducing Soviet power. This new evolutionary approach sought to promote peaceful changes within the Soviet system that would lead the Soviets to abandon their expansionist policies. It was understood that this was long-term strategy that might take several decades to succeed, but there seemed to be little alternative because Soviet development of atomic weapons during this period precluded a more aggressive policy.

A new strategic influence strategy was necessary for this foreign policy approach in order to introduce modern concepts and reform ideals to social groups within the Soviet Union that could promote

¹³ This strategy was laid out by Frank Wisner, then deputy head of the CIA, in a memo (Wisner, 1951).

¹⁴ RAND colleague Tom Szayna pointed out that guerrilla movements continued to operate in the Baltic states and Ukraine into the mid-1950s.

evolutionary changes. This policy has been termed cultural infiltration and was defined by the Eisenhower administration as using cultural contacts to both break down the isolation of the people of Eastern Europe and to correct the distorted image of the West presented in communist propaganda. It was hoped that open discussion within the Soviet Union would spur changes in Soviet policies favorable to the United States.

The United States government, led by the United States Information Agency (USIA), focused its communications with the Soviet people around several themes. The first theme was people's capitalism, which was developed in conjunction with the Advertising Council.¹⁵ The term implied that a new type of capitalism has arisen in the United States allowing average Americans to achieve the highest standard of living in the world. The theme sought to rebut a central theme of Communist ideology, namely, that workers were exploited by a small ruling capitalist class for its own gain. Instead, people's capitalism stressed that it was the workers themselves who were the capitalists and that they enjoyed the fruits of their labor. Another theme was the cultural vibrancy of free and democratic nations, such as the United States. This theme was designed to undermine Communist claims that American culture was sterile and dominated by the motive of profits. This viewpoint, particularly in Europe, was strongly held, and USIA spent a great deal of time and effort combating it. At trade fairs, USIA presented selections of painting and statues showing the United States at the forefront of modern cultural movements. Although controversial, USIA believed these exhibits fostered the idea of the United States as a dynamic and open society with many viewpoints being expressed through American artwork and culture.

USIA's target audience for its strategic influence campaigns were members of the Soviet bureaucracy, the intelligentsia, and Soviet youth. The first two groups were targeted because they were far enough removed from the power structure to allow some degree of independent thought but still in positions in which their ideas had an over-

¹⁵ Also known as the Ad Council, to this day, it produces, distributes, and promotes public service campaigns on behalf of nonprofit organizations and government agencies.

all effect on the direction of society. The nature of their professions (writers, journalists, artists, musicians, scientists, engineers, managers of industrial trusts, and army officers) taught them to think independently, and their economic status made it possible for them to own radios capable of receiving foreign broadcasts and to attend cultural events. The Soviet intelligentsia had a strong curiosity about the outside world, both in terms of the latest fashions and the view of foreigners on world events.

Soviet youth were also targeted because they were regarded as vulnerable to outside influences as a result of their increasing alienation from Communist ideology. The hope was to stimulate comparisons in young people's minds between the Communist and Western systems of political, economic, and social organization. Contact was made by establishing a relationship with them through youth cultural offerings in which common ground was more easily gained. One avenue for this was radio programs devoted to popular American music such as jazz and rock and roll. Music programs became the most popular format on Voice of America, and once Soviet youth were hooked, they were more likely to listen to Voice of America news and commentary programs.

The principal challenge the United States encountered in influencing the target audience was the difficulty it faced in overtly communicating with Soviet citizens. The Soviet regime went to extreme lengths to limit the amount of contact the West had with Soviet citizens: Radio broadcasts were jammed, the circulation of publications was tightly controlled, and personal travel was limited. The opening up of the Soviet Union to foreign contact in the mid and late 1950s provided the United States with an opportunity to communicate with these groups, of which it took full advantage.

At the beginning of the Cold War almost the only way to communicate with Soviet audiences was short-wave radio. After a few years, even short-wave radio was effectively countered through jamming. The United States had two short-wave stations—the official one, Voice of America, and a semiprivate one, Radio Liberty. Radio Liberty was partially funded by the CIA, but its effects on the policies and programming of the stations were limited. Policy was determined by an Ameri-

can committee that worked in conjunction with Soviet émigré groups living in the United States and Europe.

By the late 1950s, the Soviet Union was permitting increased public contact with information from outside the Soviet Union. This change opened up new instruments for communicating with Soviet audiences. In 1959, over 2.7 million Soviet citizens visited the American National Exhibition at Sokolniki Park in Moscow. Put together by USIA, this exhibition emphasized the material prosperity of America; its open, diverse, and dynamic culture; and the peaceful orientation of the United States. Cultural exchanges also became an important way to interact with the Soviet people. In the late 1950s, comedian Bob Hope, pianist Van Cliburn, the Philadelphia Symphony Orchestra, and the Harlem Globetrotters all visited the Soviet Union. The purpose of these visits was to provide a comparison between the dynamic culture of the West and the stagnant and authoritarian culture of the Soviet Union.

The closed nature of Soviet society made it very difficult to judge the effectiveness of the strategic influence campaigns or even to measure the size of the audience the campaign was reaching. To overcome these problems, U.S. policymakers came up with a number of creative ways to design their influence strategies and to measure their effectiveness. First, to design their influence strategies and to test their themes, government officials consulted with leading experts on Soviet affairs and experts on communications research. Regular meetings were held with professors at Harvard, MIT, and Princeton, who advised radio broadcasters on developments in Soviet society, the best ways to reach the Soviet audience, and what results it was reasonable to expect the radio stations to achieve. Communications researchers were brought in to explain the context of communicating with a Soviet audience, how to grab the attention of the listener, how to communicate with listeners in their own frame of reference, and how to overcome Soviet citizens' natural suspicions of a foreign radio station. Radio broadcasts were also reviewed by exiles who had recently escaped from the Soviet Union.

The intensive radio jamming of the Soviet regime made it difficult to determine whether anyone could hear the broadcasts at all. At the beginning, radio station officials had only unscientific methods for determining their audiences. They carefully tracked the small number of letters that arrived at the radio station, although they knew these numbers tended to be inaccurate because of Soviet mail censorship. They also relied on reports from the U.S. Embassy in Moscow in order to figure out whether broadcasts could be heard through the jamming and whether anyone in Moscow was talking about them. Recently escaped exiles were also a source of information. New escapees were asked whether they had listened to foreign radio stations and what their reaction was to them.

The radio stations also came up with creative ways to measure the effectiveness of their programs. The first method they used was to carefully monitor Soviet media attacks against the United States and the radio stations. Angry Soviet reactions to the radio programs were regarded as a positive sign of the impact of the radio station. The thought was that the Soviet government would not provide free publicity to the radio stations if it was not concerned about the influence the broadcasts were having on Soviet citizens.

The second method, used after the Soviet Union opened up, was to subtly and discreetly interview Soviet visitors to the West. For example, at the Brussels World's Fair of 1958, 300 Soviet tourists were interviewed by Radio Liberty researchers in order to determine whether they listened to the radio programs and which ones they enjoyed the most. One problem was that the sample of subjects interviewed tended to be from certain geographical areas (for example, Moscow) and was from only a limited number of socioeconomic groups. To correct for this problem, the sample was normalized as best as could be done with Soviet census data. Years later, after the fall of Communism, these figures were checked against internal surveys done by the Soviet government. In general, the two sets of figures corresponded in terms of the size of the audience, the most popular programs, and the reasons for listening.¹⁶

All of these efforts, however, did not measure whether the United States was achieving its long-term objectives of promoting peaceful changes within the Soviet system that would lead it to abandon its

¹⁶ See Critchlow, 1995, for a description of Radio Liberty's methodology and results.

expansionist policies. At the time, it was very difficult to determine whether these activities were having any impact at all as the Soviet regime vacillated between more open and more repressive policies. Even today, there is a great deal of controversy about the role cultural infiltration played in end of the Cold War and the fall of the Soviet Union.17

Despite all of these caveats, there is evidence from recently opened archives in formerly Communist nations that the policy of cultural infiltration started under President Eisenhower was a-and perhaps the—turning point in the Cold War. In Soviet history, the period between 1954 and 1964 is known as the thaw and is thought of as a period of relative intellectual openness. Like Gorbachev in the 1980s, Khrushchev hoped that increased contact with the West would provide access to Western technology, enhancing economic progress in the Soviet Union, and reducing international tension.

While this period of openness did not last past Khrushchev's removal as party leader in 1964, the intellectual climate of the time played a pivotal role in the development of the *shestidesiatniki*, people in 1960s Russia who were in the avant-garde of the new liberal movement and became protesters and dissidents toward the end of that decade. This generation, exemplified by Gorbachev, dreamed of recapturing the hope and idealism of their youth by launching a new period of openness with the policies of perestroika and glasnost. These policies fulfilled the foreign policy goals of the United States as the Soviet Union peacefully reformed itself, abandoning its expansionist tendencies and embracing a less hostile view of the United States. Ultimately,

¹⁷ Since the collapse of the Soviet Union, numerous theories have been put forth to explain why the Cold War ended. Two main explanations have emerged. One emphasizes the longterm economic crisis inside the Soviet Union that was exacerbated by high military spending. According to this school of thought, the Soviet Union could not maintain its economic and military position, which was collapsing under its own weight. Another group of historians cites the role of ideas that caused a transformation of the outlook of Soviet leaders, particularly Gorbachev. This group believes that the Cold War ended because the Soviet government and people lost faith in the social and economic system of the Soviet Union and wanted to embrace a more Western/modern outlook. The two explanations are, obviously, not mutually exclusive, and most analysts of the subject seem to believe that there are elements of truth in each.

the modern social concepts of the West could not coexist with the totalitarian mindset of the Soviet state, causing its complete collapse in 1991.

To summarize, our case study of strategic influence activities during the Cold War suggests the following:

- Understanding and influencing "captive" populations requires great creativity, patience, and somewhat dubious methods in light of the biases and lack of representativeness in the resulting data.
- In retrospect, there is evidence that innovation and work-arounds to deal with the lack of access to target audiences, and the resulting lack of detailed data, actually seem to have worked.
- Cultural infiltration efforts appear to have had greater success in influencing attitudes than most realized, although they also benefited in large measure from Krushchev's opening the Soviet Union to the West.
- Sometimes the benefits of strategic influence campaigns only become apparent years after the campaign was inaugurated. Changing people's basic attitudes requires a long and sustained effort, and instantaneous results generally should not be expected. In the case of the Cold War, a generational time scale was required for these efforts to manifest themselves in changes that ultimately led to the dissolution of the Soviet Union.

Case Study 2: National Strategic Influence Operations Before the Second Gulf War

On December 28, 2001, General Tommy Franks visited President Bush at his Crawford, Texas, ranch. In the meeting, Gen. Franks outlined a war plan for invading Iraq and removing the regime of Hussein (Woodward, 2004, p. 53). This was followed on January 29, 2002, by President Bush's State of the Union Address, the first since the attacks of September 11. In that speech, President Bush labeled Iraq as part of an "Axis of Evil," which he characterized as states seeking weapons of mass destructions that might provide these arms to terrorists (Woodward, 2004, p. 87).

This speech was another chapter in the complex history of U.S. relations with the Hussein regime. Over a 12-year period, from the end of the first Gulf War to the beginning of the second, the United States had pursued a dual policy of containing Iraq and attempting to overthrow it.18 These dual policies had been followed by three presidential administrations until the shock of the terrorist attacks on September 11 spurred the Bush administration to move more forcefully in the direction of a preemptive attack on Iraq.

The Axis of Evil speech also marked the beginning of a 15-month strategic influence campaign to convince regional/Arab opinion and the international community that the Hussein regime was a global threat that could not be deterred or contained. This campaign was only one piece of the U.S. government's overall influence campaign, which was directed at multiple audiences, including domestic public opinion, foreign governments, the Iraqi people, and audiences in the region and in Europe. Our case study will consider only the public diplomacy piece targeted at regional and international audiences.¹⁹ However, it is important to note that there was (accidentally or intentionally) considerable overlap among the strategic influence campaigns directed at the various groups. Twenty-four-hour news coverage by global media firms ensures that messages that might be intended only for one particular audience reverberated almost instantaneously around the world.

Objectives

One early difficulty that the strategic influence campaign had was unifying key government officials on the objectives of the campaign. In late August 2002, the administration seemed divided over its strategy for Iraq. In one camp was Vice President Cheney, who on August 26, 2002, gave a speech outlining the need for war to remove the Hussein regime in Iraq because "a return of [UN] inspectors would provide

¹⁸ Peltz et al., 2005, document this dual policy, which involved, on the regime change side, covert attempts to sponsor a coup against Saddam Hussein and, on the containment side, international sanctions, WMD inspections, and no-fly zones.

¹⁹ There also may have been covert attempts to sway regional and international audiences that have not been revealed.

no assurance whatsoever of his [Hussein's] compliance with UN resolutions" (Cheney, 2002). During this same time period, Secretary of State Powell said in an interview that the president believed that the UN weapon inspectors should return to Iraq. If media reports are to be believed, Powell had grave reservations about the war, reservations that he outlined for President Bush in an August 5, 2002, meeting. Allegedly, Powell advised working through the UN and not rushing to war, although he reportedly did not openly tell the president, "Don't do it" (Woodward, 2004, pp. 148–151).

This apparent deep divide forced officials in charge of the strategic influence campaign to push multiple—and conflicting—objectives and messages. ²⁰ The first objective was to frame the debate and to define the threat posed by Iraq. The goal was to show that Hussein's regime was a global threat that could not be deterred or contained. This objective emphasized the need for war because efforts by the international community during the 1990s had failed to deal with the threat posed by the Iraq regime. This objective was followed by a second one for the strategic influence campaign: the need to communicate that the United States intended to liberate and not conquer the Iraq people.

The third objective, however, somewhat contradicted the other two. This objective was to build an international coalition to deal with the Iraqi threat. The goal was to build support for U.S. policy by showing that the United States was consulting with international partners about how to deal with continuing Iraqi defiance of United Nations resolutions to disarm. The problem was that many members of the international community were unconvinced of the need for a war with Iraq, instead emphasizing the need to return UN inspectors to the country to ensure that all Iraqi's WMD had been destroyed. Hence the strategic influence campaign was caught on the horns of a dilemma. It had to build support for a war with Iraq while at the same time showing that the United States was working with other nations, many of which were against any military action, in crafting an international solution to the Iraqi problem.

²⁰ This section draws on interviews and a memo provided to one of the authors by officials at the Department of State, the National Security Council, and DoD.

These dueling objectives led to significant problems in coordinating strategy, with various U.S. government departments highlighting the objectives with which they were most comfortable. The State Department tended to focus on building an international coalition, with a reluctance to believe up until the last moment that war was inevitable. DoD, on the other hand, focused its strategic influence campaign on preparing for the invasion of Iraq, often publicly announcing steps that made it seem that the United States had prejudged the need for a war, undermining attempts to build an international coalition.

Strategy and Themes

The United States had somewhat different strategies for its public diplomacy efforts in the Middle East and Europe. In the Middle East, there was an early recognition that the people of the region would not support an invasion of Iraq. Instead, U.S. strategy concentrated on gaining access to key military bases in the region, ensuring no support for the Hussein regime during the war, and gaining public support for building a democratic and free Iraq after the conflict was over. The central message to the Arab world was that a U.S. invasion to remove Hussein was inevitable and the world should unite around providing a better life for the Iraqi people after the war. In their efforts to gain Arab support for U.S. policies, the strategic influence campaign sought to communicate a positive vision of what Iraq would look like when Hussein was gone from power.

In Europe, the strategic influence campaign had a somewhat different strategy. Polling by the State Department research group showed that European publics would support an international campaign against Iraq but not an American one. The goal then for the strategic influence campaign in Europe was to show that the United States was leading an international effort to enforce at least a dozen UN resolutions stipulating that Iraq must disarm. It was thought that European audiences wanted to know that the United States respected international laws and that U.S. statements were factually correct about Iraqi WMD programs and support for terrorist groups. European audiences in essence wanted evidence to convince them that the Iraqi regime was a threat to world peace and that the United States was following the

proper international legal process for using military force. U.S. government officials believed that European public opinion could best be persuaded by highlighting Hussein's horrifying human rights record and the similarities between the Iraqi government and totalitarian governments in Europe's past.

Instruments

A full accounting of the instruments used to prosecute the U.S. strategic influence campaign is unlikely until historians are able to go through currently classified government records. However, we can get some idea of the effort through various documents that were publicly released. In October 2002, the director of the CIA released an unclassified report on Iraq's WMD programs that concluded:

Iraq has continued its weapons of mass destruction (WMD) programs in defiance of UN resolutions and restrictions. Baghdad has chemical and biological weapons as well as missiles with ranges in excess of UN restrictions; if left unchecked, it probably will have a nuclear weapon during this decade (Central Intelligence Agency, 2002).

Set up in January 2003, the White House Office of Global Communications (OGC) had the mission of coordinating U.S. government messages designed to inform audiences abroad about the U.S. government's policies and priorities. In January 2003, OGC produced a booklet called "Apparatus of Lies," which reviewed Iraq's "disinformation and propaganda campaigns." OGC also produced widely distributed documents on Hussein's use of torture and mass executions.

Another method the U.S. government used to communicate its message was via public presentations by major officials. One of the most important public presentations was Secretary of State Powell's February 2003, 76-minute speech to the UN Security Council outlining U.S. evidence of Iraqi WMD programs and Iraqi attempts to derail UN weapons inspectors. CIA Director George Tenet sat directly behind Powell during his testimony, adding symbolic weight to the information presentation. In the Middle East, Ambassador Christopher Ross, special advisor to the State Department on public diplo-

macy, appeared on numerous television and radio programs. In Arabic, Ambassador Ross sought to explain and defend U.S. policies toward the Middle East. Finally, the National Intelligence Council released an unclassified summary of the most recent National Intelligence Estimate on Iraq's WMD program.

The State Department set up its own Iraq working group to prepare public diplomacy measures in the run-up to the conflict. The Iraq working group offered public diplomacy guidance for country teams in key regions. However, records later showed that there was limited follow-through, because in-country teams ignored the guidance provided. There is also some evidence that DoD failed to coordinate PA/public diplomacy efforts with the State Department. In October 2002, the U.S. Central Command (CENTCOM) sent a PA team to the Middle East to begin preparations for media operations during the war. No State Department personnel were asked to participate.

Measuring the Impact of the Strategic Influence Campaign

In the months preceding and immediately after the war, numerous surveys measured world opinion on the war in Iraq. These surveys also provided some indications of whether the United States achieved the objectives it laid out before the start of the war (Pew Research Center, 2004). The United States had somewhat different objectives for its strategic influence campaigns in the Middle East than for those in Europe. To recap, in the Middle East the United States sought to gain access to key military bases in the region, ensure no support for the Hussein regime during the war, and gain public support for building a democratic and free Iraq after the conflict was over. In Europe, the United States tried to persuade European public opinion that U.S. actions in Iraq were part of an international effort to force Hussein's regime to abide by UN resolutions.

The United States had some success with the first two of its goals in the Middle East. Although polling conducted by the Pew Global Attitudes Project in April-May 2003 revealed that Kuwaitis thought that their country's decision to provide the United States and allies with access to bases had been the right one but that 63 percent of the Turkish public felt that it had been the wrong decision, the United

States did gain access to key military bases during the conflict and no government in the region openly backed the Iraqi regime during the conflict.²¹ Pew's polling also revealed that most Arab and Muslim publics believed that the use of military force against countries that had not actually attacked first was rarely or never justified, and that Arab and Muslim nations' decisions not to use force against Iraq had been the right one.²²

The United States was less successful convincing Arab opinion to support U.S. postwar goals or that Iraqis were better off after the invasion. Pew's spring 2003 survey revealed that majorities in Nigeria, Lebanon, and Kuwait believed that Iraqis would be better off, majorities in Indonesia, Pakistan, Jordan, Morocco, and the Palestinian Authority—and a plurality of Turks—did not.²³ Most polling suggests that since the end of combat operations and the discovery that there were in fact no Iraqi WMD—and as a result of the emergence of a protracted sectarian conflict in Iraq—optimism about the lot of Iraqis within Arab and Muslim publics has plummeted.

²¹ The question asked in Kuwait and Turkey was: "On the subject of Iraq, did (survey country) make the right decision or the wrong decision to allow the U.S. and its allies to use bases for military action in Iraq?" (Pew Research Center, 2003, Q.22b).

²² The question was: "Do you think that using military force against countries that may seriously threaten our country, but have not attacked us, can often be justified, sometimes be justified, rarely be justified, or never be justified?" (Pew Research Center, 2003, Q.21). Sixty-five percent of Jordanians and 57 percent of respondents in the Palestinian Authority said they thought that the use of force in such a circumstance was never justified, and majorities in Indonesia, Lebanon, Kuwait, and Morocco thought it was rarely or never justified. When asked "On the subject of Iraq, did (survey country) make the right decision or the wrong decision to not use military force against Iraq?" (Pew Research Center, 2003, Q.22c), supermajorities of 70 percent or better in Indonesia, Nigeria, Pakistan, Lebanon, Jordan, and Morocco said that their country had made the right decision not to use military force.

²³ In a similar vein, when asked whether the Middle East region was likely to become more democratic as a result of the removal of Hussein, only in Nigeria and Kuwait did majorities indicate that they thought the Middle East would become somewhat or much more democratic; majorities in Indonesia, Lebanon, Jordan, and the Palestinian Authority said that they expected no change whatsoever. The question was: "Now that Saddam Hussein has been removed from power by the U.S. and its allies, do you think the Middle East region will become much more democratic, somewhat more democratic, or will there be no change in the region?" (Pew Research Center, 2003, Q.26).

In Europe, the United States had comparably mixed results. Ultimately, few European governments publicly supported the invasion of Iraq, and public opinion surveys in the spring of 2003 showed that they were generally on firm ground: 80 percent or more of the French, German, Italian, and Russian publics thought that their country had made the right decision not to use military force against Iraq.²⁴ In a similar vein, 62 percent of Spaniards thought their government's decision to use force in Iraq had been the wrong one.²⁵ Nevertheless, while fewer than 30 percent of Russians subscribed to this belief, more than 70 percent of those polled in Great Britain, France, Germany, Italy, and Spain said that they thought that the Iraqis would be better off as a result.

The decline in favorable opinion about the United States may partly be the result of public perceptions in Europe of the accuracy and truthfulness of U.S. charges before the war; the lack of WMD in Iraq undermined one of the key justifications for the war. Pew's polling reveals that by March 2004, fewer than 25 percent in France, Germany, Russia, Turkey, Pakistan, Jordan, and Morocco said that U.S. and British leaders had been misinformed about WMD, whereas, with the exception of Morocco, more than 60 percent in these publics said that U.S. and British leaders had lied.²⁶ There also was a rising belief across Europe that the United States did not take into account the interests of other countries in its foreign policies: majorities in Great Britain, France, Germany, Italy, Spain, Russia, and Turkey expressed

²⁴ The question was: "On the subject of Iraq, did (survey country) make the right decision or the wrong decision to not use military force against Iraq?" (Pew Research Center, 2003, Q.22c).

²⁵ The question was: "On the subject of Iraq, did (survey country) make the right decision or the wrong decision to use military force against Iraq?" (Pew Research Center, 2003, Q.22a).

²⁶ In Morocco, 48 percent expressed the view that U.S. and British leaders had lied. The question was: "Before the war, the U.S. and Britain claimed that Iraq had weapons of mass destruction. These weapons have yet to be found. Why do you think they made this claim? Was it mostly because U.S. and British leaders were themselves misinformed by bad intelligence, or was it mostly because U.S. and British leaders lied to provide a reason for invading Iraq?" (Pew Research Center, 2003, Q.27).

the view that the United States considered the interests of other countries little or not at all.²⁷ State Department reports on foreign media reaction to the end of the hunt for WMD yielded similar findings, with one of the reports' main conclusions about foreign press coverage being that while "unharmed politically at home . . . [President Bush's] credibility [was] shaken overseas" (U.S. Department of State, 2005).

To conclude, our case study of the run-up to Operation Iraqi Freedom suggests mixed results:

- The United States had some success with British and a few other European publics but generally was unable to overcome opposition from the French, German, Russian, and many other European publics.²⁸
- Although the United States and its coalition partners were generally successful in securing bases and keeping Arab regimes from supporting Hussein, they also were largely unsuccessful in their efforts to build support from "the Arab street."

Influence in Public Diplomacy: Conclusions

The main conclusions that we drew from our two case studies are the following:

• The United States historically has had great difficulties conducting effective strategic influence operations in peacetime. These operations are viewed by the domestic public at home with great suspicion, and they have a mixed track record abroad.

²⁷ The question was: "In making international policy decisions, to what extent do you think the United States takes into account the interests of countries like (survey country)—a great deal, a fair amount, not too much or not at all?" (Pew Research Center, 2003, Q.10). Moreover, Pew's polling shows a declining belief that the United States took into account the interests of other countries in most of these countries between the summer of 2002 and

²⁸ It is worth mentioning that support for the U.S. military action in Iraq at home and abroad has since substantially declined.

- The goal of public diplomacy is to reduce misperceptions and misunderstandings that may complicate relations between the United States and other nations by providing factual and truthful information.
- The specific objectives of strategic influence campaigns and the various constraints that are encountered greatly shape both the preferred strategy and the outcomes.
- · For strategic influence operations to succeed, substantial knowledge about a target audience's preexisting attitudes and information environment is needed. Moreover, there are situations in which target audiences are unlikely to be persuaded no matter how great an effort is undertaken, especially when the message contradicts deeply held values or beliefs.
- Successful strategic influence efforts typically are viewed as requiring unity and repetition of a common basic message that is reasonably congenial to target audiences. When policymakers or their statements contradict one another, it is likely to confuse the target audience and reduce the effectiveness of the campaign. Also, statements that are viewed by audiences as not credible are most likely to be rejected outright.

A Review of Planning Methodologies for Influence Operations¹

Introduction

The U.S. Army's extensive involvement in counterinsurgency and counterterrorism operations in Iraq and Afghanistan has stimulated an increasing interest in the service in the field of influence operations. In theaters where operational success is heavily dependent on acquiring a measure of support from the civilian population, influence operations can increase the chances of mission success while at the same time reducing both casualties and the size of the U.S. force required. In this study, we have defined influence operations as

the integrated and synchronized application of national diplomatic, informational, military, and economic capabilities in peacetime, crisis, conflict, and postconflict to foster attitudes, behaviors, or decisions by foreign target audiences that support U.S. objectives.

If influence operations are to be used by the U.S. Army successfully across a range of opponents and contingencies, effective and established tools and methodologies will be needed to ensure that influence operations planning and execution takes into account the campaign's

¹ This appendix was written by Brian Nichiporuk.

objectives, the enemy's capabilities, the means available for delivering messages, and the cultural context. These tools also must anticipate the possible "cascading consequences" of the various messages sent to a specific target audience.

This appendix explores the suitability of four planning approaches for influence operations. We first describe the strategies-to-tasks (STT) planning approach, which is in wide use within the U.S. Army. Next, we describe effects-based operations (EBOs), an approach that is currently the subject of a great deal of interest in the world of joint operations. We next describe assumption-based planning (ABP), a strategic planning approach developed at RAND. Next, we present a metrics-based approach that was developed by RAND in the course of its work for the Army on IO in Operation Iraqi Freedom that combines elements of capabilities-based planning (CBP), STT-based planning, and EBOs into a new methodology that, like EBOs, focuses on outcomes and that we believe could improve planning and assessment in influence operations in all phases and levels of war. Finally, we describe CBP, which does not address military campaign planning, per se, but can be used for longer-term capability development planning.

STT-Based Planning

STT-based planning is well suited to the Army's planning processes. It allows for broad dissemination of a commander's strategy and objectives, and it directs planners to execute tasks in support of them. The Army has developed extensive doctrine and distinct capabilities to support top-down planning and tasking processes of the kind that STT-based planning requires. Although the Army might prefer an exclusively STT-based planning cycle, especially for traditional combat operations defined in terms of fire and maneuver, this top-down approach is not particularly well suited to influence operations. Such operations must span various phases of war—peacetime, crisis, major combat, postconflict; and they are often conducted, simultaneously, at multiple levels of war—strategic, operational, tactical, and technical. STT-based planning can be improved by making it less rigid and more flexible in envi-

sioning or responding to alternative outcomes not originally planned or intended.

A capabilities-based approach such as that of STT-based planning, however, falters when systems are asked to accomplish tasks for which they were not designed. In the context of IO, for example, specific capabilities are housed in specific disciplines, which tends to limit the tasking and use of both the capabilities and the disciplines. Take a look at PSYOP. It is a discipline within the arsenal of IO capabilities. It is also generally associated with the production and dissemination of leaflets, but in reality, anyone can print and drop leaflets. Moreover, other disciplines also "own" specific message-sending capabilities: special technical operations, electronic warfare, PA, CA, to name several. Properly understood and defined, PSYOP's true "capability" inheres in the purposeful, informed, even expert crafting of targeted messages and the selection, among a wide range of media, of the best way to deliver those messages.

When developing a military plan on the basis of STT planning, planners seem prone to—i.e., they tend to think in terms of—assigning specific tasks to particular disciplines first and associating capabilities with those disciplines second, rather than thinking in terms of capabilities per se first, much less combined arms and joint approaches to achieving overall campaign objectives. In contrast, planners could be encouraged to focus on overarching capabilities and suites of disciplines that can work together to achieve commonly desired objectives—e.g., overall campaign objectives. EBOs, for example, are based, in part, on envisioning specific outcomes that are supposed to result from achieving such objectives—i.e., on defining intended results in advance. Hence, they seem well suited to helping planners think from the outset in terms of outcomes and alternative means of reaching those outcomes.

Effects-Based Operations

Although both the concept and the terminology of EBOs have been widely disseminated throughout the Air Force and the joint commu-

nity, the Army has been less eager to embrace this planning methodology. Comfortable with its existing STT-based approach to planning, and ever mindful of the unpredictability of the battlefield, the Army is understandably wary of a process that enthusiasts claim will resolve all war planning issues for the commander. However, as more and more organizations began adopting EBO methods and adapting some EBO concepts to existing planning processes, the Army has begun to reexamine the approach and investigate its utility in planning for the employment of various Army capabilities, including for influence operations. Not much has been written specifically about EBOs and influence operations, but some work can be found on EBOs and IO. In addition, more-general documents make it possible to suggest a potential EBO approach to influence operations.

As demonstrated in Iraq, combat operations do not necessarily have a definite beginning (e.g., Operation Southern Watch evolved into what was virtually an all-out air campaign) and a clear-cut end (e.g., the continuing insurgency in Iraq). Likewise, peace operations, or other "noncombat" operations, including transitional or nation-building operations, require constant reassessment of the effects of simultaneous, on-going, and targeted operations on a "battlefield" that includes civilian and military objectives. EBOs certainly seem to address situations common to such fluid battlefields—to deal with circumstances in which commanders operating in an adversary's environment seek to achieve multiple objectives by employing a wide array of capabilities. A process such as EBOs, which are based on intended effects or desired outcomes, also makes sense for conducting influence operations, which are conducted in all phases and at all levels of war (from peacetime through postconflict and from the strategic through the operational and tactical to the technical levels).

EBOs add an important element to the traditional precombat planning phase common to STT approaches by associating specifically desired effects or expected outcomes with each of the military objectives to be achieved. This approach is somewhat similar to the development of multiple enemy courses of action in the Army's military-decisionmaking planning process. How the EBO approach differs from military-decisionmaking planning-process treatment of enemy courses of action is in envisioning and prescribing the behavior that blue forces want red forces to exhibit. For example, if a military objective seeks to "compel capitulation of enemy forces," EBOs would require an expected outcome to be stipulated, such as "40% of enemy commanders capitulate with their units intact." EBOs then attempt to outline the different possible effects needed to reach that stated goal. Each effect is analyzed against available capabilities and resources; plans for achieving the effects intended are developed accordingly. So instead of starting with the objective and assigning tasks to specific capabilities based on a commander's understanding of enemy options, EBOs start with the objective, outline desired enemy behavior, develop several options for inducing the behavior effects intended, and then assign suites of resources to accomplish those effects.

Table D.1 seeks to illustrate the EBOs' basic approach by applying it to the military objective "defeat or compel capitulation of enemy forces" in the context of influence operations and information operations.

The table shows possible main effects for Tier 1 targets and possible indirect effects for Tier 2 targets. Specific actions and their possible intended and unintended effects could include the following:

- Target: commanders
 - Action 1: PSYOP message to commander—surrender by x time (or y event) or be attacked
 - o Desired effect: Commander surrenders unit
 - o Undesired effect: Commander does not surrender
 - Action 2: Physical attack of commanders, units, logistics, infrastructure, C2
 - o Desired effect: Commander surrenders unit
 - o Undesired effects: Commander does not surrender; physical attack causes others to fight
- Repeat actions 1 and 2.

Table D.1 EBOs and Influence and Information Operations Applied to a Specific Military Objective: Defeat or Compel Capitulation of Enemy Forces

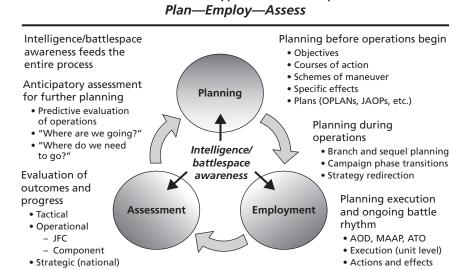
Tier Targets	Targets	Capabilities	Desired Effects
1. Main effects	Commanders	PSYOP	Commander surrenders unit
	Military units	Physical attack	Individuals surrender
2. Indirect effects	Command and control nodes	Physical attack	Attacks on these targets help convince commanders and individuals to surrender
	Intelligence assets	PSYOP	
	Logistics	Physical attack	
	Infrastructure	Physical attack	
	Radio broadcasts	Electronic warfare	
	Radio facilities	Physical attack	

NOTE: The capabilities are those needed to produce the desired effect.

Figure D.1 presents the Air Force's view of the basic principles of EBOs. Instead of a linear, top-down, planning process, EBOs approach planning as a continuous, cyclical process of planning, execution, and assessment.

As for the STT-based approach, the EBO approach calls for precombat planning and planning during operations. Where EBOs differ from STT-based planning is in their emphasis on outcomes and on progress during operations, as opposed to STT-based planning's traditional practice of conducting postcombat assessments. The following are the two main drawbacks to EBO planning: (1) many effects are not easy to anticipate and (2) resources are limited; hence, planners often have to fall back on those capabilities that happen to be available. EBOs also require military objectives that are clear, well defined, and logical; in an uncertain political environment, such objectives can sometimes prove hard to obtain.

Figure D.1 Air Force View of EBOs' Basic Principles



The Effects-Based Approach—Basic Principles

Integrity—Service—Excellence

RAND MG654-D.1

The main strength of EBOs, however, lie in their assignment of specifically defined outcomes to particular military objectives. This emphasis draws planners away from STT-based planning's more traditional emphasis on performing tasks and moves them in the direction of working together to accomplish a shared set of specific goals. Instead of thinking of influence or information operations from a purely STT point of view (based on traditional disciplines and their associated assumptions of effectiveness against particular targets), EBOs turn the planning process around to focus first on what influences the red force decisionmaking; then they envision a set of undesirable effects that red forces are seeking to avoid. Second, EBOs focus on creating an operational environment through coordinated kinetic and nonkinetic "events" that will put red forces into the most disadvantageous position possible. Events are then sequenced to create an "effect."

For example, blue operations may land forces on the battlefield. Coordinated with this landing would be an information operations campaign announcing the landing, discrediting the leadership, and offering safe passage to enemy commanders. These messages could also be sequenced and coordinated with blue force maneuver operations. Indicators can be developed for use by blue forces, such as "red forces are leaving their positions," or "red forces are abandoning arms," to help provide evidence that either red forces have accepted conditions for surrender or they have deserted. Evidence for each indicator can be analyzed as it is collected. Such evidence provides data for assessing the effectiveness of the actions of blue forces. Assessment involves a combination of indicators—indicators of performance and indicators of effectiveness—in addition to an overall assessment of how long it will take to achieve the military objectives being pursued.

Assumption-Based Planning

Introduction

One tool that has been used for more than a decade in long-range Army programmatic planning is ABP.2 Developed at RAND in the early 1990s, ABP was originally geared toward assisting the Army as it shaped itself to meet the massive uncertainties in the external environment created by the end of the Cold War. Below we discuss if and how ABP can help the Army to better plan and prepare for influence operations.

The discussion is organized into four parts. Each part, in sequence, attempts to answer an important question about ABP and influence operations. The four questions we will explore are as follows:

- What are the basic precepts of ABP?
- Who should use ABP as a planning tool for influence operations?
- When should ABP be used to support the planning of influence operations?
- How should ABP be employed to support influence operations?

² The basic primer on assumption based planning is Dewar et al., 1993.

What Are the Basic Precepts of ABP?

ABP differs from other planning methodologies in that it does not seek to build a completely new plan for an organization or to develop a set of future environments with associated probabilities to guide organizational planning. ABP is a high-level tool that tries to help military organizations make necessary modifications to their existing strategic plan by carefully drawing out, examining, and critiquing the key assumptions that underlie the strategic plan. If some of these assumptions prove to be vulnerable, the plan is modified to take into account the possibility that some assumptions may fail, which would expose the organization to external factors for which it is not prepared. ABP is directed toward "ends-uncertain" planning as opposed to "meansuncertain" planning. In other words, it is most helpful when redefining or confirming the goals and objectives of an organization as opposed to modifying the mechanisms an organization should use to achieve a set of fixed goals and objectives. Also, ABP is of limited usefulness in doing planning with unconstrained resources; if an organization wants to use ABP, it needs to provide some estimate of the resource levels allocated to each given strategic goal or objective.

The end product of ABP is a modification of the existing strategic plan through the employment of hedging and shaping actions. The former are actions that seek to buffer the organization against the prospect of failed critical assumptions, while the latter seek to proactively change the organization or the external environment so that neither is exposed to vulnerable assumptions about the future.

In specific terms, ABP as a complete process unfolds in five stages (Dewar et al., 1993, pp. xii–xv). First, the critical assumptions that underlie an organization's plans have to be determined and explicitly stated. This is not a trivial process: Most complex organizations, including the Army, do not lay out the assumptions that undergird their modernization, mission, and campaign plans because so many of the assumptions are implicitly understood by the senior and middleranking echelons and are not perceived as needing enunciation. Other assumptions are not stated because most of those in the rest of the organization are unaware that they support major plans and objectives; no one takes the time to dig deeply enough to reach those assumptions.

Second, ABP requires that the analyst identify which of the critical assumptions are vulnerable. An assumption is deemed to be vulnerable if an element of change in the external environment is deemed to be both significant and working in conflict with the assumption. A vulnerable assumption is one that, should it fail, would force the organization to rework itself and its goals. An assumption can be violated in more than one way.

After the analyst identifies vulnerable assumptions, the third phase of ABP is the definition of "signposts." Signposts are indicators that tell the organization how a vulnerable assumption is faring as time passes. Is it moving closer to being violated or is it holding up? Signposts need to be written clearly because any element of vagueness in a signpost could cause an organization to realize too late that the associated assumption is failing.

The fourth and fifth phases of ABP are dedicated to the formulation of shaping and hedging actions, respectively. As noted earlier, shaping actions are those designed to proactively influence the environment so that an assumption will not fail or, if it does, the organization will not be affected by it. In some cases, shaping actions may even work to cause a vulnerable assumption to fail so that the organization can minimize uncertainty and rework itself so that this assumption is removed from its planning. Hedging actions, on the other hand, are more reactive. They accept that the organization does not have the power or will to influence the vulnerability of certain assumptions, so the organization must take action to insulate itself as best as possible to minimize the impact that an assumption's failure will have on its goals and objectives.

Although ABP should ideally unfold in the above sequence, it does not have to. The creators of ABP allow that only steps 1 and 2 absolutely have to occur in sequence. Steps 3, 4, and 5 may occur in parallel or in a different sequence if necessary.

Who Should Use ABP As a Planning Tool for Influence Operations?

In the U.S. military, there are many planning staffs and headquarters involved in every military operation. If influence operations are determined to be an important part of a prospective or ongoing contingency, which level(s) in the military hierarchy should be conducting the planning for them?

Clearly, since ABP deals with ends-uncertain planning, it is best employed at the most senior levels of an organization. The middle and lower echelons of a complex organization are almost always focused on means-uncertain planning and thus would have great difficulty in using ABP for their purposes. Thus, when using ABP to test and modify the Army's modernization plan, for example, ABP should be the province of the Army Chief of Staff and his three-star deputies for operations, intelligence, personnel, etc. However, influence operations take place in active military theaters, so the set of people who should lead planning efforts for influence operations is different.

In planning for the use of influence operations in an ongoing or prospective contingency, the two staffs most appropriate for the role are likely the Joint Staff's J-3/J-5 sections and the J-3/J-5 sections of the unified command responsible for the theater in question (e.g., CENTCOM, the Pacific Command, etc.) These two staffs could work together to use ABP to determine what the desired effects of influence operations in a given contingency ought to be. Should influence operations be used merely to increase good will toward American forces among local civilians or should they be used more aggressively to turn enemy decisionmakers, military units, or insurgent factions against one another through the use of disinformation and deception? The Joint Staff would take the lead in determining what fraction of the U.S. military's global PSYOP, information warfare, and civil affairs resources should be applied to a given influence operation campaign, while the unified command planners would take the lead on the specific selection of target audiences, or "centers of gravity," (COGs) for the influence operations campaign. This process would involve intensive interaction with the intelligence community as well as the J-2 division of the unified command. The unified command would also work to determine the regional political implications (good or bad) of a given influence operations campaign.

ABP for influence operations should not be done at the numbered army, joint task force, corps, or brigade level. The planners at these echelons should be focused on determining the means appropriate to

execute the influence operations plan that has been crafted by the Joint Staff and the unified command headquarters. These echelons should focus on such elements as appropriate message delivery mechanisms and specific message content. If the operational and tactical echelons of a deployed force start using ABP to prepare influence operations, the result will be great confusion over goals and objectives, and U.S. forces will likely find themselves in a situation in which individual units undertake influence operations that are at cross-purposes with one another.

When Should ABP Be Used to Support the Planning of Influence **Operations?**

Figure D.2 suggests that ABP is most useful at the strategic planning level. What the figure adds to the discussion is a portrait of which phases of conflict are most appropriate to the use of ABP for supporting influence operations. The figure lays out four phases of a contingency: peacetime, crisis, conflict, and postconflict. As we can see from the figure, only two of the boxes are filled in as being appropriate for the use of ABP: peacetime and postconflict.

The reason for this coding is straightforward. ABP is not a shorttime-cycle process; it requires a fair amount of time and thought to complete an ABP cycle. In fact, the authors of ABP themselves argue that ABP is more useful the longer the time horizon of the planner is. ABP is too cumbersome for employment in the crisis action planning atmosphere that characterizes crisis and major combat (Phases 2 and 3). In contrast, Phase 1 offers more time in which to deeply reflect on an existing influence operations plan and pinpoint its vulnerable assumptions. During peacetime, analysts working for the relevant high-level staffs can do interviews and carefully examine the influence operations parts of existing operational plans (OPLANs) for the purpose of identifying critical assumptions. They can look for elements of change

Figure D.2 Matrix of Levels of Planning Versus Conflict Phases

Conflict phases Peacetime Crisis Conflict Postconflict Strategic X X Operational Levels of planning **Tactical** Technical X = ABP relevance

RAND MG654-D.2

in the given area of operation that would make certain assumptions vulnerable and interact with intelligence analysts and area specialists to prepare a list of signposts for the vulnerable assumptions. Finally, once hedging and shaping actions are developed by analysts in peacetime, there will be an opportunity to meet with the senior leadership of the Joint Staff and the unified command to prepare an action plan to modify the influence operations parts of the main OPLANs. This complete process would likely take at least a few months, time that simply would not be available in crisis or wartime.

ABP can be used in stability and support operations, but only under certain conditions. ABP would be suitable to influence operations at this time only when trends are starting to emerge that indicate that the postconflict period in a given country is not going as the U.S. national leadership envisioned. ABP is not necessary if the postconflict period is proceeding just as planned. ABP would also not be useful if the unexpected trends have proceeded to the point at which they are generating a crisis (e.g., a major spike in guerrilla attacks), because at that point those senior planners who have the authority to make ABP

work will be distracted and unavailable. For example, to take a concrete historical case, ABP would have been useful in support of stability and support operations in Iraq in the July-October 2003 time period, when the insurgency was beginning to develop as a persistent feature of the situation and it became clear that the rank-and-file Iraqi government bureaucracy had disintegrated and could not be put back together for the purpose of restoring basic public services. Before July, it simply would have been too early to see these trends. After October 2003, insurgent violence began reaching a level at which senior planners at CENTCOM probably became fully absorbed in crisis action planning and would not have had the time to support a serious ABP exercise.

In the event that ABP is desired during the sort of situation the United States faced in Iraq in late 2003, the planning sequence would have to be done by a special outside cell with full authority from the Joint Chiefs of Staff to make and implement its hedging and shaping actions at the unified command in question.

How Should ABP Be Employed to Support Influence Operations?

Now that we have seen which actors should use ABP to support influence operations during certain conflict phases, we must examine how ABP should actually be used to support the "nuts and bolts" of influence operations.

Our research suggests that effective influence operations seem to share six common elements. They

- are aimed at specific desired effects
- are directed against key target audiences
- are mindful of the characteristics of those audiences
- use an effective combination of information channels (i.e., pamphlets, Web sites, satellite TV, billboards, text messaging, etc.)
- have compelling message characteristics
- provide timely feedback on effects.

In our view, ABP would be most useful in modifying the first two elements in influence operations plans. It may have some limited utility in modifying elements three and four and it will have virtually no ability to provide help with elements five and six.

Since ABP is a tool for modifying strategic influence operations plans in peacetime and in certain parts of stability and support operations, it really has to focus on the desired effects and the key macro audiences to be targeted. After all, ABP is a tool for ends-uncertain planning, and the last four elements have to do more with the means of an influence operations campaign than the ends.

As far as effects are concerned, ABP can help to improve an influence operations plan by uncovering assumptions about desired effects that are vulnerable and could cause unintended consequences. For example, if the United States is targeting a multiethnic country that is effectively ruled by one minority ethnic group, an influence operations plan may focus on turning key members of the dominant ethnic group against the current regime by promising them certain positions of political power after they help overthrow the current regime. The assumption underlying this plan is that the other ethnic groups in the country will be quiet and accept this change of regime passively. However, an ABP cycle may show that the other ethnic groups would be angered by this U.S. focus on the politically dominant group and would perceive Washington as being biased against them. Thus, the disenfranchised ethnic groups might turn against U.S. troops when they enter the country. ABP could produce a modified influence operations module that would extend political carrots to leaders of the politically excluded ethnic groups as well. ABP can show that certain desired effects are based on narrow thinking that may omit key variables, or even that certain effects might actually be counterproductive. An example of the latter case might be a situation in which an influence operations plan seeks to foment fighting among different units in an enemy's army. This plan might have short-term benefits during the combat phase, but if the result of this plan is the destruction of the enemy army, then there may be problems in stability and support operations since some parts of the enemy army might be useful in helping U.S. troops restore order in the immediate aftermath of the conflict. The complete collapse of the enemy army might force the United States to keep more troops than

anticipated in the country during stability and support operations, thus weakening our ability to respond to other contingencies.

In terms of key target audiences, ABP can help to modify influence operations plans to take into account the most recent intelligence information on the political situation in the target country. In opaque authoritarian regimes, such as those in Iran or North Korea, purges and shifts in lines of authority are common, with the dictator or the dictator's circle constantly seeking to remove any potential threats. These realignments need to be taken into account when influence operations planners select key COGs for their OPLAN modules. Not only could the influence of certain established COGs rise and decline, but some altogether new COGs could arise in these kinds of political systems. ABP is a tool that could be helpful in modifying influence operations plans because these new COGs will probably increase the vulnerability of certain assumptions in the current influence operations plans. In semiauthoritarian states, the role of the mass public as a COG could wax and wane as elections are variously held, cancelled, and/or nullified over time.

Conclusions

ABP appears to have some potential utility in supporting strategic-level influence operations, especially during peacetime and stability and support operations. It is most useful to influence operations when used at strategic command staff levels during peacetime and "tipping points" in the postconflict period. It could not support influence operations planning during crisis or wartime, nor would it be helpful at the operational or tactical echelons of command. In terms of actual application to theater influence operations planning, ABP would be most valuable to the U.S. military if it were focused on modifying those elements of influence operations that have to do with determining ends as opposed to means—i.e., determining desired effects and picking the key target audiences or COGs—that exist in a target state or nonstate actors. ABP would have little to no value in helping to modify those elements of an influence operations plan that deal with audience characteristics, appropriate information channels, correct message characteristics, and day-to-day feedback.

A Metrics-Based Approach to Planning Influence **Operations**

In work for the U.S. Army's Combined Arms Center, RAND developed a planning approach that builds upon STT-based planning and EBOs and links the development of influence and information operations tasks and their assessment to overall military campaign objectives by developing measures of performance, measures of effectiveness, and measures for expected outcomes. Larson et al. discuss this topic in a forthcoming monograph.

Capabilities-Based Planning for Influence Operations Capability Development

Although it does not address campaign planning, one tool that could have some relevance in influencing operations capability development is CBP.3 CBP as a formal methodology gained favor with the Office of the Secretary of Defense early in the tenure of Defense Secretary Donald Rumsfeld and has been a strong force in both of the Quadrennial Defense Reviews conducted during the Rumsfeld era. The Secretary and his aides saw CBP as a mechanism that could accelerate the transformation of the American military into a leaner, more agile, and more rapidly deployable force in the post-9/11 and post-Operation Iraqi Freedom security environment. We are seeking to determine if and how CBP can help the Army to better prepare for and execute influence operations in a range of diverse future contingencies that involve conventional, irregular, disruptive, and catastrophic threats.

This section is organized into four parts. Each part, in sequence, attempts to answer an important question about CBP and influence operations. The four questions to be investigated are as follows:

• What are the basic precepts of CBP?

³ The basic primer for CBP is Davis, 2002.

- When should CBP be used to support the planning and/or execution of influence operations?
- Who should use CBP as a planning tool or execution aid for influence operations?
- How exactly should CBP be employed to support the application of influence operations?

What Are the Basic Precepts of CBP?

Unlike the previously examined tool of assumption-based planning, CBP does not seek to modify an already existing organizational plan. Instead, it seeks to develop from scratch a set of new, high-priority capabilities that will enable a military organization to meet the demands of an uncertain security environment by positioning it to perform acceptably across a whole portfolio of different plausible scenarios. CBP is "planning under uncertainty to provide capabilities suitable for a wide range of modern day challenges and circumstances while working within an economic framework that necessitates choice" (Davis, 2002, p. xi).

CBP can be contrasted to the "bounded threat" approach that dominated Pentagon planning from 1960 until the Bottom Up Review of the early 1990s. The bounded threat approach set up a single, detailed scenario with clear assumptions about timelines and the identity of the enemy (e.g., nearly simultaneous major theater wars with Iraq and North Korea) and built a force made up of divisions, air wings, and carrier battle groups to deal with that threat. Other scenarios that might emerge were treated as lesser included cases that could be dealt with by subsets of the large force that was developed to handle the clear, bounded threat scenario. CBP sees this approach as myopic and obsolete in the environment of the 21st century. Instead of using military units as building blocks, CBP employs capability modules. And, instead of using complete wars as benchmarks for generating forces, it uses specific operational challenges that could exist within several different conflict scenarios. CBP is based on the principle that the only thing we know for sure is that we will not be able to predict where our forces will be deployed next, so it is not fruitful to stake our force posture on any single scenario, no matter how demanding it may be.

CBP as a formal methodology unfolds in three major steps. First, there is a survey of capability needs. The analyst begins this phase by positing a wide range of scenarios that the U.S. military might have to confront in the next 5-15 years. This list could include scenarios such as the following: "defeat a North Korean invasion of South Korea," "use early entry forces to halt an ethnic cleansing campaign in Central Africa," or "seize a WMD stockpile from a terrorist group in South Asia." There does not seem to be any formalized method for generating this list nor any upper or lower limit on the number of scenarios that can be included. One concludes the first phase by developing a list of capability "outputs" or "modules" that would be needed to give the U.S. military the capability to perform acceptably across the portfolio of listed scenarios. Examples of such outputs would be the following: "be able to immediately destroy critical mobile targets with WMD capability," "attack and destroy terrorist strongholds," or "halt an armored invasion force within 100 km of its jump-off point." It is important to note that one major difference between CBP and the bounded threat approach is the injection of time as a variable into CBP modules. A number of CBP capability modules are distinguished by their emphasis on accomplishing a certain task early in a contingency because it is believed that accomplishing this mission later on would have only a marginally positive effect on the outcome.

The second formal phase of CBP involves the use of mission-system analysis to assess the robustness of a variety of capability options across a given mission. The missions in this case are derived from the capability outputs in the previous step. The options are actually descriptions of system types that could be used to accomplish the mission, such as forces, weapons, C2, logistics, doctrine, plans, skills, readiness, etc. (Davis, 2002, p. xix). In order for this part of the analysis to work correctly, the analyst needs to have good metrics for evaluating mission success or failure; without such metrics, it will be difficult to assess the capability options.

Phase 2 of formalized CBP actually evaluates capability options through the use of exploratory analysis. Ideally, exploratory modeling tools are used to examine how mission accomplishment is influenced by a large number of parameters, each of which can be driven by a dif-

ferent capability option. For example, to use a textbook case, the ability of a blue force to halt a red force armored invasion before it penetrates 100 km into the territory of a friendly nation could be influenced by any of the following:

- the speed of deployment of blue tactical air forces
- the speed of deployment of blue forces' command, control, communications, and computers, intelligence, surveillance, and reconnaissance packages
- the ability of blue forces to keep red forces from advancing at more than a certain speed
- the rate at which red forces' armored vehicles can be destroyed.

A number of other variables can be presented as well for this mission. New exploratory modeling tools can tell us which of the above "levers" is most important in halting the invasion. We might find that, for a certain quality of red forces on desert terrain, the speed of deployment of blue tactical air forces and the rate of red force attrition dominate all other variables. This result then causes the analyst to weight the capability options that influence those two parameters very highly for the part of the scenario portfolio that has to do with conventional warfare against armored forces.

As one aggregates all the results across the scenario portfolio, one can generate a set of "panel charts" that show regions of success and failure for U.S. forces in each mission area. By reviewing the results of exploratory modeling, the analyst can find those capability options that do the most to shrink the area of failure in each mission area. Where the shrinkage is especially dramatic, a capability option can be said to be truly transformational and worthy of being labeled as a high-value item. CBP thus has a more systematic way of identifying transformational capability packages than the old bounded threat approach did.

Phase 3 of CBP attempts to establish funding priorities for the various capability options that have been tested across the scenario portfolio, recognizing that the budgetary environment will usually be constrained and force hard choices to be made among many promising options. CBP developers have proposed using a weighted scorecard to

deal with the resource scarcity problem. All of the capability options that are funding candidates are listed and then given an effectiveness score based on their performance over several categories—e.g., major combat operations, stability and support operations (SASO), deterrence, etc. Each of these categories is weighted based on the analysts' view of their importance in the time frame at hand. The cost in dollars of purchasing the full capability option is then calculated, and a ratio of effectiveness per unit cost is produced for each option. The higher the ratio, the more valuable the given option ought to be. The validity of these ratios of course is dependent on how accurate the analysts' weighting factors are.

When Should CBP Be Used to Support the Planning and/or Execution of Influence Operations?

CBP is mainly useful for planning Army-wide influence operations capabilities over the long term, say, 5–20 years into the future. It would have no utility for planning for or helping execute influence operations use in any specific near- or far-term contingency. In this respect, it differs from ABP, which does have some utility for individual scenario planning.

CBP would potentially be useful in supporting Army contributions to a Quadrennial Defense Review or U.S. Army strategic planning guidance development exercise. It could lay out a list of desired influence operations capabilities that the Army would like to have to cover the scenario space provided to the service by OSD. Streamlined versions of CBP could also be used to help shape the focus of the influence operations modules in some of the strategic war games that are run by TRADOC or the Army War College and in some of the future technological requirements studies that are done by the Army's various analytical organizations. Another possibility is that CBP could be used to inform influence operations mission area inputs that may be provided to a regional combatant commander by the Army service component command.

Who Should Use CBP As a Planning Tool or Execution Aid for **Influence Operations?**

CBP would be an appropriate long-range influence operations planning tool for senior programmers and force developers on the Army Staff who have responsibility for preparing the Army program out beyond the immediate Program Objective Memorandum cycle. It would seem that the G-8 division of the Army Staff would be the lead agency in any effort to use CBP to help determine the influence operations capability modules required by the service in that time frame. G-8 could be ably assisted by the G-2 and G-3 directorates of the Army Staff in any such exercise. G-2 could furnish intelligence estimates on a spectrum of future threats that would help G-8 to better understand and pinpoint the vulnerability, or lack thereof, of those threats to an American use of influence operations. G-3 officers could contribute expertise on how influence operations might be integrated into more standard kinetic operations in the distant future. Elements of TRADOC, like the Futures Center, could also participate in a long-range exercise to build a cohesive Army IO program.

Because it focuses on longer-term capability development, CBP would be of no real use to the Army's operational units in their employment of influence operations in the context of a campaign. CBP is a long-range capabilities development tool that does not have relevance to the challenges faced by operational units, either at their home bases or in a theater of operations. CBP does not have any real operational or tactical-level applications. Nevertheless, it may have some utility in helping the U.S. Army identify ways to improve doctrine, organizations, training, systems, or other aspects of its Title X train-and-equip responsibilities, to better prepare the Army for conducting influence operations.

How Exactly Should CBP Be Employed to Support the Application of **Influence Operations?**

As hinted at above, CBP is best suited to develop the Army's set of influence operations capabilities beyond the current program objective memorandum. In this capacity, the tool would have some utility for the service. However, the effect of CBP on influence operations planning and programming is limited by the fact that the exploratory modeling tools we now have are not very effective in assessing the battlefield effectiveness of influence operations in the context of a multifaceted campaign.

Ideally, a comprehensive CBP exercise for the Army would include a mission area that was titled "Employing Influence Operations to Weaken Enemy Will," and Army planners could evaluate a range of capability options against that mission to determine which parameters are most significant to mission success across a portfolio of scenarios. Although influence operations tends to depend heavily on software as opposed to hardware for successful employment, there are a number of physical systems for supporting influence operations that would fit well into standard Army "rack and stack" prioritizing exercises. Items such as advanced Web site and email dissemination systems, advanced satellite phones and text messaging devices, Internet telephony, and rapidly deployable, lightweight TV and radio transmitters are all important to influence operations and could easily be costed out over time by Army programmers. Advanced databases for gathering and fusing cultural intelligence and computerized SNA tools also represent a capability set that the Army could procure.

The problem, as noted above, will lie in the use of exploratory modeling tools to determine the effectiveness of influence operations across a portfolio of scenarios, both conventional and irregular in nature. Metrics for success in influence operations are often difficult to express in the form of a simple number, trend, or ratio that can be produced readily by our available modeling tools. The inability of current combat models to clearly describe and evaluate the effect of different influence operations hardware is certainly a long pole in the tent that limits the utility of CBP. Some newer models that have been developed more for SASO than for conventional combat, such as the United Kingdom's Diplomatic and Military Operations in Non-Warfighting Domain (Diamond) model (see Bailey, 2001), are beginning to come to grips with the influence operations area, but they are still in the formative phase. Thus, the exploratory modeling exercise that lies at the heart of CBP is problematic for the application of influence operations. In order to be run through CBP completely, an influence operations module

will have to be subject to a considerable amount of expert opinion and subjective judgment. Perhaps lessons from influence operations in previous campaigns could be used to inform this kind of expert opinion.

Finally, when it comes to assessing the cost-effectiveness of different influence operations systems in the final phase of CBP, much will depend on the weight analysts accord to different types of contingencies when evaluating candidate future influence operations systems. If a high weight is accorded to standard major combat operations and a lower weight to SASO or irregular contingencies, it may be very difficult for most influence operations systems to achieve an effectiveness/cost ratio that could be regarded as having "transformational" potential.

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