



DRDC Toronto No. CR 2007-146

# **Military Influence Operations: Review of Relevant Scientific Literature**

by:

Barbara D. Adams, Jessica Sartori, Sonya Waldherr  
Humansystems® Incorporated  
111 Farquhar St.  
Guelph, ON N1H 3N4

Project Manager:

Dr. Barbara Adams  
(519) 836 5911 x. 249

PWGSC Contract No. W7711-037893/001/TOR  
Call-Up 7893-10

On behalf of

DEPARTMENT OF NATIONAL DEFENCE

as represented by

Defence Research and Development Canada Toronto  
1133 Sheppard Avenue West  
Toronto, Ontario, Canada  
M3M 3B9

DRDC Scientific Authority

Keith Stewart  
(416) 635-2130

November 2007



Author

---

Barbara D. Adams, Ph.D.  
Humansystems® Incorporated

Approved by

---

Keith Stewart

Approved for release by

---

K.M. Sutton  
Chair, Document Review and Library Committee

The scientific or technical validity of this Contractor Report is entirely the responsibility of the contractor and the contents do not necessarily have the approval or endorsement of Defence R&D Canada.

©HER MAJESTY THE QUEEN IN RIGHT OF CANADA (2007)  
as represented by the Minister of National Defence

©SA MAJESTE LA REINE EN DROIT DU CANADA (2007)  
Défense Nationale Canada

## Abstract

DRDC Toronto is embarking on research aimed at enhancing the CF's ability to plan, implement, and evaluate defensive and offensive influence campaigns in future expeditionary operations. This report explores the current CF influence capability, and explores the concept of influence in the scientific literature and in specific application to the CF domain.

The main body of the report reviews the scientific literature related to influence. It distinguishes between two related bodies of literature, the persuasion (and attitude change) literature and the social influence literature. The persuasion literature argues that messages can be processed either systematically or heuristically, and that messages that are processed more carefully are, in general, more likely to be persuasive. Persuasion research has identified several factors that influence the persuasive power of a message. These include the source of a persuasive message, the message itself, the receiver or target of the message, and the medium through which the message is delivered.

The second half of this review explores social influence processes, including the roles of normative (e.g., the actions of other people are used as a guide) and informational (e.g., the actions of other people provide meaningful information) factors. The literature relevant to majority influence (or conformity), minority influence and obedience are reviewed.

The goal of this review is to describe how the existing scientific research on influence could benefit the CF's influence efforts. Toward this end, the final chapter of this report provides recommendations for a proposed long-term program of influence research in support of CF influence efforts. Promoting increased exploitation of the complex persuasion and influence literature is an important way to promote CF influence efforts. This would involve conducting research exploring combinations of key persuasion factors, and converting the complex scientific research into a form that is more usable for PSYOPS personnel.

This report also proposes several new areas of scientific research. These include the development of a theoretical model of influence, designing and conducting research in more realistic environments, as well as specific research related to influence and culture, longitudinal influence research, research on message strength, resistance to persuasion, and measures of influence effectiveness. Potential products that could emerge from this program of research include a Lessons Learned function, a database that captures relevant research, and measures of message strength and message effectiveness. Lastly, helping to streamline key PSYOPS processes (e.g., target audience analysis) could also promote CF influence efforts in the long term.



## Résumé

RDDC Toronto entreprend une recherche visant à améliorer la capacité des Forces canadiennes (FC) à planifier, à mettre en œuvre et à évaluer les campagnes d'influence défensives et offensives dans le cadre d'opérations expéditionnaires futures. Le présent rapport étudie la capacité actuelle d'influence des FC ainsi que le concept de l'influence selon la documentation scientifique et les manières dont il s'applique précisément au domaine des FC.

Le corps du rapport examine la documentation scientifique traitant de l'influence. Il établit une différence entre deux groupes reliés de documentation : la documentation sur la persuasion (et le changement d'attitude) et la documentation sur l'influence sociale. La documentation traitant de la persuasion soutient que des messages peuvent être traités de façon systématique ou heuristique et qu'en règle générale, les messages qui sont traités plus rigoureusement sont plus susceptibles d'être persuasifs. Les recherches sur la persuasion ont cerné plusieurs facteurs qui influent sur le pouvoir de persuasion d'un message. Ces facteurs comprennent la source du message à caractère persuasif, le message même, le destinataire ou la cible du message et le moyen par lequel le message est communiqué.

La deuxième partie du rapport étudie les processus d'influence sociale, dont le rôle des facteurs normatifs (p. ex. se servir des actions d'autres personnes pour s'orienter) et informatifs (p. ex. les actions d'autres personnes fournissent de l'information importante). Des ouvrages concernant l'influence de la majorité (ou la conformité), l'influence de la minorité et l'obéissance sont à l'étude.

Le but de l'étude consiste à décrire la manière dont la recherche scientifique actuelle au sujet de l'influence pourrait profiter aux initiatives d'influence des FC. À cette fin, le dernier chapitre du rapport fournit des recommandations relatives à un programme à long terme de recherche sur l'influence à l'appui des initiatives d'influence des FC. La promotion de l'exploitation accrue de la documentation complexe portant sur la persuasion et l'influence est une manière importante de favoriser les initiatives d'influence des FC. Cela exigerait la réalisation d'études sur les combinaisons de facteurs clés et la conversion de données scientifiques complexes en un format qui est plus convivial pour le personnel chargé des activités d'influence.

Le présent rapport propose également plusieurs nouveaux domaines de recherche scientifique, dont l'élaboration d'un modèle théorique de l'influence, la conception et la réalisation d'études dans des milieux plus réalistes, ainsi que des recherches précises portant sur l'influence et la culture, la recherche sur l'influence longitudinale, la recherche sur la puissance des messages, la résistance à la persuasion et les mesures de l'efficacité de l'influence. Les produits pouvant découler de ce programme de recherche comprennent une fonction de « leçons apprises », une base de données contenant les données de recherche pertinentes, ainsi que des mesures de la puissance d'un message et de son efficacité. Enfin, aider à rationaliser les processus clés des activités d'influence (p. ex. l'analyse du public cible) pourrait également favoriser les initiatives d'influence des FC à long terme.

## Executive Summary

DRDC Toronto is embarking on research aimed at enhancing the Canadian Forces' ability to plan, implement, and evaluate defensive and offensive influence campaigns in future expeditionary operations. This report explores the current CF influence capability, and explores the concept of influence in the scientific literature, and in specific application to the CF domain.

The main body of the report reviews the scientific literature related to influence. It distinguishes between two related bodies of literature, the persuasion (and attitude change) literature and the social influence literature. The persuasion literature argues that messages can be processed either systematically or heuristically, and that messages that are processed more carefully are, in general, more likely to be persuasive. Persuasion research has identified several factors that influence the persuasive power of a message. These include the source of a persuasive message, and the perceived credibility, power and attractiveness of the source. In general, source effects are typically associated with less effortful or heuristic processing, rather than effortful and systematic processing. Several different characteristics of messages affect their persuasive power, most notably, the strength of the message, message framing, message style/language, and the repetition of persuasive messages. Many different characteristics of the message receiver or target influence persuasion. The two most influential factors are the motivation and ability of the receiver to process the message systematically. If a receiver is not motivated or not able to process a persuasive message carefully, the message is more likely to be heuristically processed, and factors other than the quality of the message (e.g., the source's credibility) will influence persuasion. Attitudes and values, salient identity, and the culture of the receiver will also influence how persuasive messages are processed. Persuasive messages can be delivered in many different ways (e.g., face-to-face, leaflets, television). The medium through which a persuasive message is presented will also influence its effectiveness. Media are often distinguished by the richness of information they can present, with richer sources typically argued to be more persuasive.

The second half of this review explores social influence processes. The social influence literature addresses attitude change at the level of group rather than individual processes. In general, the literature suggests that people are driven to have a positive self-concept, to belong within their social system, and to use the information that they have to be accurate. These drives are manifested in social influence processes that are either normative (e.g., the actions of other people are used as a guide) or informational (e.g., the actions of other people provide meaningful information). Conformity (or majority influence) is predicated on the normative need to "fit in" with the opinion of the majority, and typically relies on heuristic rather than systematic processing. Minority influence, on the other hand, relies on the power of the information that the minority provides, and the ability of the minority to raise doubts about the conventional stance of the majority. As a whole, social influence can be a key influence on attitudes, motivation and behaviour.

The goal of this review, then, is to describe how the existing scientific research on influence could benefit the CF's influence efforts. Toward this end, the final chapter of this report provides recommendations for a proposed long-term program of influence research in support of CF influence efforts. Critical preparatory activities include understanding the client group and CF PSYOPS personnel needs, as well as understanding inter-relationships with other



relevant agencies. Promoting increased exploitation of the complex persuasion and influence literature is an important way to promote CF influence efforts. Although the CF clearly identifies key persuasion factors (e.g., the source, the message, etc.) in available CF resources, the complex relationships amongst these factors do not seem well reflected in CF materials. Moreover, there is also some evidence that the CF could benefit from assistance with more elaborated access to existing research and with staying “up to date” with research as it develops, and at finding ways to integrate this research into their PSYOPS practices. As a whole, then, taking the complex scientific research and converting it into a form that is more usable for PSYOPS personnel should be one of the key goals of the proposed program of research. For the CF to maximize its influence efforts, more knowledge and use of more indirect social influence principles (e.g., majority and minority influence) might also be helpful.

Several potential areas of new scientific research are also indicated in the report. At the theoretical level, developing a model of exactly what is meant by the term “influence” within the CF context will be critical. Designing and conducting research in environments that are more realistic and that provide a better match to operational contexts will also provide critical information to promote CF influence efforts. The relationship between culture and influence is another area that appears to be currently under-researched. In addition, research that is longitudinal rather than cross-sectional, that explores resistance processes and that grapples with how to gauge the strength of persuasive messages all emerged as important contributions. Lastly, working toward understanding how to measure the effectiveness of persuasive messages is the first and highest priority.

Several different products could emerge from this program of research, some at the early stages of research, and some arising from long term research. The first potential product is either the development of (or feedback provided into) a Lessons Learned function that captures the experience and knowledge gained while conducting PSYOPS and influence campaigns. This capacity would help to ensure that the valuable insights gained “on the ground” are perpetuated in future influence campaigns. A database that captures ongoing research, and which makes this research more accessible, as well as measures of message effectiveness and of message strength should also be targeted products. Lastly, working to assist with refining PSYOPS processes such as target audience analysis, and to provide input into emerging influence-relevant doctrine would be important contributions arising from this program of research.

## Sommaire

RDDC Toronto entreprend une recherche visant à améliorer la capacité des Forces canadiennes (FC) à planifier, à mettre en œuvre et à évaluer les campagnes d'influence défensives et offensives dans le cadre d'opérations expéditionnaires futures. Le présent rapport étudie la capacité actuelle d'influence des FC ainsi que le concept de l'influence selon la documentation scientifique et les manières dont il s'applique précisément au domaine des FC.

Le corps du rapport examine la documentation scientifique traitant de l'influence. Il établit une différence entre deux groupes reliés de documentation : la documentation sur la persuasion (et le changement d'attitude) et la documentation sur l'influence sociale. La documentation traitant de la persuasion soutient que des messages peuvent être traités de façon systématique ou heuristique et qu'en règle générale, les messages qui sont traités plus rigoureusement sont plus susceptibles d'être persuasifs. Les recherches sur la persuasion ont cerné plusieurs facteurs qui influent sur le pouvoir de persuasion d'un message. Ces facteurs comprennent la source du message à caractère persuasif et la crédibilité, la puissance et l'attractivité perçues de la source. En général, les effets de la source sont habituellement associés à un traitement moins rigoureux ou heuristique, plutôt qu'un traitement rigoureux et systématique. Plusieurs caractéristiques différentes d'un message influent sur le pouvoir de persuasion de celui-ci, notamment la puissance du message, son contexte, son style ou son langage, ainsi que la répétition d'un message à caractère persuasif. Bon nombre de caractéristiques différentes du destinataire du message ou de la cible influent sur la persuasion. Les deux facteurs qui ont le plus d'influence sont la motivation et la capacité du destinataire à traiter le message de façon systématique. Si le destinataire n'est pas motivé ou est incapable de traiter rigoureusement un message à caractère persuasif, le message sera en toute probabilité traité de manière heuristique, et des facteurs autres que la qualité du message (p. ex. la crédibilité de la source) influenceront sur la persuasion. Les attitudes et les valeurs, l'identité prédominante et la culture du destinataire influenceront également sur la manière dont les messages à caractère persuasif sont traités. Ces messages peuvent être communiqués de bon nombre de façons (p. ex. en personne, dépliants, télévision). Le moyen par lequel un message à caractère persuasif est présenté influe aussi sur l'efficacité de celui-ci. Les médias se distinguent souvent par la richesse d'information qu'ils peuvent présenter, les sources plus riches étant typiquement considérées comme étant les plus persuasives.

La deuxième partie du rapport étudie les processus d'influence sociale. La documentation sur l'influence sociale porte sur le changement d'attitude au niveau d'un groupe plutôt que de processus individuels. En général, la documentation soutient que les gens cherchent à avoir un concept de soi positif, à ressentir une appartenance au sein de leur réseau social et à utiliser l'information dont ils disposent de manière exacte. Ces désirs se manifestent dans les processus d'influence sociale qui sont soit normatifs (p. ex. se servir des actions d'autres personnes pour s'orienter), soit informatifs (p. ex. les actions d'autres personnes fournissent de l'information importante). La conformité (ou l'influence de la majorité) repose sur le besoin normatif de « se conformer » à l'opinion populaire et est habituellement tributaire du traitement heuristique plutôt que systématique. D'autre part, l'influence de la minorité est tributaire de la puissance de l'information fournie par la minorité ainsi que de la capacité de la minorité à soulever des doutes au sujet de son point de vue conventionnel. Dans son



ensemble, l'influence sociale peut avoir une influence clé sur les attitudes, la motivation et le comportement.

Le but de l'étude consiste donc à décrire la manière dont la recherche scientifique actuelle au sujet de l'influence pourrait profiter aux initiatives d'influence des FC. À cette fin, le dernier chapitre du rapport fournit des recommandations relatives à un programme à long terme de recherche sur l'influence à l'appui des initiatives d'influence des FC. Parmi les activités de préparation essentielles figure apprendre à comprendre le groupe client et les besoins du personnel chargé des activités d'influence des FC, ainsi que les interrelations avec d'autres organismes pertinents. La promotion de l'exploitation accrue de la documentation complexe portant sur la persuasion et l'influence est une manière importante de favoriser les initiatives d'influence des FC. Bien que les FC désignent clairement des facteurs de persuasion clés (p. ex. la source, le message) dans les ressources disponibles au sein des FC, les relations complexes entre ces facteurs ne semblent pas être traités de manière adéquate dans la documentation des FC. En outre, des preuves indiquent que les FC pourraient bénéficier d'une aide au moyen d'un accès moins restreint aux recherches existantes et en se tenant au courant des recherches au fur et à mesure qu'elles se déroulent, ainsi que pour trouver des moyens d'intégrer ces recherches dans leurs pratiques d'influence. Par conséquent, dans l'ensemble, la conversion des données scientifiques complexes en un format plus convivial pour le personnel chargé des activités d'influence devrait être un objectif clé du programme de recherche proposé. Pour que les FC puissent maximiser leurs initiatives d'influence, il faudrait plus de connaissances et l'adoption de principes d'influence sociale plus indirects (p. ex. l'influence de la majorité et de la minorité).

Plusieurs domaines potentiels de nouvelles recherches scientifiques sont également indiqués dans le rapport. Sur le plan théorique, il sera vital d'élaborer un modèle représentant exactement ce que signifie le terme « influence » dans le contexte des FC. La conception et la réalisation d'études dans des milieux plus réalistes et qui correspondent davantage aux contextes opérationnels fourniront également des renseignements essentiels à la promotion des initiatives d'influence des FC. Il y a aussi des lacunes en ce qui concerne les recherches sur la relation entre la culture et l'influence. En outre, les recherches qui sont longitudinales plutôt que transversales, qui étudient les processus de résistance et qui cherchent comment évaluer la puissance des messages à caractère persuasif se sont toutes avérées d'importantes contributions. Enfin, la première priorité est de travailler à comprendre comment mesurer l'efficacité des messages à caractère persuasif.

Plusieurs produits différents pourraient découler de ce programme de recherche, certains aux premiers stades de la recherches, d'autres de la recherche à long terme. Le premier produit potentiel serait l'élaboration d'une fonction « leçons apprises » (ou la contribution d'une rétroaction à celle-ci) qui saisit l'expérience et les connaissances acquises dans la réalisation de campagnes d'influence. Cette capacité permettrait d'assurer que les observations précieuses acquises « sur le terrain » sont maintenues dans les campagnes d'influence futures. Une base de données contenant la recherche en cours, facilitant ainsi l'accès à ces recherches, ainsi que les mesures de l'efficacité et de la puissance des messages devraient aussi être des produits attendus. Enfin, d'importantes contributions découleraient aussi du programme de recherche, y compris le travail pour aider à peaufiner les processus d'influence, tels que l'analyse du public cible, et à fournir une rétroaction à la doctrine émergente concernant l'influence.



# Table of Contents

<b>ABSTRACT.....</b>	<b>I</b>
<b>RESUME .....</b>	<b>II</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>III</b>
<b>SOMMAIRE.....</b>	<b>V</b>
<b>TABLE OF CONTENTS .....</b>	<b>VII</b>
<b>LIST OF FIGURES .....</b>	<b>IX</b>
<b>LIST OF TABLES .....</b>	<b>X</b>
<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1 BACKGROUND.....	1
1.2 OBJECTIVE .....	2
1.3 SCOPE .....	2
1.4 WORK ITEMS.....	2
<b>2 METHOD FOR LITERATURE SEARCH .....</b>	<b>3</b>
2.1 KEYWORDS .....	3
2.2 DATABASES.....	3
2.3 SEARCH STRATEGIES.....	4
2.4 SEARCH FINDINGS.....	5
2.5 REVIEW OF ARTICLES.....	5
2.6 LIMITATIONS OF THE CURRENT REPORT .....	5
<b>3. PROJECT DELIVERABLES AND SCHEDULE .....</b>	<b>6</b>
3.1 PROJECT DELIVERABLES .....	6
<b>4. INTRODUCTION TO INFLUENCE.....</b>	<b>8</b>
4.1 INTRODUCTION TO CF INFLUENCE OPERATIONS .....	8
4.2 FORMATION AND STRUCTURE OF CF PSYCHOLOGICAL OPERATIONS UNIT.....	10
4.3 THE CONCEPT OF INFLUENCE.....	12
<b>5. ELEMENTS OF PERSUASION .....</b>	<b>16</b>
5.1. SOURCE EFFECTS .....	16
5.1.1 <i>Source Credibility</i> .....	16
5.1.2 <i>Source Power</i> .....	21
5.1.3 <i>Source Attractiveness</i> .....	23
5.1.4 <i>Summary and Implications for CF Influence Ops</i> .....	24
5.2. MESSAGE/ARGUMENT EFFECTS .....	26
5.2.1 <i>Message Strength</i> .....	26
5.2.2 <i>Message Order and Framing</i> .....	27
5.2.3 <i>Message Style and Language</i> .....	30
5.2.4 <i>Message Repetition</i> .....	32
5.2.5 <i>Other Message Effects</i> .....	33
5.2.6 <i>Summary and Implications for CF Influence Ops</i> .....	34



5.3	RECEIVER EFFECTS .....	36
5.3.1	<i>Motivation and Ability</i> .....	36
5.3.2	<i>Attitudes and Values</i> .....	38
5.3.3	<i>Identity</i> .....	40
5.3.4	<i>Culture</i> .....	41
5.3.5	<i>Affect</i> .....	44
5.3.6	<i>Other Receiver Factors</i> .....	47
5.3.7	<i>Summary and Implications for CF Influence Operations</i> .....	48
5.4	MEDIA EFFECTS .....	50
5.4.1	<i>Summary and Implications for CF Influence Operations</i> .....	58
<b>6.</b>	<b>SOCIAL INFLUENCE.....</b>	<b>62</b>
6.1	MAJORITY INFLUENCE AND CONFORMITY .....	63
6.1.1	<i>Normative Influence</i> .....	65
6.1.2	<i>Informational Influence</i> .....	68
6.2	MINORITY INFLUENCE.....	72
6.3	OBEDIENCE TO AUTHORITY .....	78
6.3	SPECIAL TOPICS IN PERSUASION AND INFLUENCE .....	80
6.4.1	<i>Resistance to Persuasion</i> .....	80
6.4.2	<i>Compliance/Influence Techniques</i> .....	87
6.5	SUMMARY AND IMPLICATIONS FOR CF INFLUENCE OPS .....	91
<b>7.</b>	<b>RECOMMENDATIONS.....</b>	<b>94</b>
7.1	START-UP ACTIVITIES .....	94
7.2	UNEXPLOITED AREAS OF EXISTING SCIENTIFIC KNOWLEDGE.....	95
7.3	AREAS WHERE FUTURE SCIENTIFIC WORK NECESSARY .....	97
7.4	REQUIREMENTS FOR FUTURE SCIENTIFIC WORK.....	103
7.4.1	<i>Theoretical Requirements</i> .....	103
7.4.2	<i>Empirical Research Requirements</i> .....	104
7.5	RECOMMENDATIONS FOR PRODUCT DEVELOPMENT .....	107
	<b>REFERENCES.....</b>	<b>109</b>
	<b>DISTRIBUTION LIST.....</b>	<b>117</b>



## List of Figures

Figure 1: Canadian PSYOPS Structure: Brigade Headquarters (Johnson, 2006, p. 6) .....	10
Figure 2: Canadian PSYOPS Structure: High Readiness Unit (Johnson, 2006, p. 6) .....	11
Figure 3: Attitudes as a function of source credibility and argument quality .....	18
Figure 4: Theory of reasoned action (Eagly and Chaiken, 1993). .....	39
Figure 5: The Adaptive Use of Available Media model (Barry & Fulmer, 2004) <b>Error! Bookmark not defined.</b>	
Figure 6: Media Channels as used across PSYOP levels (U.S. Defense Science Board, 2000). .....	60
Figure 7: Sample stimuli used in Baron et al. (1996).....	69
Figure 8: Results for the impacts of task difficulty and importance on conformity (Baron et al., 1996) .....	70
Figure 9: Mugny's social context model of minority influence .....	74



## List of Tables

Table 1: Proposed Keywords .....	3
Table 2: Primary Databases for Scientific/Academic Search .....	4
Table 3: Project Schedule.....	6
Table 4: Aims of Canadian PSYOPS and Population in Conflict (Johnson, 2006, p. 3).....	9
Table 5: Source Effects .....	24
Table 6: Maximizing Message Effectiveness.....	35
Table 7: Kelman’s (2006) three processes of social influence.....	63
Table 8. Compliance techniques .....	90

# 1. Introduction

## 1.1 Background

DRDC Toronto is embarking on research aimed at enhancing the CF's ability to plan, implement, and evaluate defensive and offensive influence<sup>1</sup> campaigns in future expeditionary operations. Owing to the novelty of this research area and the still-nascent CF efforts to build its capacity in this regard, a one-year scoping study will be conducted with a view to better defining the client's requirements for further research. The specifics of a 3-year project plan will be generated on the basis of the scoping study, and delivered to Thrust 15b as a formal project proposal in October 2007.

Key areas to be covered during the scoping phase will include: the organizational contributions and relationship between J2(Intel) and J3(Ops) in influence ops; the analysis of target audiences; the content and delivery of influence materials; the evaluation of the effectiveness of the influence campaign; co-ordination of influence effects amongst all lines of operation especially PSYOPS, CIMIC and PA.

Notwithstanding the potential effectiveness of the capability, it has been observed that, at present, CF PSYOPS personnel do not have a solid theory-based framework upon which to assess the requirement for influence or counter-influence activity or to base the design of influence products. There is a requirement to develop improved methods for (a) understanding and representing the cultural, psychological, and social influences that affect the attitudes, intent and behaviour of target audiences and (b) assessing the effectiveness of blue force influence activity.<sup>2</sup> Moreover, there is a critical requirement to establish the theoretical underpinnings for such activities, for example in terms of an understanding of adversary intent and behaviour. In a complex campaign space, it is essential that blue forces should have the ability to recognise and counter an adversary's influence activity.

Initially, the scoping study will progress along three separate lines of investigation. These sub tasks will converge towards the end of the study. Sub Task 1 (the subject of this call-up) will review scientific literature of relevance to influence operations including attitudes, social influence, communication, and persuasion. Sub Task 2 will concentrate on the Canadian Forces' current capability in influence operations. Sub Task 3 will include the conduct of an initial state of the art review (SOAR) of military influence operations. Toward the end of the scoping study, researchers involved in all three subtasks will meet at a small 'influence operations' workshop which will also include researchers and practitioners from outside the project. Owing to their established capability in the social and behavioural sciences, HSI are well-placed to undertake the required review of relevant scientific literature and make a major contribution to the workshop.

---

<sup>1</sup> The term 'influence operations' has been adopted in this proposal to refer to all targeted activities conducted by the CF, its partners, and its adversaries with a view to affecting the attitude, intent, and behaviour of neutrals and adversaries within the campaign space. The term is used to indicate that, while PSYOPS is the major component of 'influence activities' the project should not be limited to current CF PSYOPS capability and doctrine.

<sup>2</sup> Chief of Staff Canadian PSYOPS Directorate presentation to DRDC Toronto, June 2006



## 1.2 Objective

The objective of this contract is to support DRDC's development of a plan for a three-year programme of research on enhanced influence operations for Thrust 15b by delivering a review of relevant scientific literature (see Sub Task 1 above) and contributing to the workshop outlined below. This report is also a deliverable (Work Breakdown Element 2.2 in Sub Project 2, Year 1) for a project lead by Dr. David Mandel funded through the Technology Investment Fund, entitled Predictive Modeling of Adversarial Intent and Experimental and Case Analyses of Social Influence Processes.

## 1.3 Scope

This review attempts to identify and review scientific literature of relevance to the core components of influence operations including target audience analysis, influence product design and delivery, and evaluation of effectiveness. The review considers both core theoretical concepts, such as those associated with social influence, attitude, and persuasion, as well as research in related application domains, such as the psychology of advertising and consumer behaviour.

It should be noted that the framing of the issues identified is somewhat arbitrary due to the considerable degree of interaction among many of the factors. For example, the self-relevance of a message could be described equally validly in the message section or in the section related to qualities of the receiver that influence the persuasive appeal of a message. When this occurred, issues are discussed in the most relevant section to eliminate redundancy. It is also important to note that, consistent with the persuasion literature generally, this review focuses on changing existing attitudes but does not specifically address how attitudes are actually formed.

## 1.4 Work Items

Under this call-up, HSI performed the following work items:

1. Attended a Start Up Meeting at DRDC Toronto in mid February 2007.
2. Worked with the scientific authority to define the scope of the investigation.
3. Presented a detailed research plan for Subtask 1 by the end of February 2007.
4. Conducted appropriate research and analysis including document review to produce a comprehensive literature review within the scope described above.
5. Attended and contribute to a Project Team Meeting<sup>3</sup> in early April 2007 at DRDC Toronto.
6. Attended and contribute to an Influence Operations Workshop in May 2007 at DRDC Toronto (probable dates 24-25 May).
7. Updated the review, as necessary, following the Influence Operations workshop.

---

<sup>3</sup> The project team meeting will provide the first formal meeting of researchers undertaking the three sub-tasks.

## 2 Method for Literature Search

### 2.1 Keywords

We developed a set of keywords (see Table 1) for the literature search based on our experience with the pertinent scientific/psychological, human factor, and military domains during a brainstorming session with all team members. These keywords were chosen because they focused the search on topics directly related to influence and persuasion within military contexts and were intended to be able to identify any other related theoretical approaches or conceptualizations that might be relevant.

**Table 1: Proposed Keywords**

Core Concept	Primary Keywords	Secondary Keywords (more to be identified as necessary)
Influence	Influence operations, social, influence, power, majority, minority, persuasion, compliance, dissonance, attitude, judgment, conformity, social proof	framing, salience, values, resistance, persistence, mentoring
Communication	Message, source, receiver, target audience analysis, media, medium	channel, modality, style, language
Related concepts	Change	dual process, elaborated likelihood model, heuristic systematic model reciprocation,
PSYOPS related	Psychological operations, strategic communications, psychological warfare, information operations	brainwashing, propaganda, fear appeals, inoculation, indoctrination, cult, campaign
Military	Army, Navy, Air Force	hierarchical, rank, specialty, civilian, lateral, arms (e.g., infantry), force, crew, detachment, squad, troop, unit, battalion, armament

The core concept keywords were the most important words used in the search, as they represent the broad relevant constructs likely to be of importance. As necessary, the primary keywords were used in order to ensure sampling of literature from several different areas within the core construct, and their use was guided by what emerges during the initial core concepts searches. For example, when searching with the “persuasion” core construct, primary keywords such as “source” and “attitude” may or may not have emerged. The purpose of the primary keywords, then, was to ensure that research related to several different aspects of persuasion and influence was accessed.

### 2.2 Databases

The following primary databases were most relevant for searching the scientific/academic literature:



**Table 2: Primary Databases for Scientific/Academic Search**

Database	Description
PsycINFO	The PsycINFO database is a collection of electronically stored bibliographic references, often with abstracts or summaries, to psychological literature from the 1800s to the present. The available literature includes material published in 50 countries, but is all presented in English. Books and chapters published worldwide are also covered in the database, as well as technical reports and dissertations from the last several decades.
Sociological Abstracts	Sociological Abstracts features journal citations and abstracts; book, chapter, and association paper abstracts; and book, film, and software review citations. Entries cover sociological aspects of twenty-nine broad topics, including anthropology, business, collective behavior, community development, disaster studies, education, environmental studies, gender studies, gerontology, law and penology, marriage and family studies, medicine and health, racial interactions, social psychology, social work, sociological theory, stratification, substance abuse, urban studies, and violence.
NTIS	NTIS is an agency of the US Department of Commerce's Technology Administration. It is the official source for government sponsored U.S. and worldwide scientific, technical, engineering, and business related information. The database contains almost three million titles, including 370,000 technical reports from U.S. government research. The information in the database is gathered from U.S. government agencies and government agencies of countries around the world.
CISTI	CISTI, the Canada Institute for Scientific and Technical Information, houses one of the world's most comprehensive collections of publications in science, technology and medicine. It is one of the world's major sources for information in all areas of science, technology, engineering and medicine. CISTI can provide electronically articles from journals, in-depth literature searches, or referral to experts.
ABI Inform	One of the world's first electronic databases, ABI/INFORM has been a premier source of business information for more than 30 years. The database contains content from thousands of journals that help researchers track business conditions, trends, management techniques, corporate strategies, and industry-specific topics worldwide.
WWW	The World Wide Web.

As expected these primary databases were the best sources of research and theory related to influence operations. However, core concept keywords were also used within several secondary databases in order to explore the relevance of the search results from these databases, in comparison to the primary databases. Where these databases offered “hits” that were relevant and novel, these databases were explored in more detail in accordance with the earlier search strategy description for primary databases.

### 2.3 Search Strategies

We systematically searched the databases using the keywords specified. For example, the first keyword search series consisted of the core concepts listed in Table 1 (e.g., “Influence” and “Communication”). Other searches at this level used primary keyword variations. When



a keyword yielded an unmanageable (too many) number of references, we systematically added additional primary keywords to refine the search. When a keyword yielded too few searches, less narrow concepts were used until the precise level of analysis was reached.

Once core concept and primary keyword searches were conducted within the primary databases, all abstracts were reviewed. At this time, the research team reviewed obtained abstracts for adequacy of relevance, quantity, and quality. When necessary, searches were refined and/or revised and continued using secondary keywords. Moreover, we also identified articles cited in the reference lists of the articles obtained for the review based on their potential relevance to influence operations.

## 2.4 Search Findings

Our search showed a wide range of research and theory relevant to the topic areas of persuasion/attitude change and social influence. Due to the amount of literature available, some simple decision rules were required in order to narrow down the sheer number of articles. As the goal of this review was to provide information about the “state of the art” in persuasion and influence literature, priority was given to the most relevant and recent articles within the last 10 years in the majority of cases. Some other articles were included in the report, as they represent either classic articles or those that added substantially to missing “pieces of the puzzle”.

## 2.5 Review of Articles

After reviewing approximately 20 articles, a broad outline of the report structure was created. This outline was used to categorize the applicability of the articles and to further focus ongoing search efforts. Members of the research team were then allocated to specific areas of the review, and summarized the most relevant literature within each of these areas. More than 120 articles were reviewed and/or read, and more than 70 articles were included in this review.

## 2.6 Limitations of the Current Report

Despite the efforts taken to produce a comprehensive and thorough report, this report still has specific limitations that should be identified. First, this report draws most heavily on the core body of psychological research and theory relevant to persuasion and social influence, as the majority of the empirical effort stems from the psychological domain. Due to the size of the research within this area, and the need to emphasize basic principles and approaches, adequate effort and attention was not been paid to research in related areas (e.g., consumer research and consumer psychology, marketing). This means that a good deal of research in these areas likely remains untapped, but is still likely to add meaningfully to the information reviewed in this document.

Although attempting to identify patterns in the literature, the depth and breadth of the literature was very difficult to capture. Indeed, as noted in the start-up meeting for this project, entire chapters could be written on any one of the broader persuasion and influence factors identified (e.g. source, conformity). The goal, then, was to provide a sampling of the literature that would be relevant within the CF context.



## 3. Project Deliverables and Schedule

### 3.1 Project Deliverables

1. Research plan 28 February 2007
2. Monthly progress reports covering research activities completed and planned.
3. Submit a rough draft of the review 31 March 2007. This draft should provide the proposed report structure and a draft of the introductory chapter.
4. Workshop presentation 24 May 2007
5. Draft review 17 July 2007
6. Final review July 27 2007

### 3.2 Project Schedule

The contract will be completed by July 31, 2007. The schedule for this project is presented in Table 4.

**Table 3: Project Schedule**

Task Number	Work Item/Description	Projected Date of Completion
1.0	Identify databases and create keywords	February 15, 2007
2.0	Prepare work plan	February 28, 2007
3.0	Discuss work plans with SA & revise as required	March 7, 2007
4.0	Conduct searches and review search results	March 15, 2007
5.0	Obtain articles selected for review (assume 70 primary refs obtained)	March 30, 2007
6.0	Submit rough draft of review	March 30, 2007
7.0	Attend project meeting at DRDC Toronto in early April	TBD
8.0	Attend project meeting at DRDC Toronto, tentative dates only	May 24 and 25, 2007
9.0	Submit draft review to SA	June 30, 2007 – delayed to July 17, 2007
10.0	Revise as necessary and submit final review to SA	August 23, 2007



THIS PAGE IS INTENTIONALLY BLANK



## 4. Introduction to Influence

This chapter introduces the influence operations within a military context and defines the construct of influence in the broader scientific literature.

### 4.1 Introduction to CF Influence Operations

Military systems have increasingly defined their efforts to induce desired changes in the attitudes and behaviours of enemies as influence operations. For the purposes of this review, influence operations have been defined as the following:

“ All targeted activities conducted by the CF, its partners, and its adversaries with a view to affecting the *attitude, intent, and behaviour* of neutrals and adversaries within the campaign space” (K. Stewart, personal communication, February 8, 2007).

Influence operations have become an increasingly important part of CF military operations. Although activities designed to influence the attitudes have been in use for decades, militaries have been increasingly challenged to respond to asymmetric threats. To do so, they have increasingly adopted a broader view of how military systems can meet their objectives. For example, there has been increasing emphasis on effects-based operations (EBO). Effects-based operations emphasize both kinetic and non-kinetic effects. The 3D approach (Defence, Diplomacy and Development) adopted by the CF mandates that efforts to minimize conflict should involve not only conventional defence (e.g., war-fighting and peacekeeping), but also increased efforts to promote diplomatic solutions, and to help develop war-torn countries in order to promote long term peace. The efforts of CF reconstruction teams in Afghanistan are good examples of this approach in action, working to build relationships with locals and to improve their quality of life.

It is important to further distinguish influence operations and psychological operations as these terms are frequently used interchangeably in the literature. From our perspective, influence refers to a broad spectrum of activities of which psychological operations are one part, with other relevant tools being civilian-military cooperation, military deception, etc. To situate them further, influence activities are often argued to fit under the broader Information Operations umbrella. Canadian Forces doctrine (B-GG-005-004/AF-033) defines information operations as “Actions taken in support of political and military objectives which influence decision makers by affecting adversary information while exploiting and protecting one’s own information.” Both influence operations and psychological operations use information as their core strategy, and appear to have somewhat similar goals. However, the “influence operations” concept represents a more inclusive group of information activities that falls above the more specific psychological operations activities in the information operations hierarchy. The term “influence operations” is meant to denote both the direct and indirect forms of non-kinetic activities. The term “psychological operations” is typically (but perhaps not exclusively) used to denote the more direct approach to exerting influence (e.g., conventional PSYOPS products).

Understanding the concept of influence operations will require understanding psychological operations. Psychological operations work to convey selected information and indicators to relevant target audiences in order to influence their judgements, motivation, emotions, and

ultimately behaviour. Such operations may be directed at individuals, groups, organizations or governments. The purpose of psychological operations is to induce or reinforce attitudes and behaviour favourable to the originator's objectives.<sup>4</sup>

Canadian Force Joint Operations Doctrine (Department of National Defence, 2004, p. 1-1) defines psychological operations as:

“Planned psychological activities using methods of communications and other means directed to approved audiences in order to influence perceptions, attitudes and behaviour, affecting the achievement of political and military objectives.”

The CF published the *Psychological Operations Joint Doctrine Manual* (DND, 2004) to detail their approach to psychological operations. The overarching purpose was to set doctrine on CF PSYOPS for future planning. CF Ops Joint Doctrine (DND, 2004, p. 1-2) defines the key aims of PSYOPS as weakening the will of the enemy, gaining support of uncommitted audiences and maintaining positive relationships with friendly target audiences. These goals and the populations identified as being in conflict with these goals are identified in an article by a Canadian Forces officer (Johnson, 2006), as shown in Table 4.

**Table 4: Aims of Canadian PSYOPS and Population in Conflict (Johnson, 2006, p. 3)**

Aim of PSYOPS	Population in Conflict
Weaken the will of the enemy or adversary by lowering morale and reducing the efficiency of his force through the creation of doubt, dissidence and disaffection within the ranks.	(1) Those who are fundamentally opposed to our agenda and our way of life (e.g. Al Qaida)
Gain the support and cooperation of uncommitted or undecided audiences.	(2) Those who are neutral, undecided, or apathetic to the outcome of the conflict (e.g., majority of the Afghan population who desire security and stability, regardless of who provides it).
Reinforce the feelings of friendly target audiences	(3) Those who are supportive of our agenda (e.g. the government of Afghanistan led by President Hamid Karzai and the government's supporters).

Psychological operations in Canada have been described as having three levels (e.g. Johnson, 2006):

- Strategic PSYOPS are at the national governmental level, in which long-term political aims are sought for the purpose of undermining “the adversary’s will to fight and to reduce his war-making capability” (Johnson, 2006, p. 4). These are targeted at Groups 2 and 3 (see Table 4).
- Crisis Response Psychological Operations are used in NATO led and contingency operations in a Military Operations Other Than War (MOOTW) environment.

<sup>4</sup> <http://www.iwar.org.uk/PSYOPS/>

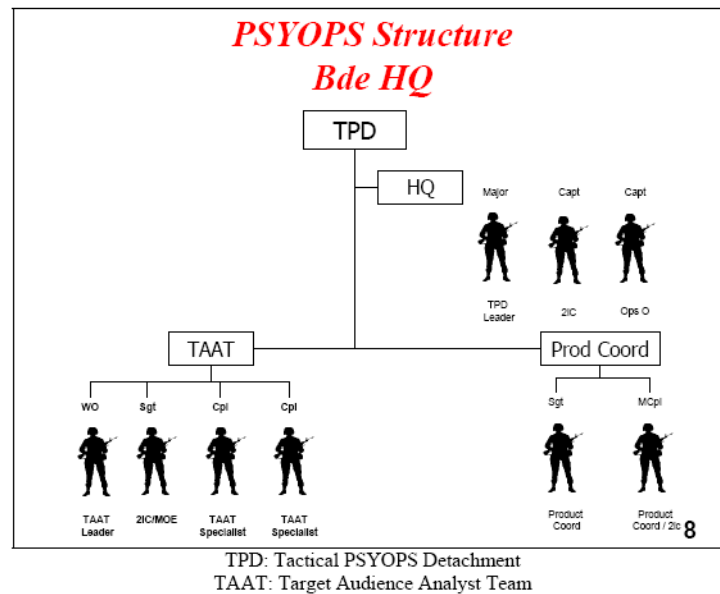
- Combat PSYOPS are aimed at members of Group 1 (those fundamentally opposed to our way of life), and target the enemy and their will to fight.

Given these goals, then, the structure of the CF’s PSYOPS Unit is discussed in more detail in the following section.

## 4.2 Formation and Structure of CF Psychological Operations Unit

According to Johnson (2006), the current Canadian PSYOPS Group was formed in January 2004. This group consisted of 12 full-time reservists, with an additional 15 to 20 Class B reservists typically on 18-month contracts who train and deploy with Task Forces (TF) on operations. This group is comprised of a Directorate with a Col, LCol and CWO, in addition to three cells, each directed by a Major. These cells include Operations Support (providing “reach back” capability), Resources and Development (logistical/financial management and developing concepts and doctrine) and Force Generation (recruiting, selection, personnel management, professional development and training). PSYOPS training now occurs at the Peace Support Training Centre at CFB Kingston.

The Directorate itself, however, is located in Montreal. Tactical PSYOPS Detachments (TPD) are joined to Brigade Headquarters, and their structure is shown in Figure 1.



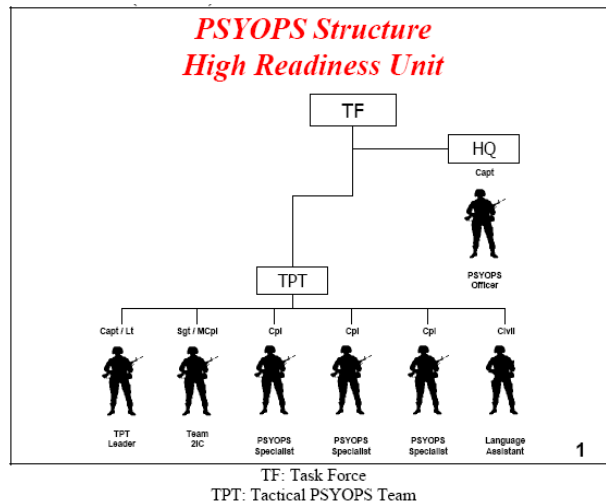
**Figure 1: Canadian PSYOPS Structure: Brigade Headquarters (Johnson, 2006, p. 6)**

Their role is to provide support and planning to Brigade-size units, command PSYOPS teams, and to control the dissemination of products. In Afghanistan currently, there is one TPD with 4 Canadian personnel associated with the HQ of the Multinational Brigade in Kandahar.

Each TPD includes a Target Audience Analyst Team (TAAT). The role of this team is to undertake in-depth target audience analyses in order to establish what messages are likely to

be most effective and/or ineffective. The production coordination team “validates PSYOPS products, coordinates their production and controls their dissemination” (Johnson, 2006, p. 5).

The Tactical PSYOPS Team (TPT) forms part of the High Readiness Unit within the Canadian PSYOPS structure, as shown in Figure 2.



**Figure 2: Canadian PSYOPS Structure: High Readiness Unit (Johnson, 2006, p. 6)**

This team is responsible for disseminating approved PSYOPS products (e.g. loudspeaker messages, handbills, leaflets, newspapers) to the target audience and is joined to the Task Force and equipped with two G-Wagons, dissemination equipment (e.g. loudspeakers, cameras) and with C8’s and C9’s for protection. Their role seems to be not only to disseminate but also to gather relevant PSYOPS information in order to counteract rumours, and to assist the TF in responding to disturbances. Such a team was deployed with the Provincial Reconstruction Team with Task Force 1-06 (1 PPCLI).

The recent formation of the Canadian Psychological Operations Directorate was intended to formalize this function and to create more of a “permanent capacity”, and to bring training into Canada, whereas it was previously trained outside of Canada. Candidates for courses are typically chosen for their high levels of education in relevant fields (e.g. psychology, journalism, communications, political science, and are often fluent in several languages (Davis, 2005). They are also chosen for their communication skills, empathy, cultural awareness, and openness or “creative spirit” (Davis, 2005).

It is important to note that the Army Transformation has resulted in the Reserve Force being the sole provider of PSYOPS activities, initiated in 2003. From an external perspective, this decision would seem to have both positive and negative implications. As Reserve Force personnel are likely to have a broader range of professional backgrounds, the expertise required to do PSYOPS may be better served. On the negative side, however, the relatively short-term and transitional nature of Reserve Force assignments may limit the ability of the PSYOPS function to gain experience and expertise as a system, and to maintain this expertise.



This broad overview, then, describes influence with the specific CF military context. The next section considers influence in the broader scientific context.

### 4.3 The Concept of Influence

Within the scientific literature, the concept of influence is integrally linked with many other constructs. A prominent persuasion researcher and practitioner provides an excellent overview of the many different constructs that are relevant within the scientific influence domain:

“Influence investigates the causes of human change--whether that change is a behavior, an attitude, or a belief. Inducing a change in behavior is called compliance. Inducing a change in attitude is called persuasion. Inducing a change in belief is called either education or propaganda--depending on your perspective.”(Rhoads, 1997)

This definition describes influence as “human change” in attitudes, beliefs or behaviours.

This review considers influence in the context of two distinct literatures, the persuasion/attitude change literature and the social influence literature. The terms “persuasion” and “attitude change” are often used interchangeably. Persuasion has been defined as “attitude change resulting from exposure to others. Such exposure typically occurs via written or spoken messages, delivered by a source to a recipient” (Olson & Zanna, 1993, p. 135). An attitude has been defined as “a psychological tendency to evaluate a particular entity with some degree of favour or disfavour” (Eagly & Chaiken, 1993, p. 1).<sup>5</sup> Social influence, on the other hand, can be defined as “...the ways in which the opinions and attitudes of one person affect the opinions and attitudes of another person” (Martin & Hewstone, 2003, p. 2). These definitions, then, provide a very good start to understanding how these constructs are linked.

Attitudes are typically defined in relation to the evaluative tendencies of a specific person. Social influence, on the other hand, involves movement or transmission of the attitudes or beliefs from one person to another person. Persuasion and social influence also both involve attitude change as the result of exposure to others, but persuasion occurs in specific relation to “written or spoken” messages, whereas the impetus for change in social influence is simply interaction with other people. Indeed, in attempting to distinguish these two literatures, Wood (2000, p. 540) has noted that the focus in the persuasion literature is more on the message than on the social context in which it occurs. The persuasion literature typically attends to the characteristics of the persuasive message while presenting influence appeals with detailed argumentation. Social influence literature, on the other hand, focuses less on the message per se, while showing more emphasis on the larger context in which persuasive messages occur. However, it is accurate to say that both persuasion and social influence are predicated on the desire to influence other people:

The study of influence began with classic early models of persuasion. With the advent of the cognitive revolution in the 1950’s, increased attention was devoted to how persuasive messages were actually processed. Researchers such as McGuire (e.g., McGuire & Millman,

---

<sup>5</sup> Although attitude change rather than behaviour change is emphasized in the persuasion literature, behaviour change is also often more of an implicit rather than explicit goal.



1965; McGuire & Papageorgis, 1961), for example, were interested in understanding message reception, and the conditions under which messages were attended to and understood. These approaches focused on message presentation, processing and sequentially and logically moving attitudes toward the advocated position:

1. Reception - messages presented
2. Processing - message processed
3. Response - message moves attitude toward target
4. Behaviour - attitude may change behaviour

This simple depiction of the persuasion process, of course, does not adequately describe the complexity of this process. For example, whether a given message is processed depends on the motivation of the receiver or target to give resources to understanding and elaborating the message once it is perceived. Indeed, as the influence literature has grown, theorists and researchers have increasingly recognized the need for more complex and multi-determined accounts of the many factors that influence whether persuasive attempts are ultimately successful.

In the 1980's, two influential models of persuasion, the Elaboration Likelihood Model (ELM, Petty & Cacioppo, 1986) and the Heuristic-Systematic Model (HSM), were proposed (HSM, Chaiken, 1987). Although these two theories have their differences, they are commonly recognized to make similar predictions about whether persuasive appeals are likely to be effective in a given situation.

Either systematic or heuristic processing can dominate in a situation, depending on the motivation of the receiver to process the information, and on the ability to do so. When people are not highly motivated (e.g. they are not personally involved) or they have low ability (e.g. their attention is already taxed), attitudes are often based on more peripheral attributes that can be easily accessed with little effort. This human tendency to take the "path of least resistance" when processing information was formalized in Fiske and Taylor's (1984) analogy of the "cognitive miser". Taylor (1991, p. 195) has argued that under circumstances of "unavailability or indeterminacy of important information", people often use heuristics and shortcuts to fill in the blanks, while failing to recognize that their information may be incomplete. This analogy argues that a central human tendency is to take shortcuts in information processing and decision-making when motivation and ability are low. In this sense, heuristic processing can have a volitional quality. It should also be clear, however, that reliance on peripheral rather than systematic forms of processing can also occur without awareness, as a product of simply responding to the demands of the situation. Despite its somewhat negative connotation, the term "cognitive miser" should also be recognized as having both positive and negative characteristics. Although people may process information in a biased way because of this tendency, using heuristics is also often the only way to cope when facing complex environments. In this sense, then, less effortful processing can also be very adaptive.

It is also clear in the literature that attitude change resulting from motivated (rather than miserly) systematic processing will generally be more resilient and long-term than will attitude change stemming from less effortful peripheral processing of persuasive messages through more efficient means (Crano & Prislin, 2006). Attitude change resulting from heuristic or peripheral route processing will be less resilient over time. It is also less likely to



be resistant to counter pressure, and is less likely to actually impel behaviour (Crano & Prislin, 2006).

Peripheral cues such as source credibility are more likely to be used when motivation/ability are low (e.g., one's choice in a particular situation is not seen to be important) or when attitudes cannot be based on "central merits of the target" (Petty et al., 1997) as would be the case with systematic processing. The inability to assess the central merits of a target can occur in many situations. For example, when two persuasive messages are seen as equally strong, or when the key features of a target cannot be determined, peripheral cues are more likely to be used because systematic processing cannot provide a clear answer about the best option to choose.

Although researchers continue to explore the role of factors such as source, message and receiver, these dual processing models have been (and continue to be) extremely influential, as they go beyond simple "main effect" treatments of the factors that influence persuasion and attitude change, and consider the many different ways in which sources, receivers, messages and media can interact.

Overall, then, influence within the CF context and influence within the broader scientific community are both aimed at causing changes in attitudes, motivations and behaviours. Of course, the focus of influence within the CF context is specifically toward achieving military and political objectives, whereas the focus of the general influence construct is less defined. The chapters that follow explore the literature related to persuasion and attitude change and the literature related to social influence.



This page intentionally left blank.



## 5. Elements of Persuasion

Understanding persuasion requires knowledge of many different characteristics of the source, the message, the receiver of the message and of the medium through which the message is actually presented. This section reviews each of these elements in turn, as well as considering the implications of this research for CF influence operations.

### 5.1. Source Effects

A wide body of literature has explored how the characteristics of the source delivering a persuasive message affect persuasion and attitude change. Source variables are comprised of three main dimensions; namely credibility, attractiveness, and power (Pornpitakpan, 2004). Each of these dimensions is considered in the following sections.

#### 5.1.1 Source Credibility<sup>6</sup>

Source credibility has been commonly identified to consist of two elements: expertise and trustworthiness (Pornpitakpan, 2004). Expertise refers to “the extent to which a speaker is perceived to be capable of making correct assertions, and trustworthiness refers to the degree to which an audience perceives the assertions made by a communicator to be ones that the speaker considers valid” (Hovland, Janis, & Kelley, 1953; cited in Pornpitakpan, p.244).

In general, highly credible sources are more persuasive than sources with low credibility (Pornpitakpan, 2004). Research has shown, for example, that in-group minorities are more credible than out-group minorities and this credibility significantly affects attitude change in minority positions (Clark & Maass, 1988; cited in Pornpitakpan, 2004). Other research has found that having a message presented by a source perceived to have more expertise promotes more positive attitudes toward the endorser and the advertisement in a commercial setting (Braunsberger, 1996; cited in Pornpitakpan, 2004). High source expertise also promotes more favourable attitudes toward performance feedback in an organizational context (Albright & Levy, 1995; cited in Pornpitakpan, 2004), and more favourable attitudes toward leadership (Mugney, Tafani, Falomir, Juan, & Layat, 2000; cited in Pornpitakpan, 2004). All of this research, then, provides strong empirical proof that source credibility promotes attitude change.

Source credibility has also been found to lead to behavioural compliance. For instance, perceived credibility of the source has been shown to influence recipient’s intentions to use suggestions about how to improve their own performance (Bannister, 1986; cited in Pornpitakpan, 2004) as well as improving their actual performance (Weick, Gilfillan, & Keith, 1973; cited in Pornpitakpan, 2004).

A specific form of source credibility, namely believing that a source is trustworthy has also been noted to influence persuasion. One relevant indicator of trustworthiness noted in the literature is believing that a source is not aiming to exert influence toward oneself. For

---

<sup>6</sup> This section is much more elaborated than other sections, due to the existence of a comprehensive and focused review on source credibility (Pornpitakpan, 2004). However, the size of this section is more a reflection of the availability of relevant information than a statement about the relative importance of source credibility.

instance, research found that participants were more influenced by sources when they believed that their influence was unintended (i.e., they overheard the message) rather than specifically targeted toward them (Festinger, 1962; cited in Pornpitakpan, 2004). However, when participants were forewarned of the source's intent to influence them, they were less persuaded by the source (Hass & Grady, 1975; cited in Pornpitakpan, 2004), presumably because the source's explicit intent to persuade them made the source's message less credible. For example, the receiver may see the source as providing a biased message in order to further their goal. This suggests that the perceived trustworthiness of the source will influence the success of persuasive appeals.

Aside from main effects, source credibility also demonstrates some interesting interactions with other variables. For example, source credibility (specifically, expertise) has been shown to interact with the physical attractiveness of a message source. For example, although experts are typically more persuasive than non-experts, this difference is even greater when the source is unattractive rather than attractive (Maddux, 1980; cited in Pornpitakpan, 2004). Other research, however, has shown that physical attractiveness has no effect when the source is an expert, but is a positive predictor of persuasion when the source is not an expert (Joseph, 1977; cited in Pornpitakpan, 2004). This suggests that physical attractiveness might help to raise the profile of otherwise inexperienced sources. Consistent with this, other research has shown that participants were more easily persuaded even when they knew the goals of the source (e.g. intention to persuade) when the source was attractive rather than unattractive (Mills & Anderson, 1965; cited in Pornpitakpan, 2004). This suggests that source attractiveness is often dependent on source expertise.

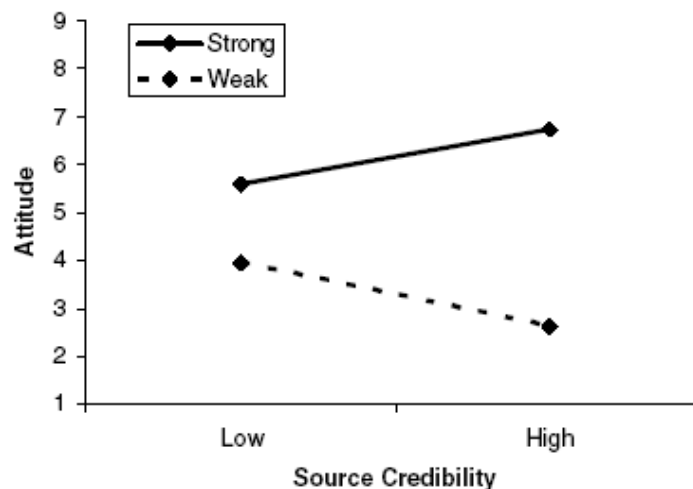
Interaction effects between source credibility and various message variables have also been thoroughly investigated. A key issue investigated in the persuasion literature involves when it is best to introduce the source of a persuasive appeal. For example, is it better to introduce a source after the persuasive message has been completely presented, or it is better to have a highly credible source take the forefront right away? Research exploring this issue, unfortunately, is contradictory. Some research has shown that when the source is perceived to be highly credible, introducing the source at the onset or in the middle of the message is more persuasive than introducing the source at the end (Greenberg & Tannenbaum, 1961; cited in Pornpitakpan, 2004). However, other research has found contradictory evidence (e.g., Ward & McGinnies, 1974; cited in Pornpitakpan, 2004). Pornpitakpan (2004) has argued that this discrepancy in findings may be because existing research has not attended adequately to the level of processing required in attending to a message. For example, as source credibility is argued to promote more heuristic than systematic processing, source credibility may be more influential when deep processing is not required. As such, the diverse findings could stem from failure to attend to potential differences in the levels of processing required when exploring the timing of source presentation.

Research has also shown an interaction between source credibility and message familiarity. In theory, hearing a somewhat familiar message may make one more likely to change one's attitude, as it offers a form of comfort. When presented with a low credibility source, using an unfamiliar message (or evidence) makes an appeal more powerful; however, message familiarity has no impact on a highly credible source (e.g., Hendrick & Borden, 1970; cited in Pornpitakpan, 2004). Other researchers have found that both low and high-credibility sources are equally persuasive when a message includes supporting evidence, suggesting that evidence may override source credibility. The quality of supporting arguments, similarly, has independent effects on persuasion regardless of source expertise or attractiveness (Maddux &

Rogers, 1980; cited in Pornpitakpan, 2004). This research, then describes several limitations of source credibility, in that its power is often undermined by the quality of the message.

Several studies have shown that argument quality promotes persuasion only when the source is highly credible. For instance, Moore et al. (1986; cited in Pornpitakpan, 2004) illustrated that a highly credible source elicited more favourable attitudes toward a brand than did a low credibility source, but only when the argument was strong. In another study it was found that the quality of arguments affected persuasion only when the source had high expertise. When the source has low expertise, however, different argument strengths do not differentially affect persuasion (Herron, 1997; cited in Pornpitakpan, 2004).

Building on these ideas, research by Tormala, Briñol, and Petty (2006) has explored a potential downside to using high credibility sources in all situations. Specifically, in some situations, high source credibility backfires and can result in less persuasion than low source credibility. In the first experiment, participants received a strong or weak argument promoting an aspirin product. The source of the information was either a federal agency that conducts medical research (high credibility condition) or a high school freshman who wrote a report on the subject (low credibility condition). As shown in Figure 3, results indicate a significant interaction effect between source credibility and argument quality.



**Figure 3: Attitudes as a function of source credibility and argument quality**

When presented with strong arguments, highly credible sources were more persuasive than low credibility sources. However, when presented with weak arguments, this effect was reversed, such that high credibility sources were less persuasive than low credibility sources. This finding was then replicated in a second experiment, predicated on the perceived trustworthiness of the sources of information. Participants read either strong or weak arguments promoting a laundry detergent provided by either a consumer advocacy group that investigates products for the purpose of helping consumers (high credibility condition) or by a detergent manufacturer that sells similar types of detergents (low credibility condition). This experiment showed exactly the same pattern; namely, when arguments were strong, attitudes toward the message were more favourable when source credibility was high rather than low. When arguments were weak, however, attitudes were more favourable when source credibility was low rather than high. This research demonstrates that source credibility can

backfire depending on the strength of the argument, and this was seen for both expert sources and trustworthy sources.

Other research has aimed to understand how more credible sources promote persuasion. One possibility is that messages from a more familiar and trustworthy source could allow people to be less critical in processing the persuasive message. Perhaps with an expert endorsement, for example, it would not be necessary to think as hard for oneself and heuristics could be used to process the information (Cialdini, 2001; cited in Cialdini & Goldstein, 2004).

Research by Priester and Petty (2003), for example, explored whether recipients presented with either familiar or unfamiliar and trustworthy or untrustworthy sources would be less likely to scrutinize a persuasive message (and instead unthinkingly accept the conclusion) than would those presented with an untrustworthy source when the message varied in quality. This research looked at the impact of high and low endorser trustworthiness on attitudes toward a product, as well as the impact of high or low argument quality. Results showed that attitudes were more influenced by the low source credibility of the endorser when the argument was weak than when the endorser was highly credible. This suggests that low source trustworthiness can promote greater message scrutiny. On the other hand, sources perceived to be highly trustworthy were seen to promote a “relatively nonthoughtful acceptance” of the persuasive message (Priester & Petty, 2003, p. 413), whether familiar or not. This study illustrates that for untrustworthy sources, attitudes are based more on message or product-focused thoughts, but rely more on the perceived trustworthiness of the source when the source is seen as credible.

Other research has shown the importance of tailoring the qualities of the source to the type of message being presented. While celebrities have been shown to be effective for products with psychological or social risk, experts have been shown to be more effective for products associated with high financial performance, or physical risk (Friedman & Friedman, 1979; cited in Pornpitakpan, 2004). Other research has shown that when numerical information is being presented, highly credible sources are more influential than those low in credibility, as participants tend to focus on peripheral cues more often under those circumstances (Yalch & Elmore-Yalch, 1984; cited in Pornpitakpan, 2004). Finally, having highly credible sources refute counterarguments at the beginning of the message is more persuasive than without refutation. Low-credibility sources however are less effective in refuting counterarguments, perhaps because they may remind the audience of counterarguments or unintentionally make these arguments appear stronger if a less trusted (or expert) person is dismissing these arguments.

The relationship between source credibility and the threats contained in a message has also been explored. Generally, threats can take the form of physical consequences for non-compliance, social consequences, and social disapproval. Research has found that attitudes tended to shift more when highly-credible sources present messages that contain physical threats (Hewgill & Miller, 1965; cited in Pornpitakpan, 2004) or socially-opinionated threats (Miller & Baseheart, 1969; cited in Pornpitakpan), but such threats have less impact when source credibility is low. Later research showed that this was only true when participants had a neutral opinion toward the issue. In fact, when participants had a strong pre-existing negative opinion, using increasing social threats actually decreased the persuasive impact of both high- and low-credibility sources (Mehrlay & McCroskey, 1970; cited in Pornpitakpan).

The speed at which messages are presented has also been seen to interact with source credibility. For instance, Moore et al. (1986; cited in Pornpitakpan, 2004) found that



regardless of argument quality, a highly credible source induced more persuasion than a low-credible source when presenting their message at normal and high exposure speeds. Sources with low credibility required strong arguments at all message speeds in order to be effective.

Several receiver variables have also been examined in relation to source credibility. One of these is the prior attitude of the receiver. Research has shown that a low-credibility source is more persuasive when the recipient is positively predisposed to the issues, whereas a high credibility source results in a higher degree of non-compliance (Dholakia, 1986; cited in Pornpitakpan, 2004). The results do not seem to hold for trustworthiness. In fact, it has been found that a source higher in trustworthiness was more persuasive than one lower, whether recipients had a positive or negative initial opinion toward the message (Pornpitakpan, 2004). It has also been shown that when the message is congruous with the source's self-interests, a highly credible source is more persuasive than a low credible source (Abrahams, 1966; cited in Pornpitakpan, 2004). Additionally, when messages are discrepant from the target's initial opinion, a highly credible source is more persuasive; however when there is little discrepancy, source credibility has less impact (Pornpitakpan, 2004).

Participants' involvement in the issue at hand can also interact with source credibility. For instance, research has found that when issue involvement is low, a highly credible source is more persuasive than a low-credibility source (e.g., Johnston & Coolen; cited in Pornpitakpan, 2004). However, this is not necessarily true when issue involvement is high. Andrews and Shimp (1990; cited in Pornpitakpan, 2004) found that a favourable source (a surgeon or a lawyer) induced more attitude change than an unfavourable source (e.g. a sales clerk or toll booth operator) for low-involvement but not for high-involvement participants. Unfortunately, research in this area is contradictory, perhaps because it may have confounded issue involvement and initial disposition of the receiver (Pornpitakpan, 2004).

The media used to deliver a persuasive appeal can also interact with source credibility. Worchel, Andreoli, and Eason (1975; cited in Pornpitakpan, 2004) found a significant interaction between source trustworthiness and media, such that trustworthy sources were more persuasive than untrustworthy sources when television was used as the medium, but had less impact when radio or written communication was used. This suggests that the television might offer additional information about credibility and trustworthiness. In addition, when recipients have direct experience with the object, source credibility tends to have little effect on persuasion. Only when there is no prior experience (or only indirect experience) does source credibility affect persuasion (Wu & Shaffer, 1987; cited in Pornpitakpan, 2004).

Several characteristics of the receiver have also been shown to interact with source credibility to influence persuasion. Recipients relatively high in authoritarianism were more easily persuaded by a high-credible source than a low-credible source. Because such individuals have intolerance for ambiguity, they focused on peripheral cues when no arguments were presented, when arguments were too brief (Johnson & Izzett, 1969; cited in Pornpitakpan, 2004), or too complex (Harvey & Hays, 1972; Johnson & Izzett, 1969; both cited in Pornpitakpan, 2004). When the message was only moderately complex, high authoritarians would focus on this message, and source credibility had no effect (Johnson et al., 1968; cited in Pornpitakpan, 2004). Conversely, source credibility had little effect on low authoritarians because they attended to multiple cues when processing the persuasive message (Pornpitakpan, 2004).

Self-monitoring, locus of control, and one's need for cognition ("the tendency to engage in and to enjoy effortful, cognitive activity" (Cacioppo and Petty, 1982) have also been shown



to interact with source credibility. Specifically, studies have shown that high self-monitors (who are highly invested in conforming to the opinions of others) agreed with an expert source regardless of the quality of the argument. In contrast, low self-monitors agreed with the expert only when he delivered strong arguments (DeBono & Harnish, 1988; cited in Pornpitakpan, 2004). For those with an external locus of control, high-credibility sources were more persuasive than low-credibility sources, but for those with an internal locus of control, high- and low-credibility sources were equally influential (Ritchie & Phares, 1969; cited in Pornpitakpan, 2004). Finally low-need-for-cognition participants who read a weak communication rated a message more positively when it was attributed to a high-credibility source rather than a low-credibility source. However, credibility had no effect when participants had a high need for cognition or when the message included a strong communication (Kaufman, Stasson, & Hart, 1999; cited in Pornpitakpan, 2004).

Other variables, including the passage of time after exposure to the message, product type, and physical distance have also shown interesting relationships to source credibility. Research by Dholakia (1986; cited in Pornpitakpan, 2004) showed that both high- and low-credibility sources (who did not differ in immediate persuasiveness), lost their persuasive impact one day after exposure. However, three months later, a larger number of participants in the low-credibility condition complied with the request made by the source than those in the high-credibility condition. Despite this finding, later research did not find such an increase over time. As such, it is argued that deficiencies in the original research (e.g. the lack of a control group) may explain these inconsistent results.

### 5.1.2 Source Power

Individuals demonstrate power to the extent that they can influence others in psychologically meaningful ways. There are many different types of power, including coercive power, reward power, legitimate power, expert power and referent power (Somech & Drach-Zahavy, 2002). Power (and its relationship to social influence and persuasion) has been studied from several different perspectives.

Some studies show that the influence strategies used by sources seeking to persuade others can vary as a result of their perceived or actual power. Influence strategies can consist of hard strategies (i.e., seeking compliance by direct assertive requests or manipulative threats and aggression); rational strategies (i.e., seeing compliance through bargaining and logic); or soft strategies (i.e., seeking compliance in a polite, friendly, or humbler manner). Somech and Drach-Zahavy (2002) investigated the tendency of superiors in an organizational setting to strategically adjust their choice of influence strategies based on their own power versus that of subordinates.

The researchers had Israeli schoolteachers provide information about the influence strategies used by their supervisors, and supervisors provided information on their perceptions of their own power and that of their subordinates. The study revealed that, in general, superiors tended to use rational and soft strategies more often than hard strategies. Moreover, high-power superiors used hard strategies with subordinates more often than low-power subordinates; low power superiors used rational and soft strategies more often than high-power superiors did.

However, the influence tactics used also depended on the target's level of power. For instance, low-power superiors used hard strategies more often with low-power subordinates



than with high power subordinates, whereas they used rational and soft strategies more often with high-power subordinates than with low-power subordinates. In contrast, high-power superiors tended to hard strategies more often with high-power subordinates than with low-power subordinates and rational or soft strategies with low-power subordinates compared with high-power subordinates. This research shows the importance of relative rather than absolute levels of source power.

The literature also shows evidence of gender differences in the choice of influence strategies. Even though men and women prefer to use similar strategies, research shows that they differ in their reliance on direct versus indirect strategies (Carli, 1999). Studies have shown that displays of competence, directness, or authority can reduce women's ability to influence but can either enhance or have no effect on men's ability to influence (Carli, 1999). For instance, a study of manager's hiring preferences found that when applying for a job, male applicants using a direct and assertive strategy were more likely to be recommended for the job than women using the same strategy (Buttner & McEnally, 1996; cited in Carli, 1999). Other research has found that in discussions of controversial topics, women who directly disagree are less influential than women who agree. Men, on the other hand are equally influential regardless of the strategy they adopt (Carli, 1998; cited in Carli, 1999). In face-to-face group interactions, perceived competence is more strongly related to a man's ability to influence than to a woman's ability to influence. In addition, competent men exert greater influence than less competent men, however, competent women do not exert more influence than less competent women (Walker, Ilardi, McMahon, & Fennell, 1996; cited in Carli, 1999). It should be noted, however, this research shows inconsistent results, perhaps due to variability among men and women in their perceived levels of power, the fact that it typically uses self-report measures that are somewhat limited in their accuracy, and the fact that the operationalization of direct and indirect strategies often differs among studies.

The ability of sources to influence others as a product of their perceived or actual power has also been investigated in the literature. Research exploring power and gender has found that men hold greater expert power, or perceived competence than do women (Carli, 1999). For instance, relative to women, men are perceived to possess traits that reflect greater competency, instrumentality, and leadership ability (e.g., Eagly & Mladinic, 1989; Fiske & Ruscher, 1993; cited in Carli, 1999). Women also have been found to command less legitimate power than men. Legitimate power is conceptualized as a form of entitlement and derives from a person's external status or position. Because women are stereotypically of lower social status than men, they are not perceived as exhibiting legitimate power. Research using undergraduate students has indicated that women's leadership behaviours are more likely to induce negative reactions from others than are men's leadership behaviours (Butler & Geis, 1990; cited in Carli, 1999). Other research has found that men prefer competence and confidence in men more than in women and explicitly report feeling threatened by an articulate task oriented woman (Carli, 1995; cited in Carli, 1999). These findings along with other research demonstrates that even when women have expert power (as illustrated by perceived competence), they may be less effective agents of influence because they lack legitimate power (Carli, 1999).

Some researchers have argued that men most often derive their power from their status and/or perceived competence, but that women derive power from their relationships and affiliations with others (referent power) (e.g., Carly, 1999). Research has shown that women receive relatively favourable evaluations when they exhibit referent power, such as when their behaviour reflects warmth or agreeableness (e.g., Carli, 1990; 1995, 1998; cited in Carli,

1999). Although men can use referent power, it appears to be less useful and is less advantageous than the use of expert or legitimate power. Research examining the interaction effects between the gender of the agent and the gender of the target revealed that women are equally influenced by competent men and women, whereas men were more influenced by competent men than competent women. Therefore, although women had as much expert power, their lack of legitimate power resulted in less influence toward men, unless they exhibited warmth (Carli, 1999).

Several other factors are likely to influence the perceived power (and hence, the perceived credibility of a source). These include the voice quality, eye contact (in face-to-face interactions) and consistency of non-verbal cues (Carli, 1999).

According to traditional theories about source impacts, an expert should be more effective than a child when attempting to persuade people because children are typically seen to lack power and expert knowledge. Research by Pratkanis and Gliner (2004) hypothesized that this might depend on the type of persuasive message one is trying to convey. If, for example, one wishes to remind adults of their need to protect their child, a person seen as more vulnerable and defenceless (i.e., such as a child) would make them an ideal communicator for messages with a protective theme. However if the message depended in any way on knowledge and experience, an expert might be more effective.

A series of experiments showed that a child who argued against nuclear arms and car tire safety (messages with more protection-based themes) was more effective than when presenting a more technical message (e.g. arguing for the existence of a tenth planet or car tire performance). In contrast, the expert was most effective when he argued for the existence of a tenth planet or car tire performance. This experiment contradicts traditional theories of source credibility by arguing that the match between the message content and the social role of the source co-determine the persuasive appeal of messages. This research is incongruent with typical source effects. Clearly, the perceived power of a source is difficult to separate from the credibility of the source. However, it shows the complex nature of attitude change, as being dependent on characteristics of the source and as well as characteristics of the message.

### **5.1.3 Source Attractiveness**

Physical attractiveness has also been shown to influence persuasion. At the simplest possible level, sources that are seen to be more physically attractive are more likely to be persuasive. Research in the consumer domain, for example, has shown that attractive sources soliciting for a charity were more successful when soliciting money from people, and that buyers treated attractive sellers more cordially (Reingen & Kernan, 1993).

How source attractiveness interacts with other variables is still debated. Although explicit attempts to influence can decrease persuasion, there is some evidence that this often depends on the self-serving motives attributed to the source. For example, if a sales person is viewed as trying to sell a product, a persuasive message could be less influential because any message would be perceived as self-serving. However, research also suggests that source attractiveness combined with an explicit statement of intention to persuade may lessen the likelihood that persuasive messages will be dismissed as a product of the source's self-serving motives.



In an effort to further define the role of source attractiveness, Reinhard, Messner and Sporer (2006) conducted a study that examined the impact of source physical attractiveness and explicit persuasive intent on attitude change. Both attractive and unattractive sources attempted to persuade participants using a persuasive message. Results showed attractive salespersons elicited stronger attitude change and intentions to buy the product when they had expressed an explicit desire to influence than if they did not. In contrast, unattractive salespersons were less likely to induce a favourable attitude change when they expressed a desire to persuade than when they did not. This suggests that unattractive sources are more effective if they show no intention to persuade the recipient of a persuasive message. Source attractiveness is another source variable to consider when designing persuasive messages.

#### 5.1.4 Summary and Implications for CF Influence Ops

The source literature suggests several ways to increase the persuasive appeal of messages by attending to several specific characteristics of the source.

1. Source effects can be described in terms of perceived credibility, authority and attractiveness of the source. In general, sources seen to have these characteristics will be more persuasive.
2. Source effects are most often seen as promoting heuristic rather than systematic processing. When presented with a highly credible source, for example, careful processing about the source's message is less critical because the source's credibility may carry over to impact on the perceived credibility of the message. This effect is evident in the persuasive appeal of experts. It is critical to point out, though, that the literature on source effects also shows some discrepant results. For example, having high source credibility can decrease persuasion when presented in conjunction with strong arguments (Tormala et al., 2006).
3. Although there are main effects noted in the literature on source effects, this literature is more developed than other literature (e.g., media), and has moved from main effect to more complex patterns of interactions.
4. It is critical to note, however, that the reported source effects have been attained in sterile laboratories and typically with university undergraduates. These situations are very different from those likely to be in play in actual influence operations. As such, it will be critical to explore source effects in more realistic environments, such as in the consumer psychology literature.
5. Due to a comprehensive literature review (Pornpitakpan, 2004), the source credibility dimension, compared to all other aspects of the source, offers the most easily accessible implications for influence operations. Although it would have been impossible to have discussed all of these in the source credibility section, these findings are offered in Table 5 (Pornpitakpan, 2004).

**Table 5: Source Effects**

High source credibility is better than low source credibility when:	Low source credibility is better than high source credibility when:
Weak argument (e.g. lack evidence)	Receiver has positive prior attitudes toward the target object
Message congruent with source self-interest	

<p>Quantitative or complex</p> <p>Direct attack on enemy</p> <p>Issues about which audience has no prior experience</p> <p>Positive prior target attitudes toward "product"</p> <p>Negative prior target attitudes toward "brand"</p> <p>Target is low need for cognition and weak argument</p> <p>Television (no time for evidence)</p>	<p>Receiver has prior positive experience with target message</p> <p>Message incongruent with source self-interest</p>
<p>Once high credibility source is chosen, factors that increase persuasion are:</p>	<p>Once low credibility source is chosen, factors that increase persuasion are:</p>
<p>Introduce source immediately</p> <p>If strong arguments, moderate speed of exposure</p> <p>If unknown argument, use normal or very high speed</p> <p>If message invokes high involvement, identify source at outset – if low, at the end</p> <p>Use fear appeal</p> <p>Implicitly refute counterarguments</p> <p>Exclude social threats from message</p>	<p>If bad prior receiver attitudes, use one-sided, many arguments</p> <p>If involvement low, identify source immediately</p> <p>If in doubt, at the end</p> <p>Critical to use highly attractive source</p> <p>Either unfamiliar evidence or strong arguments</p> <p>Moderate level of message discrepancy (unexpectedness)</p> <p>Neutral message with no social threats</p> <p>Print media better than TV</p> <p>Avoid using fear appeals</p> <p>Exclude negative information</p> <p>Put implicit refutation at the start</p>

The CF understands that they must carefully choose the perceived source of the influence message. Rather than portraying the source of the message as the CF, it may be possible to select an individual, organization, or government to sponsor and disseminate the message. Further, the CF recognizes the importance of assessing the credibility of the source in the eyes of the target audience when selecting the source. In talking about persuasive communication, for example, there is clear recognition that:

“The effectiveness of this communication depends on the perception of the communicator’s credibility and capability to carry out promised or threatened actions in a manner that will be significant to the individuals targeted.” (DND, 2004, p. 1-1 and 1-2).

This statement, although entirely accurate, is incomplete and focuses only on the credibility and perceived competence of the message source, leaving a multiplicity of other factors that influence the persuasiveness of a message unaddressed, including source attractiveness and similarity, and the depth of message processing (i.e., heuristic versus systematic) that certain



types of sources induce. Thus, while the current CF approach seems to recognize the importance of source characteristics, their approach does not account for the interactive effects that source characteristics can have in conjunction with other factors (e.g., messages). As such, current CF knowledge about source effects seems to be limited to common (e.g. main effect) findings, but shows limited use of other tools and strategies that could promote persuasive messages.

A critical aspect of creating CF influence materials will be systematically evaluating the factors within the target context that are already set and unchangeable versus factors that can be altered. Within an operational context, for example, Influence Ops personnel cannot manipulate the pre-existing qualities of the receivers of the message, and the content of the message that they need to send may already have been determined. Using target audience analysis, for example, they can only work to understand qualities of the receivers that might help them to tailor their message. However, factors such as the framing of the persuasive message, and/or the means by which the message is delivered can be altered to fit the needs of the situation. For example, then, in situations where the argument strength of a message is weak, having the message delivered by a highly credible source may improve persuasiveness. On the other hand, source credibility is less crucial (and may offer limited additional benefits) if one already has a message with a strong and coherent argument. At a very basic level, then, it is important at the early stage of initiating Influence Ops activities to articulate the goals of the influence campaign. It should be clear that the goal will not necessarily always target a specific message, but may be directed toward promoting more generalized attitude or behaviour change. Regardless of the goal, however, the source of the persuasive message will be important to consider. The following section focuses on the effects of the ways in which the message/argument is framed.

## 5.2 Message/Argument Effects

For persuasion and attitude change to occur, the message must first be received. For this to occur, it must be placed where receivers are likely to “see” it, made available with an adequate frequency, and show the necessary level of contrast in relation to other available stimuli that it “sticks out” (Booth-Butterfield, 2007). In general, the goal of most persuasive messages is to motivate people to attend to it, to think about it, and to process the message systematically. Existing research suggests that many different characteristics of a persuasive message will influence its effectiveness. These include message strength, order and framing, style and language, repetition and other characteristics as well. Each of these is discussed in the sections that follow.

### 5.2.1 Message Strength

The strength of a persuasive message has many possible dimensions, including being “...logical, coherent, and containing convincing evidence” (Mitchell, Brown, Morris-Villagran & Villigran, 2001, p. 347). Similarly, messages are often described as containing either “weak” or “strong” arguments (e.g., Eagly & Chaiken, 1993). A strong message has been characterized as containing “persuasive evidence” such as statistics, data, etc., whereas weak arguments tend to contain such things as “quotations, personal opinions, and examples” (Petty, Cacioppo & Goldman, 1981, p.850; cited in Eagly & Chaiken, 1993). According to Areni and Lutz (1988; cited in Eagly & Chaiken, 1993), strong and weak arguments differ both in terms of the type of evidence presented (e.g., statistics versus opinions) as well as in

terms of the quality of the core arguments themselves (i.e., the information that is being communicated to the recipient). Research by Mitchell et al. (2001, p. 357), for example, showed that relative to strong arguments, weak persuasive messages were associated with “fewer positive attitudes, less intention to change, less behaviour change, fewer counterarguments and more negative thoughts”

Other researchers have defined argument strength in terms of thorough argument structure. A complete argument contains a claim, data and warrant (Payan & McFarland, 2005), and arguments that have all of these elements are suggested to be more persuasive. The claim part refers to “an assertion, a request, or a demand put forth for acceptance (Payan & McFarland, 2005, p. 67). The data is the information supporting the claim, and the warrant links the claim and the data and makes the appeal about what should be done. There is good evidence in the literature that argument strength is a good predictor of the persuasive appeal of messages (Areni, 2002; cited in Payan & McFarland). Research has shown that the persuasive power of a message is strongly linked to the amount of persuasive information that the message contains (Tormala & Petty, 2007).

The quality of the evidence cited in a persuasive appeal can influence persuasion either systematically or heuristically. If evidence is strong, and people think about it carefully, they are more likely to be persuaded by the evidence. However, even if people are not strongly motivated, but evidence is overwhelming, research shows that they attend to the amount of evidence rather than the quality of the evidence (Petty & Cacioppo, 1986). As such, although conceptualized in many different ways, message strength is a critical predictor of persuasion.

### **5.2.2 Message Order and Framing**

The order in which messages are presented can influence their persuasive power. Within specific messages, for example, a more ordered and logical message will be more persuasive than one that is disordered. The coherence of a message has the potential to be an important indicator of its persuasive power. Similarly, how messages are framed, or the context in which they are presented (e.g. what precedes or follows them) can also influence their persuasive appeal.

One important form of framing relates to a message’s congruence with receivers’ expectations. Violations of audience expectations (e.g. about appropriate speech) may have two dissimilar effects, either diminishing the persuasive effect of messages (e.g. Kaid & Downs, 1990; cited in Nelson & Garst, 2005) or increasing the attention or level of scrutiny given to the message (Smith and Petty, 1996; cited in Nelson & Garst, 2005). Again, conventional wisdom holds that the higher the level of scrutiny given to a message, the more persuasive it is likely to be. Certainly, there is evidence in support of both perspectives. However, Petty, Fleming, Priester, & Feinstein (2001; cited in Nelson and Garst, 2005) have also argued that the way in which expectations are violated is critical. Specifically, when sources are perceived to be speaking in their own interests, they will be punished for violating expectations, but if they are perceived as speaking in the interests of the group, they will not.

Persuasive messages are also framed by the information that follows or precedes them. Research by Tormala and Petty (2007) underscores the importance of context effects in persuasion, suggesting that the amount of information or knowledge that people believe they have about a persuasive target may depend to some extent on other recently encountered target stimuli. The other recently encountered stimuli may stand in contrast to the target



stimuli and either accentuate or diminish its persuasive appeal. For example, then, one might tend to be more persuaded by a specific message (believing it to contain important information) if one had just encountered another persuasive message that actually contained very little information. Similarly, one could also be less persuaded by a message after encountering a message that provided more information. Critically, these effects could be quite independent of the actual informational value of the latter stimuli.

Tormala and Petty (2007) conducted four different studies with undergraduate university students to explore the persuasive appeal of a message in close proximity to another target stimulus. The persuasive messages involved two fictional department stores, Smith's (prior stimuli) and Brown's (target stimuli). These messages were presented on a series of computer screens. Participants first received information about Brown's and all of the information was positive. This information included detail about 3 of the 8 departments in Brown's department store. After this, they received either a high or low quantity of information about Smith's that was equally positive.

Dependent measures explored levels of perceived knowledge about Brown's and Smith's, attitudes toward the stores (e.g. liking or disliking), as well as self-reports of their thoughts after reading the messages. These thoughts were then coded for favourability. Actual knowledge was also tapped using a free recall task, in which participants were asked to recall as many items of information as they could about Brown's or the Smith's message. Lastly, participants were asked to rate the extent to which they felt they had thought deeply about Brown's (self-rated elaboration).

Results showed that participants did report having more knowledge about Brown's when they had received less information about Smith's (and vice versa). Moreover, they also had more favourable attitudes about Brown's when they had received less information about Smith's store. Other analyses showed that although actual knowledge about the two stores did not explain the results, participants' perceived knowledge about these stores did underlie these differences. This suggests that how the messages were framed (and not the actual information that they contained) influenced attitudes. Elaboration results showed that this effect was not explained by differences in the amount of thought each person had given to the information about Brown's vs. Smith's.

Subsequent refinements of this research showed that this effect was not influenced by whether people completed the attitude items before or after the perceived knowledge index, or by the type of initial information that they received about Smith's (whether another store or a car, or a person rather than an object). Although the generalizability of this research to the domain of Influence Ops in military contexts is questionable, this finding (if validated in a more realistic domain) could be a very powerful and important one.

Research by Mandel (2001), however, did examine the effect of framing on military command decision making in a hypothetical case. Participants (university students) were asked to imagine that they were a military commander facing a decision regarding how to save 600 civilians whose lives were threatened in a war-torn region. Two options (courses of action) were presented that varied in their degree of risk. Option A entailed saving 200 lives with the remaining 400 dying. Option B entailed a 1/3 chance of saving all 600 but a corresponding 2/3 chance of saving no one. Mandel (2001) manipulated two framing variables—(a) descriptor framing, which refers to whether the options were presented in terms of the descriptor “lives saved” or the descriptor “lives lost” and (b) outcome framing, which refers to whether the positive outcome (e.g., 200 lives saved or 200 lives not lost) or



negative outcome (e.g., 400 lives lost or 400 lives not saved) was made explicit in the description. Although the findings did not reveal a main effect of either framing manipulation, in Experiment 1, Mandel found that framing that was doubly negative in the sense that it emphasized negative outcomes described in terms of lives lost led participants to be statistically more likely to pick the risk option than participants in the doubly positive “positive outcomes described in terms of lives saved” condition, thus replicating the classic “Asian disease problem” framing effect first reported by Tversky and Kahneman (1981). This research indicates that by selectively framing possible outcomes in terms of gains or losses, people’s choices can be influenced.

A good deal of research has also explored the role of primacy and recency effects in persuasion. Messages that are encountered at the end of persuasive sequence could be more persuasive, as they may be more easily retained. According to the Affective Primacy (AP) model, for example, prior exposure to a source can make a persuasive appeal more effective (Weisbuch, Mackie, & Garcia-Marques, 2003). Repeated exposure to a source should promote a more positive affective state, and promote more positive attitudes toward it. According to this model, re-exposure causes the recipient to view the source as attractive and/or likeable, which in turn increases the persuasiveness of the argument. This is argued to be the case whether prior exposure is explicit (i.e., source is known) or implicit (i.e., subliminal prior exposure).

Weisbuch et al. (2003) contend that the AP model does not adequately explain the prior exposure effect and instead suggest the misattribution (MA) model as a plausible explanation. The MA model argues that positive reactions to re-exposure might be attributed to either source (as explained by the AP model) or to other salient aspects of the setting. When the source is known (i.e. due to explicit prior exposure), the positive reaction to the appeal is likely attributed to the source. In this case, increases in persuasiveness due to prior exposure would be mediated by source attractiveness or liking. If, however, the prior source exposure is implicit, positive reactions to the appeal are not likely to be attributed to the source, but to be misattributed to greater liking or agreement with the argument.

Weisbuch et al. (2003) tested these two models to determine which model better explained the effects of prior exposure. The findings indicated that participants agreed with the argument more (and the source was rated as more attractive) when they had been previously explicitly exposed to the source. However, there was no difference in ratings when participants were implicitly exposed to the source. As such, source attractiveness mediated the relationship between explicit exposure and argument agreement; however, it did not have a mediation effect when exposure was implicit. In fact, re-exposure to a source that participants had not knowingly seen before resulted in a reaction that was not attributed to the source but to the argument made by the source. A subsequent study demonstrated that when prior exposure became obvious to participants (when exposure was explicit), the source was no longer rated as attractive, and therefore did not have the same persuasive ability (Weisbuch et al., 2003). However, because the subliminal exposure was not accessible to participants, the source continued to be more persuasive than other sources. This research, then, supported the argument that the misattributions associated with prior exposure to the source were responsible for increased persuasion. The ordering and the framing of persuasive messages is one that is clearly in further need of empirical elaboration.



### 5.2.3 Message Style and Language

The way in which a message is delivered will also influence its persuasive power. One important dimension of message style noted in the literature is the degree of linguistic power that a message contains. In the literature, linguistic power is described more in terms of its absence than its presence. The absence of linguistic power has been defined as including “hesitations (e.g., um...), hedges (e.g., I kinda think...), and tag questions (e.g., right?...OK?). In general, research suggests that speakers are perceived to be less assertive, credible and authoritative when they use powerless language than when they use powerful language (Holtgraves and Lasky, 1999). However, this finding is argued to be under-researched and as often showing conflicting results.

Past research examining the power of language has often interacted with gender effects in predicting persuasion. For instance, Carli (1990; cited in Holtgraves & Lasky, 1999) found that a woman speaker was more persuasive with men when she used tentative (i.e., powerless) rather than assertive (i.e., powerful) language, but was more persuasive with women when using assertive rather than tentative language. In contrast, when the speaker was a man, the linguistic style had no effect on persuasion regardless of recipient gender. Thus, the power of language seemed to be relevant to women’s persuasiveness, but not men’s.

In other work exploring linguistic power and gender, Holtgraves and Lasky (1999) examined perceptions of the speaker and message following the presentation of either a powerful or a powerless message. This study employed both male and female speakers and receivers. Specifically, it was argued that linguistic power could serve as a peripheral cue (and influence heuristically) if people did not have the resources or motivation to process a message systematically. As such, linguistic power was predicted to be more influential when busy or unmotivated. If people had resources, on the other hand, linguistic power was predicted to be less important. So, in half of the sessions, participants had no additional task (other than listening to the message) and in half they had another concurrent task intended to challenge their processing resources.

This study used a 2 (gender of speaker: male or female) x 2 (message type: powerful vs. powerless language) x 2 (task type: concurrent task vs. no task) between-group design with university undergraduates. The stimulus was a written essay advocating comprehensive exams at the university.

Results showed that the gender of the speaker and of the participant did not impact significantly. Nor did the need to perform a concurrent task change the persuasiveness of the message. Only the linguistic power of the message significantly impacted on its persuasiveness. Specifically, participants were significantly more persuaded by the message when exposed to powerful language than when exposed to a message phrased with powerless language. The results suggest that the effects of linguistic power on message agreement were mediated primarily by perceptions of the speaker and message arguments. The source and message were perceived more negatively when the message was read in a powerless style than when it was not. Specifically, the source was rated as less intelligent, competent, likeable and knowledgeable, and the message was rated as less well reasoned, logical, strong and sound. This research suggests that ensuring messages have a higher level of linguistic power may improve their persuasiveness.

Tag questions (i.e., short phrases in the form of a question that appear at the end of a statement; e.g., don’t you think?) have commonly been argued to be a more powerless and

less assertive form of language. If tag questions are taken as indicators that the source is not actually knowledgeable or lacks confidence or certainty, this perception could undermine the ability of the source to present a persuasive message to the receiver.

However, there is also some reason to believe that tag questions are not necessarily negative, and other research has explored whether they actually impact negatively on perceptions of the source of a persuasive message. Blankenship & Craig (2007), for example, have argued that the use of tag questions by powerful sources is prominent in everyday discourse. For instance, doctors may use them to elicit information from the patient or to summarize and confirm information. However, it is unclear whether using tag questions in such contexts is actually perceived by the receiver as a powerless form of speech, or whether the receiver distinguishes between tag questions depending on the context in play. When delivered by a highly credible doctor, for example, rather than being an expression of uncertainty in one's own message, tag questions also have the potential to put expectations onto the receiver, making them feel more obliged to answer positively just to conform to the expectations of the confident source. However, the perceived pressure for an affirmative answer that tag questions would create would likely depend on the strength of the argument.

In an effort to demonstrate the context in which tag questions might not be construed as having less power, Blankenship and Craig (2007) examined the relationship between source credibility and the use of tag questions. This research also examined the processes that underlie the interaction between tag questions and source credibility by manipulating argument quality.

The study determined that tag questions affect persuasion differently when used by high and low credibility sources (Blankenship & Craig, 2007). With a highly credible source, the use of tag questions increased processing of the message. Sources with high credibility using tag questions paired with strong arguments promoted more favourable attitudes than did highly credible sources with strong arguments not using tag questions. On the other hand, high credibility sources who used tag questions and weak arguments promoted less favourable attitudes than high credibility sources with weak arguments who did not use tag questions. Further, with a low credibility source, the use of tag questions led to biased negative processing of persuasive messages, such that tag questions decreased the persuasion regardless of argument quality. In this sense, tag questions only reaffirmed the source's lack of credibility.

The power of language in persuasion seems to depend on the characteristics of the source as well as on the modality of the message. For instance, Sparks and Areni (2002; cited in Areni & Sparks, 2005) found that a speaker was more persuasive when he or she used powerful rather than powerless language, but only when the communication was presented in audio format. When presented in print format, the power of a persuasive message had little to no effect. This effect was attributed to message power acting as a peripheral cue to persuasion.

To further explore this phenomenon, Areni and Sparks (2005) explored whether the power of language differs depending on whether messages are presented in print or video format. Participants either read about a computer product or viewed a videotaped testimonial about it. Their thoughts and attitudes toward the product (and, in the case of video format, about the speaker) were then captured. When the message was presented in video format, attitudes toward the product were less favourable and speaker-related thoughts were more negative when the source/endorser used powerless rather than powerful language. This suggests that linguistic power may serve as a peripheral cue when paired with video format presentation.

When watching the videotaped message in real time, the recipient may have little opportunity to process the message and may turn to speaker characteristics to form attitudes of the message. When powerless language is used, these attitudes are likely to be less favourable. The recipients of the print message also had less favourable attitudes and more negative speaker-related thoughts when the speaker used powerless as opposed to powerful language. This finding reveals that language power can also serve as a biasing influence when used in print format. That is, the recipient may focus their attention on the language, which shapes perceptions of the speaker's confidence. Language power may also be confounded with argument quality, such that the more powerless the language, the lower the perceived quality of the message. Finally, when a message is presented in print format, message recipients generate more speaker-related thoughts when the speaker uses powerless as opposed to powerful language. This is likely because the language acted as a distracting influence, thus prohibiting the recipient to process the actual message and therefore focus their attention on the speaker. The study provided evidence that the linguistic power of a message can play multiple roles in the persuasion process depending on the modality of the message.

Although several studies have demonstrated that message style impacts upon attitudes, there has also been evidence to the contrary. Some results, for example, argue that although linguistic power makes the source appear more competent, this does not necessarily translate into more persuasion (Gibbons, Busch, and Bradac, 1991; cited in Holtgraves and Lasky, 1999). For instance, Gibbons et al. (1991; cited in Holtgraves & Lasky, 1999) manipulated linguistic power, message relevance, and argument strength and found that although linguistic power contributed to perceptions of competence, only message relevance and argument strength actually affected persuasion. Therefore, although linguistic power does have positive effects, these effects may not always translate into persuasive power. The ability to influence others may depend on other factors in the context, such as the characteristics of the audience and the speaker.

#### **5.2.4 Message Repetition**

Many prominent forms of influence use repetition when attempting to persuade others. The term 'reiteration effect' has been used to indicate that the mere reiteration of a message increases the likelihood that it will be believed (Hertwig, Gigerenzer and Hoffrage, 1997). Repetition may promote persuasion because it promotes more careful processing of the information in the message. Research by Cacioppo and Petty (1989; cited in Claypool, Mackie, Garcia-Marques, McIntosh, & Udal, 2004) demonstrated that repeated persuasive messages were processed more analytically than those that were not repeated. In addition, when the messages were repeated, attitudes were significantly more favourable following strong versus weak arguments. Message repetition may induce analytic processing and a "greater realization of the meaning, interconnections, and implications of the message arguments" (Cacioppo & Petty, 1989, p.4; cited in Claypool et al., p.311). Overall, then, there is some evidence that repetition may improve persuasion because it enhances message comprehension.

However, there is also evidence in the literature that repetition may also have the opposite effect. For example, if repetition is so frequent as to annoy people, its persuasive power may diminish. Indeed, there is some evidence that repeated persuasive messages are sometimes processed less analytically than those that are not (Garcia-Marques & Mackie, 2001).

Some researchers (Claypool et al., 2004) have posited that personal relevance could account for these discrepant findings. People are argued to be more likely to process persuasive message systematically when these messages are perceived to be highly personally relevant, but more peripherally otherwise. Participants were randomly assigned to one of 8 conditions with varying combinations of three factors, in a 2 (personal relevance: high or low) x 2 (argument strength: strong or weak) x 2 (repetition: repetition or no-repetition) between-group design.<sup>7</sup> Participants were required to listen to a persuasive message about the use of comprehensive exams in universities, and their attitudes before and after this message were measured.

Results showed three significant effects. There was a main effect of argument strength, as strong messages were more effective than weak messages. However, this main effect was qualified by a significant interaction between argument strength and participant sex suggesting that argument strength was more important for men than for women. There was also a significant 3-way interaction between personal relevance, repetition and argument strength. This interaction (and planned contrasts) showed that when highly relevant messages were repeated multiple times, participants showed increased systematic processing, and were more persuaded by strong arguments than by weak arguments. However, when personal relevance was low, there was an interaction between repetition and argument strength, such that when the message was heard only once, participants were more persuaded by the strong arguments. However when the message was repeated, this effect disappeared. This study suggests that personal relevance can promote more careful processing of persuasive messages, and attitudes are more influenced by the content of the message than by peripheral cues such as message repetition.

Evidence from these studies, then, suggest that message repetition can be effective in some situations, but is less effective in others. The impact of message repetition depends to some extent on the personal relevance of the message. However, future research should explore other factors that may influence the relationship between repetition and message effectiveness.

### **5.2.5 Other Message Effects**

Two other message factors noted in the literature did not easily fit into the previous message categories, but seem important for this review. First, the sidedness of a persuasive message seems to predict its persuasive appeal. In general, messages are likely to be more persuasive when they are seen to be fair and balanced (e.g. giving equal attention to the pros and cons) (e.g., Hovland & Janis, 1959).

One strategy that has been widely used in persuasion is to create messages that present both sides of an issue (i.e. both pros and cons). This is a compelling strategy, because messages do not typically promote thought about both positive and negative aspects of the issue. As such, presenting two-sided messages could trigger more scrutiny and promote more careful thought because such messages are unexpected. Optimal arousal theory, for example, argues that novel stimuli will be preferred over less novel stimuli (Crowley and Hoyer, 1994). Messages in which potential protests against a persuasive message are already refuted are also likely to be effective. In fact, some research has shown that refutational two-sided messages are more

---

<sup>7</sup> Participant sex (male or female) was also included in some analyses.



persuasive than either non-refutational two-sided messages or one-sided messages (Hale, Mongeau & Thomas, 1991; Allen, Mongeau & Berkowitz-Stafford, 1990). As such, being able to anticipate the legitimate protests against a persuasive message and refuting them might assist the development of influence materials.

The literature reviewed also evidenced another message effect (namely, the sleeper effect) that is critical to consider. The sleeper effect can be described as occurring when "...a low credibility source manifests greater persuasive impact with the passage of time" (Pornpitakpan, 2004, p. 264). This can occur when messages presented for the first time are linked with a discounting cue that makes the message potentially less persuasive (Kumkale & Albarracin, 2004). According to the prominent theoretical account, the sleeper effect relies on the discounting cue (but not the primary message) fading over time. As the discounting cue fades, then, the persuasive appeal of the message increases over time, exerting more impact long after the primary message was presented. This effect is different from typical persuasion accounts, as persuasive messages would typically be expected to lose their effect if not immediately persuasive. For example, a sleeper effect might occur when a non-expert source presents a strong message about a particular product or viewpoint. Over time, receivers may forget that the source was weak, but remember the strong message. The ability to invoke attitudinal change long after actual presentation of the message is potentially very powerful and this has ensured that the sleeper effect has received a good deal of theoretical and empirical attention. Given the longitudinal nature of many influence operations campaigns, this effect might be important to understand in more detail.

Lastly, a new book entitled *Made to Stick* Heath and Heath (2007; cited in Zimbardo, 2007) outlines six characteristics of effective communications that may provide some concrete direction for creating persuasive messages. These ideas have emerged from both academic and commercial research, and provide some pragmatic guidelines for devising influence messages.

They suggest that messages should be:

- 1) Simple – as brief as possible but still profound;
- 2) Unexpected - sufficiently surprising to catch the attention of the audience;
- 3) Concrete – provide detailed examples based on real life experiences;
- 4) Credible - delivered by someone the audience can trust;
- 5) Emotional - makes audience feel as well as think, and
- 6) Narrative - tell a story that can be remembered and retold to others.

These applied principles, of course, only focus on specific aspects of persuasive messages, but do seem to provide a very basic overview of how to create more persuasive messages.

### **5.2.6 Summary and Implications for CF Influence Ops**

This overview of research shows many critical factors that are likely to impact on the quality of messages and on their persuasive power.

1. In general, there is good evidence that messages with strong arguments are likely to be more persuasive than messages with weak arguments. Message effects stem from many different factors including argument strength, message language,

message repetition, message order and framing, and message self-relevance to name a few. Each of these characteristics has unique effects on persuasion.

2. Message characteristics can trigger either heuristic or systematic processing. For instance, message repetition can promote systematic processing, whereas message language can lead to heuristic processing. The same message stimuli can also bring about both types of processing simultaneously. For instance, the activation of in-group identity within a message can influence persuasion both directly (through peripheral in-group identity), or by serving as a trigger for more systematic processing of the message.
3. Similar to the source, it is important to evaluate the factors that are unchangeable versus those that can be manipulated in the environment. Apart from the content of the message, some characteristics associated with the message can be altered more readily than other factors, including the recipient characteristics, the source and even the medium. Personnel attempting to exert influence are bound in some sense to the basic message that they hope to convey, but have a great deal of latitude in the exact composition/style and framing of the message. More attention should be given to this issue in the CF Influence Ops approach.
4. As a whole, the available research suggests several principles that might assist in creating persuasive messages, as shown in Table 6.

**Table 6: Maximizing Message Effectiveness**

Recommendations for Tailoring Messages in CF Influence Ops
In general, powerful speech is better than powerless speech.
Use tag questions when source is highly credible and message is strong – avoid when source is low in credibility
If message delivered through audio, video (and perhaps print) format, use powerful language
When a message has low relevance to the recipient, avoid repetition. But, when the message is highly relevant, use repetition to increase systematic processing.
Messages should be targeted to receiver interests, and to parallel recipient values and activate common group identity
Use familiar sayings, or token sayings
A message is more persuasive and seen as containing more important information when followed by another message that contains little information.
Messages will be more persuasive if they anticipate both sides of an issue than if they only address 1 side. Including refutational arguments further increases the effectiveness of these 2-sided messages.

From the perspective of the CF, the content of persuasive messages also receives attention in doctrine (DND, 2004; “Message Theme Categories”, p. D-1). In fact, the basics of many of the critical message factors are represented.

CF doctrine discusses message content in terms of 3 themes. The first theme addresses the persuasive power of in-group/out-group themes. These themes are intended to promote an



“us-them” dichotomy that will assist the persuasive message. In working to persuade locals of the need to accept the help of military forces (e.g. as in the case of Afghanistan), the coalition could work to persuade locals of the need to build alliances between themselves and these forces (that is, to create an “us”) working against the Taliban (“them”). Another common message theme noted in the literature relates to the concept of inevitability. Using PSYOPS efforts to give messages that it is inevitable that the “opponent will lose and the friendly side will inevitably win” (p. D-1) is another persuasion technique. This is, of course, intended to move people to align themselves with the friendly cause. The 3<sup>rd</sup> prominent message theme noted in doctrine is one of legitimacy, that the friendly force is acting on legitimate authority to protect the rights of locals, and that aligning oneself with this legitimate force is the only viable option. These message themes emphasize important persuasion principles noted throughout this review.

One possible concern, however, is that although these general message themes are well grounded in empirical literature, they provide only broad direction about the desired effect of the persuasive message, but do not provide any detail about exactly how to create messages that effectively promote these themes. As such, more of the nuances of creating persuasive messages would be helpful in order to help often relatively inexperienced personnel to create effective influence messages.

### **5.3 Receiver Effects**

A considerable body of research has also explored several receiver characteristics that are likely to influence the effectiveness of persuasive appeals. The most critical receiver characteristics are motivation and ability to process a persuasive message. Other factors noted in the literature include prior beliefs and personal relevance, affect and other demographic characteristics/personality factors. Each of these is discussed in the sections that follow.

#### **5.3.1 Motivation and Ability**

As noted earlier, the two most influential models of attitude change and persuasion are the heuristic/systematic model (HSM) and the Elaboration Likelihood Model (ELM). Both of these models argue that the motivation of people to process persuasive messages carefully and their ability to do so when they encounter a persuasive message are key indicators of whether persuasive attempts will be successful.

In an authoritative review of the attitude change literature, Wood (2000) describes the commonly cited link between these two theories,

“The central tenet of these theories is that the determinants and processes of attitude change depend on people’s motivation and ability to process issue-relevant information.”

The key to both of these models of attitude change and persuasion, then, is whether or not people have the motivation and the resources necessary to process persuasive messages.

Both the ELM and HSM models argue that persuasion can occur through either a “central route” or through a “peripheral route”. Using a central route, people systematically process the persuasive message (or argument). If information is processed carefully and systematically, individuals will be influenced primarily by the strength of the argument, with stronger arguments being more influential than weak arguments. As such, waging an



influence campaign to help people stop smoking could be said to use a central route to persuasion if the campaign presented strong and coherent arguments about why one should stop smoking. Successfully changing attitudes in this situation is dependent on the receiver elaborating on the message in their thinking.

The other way to promote attitude change, however, is through peripheral routes. In peripheral or heuristic processing, people attend not to the quality of the persuasive arguments presented, but to other more tangential cues such as features of the target (e.g., source credibility or interpersonal similarity) in order to guide their attitudes. This form of processing is less effortful, and does not require them to “think through” the argument presented in a persuasive message. When people are processing heuristically, then, a strong argument will not be better than weak arguments, because people are not attending to the quality of the argument but to more peripheral factors such as the perceived credibility of the source delivering the message. In the case of the “stop smoking” campaign, then, if the campaign featured a prominent celebrity imploring people to stop smoking (and if people were influenced by the source of the message rather than by the message itself), this would be an example of peripheral route, heuristic or non-elaborated processing.<sup>8</sup> In short, then, attitudes can be changed as the result of either “careful and effortful scrutiny of a message (elaboration-based process) or less cognitively effortful inference and associative processes.” (Priester & Petty, 2003, p. 409). Which process is enacted, of course, depends on the motivation and ability of the individual to process the message.

The motivation to process a persuasive message can be understood in terms of either internal or external motivators. As will be noted in the later sections related to social influence, internal motivational factors commonly noted in the literature include:

- Motivation to be accurate
- Motivation to have positive relationships with other people
- Motivation to maintain a positive self-image

When one or more of these factors are in play, then, people have been shown to process persuasive messages more carefully. For example, in situations where people are particularly worried about the costs of being inaccurate, or when they believe that the required judgement will be better if they give careful thought to the issue (e.g., Bohner, Rank, Reinhard, Einwiller & Erb, 1998) they will be more likely to process persuasive messages systematically. The motivation to have positive relationships with other people is one of the core aspects of social influence, and will be discussed in more detail later in this report.

However, external motivators such as the rewards or recognition that might arise from processing of a persuasive message can also influence how they are processed (Hovland & Janis, 1959). Advertising, for example, commonly offers rewards or incentives in return for being able to answer trivia questions about the product or service. These incentives, of course, motivate people to attend more closely because this attention promises some potential gain from the incentives. Overall, then, reward structures can motivate people to change their attitudes.

---

<sup>8</sup> As Olson and Zanna (1993) point out, however, systematic and heuristic processing are not mutually exclusive, as people can be affected by heuristics like source credibility even when processing systematically.

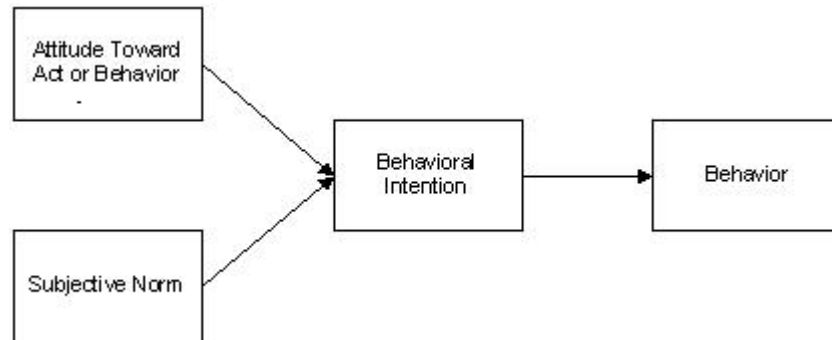


Dual process models have been used to examine a number of personality and situational factors that influence the motivation to process persuasive information (Klein & Webster, 2000). Such motivation variables include personal involvement, task importance, and accountability. One critical issue noted in the literature, however, is the potential for receiver biases to impact during the processing of persuasive information. As noted earlier, systematic (or central route) processing is dependent on motivation and ability. However, when these factors are mixed with highly personally relevant messages, even intensive processing of information is likely to be biased (Petty, Wegener & Fabrigar, 1997). Similarly, there is also evidence that self-interest can influence not just the extent of information processing, but also the direction or valence of information processing. Research by Darke and Chaiken (2005), for example, has shown that both the perceived costs and benefits of persuasive messages impact on their persuasive power. Specifically, when persuasive messages threaten high personal cost to the receiver, these messages are more likely to result in negative attitudes and negatively biased systematic processing. However, messages that promised positive personal benefits to the recipient resulted in more attitude change resulting from both systematic and heuristic processing, but this depended on whether the perceived costs were likely to be immediate or delayed. When the perceived costs impacted on the receivers, they more carefully scrutinized the potential benefits. However, when participants did not have to pay the costs (i.e., issue was not self-relevant), attitudes were based more on superficial examination of the benefits (heuristic processing). This research provides good evidence, then, that the processing of persuasive messages can be biased by considerations of self-interest and personal relevance. Generally, as the motivation to process information decreases, the likelihood of using the peripheral route increases.

The ability to process a persuasive message is typically operationalized in terms of workload and/or cognitive load. People have been argued to be “cognitive misers” and to process information only when they have the resources to do so (Fiske & Taylor, 1984). When faced with competing demands, then, people are often forced to give somewhat less effort to some of the tasks facing them. In a persuasive context, then, people may not necessarily attend to a persuasive message if other more pressing tasks are given priority. As human behaviour is often goal-directed, this suggests that understanding the ongoing goals and abilities of receivers will be a critical aspect of target audience analysis.

### **5.3.2 Attitudes and Values**

Receiver attitudes and values can also have a strong impact on attitude change. This process by which people make evaluations of attitude objects plays a critical role in persuasion, because attitudes have been consistently shown to predict intentions to behave in a certain way. As such, persuasive messages that lead to strong evaluations (either positive or negative) will be more likely to influence how people actually behave. This prediction is formalized by the two most influential models of the attitude/behaviour relation, the theory of reasoned action and more recently, the theory of planned behaviour (Ajzen, 1991; Ajzen, 2003). As seen in Figure 4, the theory of reasoned action holds that “behaviour is a function of one’s intention to engage in the behaviour which is, in turn, a function of both one’s evaluation of personally engaging in the behaviour and one’s belief that significant other people think one should engage in the behaviour” (Eagly & Chaiken, p.169).



**Figure 4: Theory of reasoned action (Eagly and Chaiken, 1993).**

In other words, attitudes and/or subjective norms predict intentions, which in turn predict behaviour. Eagly and Chaiken (1993) explain that a subjective norm is a function of normative beliefs based on significant others' beliefs that one should engage in the behaviour. It should be noted that individuals differ in the weights they place on attitudes and norms when forming behavioural intentions. However, behaviour can be predicted by multiplying the attitude toward the behaviour by the motivation of the individual to comply with others' expectations or perceived norms (Ajzen, 2001).

This theory, then, shows why impacting how issues or objects are evaluated is the key goal of persuasive messages, as well as why normative pressures such as the views of others will impact on persuasion processes. Attitudes can be described in terms of many different attributes, but some core attributes are the centrality of attitudes within one's belief systems, the accessibility of attitudes and the importance of attitudes.

By definition, one's existing attitudes are also typically personally relevant. Personal relevance is defined as "the extent to which an issue has important personal consequences, and is typically operationalized by varying whether or not the target issue seems to have a direct immediate impact on participants" (Apsler & Sears, 1968; cited in Darke & Chaiken, p.865). The term "personal relevance" has also been used interchangeably with the term "self-interest" (Darke & Chaiken, 2005).

Several other attitude attributes have also been shown to promote the systematic processing of appeals. Specifically, when receivers have strong and highly accessible attitudes on a message topic, this promotes more systematic processing (Fabrigar, Priester, Petty, Wegener, 1998). Similarly, highly ambivalent attitudes also promote more systematic processing (Maio, Bell & Esses, 1996). There is good evidence that when persuasive messages are relevant to prior attitudes of the receiver that are particularly meaningful, they will be more effective (Lavine & Snyder, 1996; Murphy et al., 1996; cited in Wood, 2000). As such, tailoring one's message to emphasize conservative values and attitudes will, on average, be more effective when received by individuals high in conservatism. This effect was shown in research by Garst and Bodenhausen (1996), which asked undergraduates (self-defined as Republicans, Democrats or Independents) to read a political speech that differed on dimensions of argument quality (strong/weak), kin terms (absent/present) and the speaker's party affiliation. Democrats took more time to process the message when kin terms were used. Republicans showed less message scrutiny, but only when the kin terms were used by another Republican. Similarly, people who are high in self-monitoring are very sensitive to the social

consequences of their behaviour. As such, appeals that emphasize the need for social adjustment themes are likely to be perceived more favourably and to induce more attitude change than those that do not hit social adjustment themes (Lavine & Snyder, 1996; Murphy et al., 1996; cited in Wood, 2000). Again, this argues that understanding what is most important to the target audience is a critical predictor of what will persuade them to accept a targeted message. As demonstrated to this point then, the theoretical and empirical literature on self-interest has often suggested that self-interest (i.e. personal relevance) can make people more likely to systematically process (and hence, to be more persuaded by) messages perceived to be highly self-relevant.

As a whole, then, there is good evidence in the literature that matching persuasive messages to the attitudes and values of the receiver can positively influence the effectiveness of these messages.

### 5.3.3 Identity

Closely related to core values and attitudes is a person's identity which can also have a critical impact on persuasion. The two most commonly cited forms of identity are self-identity and social identity. The term self-identity is often used interchangeably with the term self-concept and refers to one's perception of oneself as distinct from other people. Social identity relates to one's view of oneself in relation to other people (e.g., roles). Identity can influence persuasion in more than one way. Nelsen and Garst (2005) argue that activating identity within a message can influence persuasion both indirectly (through peripheral in-group identity), or by serving as a trigger for more systematic processing of the message. As such, messages that trigger an increased sense of oneself as a discrete and unique entity (e.g. "...who do you want to be?") are more likely to be persuasive, because they are more likely to be attended to and processed. Identity can promote higher message scrutiny, in part, because it may heighten personal involvement which is defined as a "motivational state induced by an association between an activated attitude and some aspect of the self-concept" (Johnson & Eagly, 1989; cited in Nelsen & Garst, 2005, p. 493). Similarly, attempting to trigger shared social identity by highlighting commonalities (e.g., shared interests) between the source (or another relevant party, such as a group to which one wants to belong) is also an effective persuasion technique. When shared social identity is activated, it provides an opportunity to learn more about other people that are like us (Nelsen & Garst, 2005). This increased motivation, then, can also enable more persuasion.

Influence strategies can also target the receiver's self-identity and can work to appeal to their hopes and aspirations or to their perceived obligations. A common distinction in the self-identity literature relates to the person one actually is (actual self), one's preferred identity (ideal self), and the person that others expect us to be (ought self). These varying forms of identity have also been described in terms of guides (Evans & Petty, 2003). Persuasive messages can appeal to one's hopes and dreams (Ideal Self-Guide) or to one's sense of duty and responsibility (Ought Self-Guide). People use these self-guides to regulate how they see themselves (e.g., their traits and characteristics) and use them to monitor their progress towards their goals. Although people are typically guided by both their ideal self and their "ought" self, these different identities often differ in strength and accessibility for each person. Some people have stronger ideal self-guides, whereas others have stronger ought self-guides.

As Evans and Petty (2003) have noted, many persuasive messages attempt to capitalize on these different forms of target receiver identity. For instance, U.S. Army, recruitment messages urge Americans to “enlist in the army if you are ready to succeed in life”. This influence strategy is aimed at one’s ideal self-guide as it refers to future dreams. The slogan of the Marines, on the other hand, emphasizes the “ought” frame by stating that “The few and the proud have a duty to their country and their comrades”.

If these different self-guides affect how people see themselves, matching the qualities of a persuasive message to these identities might be advantageous. Research by Evans and Petty (2003) explored whether self-guide framing matches could increase the impact of a persuasive message. The strength of participants’ ideal and ought self-guides was first measured. A week later, participants were presented with persuasive messages about a breakfast cereal product framed with either an ideal self-guide or an ought self-guide, each presented with either strong or weak arguments. Measures of processing effort, attitudes and cognitive responses were taken. The data was then analyzed in terms of self-guide matches (e.g. when participant with a strong ideal self-guide heard a message in an ideal self frame) and mismatches.

Results showed that when the message matched the participant’s strongest self-guide, messages were processed more thoroughly and more attention was paid to argument quality, as shown by more positive attitudes and cognitive responses. Participants’ attitudes and thoughts in the mismatched condition were less strongly affected by argument strength. This research suggests that when people are guided by ideals, they engage in greater processing of messages that contain information regarding hopes and wishes. When people are guided by oughts, they may engage in greater processing when messages are framed in terms of duties and obligations. As this research suggests, then, understanding salient and active receiver identity would be a critical contribution to knowing how best to tailor a persuasive message.

### 5.3.4 Culture

Given that culture is commonly understood to shape attitudes, beliefs, and behaviour, it is also likely to influence the persuasive power of targeted messages. One prominent culture researcher has defined culture as:

*“... a collective phenomenon, because it is at least partly shared with people who live or lived within the same social environment, which is where it was learned. Culture consists of the unwritten rules of the social game. It is the collective programming of the mind that distinguishes the members of one group or category of people from others.” (Hofstede, 2005, p. 4).*

According to Hofstede (2005), values represent one component of a culture. Values are “broad tendencies to prefer certain states of affairs over others” (Hofstede, 1994, p.8; cited in Dahl, 2005), and they consist of ideas about what is important in life. Rituals, or norms, represent another component of a culture (Dahl, 2005), and refer to expectations relating to individual and/or group behaviour in different situations. Rituals can include different ways of greeting and paying respect. For instance, in the U.S., business professionals typically shake hands before beginning a meeting, but in Japan, they bow. Cultural differences, then, refer to distinctions between these elements across cultures.

Research on cultural differences usually begins with Hofstede’s (2005) well-known schema, which argues that cultures can be differentiated on five dimensions:



individualism/collectivism, power distance, uncertainty avoidance, masculinity/femininity, and long-term/short-term orientation). Although any of the five cultural dimensions could affect persuasion, the individualism/collectivism dimension has received the most empirical attention within the psychological literature.<sup>9</sup> This dimension characterizes cultures according to the degree to which they uphold personal values, freedoms, and ideals (individualism) versus the degree to which they uphold the values, freedoms, and ideals that directly support the society or particular culture. The United States would represent a culture that is far more individualistic than collectivistic. Eastern cultures, on the other hand, are far more collectivistic than individualistic.

These cultural differences clearly influence individuals' cognitions, emotions and motivations (e.g. Markus & Kitayama, 1990; Thomson, Sartori, Taylor & Adams, 2007), and these many differences are also likely to be relevant to persuasion. A wide range of research hints at the differences in how individuals in diverse cultures process information and make decisions. For example, research by Wade-Benzoni et al. (2002) has shown that in prisoner dilemma experiments, those from individualist cultures (Americans) tend to make decisions that directly benefit themselves, whereas those from collectivist cultures (Japanese) tend to make decisions that directly benefit the group. Reasoning about this decision making, individualists indicate that they expect others to do the same because 'it's every person for him- or herself', but collectivists indicate they expect others to do the same because maintaining social harmony is the most important objective. Thus, individualists value personal freedoms and decisions and believe others do as well, whereas collectivists value the freedoms and decisions of the collective and believe others do as well.

These findings and others suggest that persuasive messages should be tailored depending on the values in play within a specific culture. For example, in individualistic societies, persuasive messages may be more successful if they focus on what compliance means for the individual and the rewards they will enjoy. Individualists may be motivated by the belief that they will be one of the first to comply with the request and that they will be shining examples for others. Indeed, research suggests that individualists' self-esteem may be tied to such motives (Markus & Kitayama, 1991; Ross, Heine, Wilson, & Sugimori, 2005). They may also be highly motivated if they are led to believe that the decision to comply has been their own. In this sense, influence messages that are more indirect, but lead individualists to the answer may be more effective in individualist societies. In contrast, persuasive messages in collectivist societies may be more successful if they focus on the meaning and positive outcomes for everyone. Collectivists may be better motivated by the belief that their behaviour will affect everyone, or, if they comply, they will be doing what everyone is already doing. Even at a very simplistic level, then, in cultures with a more individualistic culture, messages with more solitary and agentic themes are likely to be more persuasive than are messages with more communal and "good of the group" themes. This kind of research, then, indirectly suggests some ways in which persuasive messages could be made more effective in differing cultures.

---

<sup>9</sup> It is important to note that another dimension of culture has been receiving attention. The distinction between horizontal and vertical cultural orientations, which value equality or emphasize hierarchy has been noted in a recent special issue of *Journal of Consumer Psychology* (Schwarz, 2006) and the implications of this for consumer persuasion are discussed.

Other research has explored the dimensions that influence source credibility in different cultures. Cross-cultural research has shown that the active dimensions of source credibility for Americans and Koreans were similar (Yoon, Kim, and Kim, 1998; cited in Pornpitakpan, 2004). Attractiveness, expertise, and trustworthiness were found to equally predict purchase intentions and all three equally affected involvement with the advertisement message. However, only trustworthiness had a significant impact on attitudes toward the brand, and the attractiveness of the endorser was a better predictor of attitudes toward the endorsement than either expertise or trustworthiness (Yoon, Kim, and Kim, 1998; cited in Pornpitakpan, 2004). This suggests that perceptions of source credibility may emphasize different dimensions for individuals in collectivist cultures than for people in other cultures.

Other research looked at the perceived effectiveness of influence strategies in different cultures at the organizational level. Two broad types of influence named Gentle Persuasion (more nurturing) and Contingent Control (more agentic) were considered in relation to interactions at three levels within organization – upward, downward and lateral. Managers had rated the effectiveness of these two tactics at each level. Results showed that Gentle Persuasion was rated as more effective when the target was in a higher position of power, and Contingent Control was most effective when the target was in a lower position of power. Most importantly, however, American managers rated Gentle Persuasion to be much more effective than did Asian participants, but there were no cultural differences on perceptions of Contingent Control.

Other interesting research has explored persuasion with people equally influenced by 2 cultures (e.g. Eastern and Western cultures) or “biculturals” (Lau-Gesk, 2003). A study exploring the impact of messages geared to either individualist or collectivist themes showed that biculturals reacted favourably to messages with both themes, but people from only 1 culture reacted more favourably when the message matched their cultural background (e.g. collectivist message better for person with Eastern background). However, a follow-up study showed that people who compartmentalized their 2 cultural backgrounds (rather than more seamlessly integrating them) reacted less favourably to messages that reflected both individualistic and collectivistic themes. This suggests that understanding the most salient cultural identity of a receiver would assist the exact targeting of persuasive messages. Given the mobility and increasingly multicultural nature of our societies, cultural background is likely to be an increasingly important area of persuasion and attitude change research.

Other research suggests that culture is an extremely important factor influencing conformity to majority influence. For example, research suggests that people from collectivist cultures are more likely to conform to in-groups than are those from individualist cultures (Bond & Smith, 1996; Kim & Markus, 1999, both cited in Martin & Hewstone, 2003). This would be expected given that individuals from collectivistic cultures value social harmony and relationships over individual interests, more than individualistic cultures such as the United States (Markus & Kitayama, 1999). Indeed, a recent meta-analysis demonstrated that individuals from collectivistic societies are more likely than those from individualistic societies to “base their decisions on the actions of their peers” (Bond & Smith, 1996; cited in Cialdini & Goldstein, 2004 p. 610). This research suggests that individuals from individualistic cultures will be less likely to attend to what the group is doing, much less adopt their ways, unless it serves personal goals. The opposite appears to be the case for collectivists. As collectivists are motivated to maintain harmony within their in-group, they are more likely to be motivated by group goals than by their own individual goals.



Research has shown the compliance of people from more individualistic cultures is increased when they receive information about how often they have complied to similar requests in the past, whereas collectivists' compliance is increased when they receive information about the compliance of their peers (e.g., Cialdini et al., 1999; cited in Barrett, Wosinska, Butner, Petrova, Gornik-Durose, & Cialdini, 2004). Knowing that compliance can be promoted by appealing to the collective rather than the individual is a subtle but important aspect of target audience analysis.

A recent report (Thomson, Sartori, Taylor & Adams, 2007) undertaken for DRDC Toronto has investigated the cultural component of moral and ethical-decision making and shows several effects that are potentially relevant to influence operations. For example, this review showed that different cultures hold different moral beliefs, and are likely to perceive and behave differently in moral and ethical dilemmas according to where they are situated on the individualistic/collectivistic continuum. Research reviewed in that report suggested that collectivists tend to see more situations as moral than do individualists, particularly when the situation invokes a sense of social responsibility (Thomson et al., 2007). Moreover, they are also more likely to actually take action in moral situations. Similarly, there is some evidence implying that the different cognitive styles of targets from individualist versus collectivist cultures could be used to increase compliance to influence messages. Recent research by Nisbett, Peng, Choi, and Norenzayan (2001; cited in Thomson et al., 2007) that thinking in individualistic cultures has been shaped by the ancient Greek knowledge-seeking traditions which emphasized objectivity, isolation of important factors, and an analytical approach to solving problems. In contrast, thinking in collectivistic cultures often emphasizes harmony, holism, and relationships. As such, individualists are more likely to apply objective rules, data, and laws than emotion in their thinking.

A receiver's culture, then, can have a critical effect on the information that is attended to, how it is processed, and on whether the message induces changes in behaviour. This research area, however, seems quite immature relative to other areas reviewed in this report. Given the potential importance of culture in Influence Ops, this will need to be a critical focus for future research.

### **5.3.5 Affect**

The role of affect in the processing of persuasive information is strongly established in both theory and literature (e.g., Crano & Prislin, 2006). Affect can influence persuasion in at least two ways, via emotions that are activated by the persuasive message, and by the experience of emotions that are unrelated to the persuasive appeal but which have some impact on the persuasion process. As such, emotions can be argued to influence persuasion both directly and indirectly. Of course, affect has both positive (e.g., happiness) and negative (e.g., sadness, anger) forms.

Within the persuasion and attitude change literature, the direct role of fear in persuasion is well established. Fear can influence the effort given to the processing of persuasive messages. At low-to-moderate levels, fear increases the processing of persuasive messages (Rogers & Prentice-Dunn, 1997; cited in Wood, 2000). Because fear increases processing, it can also facilitate both influence and acceptance of coping strategies (e.g., Millar & Millar, 1996; cited in Wood, 2000). At high levels, however, fear can actually reduce processing.



Research exploring the effectiveness of activating strong emotion (e.g. using fear appeals) in persuasive appeals has often targeted health-related attitudes. For instance, Das et al. (2003; cited in Crano & Prislin, 2006) examined information processing as well as attitude change in response to fear appeals. This research showed that fear appeals generated favourable cognitive responses and attitude change, but only if participants felt personally vulnerable to the threat. The study demonstrated that perceived personal vulnerability acted as a motivator that enabled positive evaluation of the argument and heightened subsequent attitude change (Crano & Prislin, 2006). The extended parallel process model has linked influence to fear control and danger control responses (Witte, 1992; cited in Wood, 2000). Specifically, when threat is greater than coping, the recipient's fear reactions are likely to result in message rejection (McMahon et al., 1998; cited in Wood, 2000). However, fear can also bias processing thus justifying existing coping (or noncoping) behaviours (Biek et al., 1996; cited in Wood, 2000).

Even indirectly, emotion can also shape reactions to a persuasive appeal. Emotions can provide signals about one's state that can be used as information to guide one's own behaviour. The role of affect in a persuasive appeal is largely dependent on the level of processing required. The persuasive impact of messages may depend on the match between active emotions and the emotional framing of the message. For example, research by DeSteno et al. (2004; cited in Crano & Prislin, 2006) demonstrated that participants reacted more positively to appeals when the emotions embedded in the appeal matched the emotions that participants reported experiencing at the time. As such, people may be more amenable to a persuasive message containing positive affect if they are already in a happy mood themselves. Further, there is also evidence that people respond strategically to manage their moods. That is, happy people selectively process persuasive messages in order to maintain their positive mood, whereas sad people are less selective when choosing information to process, as every piece of information has the potential to enhance their mood (Rusting, 1998; cited in Wood, 2000). As such, there is good information that using emotions as information can also bias one's processing strategies.

Research examining the effects of mood in message processing and attitude change has found somewhat mixed results. For instance, Worth and Mackie (1987; cited in Mitchell, Brown, Morris-Villagran, & Villagran, 2001) demonstrated that individuals in negative moods engage in more systematic processing and are more persuaded by strong messages. Negative emotions may signal a potentially more threatening environment, where more effortful systematic processing may be more adaptive. However, not all negative moods have the same effect on the processing of persuasive messages. For example, although the effects are weak, anger has also been shown to reduce systematic processing relative to neutral moods, perhaps because anger sends a message that a quick response is needed (Ottati et al, 1997; cited in Wood, 2000). As such, a negative mood such as anger can either increase or decrease systematic processing of information.

There are, however, important limits on the effects of negative moods. Bohner and Weinerth (2001; cited in Crano & Prislin, 2006) observed that negative affect only facilitates systematic processing when the persuasive appeal was considered legitimate. Negative affect triggered by a legitimate appeal likely signalled a threat to the recipient which motivated them to carefully scrutinize the message. Conversely, when the appeal was judged as illegitimate, negative affect was interpreted as a reaction to the illegitimacy thus lowering motivation to elaborate upon the message. The differential effects of mood are dependent on the strength of a persuasive message as well as its perceived legitimacy.



Anxiety has also been found to affect a message's persuasive ability. In general, the literature on anxiety and performance has tended to show that anxious people process persuasive information less due to reduced cognitive capacity (Sengupta & Johar, 2001). This reduced cognitive capacity may impede message elaboration, resulting in fewer issue-relevant thoughts and reduced recall. This reduction in the efficiency in processing can also affect the ability to change peoples' attitudes toward the issue. However, there is also evidence suggesting that message involvement may help to override the negative effects of anxiety on message processing. Sengupta and Johar (2001) examined the effects of anxiety to further understand its effect on message processing and attitudes. According to this research, message involvement (and hence, elaboration) should be heightened even if it contains anxiety-related messages, as long as the message is personally relevant.

Using Hong Kong's recent reunification with China as the context for the experiment, the researchers manipulated anxiety by having students from a Hong Kong University read several newspaper headlines that either depicted the reunification as having negative or positive consequences (i.e. message valence) that were either personally relevant or not personally relevant (anxiety/involvement level).

Consistent with past research, messages were processed with less elaboration when they depicted reunification as having negative consequences. However, diminished processing of the message only occurred when the message was less personally relevant (that is, when participants were less anxious). When the message was personally relevant, messages were processed with high levels of elaboration even when anxiety was high. This suggests that if even when messages have content likely to produce anxiety in receivers, systematic processing may not necessarily be adversely affected if receivers see the message as personally relevant. Put another way, whatever cognitive deficits people may experience when anxious, these deficits may be overcome when messages are seen to be highly self-relevant.

Other research has explored the impact of positive moods on persuasion. Bohner et al (1992; cited in Mitchell et al., 2001) asserted that persons in a positive mood are more easily persuaded. For instance, positive moods suggest a benign environment with little threat in which less effortful forms of heuristic processing may be adequate (Crano & Prislin, 2006). Positive mood can also act as a resource when processing self-relevant appeals (Ragunathan & Trope, 2002; cited in Crano & Prislin, 2006). Accordingly, positive moods serve as buffers thus enabling individuals to process threatening but useful information about self-relevant issues. They found that under conditions of high self-relevance, positive mood fostered careful scrutiny of negative information, thus leading to attitude change. However, under the conditions of low self-relevance, negative mood led to more elaborate processing.

Research by Mitchell et al. (2001) simultaneously explored the impact of anger, happiness and sadness on mood when processing messages of varying strength. It has been suggested that individuals who experience sadness are motivated to distract themselves by engaging in other available activities. As a result, when presented with a message, they are more likely to engage in systematic processing of the message because this allows them to "escape" their state of sadness. This makes them better able to distinguish between a weak and strong argument.

Anger, on the other hand, may cause the individual to focus inward and diminish their ability to engage in issue-relevant thinking (rather than emotion-relevant thinking). As a result, peripheral processing is more likely. Individuals in positive moods (e.g., happiness), on the

other hand, are less likely to engage in message elaboration as they want to maintain their positive affect. As such, when presented with a persuasive message, they are more likely to engage in emotion-relevant thinking than in issue-relevant thinking. For both anger and happiness, then, peripheral processing will be more likely than systematic processing, and people are likely to have more difficulty distinguishing between strong and weak arguments.

Results of this study showed that impact of emotions on persuasion varied depending on the emotion. Specifically, happy participants showed more systematic than peripheral processing, as they had more issue-relevant thoughts and recalled more about the strong message. Sad and angry participants had fewer issue-relevant thoughts about the strong message and actually recalled more about the weak message than the strong message, suggesting that they had used peripheral cues when processing about the message. This supports the assertion that the strength of a persuasive message has little impact on happy people, but strong impacts on sad people.

As a whole, then, this research suggests a varying relationship between affect and persuasion. Although sadness appears to promote systematic processing, happiness can have the opposite effect. These often contradictory effects will be important to understand in more detail.

### **5.3.6 Other Receiver Factors**

The literature also shows several individual differences to be influential in the motivation to process persuasive messages. Another important factor is the need for cognitive closure. Cognitive closure refers to “the desire for a definite answer on some topic, any answer as opposed to confusion and ambiguity” (Kruglanski, 1989, p.114; cited in Klein & Webster, 2000, p. 120). Cognitive closure is often argued to influence information seeking and judgemental biases, such that individuals with a high need will “freeze” upon judgmental cues instead of elaborating on the provided information.

Through a series of studies, Klein and Webster (2000) found that individuals low in need for closure processed persuasive messages systematically, taking the strength of the argument into account when forming their attitudes. However, although most individuals with a high need for closure processed the information heuristically, a small number engaged in systematic processing, most likely due to the perceived inadequacy of the cue. To better understand this finding, subsequent work explored the manner in which people high and low in need for closure would process a message in the presence or absence of heuristic cues. Results showed that people low in need for closure continued to process messages systematically regardless of the presence or absence of heuristic cues. Those with a high need for closure, however, processed messages heuristically when such heuristic cues were present, but systematically when these cues were absent. This suggests that given the opportunity to take a “short-cut”, high need for closure people will use whatever resources are available to them. However, when such opportunities are not available, they will take a more systematic approach to processing the information before them. This suggests that message design should consider individual differences such as need for closure when considering whether systematic or non-elaborated processing would be more effective.

An individual’s “need for cognition” defined as “the tendency to engage in and enjoy effortful cognitive activity” (Cacioppo & Petty, 1982) has also been argued to affect the impact of persuasive messages. As noted earlier, the elaboration likelihood model argues that receivers can either systematically or peripherally process influence messages. Receivers with



a high need for cognition, however, would be more likely to process almost any message systematically, as they would be interested in thinking through and elaborating the messages they receive, rather than simply absorbing them heuristically (Cacioppo, 1996; cited in Crano & Prislin, 2006). Given that systematically processed messages are generally believed to be more influential, it follows that people high in need for cognition will be more easily persuaded. Research has also shown that individuals motivated by a desire for cognition are more likely to see messages as personally relevant (e.g., Cacioppo et al., 1983; cited in Murphy et al., 2005), making these messages more likely to be elaborated. Finally, *a priori* personal interest in a topic would also be expected to invoke more systematic processing and increase feelings of personal relevance (Dole & Sinatra, 1998; cited in Murphy et al., 2005). As such, the factors that increase an individual's need for cognition will also promote higher levels of effortful and systematic processing. However, and notwithstanding the effect that need for cognition may have on the preferred route of message processing, high levels of need for cognition do not necessarily result in judgments and decisions that are more accurate or coherent. For instance, Mandel (2005, Experiment 2) found that university undergraduates who were asked to assess the probability of a terrorist attack occurring and, as well, of an attack not occurring in the same timeframe and location were just as likely to provide coherent estimates that added up to 1 (as they should given the mutually exclusive and exhaustive nature of the judged events) whether low or high in need for cognition.

Another individual difference variable noted in the literature to influence persuasion is self-esteem. This, of course, relates to one's personal sense of worth or value. Self-esteem in the general population ranges on a continuum from high to low. Interestingly, people with self-esteem in the intermediate level have been shown to be most amenable to persuasion. People with low self-esteem appear to have trouble with message reception and people with high self-esteem are simply less yielding (Rhodes & Wood, 1992; cited in Olson & Zanna, 1993) to persuasive messages. These individual difference factors, then, have been empirically established to impact on the effectiveness of persuasive messages.

### **5.3.7 Summary and Implications for CF Influence Operations**

As a whole, then, many different qualities of the receiver of a persuasive message are likely to impact on the effectiveness of that message. These include the motivation of the individual to attend to and to process the message carefully, as well as the ability to give resources to this task. The attitudes and values of a receiver, as well as their affect, identity, culture, need for closure and self-esteem are also relevant.

- 1) The most researched and best understood receiver factors are motivation and ability to process a persuasive message. Research exploring the 2 most prominent models of persuasion has shown these models to have both validity and predictive power. On these dimensions, then, there is very good grounding for influence ops specialists to believe that if they can increase the motivation and abilities of the receiver to process persuasive messages, these messages are likely to be more effective. Similarly, however, if motivation and ability cannot be high, then using peripheral routes to persuasion is the next best option.
- 2) Self-identity research is closely linked with core attitudes and values, as well as culture. There is some evidence in the research that targeting persuasive message directly at aspects of the self concept that are more salient and most important to the individual can promote persuasion.

- 3) The role of cultural factors in persuasion appears to be currently under-researched, but has been addressed to some extent in the area of consumer psychology. This research reviewed showed focus primarily on the individualistic/collectivistic cultural dimension, and has shown key differences in the cognitions, emotions and behaviours of people in different cultures. Given the international, deployed, and multinational, nature of modern military operations, culture is clearly a future research area that can provide critical support for influence operations.
- 4) The role of affect in persuasion is somewhat more mixed, and some emotions appear to have been much more researched than others. The role of fear in persuasion, for example, seems relatively well established, and in general, has shown that moderate levels of fear are the best predictor of persuasion. In general, although research has argued that negative emotions generally promote more systematic processing, and positive emotions promote more heuristic processing, these findings are very inconsistent, and often show different effects in combination with other factors.

From the perspective of the CF, detailed consideration appears to have been given to the qualities of the receiver, otherwise known as target audience analyses (TAA). Discussion of TAA as presented in CF Doctrine is relatively thorough (DND, 2004, p. 5-5, 5-6) and includes the need to assess the credibility of the source in the eyes of the target audience. Other critical factors noted include understanding their values, language, religious beliefs, social status, educational level, and customs and traditions in order to choose appropriate source and message content.

Importantly, CF PSYOPS doctrine also discusses the importance of understanding the current perspective of the target audience as well as the historical perspective. It advocates, for example, that indigenous people are identified, and their history (e.g., treatment by colonizers or invaders) is considered, as well as their tribal and group loyalties assessed. Moreover, consideration of their personal goals, values and motivations is also advocated, as well as a wide range of other factors related to a group's probable treatment within the political, social and security areas. The many different considerations listed as possible aspects of the target audience analyses is quite inclusive and specific. At first glance, however, it is unclear exactly how one would go about obtaining all of the many different kinds of information that may be relevant to the TAA, and there appears to be little clear direction about how this should be accomplished.

Moreover, there is little apparent discussion about which of the many possible target audience characteristics should receive the most weight. Given the prominence in the scientific literature of the target's ability and motivation to process a persuasive message, this should perhaps be one of the primary areas of focus in a thorough target audience analysis. However, each of the possible sources of information seem to receive equal weight. When faced with time pressure and an overwhelming amount of possible information that could be included in the target audience analysis, it may be more advantageous for PSYOPS planners to focus their efforts on the factors likely to be most influential on the acceptance of a persuasive message first. This issue is discussed more in the Recommendations chapter at the end of this report.

## 5.4 Media Effects

Many scholars have stressed that different communication media used to distribute persuasive messages can uniquely shape what is communicated and how it is received (Pfau, Holbert, Zubric, Pasha, & Lin, 2000). A growing body of evidence suggests that the influence of a message depends on the medium through which it is communicated (Guadagno & Cialdini, 2002; Murphy et al., 2005). This review is ordered from the least to most complex media. In increasing order of richness, then, some typical media commonly used to exert influence are print (e.g. leaflet), radio, telephone, television, multimedia and face-to-face methods (Guadagno & Cialdini, 2002). Given the host of media available in our technological age, optimizing influence will require careful consideration of the different strengths and weakness of these media.

Perhaps the most important distinguishing characteristic of the diverse media that can be used to distribute persuasive messages is the richness of information that they allow. There is a clear assumption in the literature that media in which the source is either physically or psychologically closer to the target are richer. Indeed, face-to-face contact is typically argued to increase influence because it is more credible than less personal media (Wathen & Burkell, 2002). The differential influence of the many different forms of media has often been argued to depend on the ability of media to communicate the richness of interpersonal interaction (Barry & Fulmer, 2004). When more detached from the message source, it may be more difficult for a receiver to gather important subjective data such as tone of voice, body language, and facial expressions from less socially rich media (Barry & Fulmer, 2004). The inability of some media to communicate complex social information and nuances has been termed “social constraint”. It is also clear in the literature that computer-mediated communication typically has a high level of social constraint. Trevino, Lengel and Daft (1987; cited in Wilson, 2003, p. 538) have argued that the “lack of nonverbal cues reduces the richness of the computer medium below that of other media, such as audio, video, and [face-to-face]”. The key concern, then, is whether media that are more socially constrained hinder efforts to persuade and influence.

Even when social constrained, media are often ideally required to provide both objective information and normative information. Although a face-to-face influence message may provide the same objective information as a printed message, a face-to-face message can facilitate transmission of information about the state of another person as well (e.g., emotion, needs, and goals). Subjective nonverbal data are important in influence because they provide details about the normative factors in a request rather than simply non-contextual objective message data. Normative factors can provide data about the social reasons for complying with a request (Martin & Hewstone, 2003) such as avoiding disappointing an authority figure or gaining social approval from a colleague. Moreover, without face-to-face interaction, there is little opportunity for social comparison, an important factor in influence, which holds that receivers of influence messages will engage in a process of comparing him- or herself with the source of the message to determine whether compliance would be likely to yield social gains (Moscovici, 1980; cited in Martin & Hewstone, 2003). As such, it is important to understand how best to overcome the effects of social constraints within the influence context.

The impact of persuasive media is also likely to interact with features of the source, the message and the receiver. For example, the media used to communicate a persuasive message can be construed as the source and as such, judgements about source credibility take on a

somewhat different meaning. An important question to consider, then, is whether new media introduce new factors into the credibility assessment.

With the advent of the Internet as a widely used method for information delivery and retrieval, questions have been raised regarding its credibility as a medium and a source of information. Empirical studies investigating the perceived credibility of on-line sources compared with traditional paper-based media (e.g., newspaper, magazines, etc.) have found interesting results. In particular, research has found that heavy Internet users view on-line newspapers to be significantly more credible than their traditional counterparts, although magazines were found to be equally credible whether on-line or not (Wathen & Burkell, 2002). Various studies demonstrate that when the Internet is used as a medium to transmit a message or information, different factors can be used to assess the credibility of the source (Fogg et al., 2000; cited in Wathen & Burkell, 2002). For instance, at the early stages of the process, surface characteristics such as a well-designed interface and attractive graphics can influence judgements in the absence of other reliable cues (Critchfield, 1998; cited in Wathen & Burkell). Judgements about the quality of on-line information can also be achieved in indirect ways not strongly related to the actual quality of the information. In judging the credibility of specific sources, Internet users often look for reputed or referred credibility markers, such as author's credentials or institutional affiliations, which are particularly important due to the lack of publication controls over the Internet. Other studies have found that people tend to use the same criteria for assessing on-line information as other media, including "real-world feel", ease of use, expertise, trustworthiness, and message tailoring all contributed to credibility ratings (Fogg et al., 2000; cited in Wathen & Burkell). Information on the Internet also has some "presumed credibility" since users believe that the effort to put such information online would only be expended if it was quality information (Feightner, Quintana, Marshall, & Wathen, 1999; cited in Wathen & Burkell, 2002). However, more technologically advanced users tend to scrutinize the source or object more closely and critically leading to lower perceived credibility (Tseng & Fogg, 1999; cited in Wathen & Burkell). Further, user need for the information has been found to correlate with credibility judgements, such that the greater the need, the more likely the user is to accept the information as credible. In addition, links to and from websites can act as referrals which can increase the credibility of the site (Fogg & Tseng, 1999; cited in Wathen & Burkell). Overall, then, many different characteristics are likely to impact on the perceived credibility of an Internet site, including source, content, format, presentation, currency, accuracy, and speed of loading (Rieh and Belkin, 1998, 2000; cited in Wathen & Burkell, 2002). This suggests that even Internet users may employ either systematic processing or heuristic processing when reading information often aimed at persuading them. However, the criteria used to assess credibility in source and message can vary from on-line, print based or face-to-face communications. Understanding the differences associated with credibility assessments across media is an important aspect when tailoring influence information to an audience.

Although limited by social constraint, computer-mediated communication (CMC) has received a good deal of attention because this form of communication is increasingly necessary in distributed workplaces (Sassenberg, Boos, Rabung, 2005; Guadagno & Cialdini, 2002). Recent research has investigated whether social constraint influence efforts would make computer-mediated communication less effective than face-to-face communication (Guadagno & Cialdini, 2002). Participants were assigned to one of two conditions: a face-to-face discussion or an email discussion. Participants either met or received email from a confederate who attempted to convince them that comprehensive exams should be added to



undergraduate graduation requirements. Participants' attitude changes toward instituting comprehensive exams in order to obtain a university undergraduate degree were measured with questionnaires, along with their impressions of the confederate. Participants also engaged in a thought-listing exercise to describe their cognitive responses to the discussion.

Results showed that participants who had received face-to-face discussion showed more attitude change and more focus on their partner than did participants who had received email. These same participants were also more positive about the exams and their partners (e.g., rating them as more knowledgeable about the topic) than those who had communicated over email, and accurately reported more of their partner's arguments and fewer counter-arguments than those in the email condition. The authors argued that because face-to-face communication is more socially rich, less cognitive capacity is available to develop counter-arguments to the persuasion message; rather much of the receiver's cognitive capacity is focused on the social aspects of the interaction instead of the actual issue at hand (Guadagno & Cialdini, 2002). This suggests that face-to-face communications are not only more socially rich than computer-mediated communications, but also more influential than computer-mediated communications.

Some research has explored the relationship between anonymity in socially constrained environments and the ability to exert influence. Some researchers and theorists have argued that anonymity can decrease source credibility and undermine influence. An account known as the "discounting hypothesis" (DeSanctis & Poole, 1994; cited in Rains, 2007) suggests that anonymity will negatively impact influence because people pay less attention to anonymous sources because anonymity decreases their credibility.

Research by Rains (2007) explored the impact of anonymity combined with varying argument quality and explored whether the quality of the source's argument impacted on the source's credibility and influence. Groups of four to seven students participated via an electronic meeting system for about 90 minutes, and were asked to arrive at a decision regarding a hypothetical scenario presenting an ethical dilemma. The researchers manipulated the anonymity of fellow group members (identified or anonymous) and the quality of the arguments (strong or weak). To manipulate the former, a confederate took the place of one of the group's participants and used a script to present strong or weak arguments. The credibility of the communicator and the influence of the communication were measured using questionnaires and thought listing procedures. The participants' perceptions of the group's effectiveness and their satisfaction with the discussion were also measured with questionnaires, as was the perceived anonymity within the group.

Results showed that greater perceived anonymity resulted in perceptions of the source as less trustworthy, less competent, less persuasive, and less influential, providing evidence for the discounting hypothesis. Moreover, participants reported less attitude change when they perceived the source in these negative ways. However, these factors did not affect participants' satisfaction with the discussion. In addition, argument quality was not associated with any outcome. Overall, then, it appears that anonymous sources are perceived as unwilling to be accountable and less credible in terms of their presumed expertise. This research suggests that if anonymous messages are to be influential, receivers should be reminded to attend to the message rather than to the receiver.

On the other hand, the social identity model of deindividuation effects (SIDE, Reicher, Spears, & Postmes, 1995; cited in Sassenberg, Boos, & Rabung, 2005) predicts that anonymity can increase social influence (e.g. norm-based influence) if a common social



identity is salient. According to the SIDE model, anonymity increases group identity because individuals focus more on commonalities among group members, and extrapolate from the presence of a common goal to make assumptions of being similar at a broader level. In the absence of individuating information about other people, then, individuals must use common group behaviour or “the common attributes of typical group members” in order to infer social norms (Reicher, 1987; cited in Postmes, Spears, Sakhel, & de Groot, 2001, p. 1245). On the other hand, when information about other people is not available but when personal identity is salient, people have neither normative nor individualized guides for their behaviour. When social identity is salient, socially constrained communication may be as successful as socially rich communication. However, when only personal identity is salient, it may be less successful (e.g., Postmes, Spears, & Les, 2002; cited in Sassenberg et al., 2005).

Research by Postmes et al. (2001) explored the predictions of the SIDE model. The first study in this series used an anonymity manipulation, as well as priming group norms. Participants were divided into two groups, one that was anonymous and one that was not. In the non-anonymous group, participants could be identified to each other using digital photographs. Group norms were manipulated by subliminally priming participants with either efficiency group norms (e.g., focusing on getting the task accomplished) or with prosocial group norms (e.g., supporting each other). The efficiency group norms were designed to make participants focus on the task, and the prosocial group norms were designed to make participants focus on the normative aspects of the discussion. The experimental task involved a group discussion conducted over the computer about how to solve an organizational issue at a hospital. The content of the computer discussion was categorized according to emergent themes and analyzed. Questionnaires measured levels of individual social identification and the participants’ final recommendation (used as the outcome indicator).

Results showed that participants in the anonymous group were more likely to conform to the primed group norm than were participants in the identifiable group. This suggests that the primed group norm was more influential in the anonymous group. A second study attempted to replicate this effect with the same anonymity manipulation but with another variation on the priming procedure. In these 4 person groups, 2 members of the group received primes with efficiency themes and 2 received primes with neutral information. The key issue was how anonymity would relate to the efficiency or neutral prime.

Results again showed that participants in the anonymous group were again influenced by the group efficiency prime. Importantly, however, even participants who had received neutral information “accommodated to the primed subgroup when they were anonymous” (Postmes et al., 2001, p. 1252). This suggests that when individuals were anonymous, the impact of the group efficiency prime had “migrated” from the participants who had actually received the prime to those who had not. This provides good evidence that the social richness of a given medium does not necessarily result in reduced influence as long as receivers are in a state of high social identity. This supports the SIDE model. When people are identifiable, however, this may increase an individual’s personal self-awareness and make one’s individuality more salient (Postmes et al., 2001), thus diminishing the power of social influence. Anonymity can clearly increase the normative effects of socially constrained messages in situations wherein individuals are high in social identity. As such, the impact of socially constrained media on influence may depend on the salience of one’s identity at a given moment in time. As a whole, then, the SIDE model posits that when less rich forms of communication are the only means available, one way to maximize their influence power is to work on increasing common group identity.



The research related to the effect of anonymity within socially constrained environments, then, is somewhat contradictory. As noted earlier, research by Rains (2007) showed that anonymity decreased influence. However, research related to the SIDE mode (Postmes et al., 2001) shows that anonymity can increase persuasion in computer-mediated environments. However, both accounts of the effect of anonymity seem valid. Anonymity can decrease influence in constrained environments when the source is the focus. However, when social identity concerns are introduced into the system, and the source as well as the receiver “in the spotlight” the dynamics of anonymity can change dramatically, and the desire to be perceived in a positive light by others can promote stronger social influence effects.

Research investigating the differences among the persuasive capabilities of various media has explored how the impact of media relates to various characteristics of receivers. For example, research by Murphy et al. (2005) compared the influence of persuasive messages presented in traditional paper and non-interactive web-based computerized formats (i.e., lacking hyperlinks to other web pages). Specifically, the relationship between participants’ beliefs and motivational states (i.e., need for cognition, topic relevance, and topic interestingness) and the influence of messages delivered by the socially constrained media of traditional paper texts and online computerized persuasive text was explored.

University undergraduates read two persuasive texts either on paper or on a computer screen. The topics concerned euthanasia and school integration. They received both of these messages containing the same content in one of the two forms: paper or computer. After reading the two messages participants indicated their motivational states and their opinions on the issues using questionnaires. Results indicated that regardless of the mode of message delivery, the persuasive messages had an equal impact. People who received the paper-only text found the issue more interesting than those in the computerized condition, but this did not change the actual influence power of the text. However, participants higher in need for cognition showed significantly more attitude change than those low in cognition, suggesting that participants who experienced a high need for cognition were more likely to elaborate the messages presented in both forms of text. This suggests that the impact of socially constrained media can be heightened by presenting it to people high in need for cognition.

Working within computer-mediated environments has also been shown to influence private self-awareness. Sassenberg et al. (2005) argue that private self-awareness is critical to interpersonal influence in computer-mediated contexts. Whereas public self-awareness involves “concerns about one’s appearance and the impression made in social situations” (Prentice and Dunn, 1982; cited in Sassenberg et al., 2005, p. 363), private self-awareness can be defined as “...a focus on personal, more covert aspects of oneself such as perceptions, thoughts and feelings (Prentice and Dunn, 1982; cited in Sassenberg et al., 2005, p. 363). In short, they argued that face-to-face communication enables more interpersonal influence than computer-mediated communication (CMC) because CMC heightens private self-awareness (at least temporarily). When this occurs, and the individuals focus on their own thoughts, attitude change is less likely to occur. This research, then, compared attitude change within either a face-to-face interaction or as a product of computer-mediated communication.

In one experiment, participants communicated anonymously on a group decision-making task by computer (with their private self-awareness heightened) or face-to-face (without their private self-awareness heightened). Results showed that interpersonal influence (expressed as disagreement with the group) was higher in the face-to-face group than the CMC group, and that this effect was mediated by state private self-awareness. In another experiment,

participants communicated by computer or face-to-face, but the trait private self-awareness of all participants was measured a week before the experiment in order to investigate moderating effects on influence. The task in the first experiment involved three participants working together on a NASA survival task. The task in the second experiment involved resolving a moral dilemma involving assisted suicide. Influence was measured with questionnaires concerning attitude change and disagreement.

Computer-mediated communication increased private self-awareness more than face-to-face communication. The results of the second experiment showed that trait private self-awareness moderated the influence of computer-mediated communication. Only those participants in the face-to-face condition who had high private self-awareness were more influenced than those in the computer condition. The pattern reversed for low private self-awareness. These findings suggest that face-to-face communication detracts from individuals' sense of awareness of their own thoughts, but that the computer condition does not. However, only individuals who have a propensity toward private self-awareness will follow this pattern. Taken together, these results suggest that private self-awareness is a critical factor in the influence of media that involve anonymity versus those that do not. State private self-awareness mediates interpersonal/norm-based influence whereas trait private self-awareness moderates it. The greater an individual's state or trait self-awareness, the less they will be influenced. These results show another reason why socially constrained media are less influential: they raise individuals' sense of their personal values, thus invoking ready-made counter-arguments against influence messages.

In attempting to identify why some media are more influential than others, some researchers have argued that influence of persuasive media increases as more sensory modes are engaged (e.g., Jacoby et al., 1983; cited in Dijkstra, Buijtel, van Raaij, 2005). Media naturally differ in the content and number of sensory modes that they stimulate, and each sensory mode can evoke powerful rational and/or emotional reactions (Dijkstra, Buijtel, & van Raaij, 2005). This suggests that one of the reasons why socially rich media may increase influence is that they may invoke stronger cognitive and affective responses. At the same time, however, there is also a danger in using multi-media strategies as the activation of many different cognitions and emotions could overwhelm the desired persuasive message (Dijkstra et al., 2005).

However, the same researchers also argue that the speed at which persuasive messages are transferred and a receiver's ability to control the speed of transfer may affect the depth of the processing of the message, and the actual persuasive appeal of a medium. If receivers can control the rate at which sensory information is received, they are less likely to become overwhelmed. For example, unlike reading a text-based message, the speed of information provided by television is controlled by the sender not the receiver. As such, the receiver may devote relatively little cognitive capacity to processing television-mediated messages, and engage in only superficial processing of the message. Moreover, if the speed of the transfer is too quick, receivers may not be capable of fully processing the message. In contrast, the speed of information transfer in print media and the Internet are controlled by the receiver and these media allow the user to process the information at their own pace.

Research by Dijkstra et al. (2005), then, explored the effects of single- and multiple- media campaigns naturally offering varying levels of user control on consumer affect, cognition and intentions to buy the product. The media investigated were relatively socially constrained and



consisted of television, print, and the Internet. Participants were exposed to advertisement campaigns for a book and for a brand of wine using one of ten conditions:

- Television only
- Newsprint only
- Internet only
- Internet-Print-Television
- Internet-Television-Print
- Print-Internet-Television
- Print-Television-Internet
- Television-Internet-Print
- Television-Print-Internet
- Television-Television-Print

The objective information provided through each medium was identical. Participants' cognitive responses to the influence campaign were measured by asking participants to record everything they could spontaneously remember about the ads. They were also asked to rate how certain they were that various specific details had appeared in the ad. Some items in the list were real; some items were fakes. Affective responses were measured by asking participants to list all of their thoughts, reactions, and ideas while receiving the ads. In addition, they were asked to rate their affective responses using four semantic differentials (e.g., clear/confusing, interesting/uninteresting, appealing/unappealing, and likeable/dislikeable) using seven-point scales. Finally, one-item question probed participants' intention to buy the products.

The results indicated that television stimulated the most cognitive responses and promoted the most influence (Dijkstra et al., 2005). Multi-media campaigns using all three media were more effective than Internet-only campaigns but were not as effective as the television or print-only campaigns. Importantly, there were no significant differences in affective responses between the single and multi-media conditions, suggesting that television or print alone can evoke an optimal amount of affect. This suggests that multi-media communications are not necessarily more effective than single medium operations. Evoking multiple simultaneous cognitive and emotional reactions may interfere with influence messages rather than strengthen them. As such, this research debunks the argument that more stimulation is better.

The combination of visual and audio modes evoked more attention and therefore was more influential than the other media. This finding is contrary to the hypothesis that less control over medium delivery is associated with less influence. However, user control may explain why the print ads were more stimulating and influential than the Internet ads. It appears that socially constrained media that stimulate cognition and affect and allow personal control over the information may be extremely influential. Interestingly, the Internet-only campaign produced significantly less affective reactions than television-only and print-only campaigns. This could explain why it was less influential than the other media. Overall, then, the results of this study show that different media have differential impacts on affect and cognition and

on attitudes and behaviour. However, it is important to note that the cultural background of the target also seems likely to impact on these results.

Other research has explored whether the match between the strengths of the delivery medium and the specific strategic aim of the persuasive message (Wilson, 2003). For example, more socially rich face-to-face communication might be better than computer-mediated communication for emotion-based influence such as making promises or threats. Wilson (p. 545) explored the impact of using one of 4 message themes: reward, punishment, emotion (defined as “using an emotional argument to get what you want”, and logic (defined as “using a logical argument to get what you want”). Undergraduates acted as participants over the course of one semester (three months) and over three courses. Participants used computer-mediated and face-to-face communication for two courses to promote team goals; namely to support development of software products concerning third generation programming language, and to develop a database management system. In the third course, they used these modes of communication for personal communication only. After three months, participants were asked to rate the effectiveness of each form of communication.

The results showed that computer-mediated communication was perceived to be less effective for persuasion purposes. Moreover, it was rated to be less effective than face-to-face communication when interacting with other members of their team. Participants indicated that the available forms of communication served some purposes better than others. Specifically, face-to-face communication was rated as more effective than computer-mediated communication for both emotion-based and rational influence attempts. This study provides preliminary evidence that face-to-face communication may be better than computer-mediated for various types of communication including different influence tactics.<sup>10</sup> Thus, it is difficult to provide much in the way of recommendations based on this study. Nevertheless, Wilson (2003) takes a unique approach to the question of media impact, and future studies should continue to investigate whether some media are better for some influence strategies than others.

Barry and Fulmer (2004) provide one of the most comprehensive theories about the mechanisms by which the social constraints of various media differentially impact influence. Their model, the “adaptive use of available media model”, describes media designed with a more adaptive structure could be used in order to influence others. They argued that media vary along three main interpersonal attributes, social bandwidth, interactivity and surveillance. Social bandwidth relates to the ability of the medium to promote the presence and transmission of social information, including social and relational factors. The interactivity of the medium (i.e. the rate of communication and the speed with which feedback occurs) also influences the ability of a medium to persuade. Finally, surveillance is the extent to which communication allows for surveillance by outside parties beyond the agent of influence.

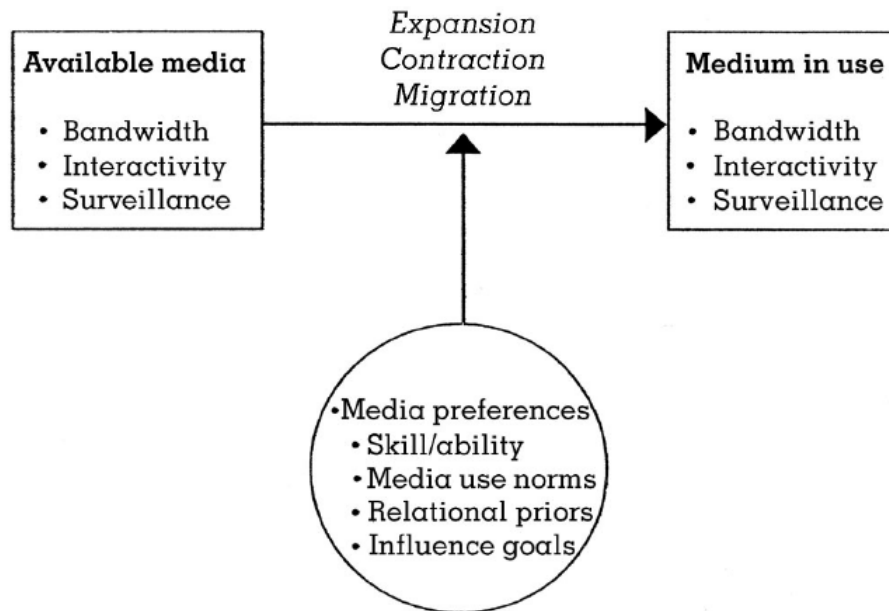
According to Barry and Fulmer (2004) most scholars would believe that a given medium has fixed levels of these three attributes (e.g., Sproull & Kiesler, 1986; both cited in Barry & Fulmer, 2001). However, Barry and Fulmer argue that individuals should be able to manipulate the social richness of various media. To this end, Barry and Fulmer (p. 277) define media adaptation as the process that “focuses on the individual agency of the

---

<sup>10</sup> Unfortunately, Wilson (2003) did not provide any description of the transactions they coded as reward, punishment, emotion-based, or logic-based influence strategies.

communicator”. They argue that over the course of a single social interaction, individuals should be able to choose the type of information that they would want in a given situations, and to be able to switch or “migrate” among various media. Moreover, building this flexibility into media communication would allow them to manipulate (i.e. expand or contract) the levels of social bandwidth, interactivity, and surveillance.

The model that represents this adaptive process is depicted in Figure 5.



**Figure 5: The Adaptive Use of Available Media model (Barry & Fulmer, 2004)**

The model in Figure 5 indicates the adaptability of the person receiving information from media. Over the course of the interaction, the person can switch amongst the available media (when multiple sources are available), can alter the characteristics of the desired medium to provide more bandwidth or interactivity. The key issue in this theoretical model is the target’s ability to expand or contract the features of the media to come more in line with one’s processing goals. Although this model has not been empirically tested, it contributes to the literature on influence and media effects and provides insight about the importance of considering the medium and not simply the source, target and message in the influence process. This model clearly highlights the importance of the social richness of a medium.

#### **5.4.1 Summary and Implications for CF Influence Operations**

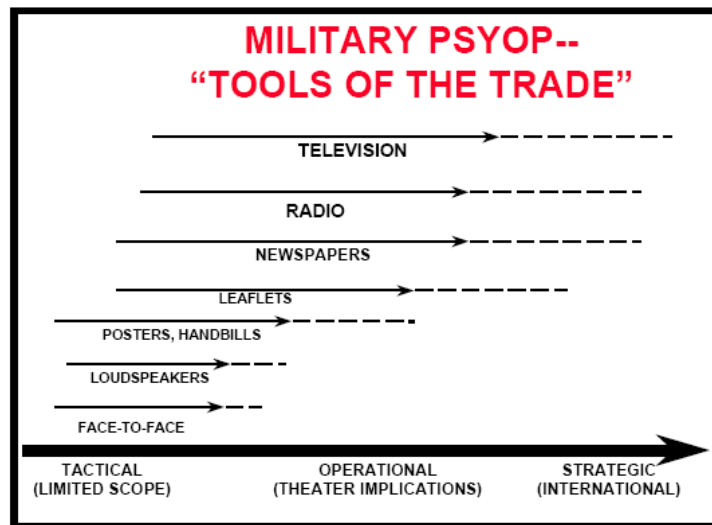
Influence can be greatly impacted by the type of media employed (Guadagno & Cialdini, 2002; Murphy et al., 2005). Unfortunately, there are few easy and consistent answers about what type of medium would be most persuasive for making a persuasive attempt, as existing theory and research still appears to be at the relatively early stages of development. The literature concerning the influence of different media is complex and not well developed in terms of strategic incremental growth; often a single study includes many variables, sometimes without theoretical rationale.

Most research has considered this question from the perspective of the social salience or richness or constraint of the medium used (Guadagno & Cialdini, 2002). In general, different media offer varying amounts of social data with face-to-face communication being the most socially rich and print being the least socially rich (Barry & Fulmer, 2004). The literature reviewed in this section suggests the following implications:

1. Communication media differ in their social richness. More socially rich media provide more subjective nonverbal cues, which may aid in influence. Face-to-face communication appears to be the most socially rich medium and research shows that it is more persuasive than any other medium.
2. Different media are likely to evoke different levels of cognitive and emotional activity in the receiver. Although the research in this area is sparse, there is evidence that multi-media delivery combinations are no more effective than a single media (television). Single medium communications that evoke cognition and affect can be just as effective as multi-media communications (Dijkstra et al., 2005).
3. The effectiveness of a given medium may be impacted by factors of the receiver. For example, receivers who are motivated by a need for cognition are more likely to thoroughly process a message than those who are less motivated by a need for cognition (Murphy et al., 2005). Moreover, need for cognition is associated with deeper processing of influence messages, resulting in increased influence capability (Murphy et al., 2005). Raising receivers' awareness about faulty information they may have from other sources, or by indicating that an important message is coming that they should really think about, might therefore increase the degree they will systematically process and be influenced by the message.
4. In addition, reducing a receiver's sense of personal identity and increasing their group identity may increase the effectiveness of an influence attempt because they are less likely to focus on their own agenda and values and more likely to focus on the group's agenda and values (Postmes et al., 2001; Sassenberg et al., 2005). Ensuring anonymity is one way to promote this goal (Postmes et al., 2001; Sassenberg et al., 2005).

According to the CF Ops Joint Doctrine (DND, 2004) Typical media used in CF PSYOPS include television, radio, loudspeakers, leaflets, and face-to-face communications or a combination of any of these. The range of media available to conduct PSYOPS is depicted in Figure 6.

**Figure 6: Media Channels as used across PSYOP levels (U.S. Defense Science Board, 2000).**



It is important to note that the tools likely to be used in PSYOPS show increasing complexity with movement from the tactical to operational to strategic level.

From the Canadian perspective, the CF Joint Ops Doctrine (DND, 2004) indicates that in order to select the best medium, PSYOPS personnel should consider target's ability to access the various types of media, including sheer availability, but also the ability to read, and the perceived credibility of various media, which may differ across cultures. Another important consideration is who controls a particular medium, not just in terms of CF personnel access to it, but also in terms of possible political factors such as whether the owner of the local radio station is reputable in the eyes of the targets (DND, 2004). If not, the message probably will not be seen as credible or it may be ignored. The CF appears to recognize that there are benefits and limitations to the various media including the interpersonal appeal of face-to-face communications. This suggests that the medium used to disseminate a persuasive message is a critical contributor to its effectiveness.

It is important to note, however, that some of the pros and cons of using different kinds of media are evident in CF doctrine. Face-to-face communication, for example, is cited as the most influential, and nuances such as body language and showing respect for cultural sensitivities are indicated. Advice for the use of other simple media such as loudspeakers, and more complex media such as using videotaped messages are also included. With each of these descriptions, although there is clear basic knowledge of the literature, there is also some lack of sophistication with respect to some of the challenges and exceptions noted in the literature, such as the scientific finding that having a highly credible source deliver a strong message can actually undermine persuasion. As such, although there is a good deal of valuable insight and information in current PSYOPS doctrine, incorporating even more of the nuances, and more importantly, making the information more user friendly is still critical.

At present, unfortunately, the existing media literature cannot provide systematic answers about what media should be used to make a persuasive PSYOPS attempt. However, it seems likely that rather than giving attention to potential costs and benefits of using specific media





to communicate specific kinds of messages, military systems have typically simply used what they have available to them depending on the broad goals of the influence campaign (e.g., number of people that they need to reach, available resources). Nonetheless, as technology proceeds, and as an increasing number of different delivery systems become available, the need for both controlled laboratory and field research in complex environments about when specific media are likely to be most effective is likely to grow. This issue is discussed in more detail in the Recommendations section later in this report.

## 6. Social Influence

To this point, this review has focused on the attitude side of persuasion. This body of work, for the most part, considers the impact of persuasive messages on individuals. But, individuals do not typically function in isolation, and the social environment exerts considerable influence on how people understand and respond to their world. Both research and theory suggest that utilizing the power of group processes is another key way to influence other people.

As noted earlier, social influence has been defined as “...the ways in which the opinions and attitudes of one person affect the opinions and attitudes of another person” (Martin & Hewstone, 2003, p. 2). Social influence, of course, often relies on the normative information that people receive about their own behaviour and the behaviour of their relevant peer groups. Social influence has been identified as serving two functions, either maintaining group norms (social control) or changing group norms (social change) (Martin & Hewstone, 2003).

Although the persuasion and social influence literatures are often overlapping, it is important to note some key differences in their thinking about attitude change and influence. According to most social influence theorists, for example, because people are inherently motivated to have and use the right information, the assumption is that people will always process information thoroughly in order to conform to the normative expectations of others. This deeper processing would generally be expected to lead to deeper attitudinal change. Dual-processing models of persuasion (e.g. ELM and HSM), on the other hand, argue that the relationship between information processing and attitude change is complex. In fact, people can process information extensively and show enduring attitude change or can process very superficially and show considerable change (Wood, 2000). As such, although both persuasion theorists and social influence theorists are both interested in motivated processing, persuasion theorists do not expect that information processing will necessarily lead to attitude change.

The social influence literature argues that people are driven by three primary motives (Cialdini & Goldstein, 2004; Wood, 2000) which affect their interactions with other people:

- Self-concept: ensuring coherence and favourable self-evaluation; maintaining a positive self concept
- Affiliation: building and maintaining relationships; ensuring good relationships with others given their status
- Informational: effectiveness; understanding the data inherent in an influence appeal. This motivation has also been interpreted as being accuracy related

In striving to see themselves in a positive light, to affiliate with others, and to use the information available to them to be accurate and consistent, people are often compelled to look beyond their own judgement in order to find “markers” for their attitudes, beliefs and behaviours. The social environment provides a ready source of feedback and information that can assist people in meeting these three primary objectives. A model by Kelman (2006) identifies a typical social influence progression when interacting with another person within the social environment, including:

- 1) compliance to the influencing agent's demands,
- 2) identification with the agent's expectations, or
- 3) internalization of the agent's ideas.

These processes (and the associated goals) are shown in Table 7.

**Table 7: Kelman's (2006) three processes of social influence**

Type of process	Individuals accepts social influence because he or she:	Underlying instrumental concern	Underlying self-maintenance concern
Compliance	Wants to attain a favourable reaction from another person or group.	To gain a specific reward or to avoid punishment from the other party.	Approval or disapproval from the other party.
Identification	Wishes to establish or maintain a satisfying self-defining relationship to the other party.	Need for a reciprocal relationship	Modelling – living to one's role models, vicariously taking on the role of another.
Internalization	Wishes to maintain the congruency between his or her actions and beliefs with his or her own value systems.	Cognitive consistency – Individuals sees his or her behaviour as a device to maximize his or her values	Affective appropriateness – Induced behaviour confirms one's self-concept.

At the early stage of interactions, then, maintaining a positive view of oneself and positive relationships with another person or group may require compliance in order to gain rewards, avoid punishment, and to garner approval. As the interaction proceeds, however, a sense of commonality may develop, as the level of similarity between oneself and the referent person or group increases. Seeing oneself in the same group also brings more pressure to maintain the relationship and for the relationship to become reciprocal. Eventually, the beliefs and actions that were initially based on compliance and then based on commonality may start to become internalized, and the individual now works to ensure congruence between the newly shaped value system and current actions and beliefs. This model provides a very good overview of the social influence process.

Within this broad description in place, however, there are many different ways in which people influence the attitudes and behaviour of other people. The following sections describe several prominent forms of social influence, including conformity and majority influence, minority influence, and obedience.

## 6.1 Majority Influence and Conformity

In the literature, conformity is commonly argued to be the product of majority influence. Conformity is defined as “the process of resolution of conflict by deviant group members changing their opinion to that of the majority” (Martin & Hewstone, 2003, p. 3). Similarly, conformity is commonly defined as “the process by which an individual accepts (or complies with) the group's view” (Martin & Hewstone, 2003, p. 2).



There is good evidence that people tend to conform to numerical majorities when they are the “odd person out” (Martin & Hewstone, 2003). In short, given our persistent need to maintain a positive self-view, to fit in with others, and to use the information that we have in order to be accurate, being the “odd man out” is an aversive state. This was well illustrated in the seminal conformity study, in which Asch (1955; cited in Hock, 1999) conducted a series of visual experiments to investigate individuals’ tendency to conform to the views of the majority. Participants were presented with pairs of cards containing vertical lines. One card displayed the standard line, another card displayed three comparison lines. Upon arrival at the experiment, one participant joined a group of seven confederates posing as other participants. Each individual in the group was asked to declare verbally, for the group to hear, which lines matched the standard line. The lines were created so that the correct answer was unambiguous. The actual participant responded last – after listening to all the other participants (confederates) provide the same wrong answer. Participants completed the experiment on several occasions. The results found that 75% of participants conformed to the majority consensus at least once, and that overall participants conformed at least 33% of the time across all of their experimental groups. These results show the strong relationship between majority influence and conformity.

Although existing literature most often seems to define majority status in terms of relative size, majorities can be operationalized in many different ways. These include numerically (i.e., over 50% of the population), status labels (majority), normatively (the standard in a given society), or in terms of the power relationship between the source and receiver (Gardikiotis, Martin, & Hewstone, 2005; Martin & Hewstone, 2003), with the majority portrayed as more than or better than the minority. It is important to note that the size of a majority is not necessarily critical, as even small majorities can elicit conformity. Similarly, it is also important to note that majority influence can arise just as easily from perceived majorities as from real ones. In short, whenever people believe that their attitudes conflict with the majority (real or imagined), majority influence could occur.

The power of conformity to majority consensus is expressed in the following quote from an American soldier who was involved in the My Lai massacre,

“I just went. My mind just went. And I wasn’t the only one doing it. A lot of other people did it. I just killed... a lot of people were doing it, so I just followed suit. I just lost all sense of direction, of purpose. I just started killing any kinda way I could kill. It just came. I didn’t know I had it in me” (Bilton & Sim, 1971, p. 7; cited in Epley & Gilovich, 1999, p. 578).

This quote provides a compelling account of majority influence at work. Seeing other people killing innocent civilians, the soldier simply followed suit, but was surprised in retrospect to have gone against his existing beliefs and attitudes. In this case, however, the soldier seemed to have been influenced both by what other people were doing (i.e. the normative aspects of the situation), as well as by the information that the behaviour of others provided. Indeed, the power of majority influence lies in the normative or informational data that majorities provide (Cialdini & Goldstein, 2004; Martin & Hewstone, 2003; Wood, 2000), and each are described in more detail in the sections that follow.

### 6.1.1 Normative Influence

According to the normative (or social view), individuals conform because they want to fit in with the majority (Festinger, 1950, 1954; cited in Martin & Hewstone, 2003; Wood, 2000). Individuals perceive majorities as providing normative data about how to behave and what to think. This normative information helps receivers know how to behave in ways that are sanctioned by society. Normative influences are most likely to drive conformity when individuals are motivated to be social, or, to fit in (Chen, Shechter, & Chaiken, 1996; Festinger, 1954; cited in Martin & Hewstone, 2003). Being like the majority offers individuals a chance to “gain the social approval of others, to build rewarding relationships with them, and, in the process, to enhance their self-esteem” (Cialdini & Goldstein, 2004, p. 610). Indeed, research shows that increasing the normative ‘value’ of the group (e.g., increasing similarity or attractiveness) increases conformity (Allen, 1965; cited in Martin & Hewstone, 2003).

Moscovici’s conversion theory argues that people are sometimes motivated to conform to the majority because it reduces interpersonal and internal conflict (Moscovici, 1985; cited in Martin & Hewstone, 2003). An individual feels social and cognitive tension when s/he disagrees with the majority because the majority represents status and power (Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994). Thus, information provided by a majority source is likely to initiate a comparison between the source and the receiver aimed at helping oneself to appear similar to the majority (Moscovici, 1980; 1985; cited in Martin & Hewstone, 2003). Factors contributing to the normative value of majorities include individuals’ identification with them (Cialdini & Goldstein, 2004; Martin & Hewstone, 2003). The more attractive or similar the majority, the more an individual is motivated to conform to their views (David & Turner, 2001; cited in Cialdini & Goldstein, 2004; Martin & Hewstone, 2003). Moreover, anonymity can also undermine majority effects, as people are more likely to conform to the majority when their response is public rather than private (Martin & Hewstone, 2003; Wood et al., 2003).

Majority influence based on normative factors typically involves reduced systematic processing and elaboration and increased heuristic processing. When individuals are normatively motivated, they are more likely to take majority messages at face value, focusing less on the message than on the social benefits of converging their beliefs with those of the majority (Moscovici, 1980, 1985; both cited in Martin & Hewstone, 2003). In fact, they may use decision rules such as ‘agreement with the majority will boost my social standing’. This prediction is consistent with the elaboration likelihood model (ELM; Petty & Wegner, 1999; cited in Gardikiotis et al., 2005) and the heuristic/systematic model (HSM; Chen & Chaiken, 1999; cited in Gardikiotis et al., 2005) which hold that the salience of normative or informational cues in persuasive messages determines whether these messages are systematically or heuristically evaluated (Gardikiotis et al., 2005). This suggests that when a persuasive message is weak, increasing the salience of the normative value of the message may facilitate conformity. Put another way, even if one’s persuasive message is not particularly strong, invoking normative factors such as belonging and “fitting in” may increase the effectiveness of the message.

The normative impact of majority consensus has been aptly shown in research and theory by Cialdini (2005, p. 158) who has stated, “[a]s a rule, people grossly underestimate the guiding role that others play in personal choices.” He argues that people are frequently oblivious to the influence of others’ behaviour on their own, and that modelling can play a large role in



conformity. To demonstrate this point, he conducted a study on modelling altruistic behaviours. With a street musician in place on a busy street, he measured the number of passers-by who put donations into a hat after having seen a confederate do so (vs. not). Results showed that people who observed the confederate putting donations into the hat were eight times more likely to do so themselves than people who had not observed the confederate making a donation. Moreover, when these passers-by were asked to explain their behaviour, all of them used reasons other than the confederate's modelled behaviour to explain their actions. This suggests that although people may not be consciously aware that their own behaviour is influenced by the actions of others, majority influence can be a critical determinant of their behaviour.

This point is perhaps even better illustrated in another study working to encourage conservation in hotel rooms (Goldstein, Cialdini & Griskevicius, 2005; cited in Cialdini, 2005). Even though cards in hotel rooms typically exhort people to re-use towels in order to save the environment, these messages fail to simply tell people that most guests actually do comply at least once during their stay to re-use their towels. By failing to emphasize this normative behaviour, then, hotel chains may miss out on their chance to promote the desired behaviour. To explore the power of using normative messages, a study by Goldstein, Cialdini & Griskevicius, 2005 (cited in Cialdini, 2005) constructed four different messages with varying levels of normative "pull" and used them in hotel rooms in Phoenix, Arizona. These messages were as follows:

**HELP SAVE THE ENVIRONMENT**

**HELP SAVE RESOURCES FOR FUTURE GENERATIONS**

**PARTNER WITH US TO SAVE THE ENVIRONMENT**

**JOIN YOUR FELLOW CITIZENS IN HELPING TO SAVE THE ENVIRONMENT**

Compared to the first three messages, the last descriptive normative message helped to increase towel reuse by an average of 28.4% (Goldstein, Cialdini & Griskevicius, 2005; cited in Cialdini, 2005). The most effective sign, then, implies that the majority of the population are already engaging in re-use behaviour. Thus, Cialdini's work suggests that perceived majorities are a source of normative information and that individuals often use their information as a guide for their own behaviour. This study shows that the normative value of a persuasive message may help to heighten the effectiveness of this message.

Other research suggests there is good evidence that the perceived size of a majority can influence its impact. For example, small majorities may be less persuasive because they provide less normative data than large majorities. Research by Gardikiotis et al. (2005) investigated whether descriptive adjectives such as 'large majority' or 'small minority' would impact influence. In three experiments, university students were asked to give their attitudes about voluntary euthanasia. Participants read a newspaper vignette that indicated the attitudes of 3 groups (small majority, large majority or minority). The descriptions of the source included numbers or adjectives or both (e.g., 'a large majority of 82%' in the both condition). Before receiving the vignette, participants completed questionnaires exploring their attitudes about several controversial topics including the target topic ('do not agree at all' to 'agree completely'). They then read the vignette and indicated their ultimate position on the topics ('in favour', 'against', 'don't know'). This pre-post design allowed the authors to compare the influence of the source manipulation on attitude change. Participants listed their thought

processes while arriving at their reported opinion in order to investigate the hypothesis that large sources would be associated with message-congruent thinking, and, therefore, less systematic processing. Moreover, in order to explore the impact of varying argument strength, message quality was also manipulated to be either strong or weak.

Results showed that ‘large’ sources had more influence on participants’ attitudes than ‘small’ sources regardless of whether the source was a majority or a minority. This suggests that increasing the normative influence of sources, including majorities, makes them more influential. A second study found that this was the case regardless of the quality of the message. The finding that message quality did not impact on attitudes coupled with the finding that the thought lists showed that large and small majority messages were not differentially associated with message-congruent or message-incongruent thinking suggests that large sources promoted heuristic rather than systematic processing, supporting Moscovici’s (1980; cited in Martin and Hewstone, 2003) normative account of majority influence. Finally, participants’ thought lists suggested that they believed they were influenced by the word ‘majority’ rather than the numerical information about the majority’s proportion. However, they were more likely to say this when they *had* information about the majority’s size than when they did not. This is interesting because it appears that the percentage information focused participants’ attention on the superior status of the majority source and increased their normative value. This indicates that adjectives that bolster the status of majority groups may enhance their influence power by raising individuals’ motivation to affiliate with strength as opposed to weakness. This study shows that majorities are more influential than minorities because of their normative value, as the findings showed that people attuned more to status information than numeric information.<sup>11</sup> Moreover, majority messages were associated with heuristic rather than systematic processing.

Other research suggests that social visibility effects are impacted by the salience of group norms (Kallgren et al., 2000; cited in Cialdini & Goldstein, 2004). Researchers have argued that individuals’ tendency to conform will be moderated by their desire to affiliate with the group (Martin & Hewstone, 2003). This attraction or commitment to the group can depend on identification with the majority often based on interpersonal similarity. Indeed, self-categorization theory (David & Turner, 2001; cited in Cialdini & Goldstein, 2004) argues that majority influence may only be successful when the source is an in-group member (Cialdini & Goldstein, 2004p. 612). When individuals do not have information about whether the majority is an in-group or out-group, majority influence and subsequent conformity decrease.

There is also good evidence in the literature that the normative power of majorities is lessened when potential targets of influence (i.e., receivers) have anonymity. Even when people do publicly conform to majority consensus, they may not privately change their attitudes (Martin & Hewstone, 2003). A meta-analysis by Bond (2005) on data from decades of research using Asch’s (1956; cited in Bond, 2005) line judgement task found that conformity increased when attitudes were publicly rather than privately displayed. That is, although people were more likely to conform to the group when the majority could ‘observe’ them, they maintained their original attitudes at a private level. This research supports the normative account of majority influence that holds individuals conform to the majority because they want to enjoy the positive effects of associating with the majority on their self-

---

<sup>11</sup> Minority influence findings for this study will be discussed in Section 6.2.



concept (Cialdini & Goldstein, 2004), and argues that the visibility of the target to the majority group is a critical influence of whether actual attitude change will occur.

Although anonymity has been argued to diminish majority influence effects, the Social Identity model for Deindividuation Effects (SIDE; Reicher et al., 1995; cited in Cialdini & Goldstein, 2004) presents a somewhat different account. This model posits that in less socially rich environments (e.g. computer mediated communication), individual identity becomes less salient, and group identity can become more salient. With very few cues “in play”, then, common identity may be more easily formed, and deindividuated people will then conform to “local, situation-specific norms defined by the group identity” (Reicher et al., 1995; cited in Cialdini & Goldstein, 2004, p. 613). In this way, individuals within anonymous groups may be more rather than less likely to conform to majority influence.

In most other environments, however, there is good evidence that when individuals want to “fit in” and to have positive social identities, they are likely to conform to the majority. But, people also conform to the majority position because the views and behaviours of other people provide information about how to behave as well as validation for doing so. The informational effect of majorities is discussed in the next section.

### **6.1.2 Informational Influence**

The most prominent informational theory of majority influence, objective consensus (Mackie, 1987; cited in Martin & Hewstone, 2003) posits that majorities are effective in generating conformity because of the objective data they provide. This theory argues that people are motivated to conform because they desire to be accurate, and they believe the majority view is the valid or correct one. By the sheer force of its size and status, individuals believe that the opinion of the majority is the correct and valid one (Wood, 2000; Festinger, 1954; both cited in Martin & Hewstone, 2003). Majority influence can be direct (e.g., information immediately influences attitude because of the size of the majority) or indirect. More indirectly, apparent discrepancies between the views of the majority can also lead to information being processed in a more biased way. People expect to agree with the data provided by majority sources. The “false consensus effect”, for example, has shown that people often incorrectly believe that the majority shares their own values and beliefs (e.g. Ross, Greene, & House, 1977). Thus, they are made uncomfortable by a majority source message that does not immediately persuade them (e.g., the message does not seem to be logical). In order to reduce this discomfort, they may give increased attention to the inconsistencies between their beliefs and the majority’s beliefs (Mackie, 1987; cited in Martin & Hewstone, 2003). Hence, because their beliefs about the validity of the majority opinion predispose them to evaluate majority messages more positively, individuals may process information in a biased way in order to arrive at the conclusion that the majority position is actually correct (Crano & Prislín, 2006). This example, then, also suggests that majority messages that provide information about the correct response will be processed more systematically, because individuals are motivated to understand why their perspective differs from the majority’s perspective (Mackie, 1987; cited in Martin & Hewstone, 2003). As such, when the informational value of a persuasive message is strong, peripheral cues (e.g., social cues, source credibility) will be less influential.

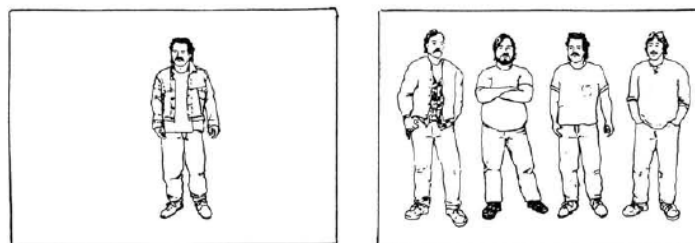
Research has shown several factors contributing to the informational impact of majorities, including the size of the majority. In short, the larger the majority, the more informational value it carries, because individuals believe that attitudes are more likely to be valid when



endorsed by a high number of people (Bond, 2005; Gardikiotis et al., 2005; Martin & Hewstone, 2003). The influence of group size on conformity has received considerable attention from many researchers. Bond (2005) considered the predictions of various theorists about the influence of majority/consensus group size on conformity. Whereas Asch (1951, 1955; both cited in Bond, 2005) concluded that beyond a minimal number, there is no further effect to be gained by adding more group members, more recent researchers have argued that conformity increases as group size increases. However, beyond the minimum, the size of the majority needed to promote conformity has been argued by Social Impact theorists to decrease with each additional majority member (e.g., Latane, 1981; cited in Bond, 2005). Social Influence Model theorists propose that group size will have an impact up to certain point, but that its influence will decrease until another critical size juncture is reached (Tanford & Penrod, 1984; cited in Bond, 2005). Other theorists (Martin & Hewstone, 2003; Mullen 1983, 1987; Stasser & Davis, 1981; cited in Bond, 2005) argue that the larger the group, the more a non-conformist individual's differences will be highlighted, hence motivating him or her to conform.

In addition, high motivation to be accurate also increases the informational effect of the majority (Martin & Hewstone, 2003). When individuals feel a need to have an accurate viewpoint, they look to the majority for the most current answer. So reducing the credibility of the majority by making the value of its information questionable can reduce conformity (Martin & Hewstone, 2003), whereas increasing the perception that the majority is a valid source of reality (e.g., increasing group size, increasing task uncertainty) can increase conformity (Martin & Hewstone, 2003). Despite this general pattern, however, other studies actually show a negative correlation between motivation to perform accurately and conformity (e.g., Di Vesta, 1959; cited in Baron, Vandello & Brunsman, 1996).

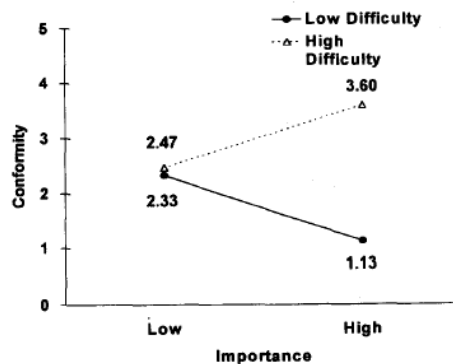
Recent research increasing the ambiguity or difficulty of a task demanding high levels of accuracy has been shown to facilitate conformity to the majority (Baron, Vandello & Brunsman, 1996). Using an eyewitness identification task, participants were asked to correctly identify a suspect. In the presence of two confederates unanimously giving the same wrong answer, participants were asked to choose the perpetrator of a fictional crime (who had been earlier depicted in a pen-and-ink drawing) from a drawing showing a line-up of several suspects. Figure 7 below depicts sample stimuli.



**Figure 7: Sample stimuli used in Baron et al. (1996)**

In Figure 7, the card on the left depicts the actual perpetrator, the card on the right depicts the actual perpetrator in a line-up of suspects (with the perpetrator being the third character from the left). Task importance (amount of compensation) and task difficulty (frequency and time of exposure to the experimental stimuli) were manipulated.

Results for two similar studies showed that more difficult tasks generated higher levels of conformity, and this was especially true when the task was most important. This finding is depicted in Figure 8.



**Figure 8: Results for the impacts of task difficulty and importance on conformity (Baron et al., 1996)**

These results provide support that conformity increases as the motivation to be accurate increases, and that this relationship is stronger when individuals feel uncertain about what to do. These results imply that when accuracy is important, things that promote certainty will promote conformity. Going along with the group, it seems, may be one way of achieving a higher level of certainty when tasks are more difficult.

Recent research has suggested that the relationship between conformity and group size will be influenced by the proximity of the group and their power to reward and punish (Bond, 2005). A meta-analysis by Bond using data from research using Asch's (1956; cited in Bond, 2005) line judgement task found that the relationship between group size and conformity was linear, but not simplistic. Conformity clearly increased as group size increased, but the informational influence of the group's size seemed to compete with normative influence when conformity was publicly rather than privately displayed. That is, the normative value of the majority was more apparent when the individual was observable, but the informational value provided by group size was more effective in promoting private attitude change. This supports Mackie's objective consensus theory (1987; cited in Martin et al., 2007) which argues that the informational impact of majorities facilitates more systematic than heuristic processing. It appears that when informational value is salient, individuals will systematically process the majority's message and make private attitude changes. However, when normative value is salient, individuals will use heuristics and attitude change will be less likely.

The tenuous relation between the informational value of majorities and the normative data they provide is also evident in another study. Cialdini (2005) conducted a study to help understand vandalism at a large national park in Arizona from which large quantities of wood were being removed by patrons each day. The signs posted prominently at the park argued that patrons should not take wood because many people were doing it already. Cialdini theorized that even though the intent of the message was to discourage theft, it inadvertently normalized it.

To explore this issue, two new signs were developed. The first sign urged park visitors not to take wood and showed a picture of three people taking wood from the forest. The second sign

contained the same message, but showed a single person taking wood from the forest. Presumably, normalization of the undesired behaviour would be less influential when associated with a picture of a single person removing wood. Indeed, visitors who passed the sign depicting several people removing wood were almost four times more likely to steal wood than people who viewed a single person doing it (7.92% vs. 1.67%). It also suggests that people may have viewed the three-person sign as representing the majority of people (especially in comparison to themselves as a single individual) and conformed to the depicted behaviour. It seems that people in his study were distracted from the informational value of the signs (i.e., do not take wood from the park) and instead used the behaviour of the people depicted in the signs as a guide for their own behaviour (i.e., taking wood). Together, these results suggest that the potential informational value of majorities may be inadvertently overridden by their normative influences.

Indeed, informational and normative values of majority groups clearly impact conformity, but they are not always easy to separate. The results of Gardikiotis et al. (2005) showing that participants focused on the status and descriptors of majorities rather than their numerical proportion also support this observation. Increasing the salience of informational data may increase normative value, but increasing the salience of normative data can override informational value.

Of course, depending on the situation, people may have very different goals. They may be motivated to be accurate, or they may be motivated to make a good impression on other people. These two goals may require them to use both systematic and heuristic processing. That is, an individual may use heuristics such as “go[ing] along to get along”, but they may also use systematic processing in order to present themselves in ways that facilitate their likeability, such as being prepared for friendly debating (Chen et al., p. 263). Research by Chen et al. (1996) investigated whether the hypothetical heuristic and systematic processes motivated by impression management are different than the hypothetical heuristic and systematic processes motivated by accuracy.

In order to test this hypothesis, participants believed they were about to meet another person and discuss media coverage of hijacking events. After reading false questionnaires (study 1) or essays (study 2) depicting their partner’s views, participants indicated their own views on a questionnaire they believed their partner would read. They also completed a “thought listing” task in which they recorded the thought process they used to arrive at their reported attitudes. Participants motivated by impression management were expected to use heuristics to orient their attitudes toward their partner’s. In contrast, accuracy motivated participants were expected to attend less to heuristics, but they were expected to systematically evaluate their partner’s attitudes impartially.

Across two similar studies, participants motivated by impression management goals were more motivated to have an enjoyable interaction with their partner. These participants tended to use more heuristics than their accuracy-motivated partners, to evaluate their partner’s attitudes in a positively biased way, and were more likely to conform to their partner’s views. This suggests that for impression-motivated individuals, normative goals were very influential. Interestingly, however, these impression-motivated participants also showed some systematic processing as well, as they devoted much of their thought to their partner, and their thought lists suggested that they had processed their partner’s attitudes systematically in the interest of social goals. Thus, participants motivated by normative goals did engage in more heuristic processing, but when they did engage in systematic processing, it was in



service of social goals. In contrast, accuracy-motivated participants were more likely to use systematic processing to understand their interaction partner. This research suggests that use of systematic and heuristic processing is not “all or nothing” within a particular interaction. Indeed, in this case, impression-motivated participants used heuristics as a base for biased processing of systematic information about their interaction partner.

As a whole, then, both normative and informational influences are critical predictors of message effectiveness. As noted, however, normative and informational influences are extremely difficult to separate because majority messages often contain aspects of both (Cialdini & Goldstein, 2004; Wood, 2000). Majorities can provide information that can be influential when systematically processed. However, the impact of informational data from majority groups can be easily overridden by normative data. It is also important to emphasize that the longevity of majority influence is not necessarily optimal. Using “majority” sources can produce immediate attitude change that is consistent with the majority, but this change is often short-lived (Crano & Prislun, 2006), or exhibited publicly but not privately. Thus, when mindless conformity is desired, sources should increase the salience of the normative value of the majority. In contrast, when thorough attitude change is desired, increasing the salience of the informational value of majorities is the best option.

## 6.2 Minority Influence

Minorities are characterized by the numerical infrequency, an atypical opinion or position, and a lower status in comparison to the majority (Wood et al., 1994; Wood, 2000). However, the most frequent way to represent a minority in the literature is in numerical-status terms; for example, ‘a minority of 40%’ (Gardikiotis et al., 2005). At first glance, being in the minority would seem to pose significant challenges to influencing other people.

However, the influence research suggests that minorities can be quite influential if the right conditions are met. Moscovici (1976; cited in Martin & Hewstone, 2003) has been the primary advocate of minority influence. Using historical analyses, Moscovici noted that when minorities have managed to be heard, the uniqueness of their perspectives often fostered creativity and innovation. Moscovici therefore argued that minorities can have as much persuasive capacity of majorities, as long as they convey strong but often disparate messages characterized by consistency, perseverance, fairness, autonomy, clarity and coherence (Moscovici, 1976; cited in Martin & Hewstone, 2003). In contrast to majorities, minority perspectives gain their effectiveness from their informational value than from their normative value.

Moscovici’s conversion theory (1976; cited in Martin & Hewstone, 2003) argues that when presented with several different perspectives about a given issue (e.g., both a minority and majority perspective), people can become cognitively and socially conflicted (Martin & Hewstone, 2003), and this conflict can drive them to process the message of a minority more carefully than would otherwise be the case. This is the case because minority messages will generate more message-incongruent thoughts than message-congruent thoughts (Moscovici 1980; cited in Martin & Hewstone, 2003), in part, because individuals cannot immediately trust messages from a minority. In order to reduce this conflict, people may work systematically to understand the persuasive message, in order to understand what the minority source sees that they (the majority) do not see. Moreover, minorities are usually also in a somewhat tenuous position, given that they are in direct conflict with the majority. Recognition that the minority would take such risks in order to advance an unpopular opinion

can promote more positive attributions about the minority, including those related to certainty, commitment, and confidence (Moscovici, 1976; cited in Martin & Hewstone, 2003) and can result in a previous majority member according a higher level of respect to the minority. Moscovici (1980; cited in Martin & Hewstone, 2003) posits that minority messages will facilitate systematic evaluation rather than heuristics because individuals want to be sure that the social risks they may incur as a result of aligning themselves with a minority will not be too great. This is not to say, however, that normative factors do not have an impact. Individuals still maintain normative motives when they are exposed to minority messages, but that strong messages that contain rich, credible, and coherent informational value may help overshadow the potentially negative normative implications of associating with minorities. Mackie's (1987; cited in Martin et al., 2007) objective consensus theory also posits that minority influence invokes both normative and informational value, but that minority messages will tend to be discredited using the heuristic that they are probably wrong.

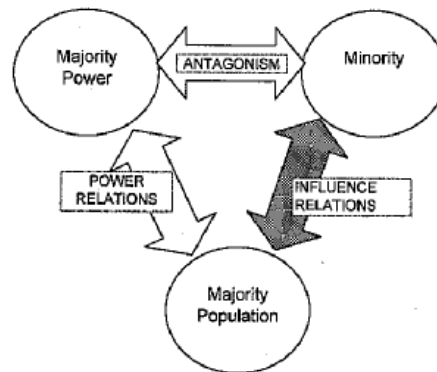
Nonetheless, minority influence is especially dependent on the strength of the persuasive message, as this message is the focus of the decision to change (or not to change) one's attitudes (Moscovici, 1980; cited in Martin & Hewstone, 2003). For minorities attempting to exert influence, then, their success depends more on a strong message that can be systematically processed than on desirable peripheral cues about the most socially acceptable answer. Thus, minority influence will be most effective when individuals are motivated to understand the information conveyed in the message (Wood, 2001). It is also important to note that because minority messages engage critical thinking, change resulting from the influence of minorities will likely result in deeper attitudinal changes than that derived from normative-based majority influence (Wood et al, 1994). However, these changes are not necessarily consistent; privately one may completely agree with the minority perspective, but to reveal these beliefs publicly (which would help to "cement" the attitudes) could be risky (Wood et al., 1994). Thus, there is always a danger that minority influence could be undermined by normative effects.

In general, minorities are typically described as having little normative influence because "people typically wish to avoid association with undesirable groups" (Moscovici, 1980, p. 214; cited in Martin et al., 2007, p. 12). Thus, individuals do not typically look to the minority to derive social benefits. However, due to the personal risks of aligning oneself fully with the minority, the majority person's changing views may remain private rather than being publicly declared, and the attitudes affected may be indirectly rather than directly related to the topic of the persuasion (Martin & Hewstone, 2003; Wood et al., 1994). To do otherwise may be too socially risky and too cognitively difficult. Moreover, even if people do initially agree with a minority message, they may be likely to process it more thoroughly due to the social risks of alignment with a minority.

Self-categorization theory provides a normative account of minority influence (David and Turner, 2001; cited in Cialdini & Goldstein, 2004, p. 612) positing that individuals "use their social identities to reduce uncertainty when faced with prospective group conflict". The chief argument of this theory is that sources perceived as more similar to oneself will be more influential. As such, minority influence may only be successful when the source is an in-group member, for example, a colleague within one's workgroup who holds an uncommon opinion relative to the rest of the group. According to self-categorization theory, then, minorities seeking to change attitudes would do well to cast themselves as an in-group, in order to avoid being ostracized as an out-group. This tactic may be particularly effective when the receiver feels pressure to make a quick and public decision (Cialdini & Goldstein,

2004). In this situation, because the receiver perceives close affiliation with an in-group minority, they may use the heuristic that they have similar goals (Cialdini & Goldstein, 2004). Thus, when the source minority is perceived as an in-group, normative pressures may move the receiver toward the minority position.

The importance of minorities avoiding out-group status is also indicated in theoretical work by Mugny (1982; cited in Chrysochoou and Volpato, 2004). These authors hold that Mugny's (1982) model of minority influence still remains one of the most informative. Mugny's (1982) model holds that in order for minorities to exert influence, they must first overcome the perception that they are deviant which results in individuals avoiding them. This can be accomplished by creating a clear identity to which others are attracted. Minorities must then defy the status quo by emitting antagonistic behaviour that is assertive and unwavering in order to overcome the powerful differential between themselves and the majority group. This allows for their message to be heard. This model is depicted in Figure 9.



**Figure 9: Mugny's social context model of minority influence**

Even though the normative influence of minorities is more tenuous as they cannot offer the same positive status and power attributions that alignment with a majority would enable, bigger minorities may have more influence because they have the power to appear more normative. Minorities are often discounted because of their low number of constituents and their low status (Moscovici, 1976; cited in Chrysochoou & Volpato, 2004). As a result, people may be more likely to discount the messages that minorities are trying to send, focusing instead on qualities of the minority group. However, Moscovici's (1976; cited in Chrysochoou & Volpato) conversion theory proposes that minorities can exert latent influence. By using consistent behavioural strategies, minorities can initiate a validation process that leads others to try to understand why their mutual perspectives differ rather than discounting their views summarily. Initiating such processes requires that a minority articulates its views coherently and clearly, in order to portray itself as credible, objective, and perseverant (Moscovici, 1980; cited in Wood et al., 1994). This process shifts the focus from the minority group to the minority's message. However, although minorities are likely in a better position if they can initiate thoughtful consideration of their views, the changes in attitudes or behaviours that they promote are more likely to be private and indirect (Moscovici, 1980; cited in Martin & Hewstone, 2003) because publicly aligning oneself against majority opinion is often not in one's best interests.

Few studies have examined the relationship between the size of minorities and their influence, but this is often cited as one of their chief hurdles. Nevertheless, studies have found that a minority of two has more influence than a minority of one (Arbuthnot & Wayner, 1982; Mugny & Papastamou, 1980; both cited in Gardikiotis et al., 2005), and others have found that a minority of three was best in groups between 7 and 14 people (Nemeth, Wachtler, & Endicott, 1977; cited in Gardikiotis et al., 2005). Moreover, describing minorities as large or small may lead to different attributions about their importance (Gardikiotis et al., 2005). Recall Gardikiotis's (2005) investigation into whether descriptive adjectives such as 'large minority' or 'small minority' would impact influence as they might suggest information about the relative importance of the group. This study also investigated whether stronger messages might affect the influence of minorities as they might increase systematic processing. Over three studies, university students gave their attitudes about voluntary euthanasia after reading a newspaper vignette about the small or large minority's (or majority's) attitude, which was against euthanasia. They also listed their thought processes toward arriving at their reported opinion in order to investigate the hypothesis that large sources would facilitate less systematic (i.e., more message-congruent) thinking than small minorities due to their increased normative presence.

Results indicated that 'large' minorities were more influential than 'small' minorities, but the actual size of the minority had no effect. This suggests that increasing the normative status of minorities using relative size descriptors (i.e., 'large' versus 'small') makes them more influential. Follow-up analyses found that the influence of 'small' minorities was greater and engaged more systematic processing when their message was stronger. This finding provides support for Moscovici's (1980; cited in Martin & Hewstone, 2003) theory that minorities can be effective because they are distinct (e.g., small) as long as they present strong messages. Although supporting the informational impact of minorities, this work also supports Martin's assertion that larger minorities may carry somewhat more normative value.

Recent work by Martin et al. (2007) also explored the quality of the message argument (strong or weak) on minority influence, as well as the type of processing involved in understanding minority messages (systematic or non-systematic). To do so, Martin et al. manipulated message elaboration (low vs. intermediate vs. high) and message quality (strong vs. weak) to identify the extent to which participants were processing messages. In the first experiment, message processing was manipulated by varying motivation. That is, the message was either framed as having low, intermediate or high personal relevance to participants. The second experiment manipulated message processing through cognitive ability. Participants were presented with three orientating tasks that required different levels of processing. For instance, the low cognitive ability task involved lexical processing, and therefore required only shallow message processing, whereas the high cognitive ability task involved deep semantic processing, and therefore required more intense message processing.

Results of two experiments showed that when message elaboration was low (low motivation/low cognitive ability), minority influence was low and message quality had no effect. Participants heuristically processed the message, and therefore were less inclined to accept the minority position. Further, whether the source was in the majority or minority also predicted attitudes. When message elaboration was intermediate, only the minority source triggered more elaborate message processing, and message quality had an effect for the minority but not the majority. Finally, when message elaboration was high, there was a significant effect for message quality, and both majority and minority messages were processed systematically. Thus, when participants were motivated and when message



elaboration was high, both message quality and message source (minority or majority) impacted significantly.

These findings illustrate that minority-endorsed messages are more influential when personal relevance and cognitive processing demands are intermediate, as individuals will more systematically process the message. Moreover, when both relevance and cognitive processing are high, minority-endorsed messages are likely to be more influential because individuals are likely to engage in systematic processing of the message. These findings support the position that the influence of minorities centres on their informational value, but show that this relation is complex rather than simple. That is, minority influence will be most successful when receivers are motivated to focus on the message rather than focusing on the inferior status of the minority.

A relatively recent meta-analysis of 147 studies of minority influence investigated the role of informational and normative factors in minority influence (Wood et al., 1994). Three types of attitude change were considered: public judgement, private attitude changes on issues directly related to the message, and attitude change on issues indirectly related to the message. The relevant criteria that the authors coded included:

- numbers of minority sources, and influence targets
- content of the influence attempt
- social pressure
- number of influence attempts
- delivery method (e.g., small groups, face-to-face)
- representation of minority source (e.g., numerically or as a social group)
- whether or not the source was psychologized (i.e., whether or not the source was given a personality)

A typical study in the meta-analysis presented one minority source (but did not specify the number of majority sources), had a single target, and presented a minority's anti-normative message, consisting of the minority's position and supporting arguments (Wood et al., 1994).

This meta-analysis showed that minorities appeared to have little normative impact as receivers preferred to distance themselves from minorities (Wood et al., 1994, Wood, Pool, Leek & Purvis, 1996). This pattern was highlighted by the tendency for targets to evidence indirect private change rather than direct public change. That is, targets were more likely to change their personal attitudes about a topic that was indirectly related to the actual topic rather than risk publicly declaring their alignment with the minority and rather than changing their private attitudes about the actual topic. Minorities that were defined as small social groups generated less agreement on both public and private measures. Wood et al. (1996) asserted that this is because their small size and differentiation from broader society highlighted their deviance making them even less attractive. This finding contrasts Moscovici's (1980; cited in Martin & Hewstone, 2003) prediction that distinctiveness increases the influence of minority groups, but supports David and Turner's (2001; cited in Martin & Hewstone) self-categorization theory which argues that out-group minorities will be unsuccessful. That is, smaller minorities are less likely to be perceived as in-groups due to their reduced normative value, and even if they were perceived as an in-group, individuals



may be motivated to ignore these normative “pulls” due to their riskiness. Taken together, this analysis suggests that although minority impacts are not fully determined by normative factors, normative factors have the power to undermine potential minority effects. As such, as long as their message is strong, then, minorities might benefit from deflecting attention from their low normative status. This may be especially important for small minorities as they carry even lower normative value than larger minorities.

In an effort to further understand the relation between in-group identification and minority influence, Crano and Chen (1998) investigated whether in-group minority sources may be successful because their in-group receivers afford them ‘leniency’. In general, the leniency model holds that in-group minority messages may be influential because they attract attention due to their unexpectedness, and because shared group membership increases the validity of the message (Crano & Chen, 1998). Although the minority’s position is counter-attitudinal and not likely to be directly accepted, in-group membership may facilitate systematic processing and may facilitate indirect influence (Crano & Prislin, 2006). According to the leniency contract (Alvaro & Crano, 1997; cited in Crano & Chen, 1998), then, minorities may induce private attitude change because their messages will be systematically processed.

Participants read positions on a proposed University Service Program that would require students to volunteer some of their time to university administrative activities (Crano & Chen, 1998). These positions were presented as having been advanced by either the in-group majority or in-group minority. Participants indicated their thoughts about the message in a thought-listing process and also rated their attitudes toward the topic. Results showed that although most participants held antagonistic attitudes toward the program at the beginning of the study, they were more positive about the program after reading the minority in-group vignette (although not as positive as those in the majority condition) (Crano & Chen, 1998). Moreover, they were more likely to agree with indirectly related topics (e.g., tuition increase) than with the program itself. However, in the minority group, stronger messages were perceived more positively (than in the majority group) and subsequently affected more change. This supports Gardikiotis et al.’s (2005) findings that showed minorities can benefit from strong messages. Moreover, this data also supports Moscovici’s (1980; cited in Martin & Hewstone, 2003) hypothesis that successful minority influence is often indirect rather than direct.

In a fascinating investigation of the power of minority influence, Chryssochoou and Volpato (2004, p. 361) analyzed “the most widely read political pamphlet in human history”, *The Communist Manifesto* (Marx & Engels, 1848; cited in Chryssochoou & Volpato). Chryssochoou and Volpato noted that as minorities seeking large scale social change are disadvantaged in comparison to the majority, and because they must rely on their informational value, they must first publish a manifesto declaring their position against the majority (or what they reject about the majority and why) rather than simply describing what they believe. Such a manifesto should highlight assumed power differentials and propose an alternate collective identity that rallies individuals to participative change. The *Communist Manifesto*, these authors argued, employed all of these effective minority influence strategies:

- clearly defined and described a unique vision that highlighted power imbalances
- constructed the communist identity in such a way that it was portrayed as part of the larger group



- defined their group as the leader in revolutionary change for the good of the majority
- described and maintained a sense of antagonism with the majority power thus portraying the minority not as deviants but as equal to the majority in terms of values and power
- framed arguments to encourage a sense of collective action for the good of all

The first point highlights the importance of clarity, coherence, and uniqueness in a minority message, and as such they support Moscovici's (1980; cited in Martin & Hewstone, 2003) views about the defining characteristics of successful minorities. However, these are more informational strategies than they are normative strategies. The second point highlights the importance of situating minority influence as closely as possible to the target in-group (self-categorization theory, David & Turner, 2001; cited in Martin & Hewstone, 2003). It appears, then, that minorities must contend with negative normative attributions. According to Chryssochoou and Volpato (2004), minorities should deal with these up front, attempting to cast themselves as being as closely aligned with their receivers as possible, in order to increase the perception that they are in-group (self-categorization theory; David & Turner, 2001; cited in Martin & Hewstone, 2003). If this is achieved, they will be more likely to be able to persuade their receivers with a strong message (Crano & Chen, 1998; Gardikiotis et al. 2005). The third and fourth points relate to the research suggesting that pro-social motivation makes minorities more successful (Ten Velden, Beersma, & De Dreu, 2007). Thus, Chryssochoou and Volpato (2004) make an important contribution to the literature because rather than investigating the conditions under which minorities might be influential, they examined the strategies that successful minorities actually use.

Overall, then, the minority influence literature provides an important account of a lesser known social influence process. Minority influence is clearly about changing the position of an established group and can only be accomplished by clear targeting of the message, and by working to minimize differences between the target group and the minority group, while advancing the legitimacy of the cause.

### 6.3 Obedience to Authority

*"The social psychology of this century reveals a major lesson: often it is not so much the kind of person a man is as the kind of situation in which he finds himself that determines how he will act." (Milgram, 1974)*

Obedience is commonly defined as conforming to the expectations or request of a perceived authority figure (Martin & Hewstone, 2003), and is more likely to occur when the authority figure is perceived to be an expert in topics relevant to the influence, or to have legitimate authority sanctioned by social hierarchies (Blass and Schmidt, 2001). The Milgram experiments are often cited as the paradigmatic example of the power of obedience in influencing behaviour. In thinking about the Holocaust, Milgram (1963; cited in Hock, 1999) wondered how ordinary people could commit atrocities against other people. He theorized that their situation may have compelled them to obey powerful authority figures. Essentially, participants in Milgram's study were asked by researchers to shock another participant (actually a confederate) whenever s/he made a mistake on a memory task. Although participants were not actually administering shocks, they believed they were shocking the

other participant with increasing voltage up to dangerous levels. However, at the behest of the experimenter, 65% of participants administered the most severe shock even though the confederate was pleading for mercy (Hock, 1999). Milgram's ground-breaking shock experiments have been widely accepted to indicate that individuals may obey an authority figure to the point of committing, or believing they are committing, unethical and even inhumane acts (Martin & Hewstone, 2003).

There are many theoretical explanations for Milgram's results (Blass, 1996; Blass & Schmitt, 2001). First, Milgram (1974; cited in Blass, 1996) posited that obedience could occur as a result of a target's moving into an agentic state. Essentially, the target believes that s/he is acting as an agent of the authority figure rather than as an autonomous individual. One of the central features of this agentic state is the belief that responsibility for one's actions rests with the authority figure rather than with the self. As such, the target's primary concern becomes fulfilling the authority's wishes rather than his own desires or higher-order principles such as morals (Blass, 1996). The second theory is Mixon's (1971, 1972; cited in Blass, 1996) position that trust is the most important facet of obedience. For Mixon, if the target does not trust the authority's judgement, obedience will not occur (Blass, 1996).

In order to investigate the value of these two theories, Blass (1996) had participants watch videotapes of Milgram's experiment. Participants all watched the same video, but some were told that the original participant depicted had been obedient (i.e. had delivered shock), others were told he had not. Participants completed questionnaires pertaining to how much responsibility they attributed to the original participant in behaving as he did (Milgram's theory), and how much trust the participant had in the experimenter (Mixon's theory). Results showed that when participants believed the original participant had been obedient, they judged this original participant as having relinquished responsibility to the experimenter, but when he had not done so, this participant was seen as not having relinquished responsibility. However, trust in the experimenter did not seem to have impacted, as levels of trust in the experimenter had no relation to the original participant's behaviour. These results support Milgram's theory of agency but do not support Mixon's theory of trust. However, it should also be noted that Milgram's transfer of responsibility hypothesis was not supported by his own findings. In fact, Mandel (1998) showed that obedient participants were more likely to transfer responsibility to the victims than were dissenting participants, but the two groups did not differ on the responsibility attributed to the experimenter.

It is important to note that many theorists and researchers have questioned whether obedience to authority was the only driver of Milgram's participants' actions. Lutsky (1995), for example, argues that the persistent focus on obedience as the sole reason that participants behaved as they did is misplaced, and underemphasizes the complexity of the situation in which Milgram's participants were placed. Although obedience to authority was clearly part of what influenced them, many other social influence factors could have also impacted. Key amongst these may have been the stress and uncertainty that participants would have experienced (Gilbert, 1981; Nissani, 1990; both cited in Lutsky, 1995). They may have looked to the experimenter for guidance. But, as the actions of the experimenter suggested that nothing particular was amiss, this would have provided a very strong message that their "ethical evaluation of the situation" (Lutsky, 1995, p. 4) was not accurate. It would only make sense, then, that they continued to commit otherwise inhumane acts. The nature of the situation might have also limited individuals' abilities to use their full cognitive capacities. In Milgram's study, the experiment progressed quickly and participants were immediately reminded that they must continue when they indicated reluctance (Gilbert, 1981; Nissani,



1990; both cited in Lutsky, 1995). This may have prevented them from using the cognitive resources needed to fully contemplate their actions. Other researchers have suggested that compliance to an authority figure's request can also result from motivation to increase one's social status by carrying out his or her orders, or from fear-reduction and an effort to avoid punishment, rather than from the compulsion or perceived obligation to obey (Mandel, 1998). Nonetheless, Milgram's assertion that obedience was the sole factor driving participants in this seminal study does seem problematic.

As powerful as obedience to authority can be, there is some evidence arising even from Milgram's research that obedience can be thwarted (Mandel, 1998). One factor that can decrease obedience is the presence of dissenters, other individuals in the relevant group who disobey the authority. According to Mandel (1998), Milgram's own research shows that broad defiance may occur when some people do not obey. In Milgram's (1974; cited in Mandel, 1998), Experiment 17 in which three people were assigned the role of 'teacher' and one was the shock victim. The shock victim and two of the teachers were confederates. Sometimes the confederate-teachers defied the experimenter's commands. In these cases, 90% of Milgram's participants dropped out of the study. Mandel (p. 13) states that "successful defiance by the participants' peers acted as a channel that facilitated the participant's own defiance". This suggests that demands for obedience by an authority can be thwarted if individuals have the opportunity to observe and model dissenting peers. This and other work that has been produced since Milgram's seminal experiment continues to suggest that an account broader than simply obedience must be used to understand why Milgram's participants agreed to commit inhumane acts. Indeed, the broad social influence processes at play within that situation may provide a better framework within which to make sense of the actions of participants in Milgram's study.

## 6.3 Special Topics in Persuasion and Influence

Two additional topics noted in the literature are worthy of attention. These include resistance to persuasion and compliance techniques that put persuasion principles into use.

### 6.4.1 Resistance to Persuasion

Research exploring resistance to persuasion has shown many factors that facilitate resistance. Resistance to persuasion (also called persistence) has been defined as "the act of defending one's attitude against persuasive attack" (Knowles & Linn, 2004; cited in Tormala, Clarkson, & Petty 2006, p. 423). Although most often described as resisting new persuasion attempts, resistance also seems closely linked to maintaining one's existing attitudes once formed. Since the earliest days of persuasion research (e.g., McGuire, 1964; cited in Crano & Prislin, 2006), attitude resistance has been a prominent topic, and seems to have become even more influential in recent years. Attention has been focused on both strategies that facilitate resistance, as well as on individual differences that promote resistance.

**Strategies that Promote Resistance** - There are many different ways in which people can work to resist persuasive messages. They can, for example, counter argue such messages. By so doing, they can work to discount the core of the persuasive message, and perhaps invalidate the underlying argument that the message presents (Petty & Cacioppo, 1986; Jacks & Cameron, 2003). For highly motivated smokers, then, attacking the validity of statistics that show cancer rates being higher in smokers than non-smokers could be one way to

counter argue against a persuasive message. Another counter arguing strategy could involve attacking the source of a persuasive message rather than the message itself. If the source can be discounted as being not credible (e.g., self-serving), persuasive attempts could be successfully discounted. Another strategy used to avoid changing ones' attitudes is to bolster one's initial attitudes when a persuasive attempt occurs (Jacks & Cameron, 2003; Lydon, Zanna, & Ross, 1988). Cultivating and citing examples of individuals who smoke but are in good health is one way in which a motivated smoker could ensure that positive attitudes about smoking are strengthened and enhanced. Other resistance strategies noted in the literature include negative affect (i.e., getting angry or irritated), selective exposure (i.e., leaving the situation or tuning out the message), social validation (i.e., bringing to mind important others who share one's attitude), and source derogation (i.e., insulting the source, dismissing their expertise, etc.) (Jacks & Cameron, 2003).

Research by Jacks and Cameron (2003) had participants cite the strategies that they used to resist persuasion. The most frequently cited strategies were attitude bolstering followed by negative affect, while source derogation and social validation were the least common. In addition, an unanticipated strategy, asserting confidence in one's attitudes was also identified by participants. Participants were also asked to rate the perceived likelihood of engaging in each of these strategies in relation to two issues (i.e., abortion and the death penalty). Attitude bolstering and counter arguing were rated as most likely to be used as a means of resisting persuasion, and source derogation, negative affect, and selective exposure were rated as the least likely to be used. In addition, negative affect, source derogation, and assertions of confidence were considered socially undesirable responses and therefore were less likely to be used by individuals with greater social desirability concerns.

Although participants had indicated their intention to use certain strategies, whether or not they would actually use them when provided with the opportunity to do so is an entirely different question. Another study in the series (Jacks & Cameron, 2003) examined participants' actual responses to a persuasive message. Similar to previous findings, counter arguing and attitude bolstering were among the most prevalent responses to the message. However, contrary to low expected use ratings, source derogation figured prominently in strategies actually used to avoid attitude change. Finally, although individuals in previous studies did not expect to respond with much irritation or anger to influence attempts, in actuality, when such attempts actually occurred, individuals rated themselves as having been irritated by these messages. This suggests that even when persuasive attempts can be resisted, they are likely to promote an affective reaction.

Another prominent resistance strategy noted in the literature is forewarning. Forewarning involves giving advance notice to the receiver of the persuasive message that a persuasion attempt is about to occur. In general, research has shown that sources are more persuasive when receivers have less forewarning about what the source is going to say, and that forewarning receivers about the topic and position of a message can increase resistance to persuasion (Jacks & Devine, 2000).

Work by Chen, Reardon, Rea, & Moore (1992) suggests that the impact of forewarning also depends on the qualities of the receiver. When people about to receive a counter-attitudinal message were forewarned about the message, they showed more biased processing when they were more motivated to process the message and had the resources to do so. This suggests that the threat that a message presents to one's desired view of an issue may compel them to process the message in a biased way. This work provides some evidence that one of the



strategies used to promote resistance is biased processing. It also suggests that when a receiver is not likely to agree with a persuasive message, it may be better not to forewarn, as this gives advance notice that resistance processes need to “kick in”.

Other research shows that the impact of forewarning on resistance processes can depend on individual differences in attitude importance. Attitude importance reflects an individual’s sense of care and concern for the attitude (Jacks & Devine, 2000). This research showed that high-importance individuals were more resistant to a counter-attitudinal message than their low-importance counterparts (Jacks & Devine, 2000) regardless of message warning or delay. Further, high-importance individuals showed resistance whether warned or not, whereas low-importance individuals became more resistant when warned about a message but only when there was a delay before it was received. This is likely the case because the attitudes of high-importance individuals are highly accessible and the thoughts and feeling that defend their attitude may come more easily to mind. High-importance individuals generated more negative thoughts, specifically affectively-charged negative thought than did their counterparts. This suggests that the prior attitude of the individual (and specifically, the importance of the attitude) determines the strength and immediacy of the resistance processes that are likely to be activated with forewarning.

A meta-analytic study (Wood & Quinn, 2003) has explored the effects of attitudes and forewarning of an influence appeal. This study actually required two separate analyses as some studies assessed attitudes following the warning but prior to the actual appeal, whereas others warned participants of the impending appeal, delivered the appeal, and then assessed attitudes. The meta-analysis that assessed attitudes prior to the appeal identified 19 independent research reports that met the inclusion criteria. Of these reports, several consisted of multiple experiments thus yielding 25 separate studies. The analysis that assessed attitudes following the delivery of the message identified 18 independent research reports. Again, several consisted of multiple studies thus yielding a total of 23 experiments. The findings from each meta-analysis follows and will be discussed separately.

When attitudes were assessed prior to the appeal, forewarnings generated changes in attitude toward the source’s impending position. This finding suggests that participants changed attitudes as a type of defensive response to the threat of a counter-attitudinal appeal. This anticipatory attitude change would allow participants to avoid feeling gullible when they were eventually influenced and changed their initial attitudes. Warnings, however, had little impact when they did not promote a challenging counter-attitudinal position, but only indicated that a message on a particular topic would be forthcoming. Further, agreement was not evident in public contexts. That is, participants did not appear to be concerned about the impressions they conveyed to others. Pre-appeal agreement was also especially likely when warnings threatened participants with a highly persuasive message or when the message was delivered by a source that was especially expert. In addition, of the studies with highly persuasive messages, greater agreement emerged when participants were told that previous audiences had found the message persuasive. Agreement was also greater when the topic of the impending message involved an objective rather than subjective issue. The findings from the analyses also revealed that attitudes shifts prior to the appeal did not involve much systematic thought about the message topic, as distractions instituted between the warning and attitude assessment had little impact and attitude change was still evident. Therefore anticipatory agreement is probably more reflective of heuristic processing than of systematic processing.

Similar to the findings from Jacks and Devine (2000), results of this study supported the motivated-processing account, such that greater personal involvement in both outcome and topic yielded greater resistance to persuasion (Wood & Quinn, 2003). In fact, warning on highly involving issues resulted in a response away from the impending appeal, whereas warning on less involving issues yielded a slight tendency toward acquiescence. Apart from personal involvement, resistance was also evident when participants were instructed to write down their thoughts after receiving the warning. This exercise was argued to have provided the motivation necessary to counter the appeal.

Although personal involvement and thought generation resulted in increased resistance to persuasion, time delay between warning and actual appeal did not (Wood & Quinn, 2003). Time delay may have enabled the generation of cognitive defences but activation of these defences did not necessarily promote better resistance. These findings are somewhat contrary to those demonstrated by Jacks and Devine (2000), who found that warning together with time delay resulted in resistance to the persuasive appeal. However, this finding was only apparent for individuals for whom the persuasive topic had low importance. In contrast, Wood and Quinn found that time delay combined with high involvement resulted in increased resistance, as it is necessary to have both the ability to generate cognitive defences and the motivation to do so. Due to these contradictory findings, further research to resolve the issue is required.

The second analysis conducted by Wood and Quinn (2003) assessed attitudes following both the warning and the persuasive appeal. The findings indicated that, compared to individuals who received an appeal with no warning, recipients who received a warning proved to be more resistant to the appeal when attitudes were assessed after the delivery of the appeal. Although those who received a warning appeared more resistant, this warning did not completely nullify the effects of the message. Those who received both the warning and the message still held more favourable attitudes than individuals who did not receive the warning or the message.

In general, the resistance apparent when attitudes were assessed following the appeal appeared to be a result of thoughtful reaction to the message topic. This was evident in the effects of distraction on warning. That is, warnings has little impact when a distraction was presented between the warning and the appeal, suggesting that recipients were unable to elaborate on the warning induced thought and therefore warning had no impact. It was further found that resistance was especially apparent when participants were asked to list thoughts regarding the warning or when message involvement was high. Finally, similar to the pre-appeal studies, time delay did not promote resistance as the motivation was present. In short, then, the findings around forewarning show complex interactions with other variables such as attitudinal importance, and warning and timing of the persuasive appeal.

Inoculation is another strategy often argued to facilitate resistance. Research has explored whether resistance to persuasion is influenced by the medium used to communicate the persuasive message (Pfau, Holbert, Zubric, Pasha & Lin, 2000). This research aimed to understand both the relative efficacy of these media in promoting resistance, and the process by which this occurred (i.e., systematic or heuristic processing). Print was expected to influence through the content of its message, as a print medium was argued to be more likely to be processed systematically. Due to its ability to connect with the audience, on the other hand, video was expected to operate via source effects, and to be processed more peripherally.



Participants were university undergraduates assigned to one of 3 conditions, print inoculation treatment, video inoculation treatment or control (no inoculation). Two social issues were targeted, including the banning of handguns in the U.S. and legalization of marijuana, and participants' pre-existing attitudes toward these issues were collected. Researchers had also created "attack" messages opposing the proposition (and people that supported it) and one favouring the proposition (and attacking those that opposed it) were constructed. Inoculation messages were also created, containing both explicit refutation of the information in the attack messages or generic content with no specific rebuttal. These messages were presented either by video or by printed materials. Differences in receiver threat and counterargument across the two modalities were explored.

Results showed that both print and video inoculation treatments promoted resistance to counter-attitudinal attacks, but only video inoculation elicited immediate resistance. Print media induced resistance only after respondents' exposure to persuasive attacks. Both print and video treatments were effective in eliciting threat, however, only video was able to elicit greater counterarguments than in the control condition. This finding is contrary to predictions, as video was expected to promote less systematic processing than print media. This suggests that both systematic and heuristic processing occurred. However, those who received the video treatment felt that the source was more similar to them, friendly towards them, and cared whether or not they liked him or her, implying that more peripheral (e.g. in-group) processing had occurred. But, after receiving the persuasive attack, the video treatment elicited more negative perceptions of the source in terms of competence and character. As a whole, then, this work suggests that inoculation from attitude change is more effective using a video source, and particularly effective when immediate (rather than delayed resistance) is required.

Arguing that existing researchers had made relatively little progress in developing techniques to promote resistance, Sagarin, Cialdini, Rice, & Serna, (2002) examined the effectiveness of a brief treatment that they hoped would help individuals protect themselves against a variety of appeals deemed illegitimate or dishonest. Both forewarning and inoculation, they argued, are inadequate tools. Although forewarning can lead to resistance, it is limited in its ability to resist illegitimate authority-based appeals. Similarly, inoculation is essentially an attitudinal treatment that provides defence for a particular attitude and therefore has limited scope. To counter these limitations in current knowledge, then, they attempted to construct a treatment or decision rule that would allow individuals to recognize and resist the influence of misplaced authority.

One of the potential problems with traditional approaches to resistance, they argued, is that they are predicated on the assumption that individuals will be able to recognize and respond to unfair or undue influence. However, the ability to distinguish between acceptable and objectionable persuasive messages is essential for resistance to take effect. In cases where authority figures attempt to undermine otherwise adaptive resistance processes, the normal "red flags" arising from natural defence responses may be less likely to be activated or attended to because authority figures do not normally activate such responses. However, when authorities are behaving with illegitimate authority, people that fail to recognize and respond to this could be in danger of being negatively influenced.

Sagarin, Cialdini, Rice & Serna (2002) constructed a decision rule that would help participants discriminate between legitimate and illegitimate authority based appeals. Participants were taught that appeals are objectionable and should be rejected if the depicted



authority does not at least possess special expertise in the topic. This decision rule was to give them to necessary ability to resist appeals. In addition to the decision rule, participants were informed that illegitimate authorities are motivated to deceive recipients with their persuasive messages. This information was to provide the motivation to resist illegitimate appeals as they fostered undue manipulative intent.

With the motivation and decision rule in place, Sagarin et al. (2002) tested their treatment and found that participants who received the treatment perceived the appeals from illegitimate authorities as more unduly manipulative and less persuasive than those who did not receive such treatment. In addition, participants in the treatment condition perceived appeals from legitimate authorities as less manipulative and more persuasive. These results suggest that the treatment did not make participants generally resistant to authority-based appeals, but allowed them to discriminate on the basis of legitimacy of authority.

In subsequent studies, Sagarin et al. (2002) confirmed that the impact of the treatment persevered 1-4 days after the experiment and in a context external to the laboratory. However, these studies also found that participants receiving the treatment did not resist the appeals containing illegitimate authorities more effectively than did controls. It was hypothesized that, although they had the ability to resist, the motivation was lacking. Specifically, participants may not have acted against the appeal because they believed that they were not susceptible to it. This sense of invulnerability therefore left them unmotivated to use the necessary defences against the appeals.

According to Sagarin et al. (2002), in order to motivate strong resistance to persuasive appeals, it is insufficient to show that people generally can be unfairly manipulated. Even armed with this knowledge, participants may still believe that they are exempt from falling prey to this error. In order to dispel the illusions of invulnerability, another part of the study either asserted to participants that they had been fooled (asserted vulnerability) or provided them with actual evidence that they had been fooled (demonstrated vulnerability).

Results showed that asserted vulnerability and demonstrated vulnerability were both successful in enhancing the effectiveness of legitimate authority-based messages, however, for appeals containing illegitimate authority, simply having been told that they had been deceived (asserted vulnerability) did not lead to enhanced resistance. Only participants who had been provided with empirical evidence that they had been fooled by an illegitimate authority showed enhanced resistance. These findings therefore suggest that promoting resistance to illegitimate authority requires more than merely asserting individual's vulnerability; this vulnerability must be clearly demonstrated to promote effective resistance.

***Individual Differences in Resistance*** - Several characteristics of receivers have been noted as helping to promote resistance to persuasion. As noted in the previous section, attitude importance plays an obvious role in reactivity to persuasive attempts. Other common factor is attitude strength, simply the strength with which existing attitudes are held (Petty & Krosnick, 1995).

As Tormala et al. (2006) have argued, virtually all research in the area of resistance has assumed that when people resist persuasion, the persuasive attack has made no impact on the target attitude. However, early research had shown that persuasive messages did not affect the valence or extremity of attitudes, but they did affect the certainty associated with these attitudes (Tormala & Petty, 2002; cited in Tormala, Clarkson & Petty, 2006). Attitude certainty refers to “the sense of conviction someone has about an attitude” (Abelson, 1988;



cited in Tormala, Clarkson & Petty, 2006, p.423). As such, this early research showed that resisting persuasion can increase attitude certainty, but only when people believe that their resistance is based on valid attitudes. When a strong message is resisted, this resistance may be seen as diagnostic of the validity of their existing attitudes; however, when a weak message is resisted, this resistance provides less evidence of the validity of one's existing attitudes, because what would have happened in the face of a stronger message remains ambiguous.

More research by Tormala et al. (2006) picks up on this finding to explore whether unfavourable appraisals regarding one's resistance attempts might lead to doubts about one's attitudes. The first part of this study explored whether having doubts about one's persistence efforts would affect attitude certainty. At a simplistic level, resistance occurs when people strive to maintain existing attitudes. Experimentally, then, one way to attempt to promote resistance would be to have participants produce counterarguments to a persuasive message that are consistent with their actual attitudes and to articulate these arguments when provided with either adequate or inadequate time. Results showed that when people worked to resist changing their attitudes, but were not given adequate time to articulate their counterargument, their attitudes become less certain. In addition, as attitudes became less certain, they were also less predictive of behavioural intentions. However, when they were able to fully articulate such arguments, attitude certainty remained relatively high. Overall, this suggests that disrupting or raising doubts regarding resistance efforts may make people less certain about their attitudes, and this makes these attitudes less likely to be transformed into future behaviour.

The second part of this research explored resistance to attitude change after criticism by an expert or non-expert source. Earlier research had shown that participant certainty increased when they had resisted persuasion from an expert source (Tormala & Petty, 2004)). This was only the case, however, when they had sufficient cognitive resources available (presumably to reflect upon the implications of their resistance). In addition, participants' attitudes became more predictive of behavioural intentions after they resisted a persuasive attack from an expert, but showed no differences after resisting an inexpert source.

To expand on the 2004 research, Tormala et al., (2006) also explored resistance to expert or non-expert sources after receiving either positive or negative feedback about one's counterarguments. Participants were asked to generate counterarguments against either expert or non-expert sources, and received false feedback that these counterarguments were either strong or weak. Results showed that when people were told that they had done a good job resisting (i.e., that they had made strong counterarguments), they became more certain of their attitudes, but only when they had received feedback from an expert. Successfully resisting the attack of an expert seemed to have provided evidence that their existing attitudes were correct or valid. If, however, they were told they had done a poor job resisting (i.e. they had made weak counterarguments), they became less certain of their attitudes, only if they had resisted a non-expert. This might have been the case because failing against an expert is less jarring, but failing to generate an effective counterargument against a non-expert may make one less certain about one's attitudes. As a whole, then, this line of research represents the complex nature of resistance to persuasion, in that one's relative position to the other people and even the time available to create counterarguments to a persuasive appeal can influence one's certainty about their attitudes.

Another line of research has explored the relationship between the processes through which attitudes are shaped (i.e., using either heuristic or systematic processing) and their resistance to persuasion. As noted earlier in this review, attitudes formed through systematic processing are more resistant to counter-persuasion. And, given our review of the minority influence literature, attitudes formed after exposure to minority messages should be more resistant to counter-persuasion. Conversely, as majority influence relies more on peripheral or heuristic processing (e.g. source credibility), then attitudes shaped by majority influence should be less resistant to counter-persuasion.

A series of related studies explored this issue (Martin, Hewstone & Martin, 2003). Participants were presented with either a majority or minority endorsed message arguing in favour of an issue, followed by a counter-argument opposing the initial issue. After processing both messages, participants gave their opinions either in favour, against or neutral to the issue.

Results showed that attitudes endorsed by the majority showed less resistance to the counter-argument than when attitudes had derived from minority influence. In addition, participants exposed to the minority message also generated more message congruent thoughts than those exposed to the majority message. A follow-up study addressed a possible alternative account of these findings. One possibility is that attitudes formed following majority endorsement were simply weaker and hence more vulnerable to counter persuasion. Alternatively, a minority-endorsed counter-message could be stronger than a majority-endorsed counter-message and more resistant to persuasion. Another study, however, showed that majority induced persuasion is actually less resilient, rather than minority induced being stronger. As such, although majority messages may appear more influential, they are not as resilient to subsequent counterarguments and as such, individuals can more easily be swayed to adopt an opposing opinion.

As a whole, then, the issue of resistance to persuasion is potentially important to CF influence efforts in several ways. First, understanding ways in which the potential receivers/targets of persuasive messages could work to resist persuasive attempts would help to maximize offensive influence efforts. Indeed, in the available CF materials (other than references to counter-PSYOPS methods), there is no specific mention of strategies that could be used to undermine the CF's persuasive attempts. As such, having a better grasp of this area of research seems critical.

From a somewhat different perspective, understanding the ways in which the enemy has the potential to affect changes in the target context because of counter-messages that influence the target local population (or even one's own troops and PSYOPS personnel) also seems critical. Knowing how best to promote the highest level of resistance and what techniques are likely to be most effective would be an important contribution to influence efforts. These issues are discussed more in the Recommendations chapter at the end of this report.

#### **6.4.2 Compliance/Influence Techniques**

Several specific influence techniques intended to promote compliance are evident in the literature. Compliance can be defined as acquiescence to a request (Cialdini & Goldstein, 2004), whether the request is explicit or implicit. It is important to note that compliance is not necessarily associated with attitude change, but consists simply of the desired or targeted behaviour. Some well known compliance techniques include the traditional foot-in-the-door,



door-in-the-face, low ball, and that's-not-all techniques (Burger, Reed, DeCesare, Rauner, & Rozolis, 1999), in addition to the newer disrupt-then-reframe technique (Cialdini & Goldstein, 2004; Davis & Knowles, 1999). As a family, these techniques have been characterized as “procedures designed to increase compliance without making the recipient of the request aware that he or she has been subjected to the procedure” (Burger et al., p. 243). The purpose of this section is to explore several of the most prominent techniques, and others that have received more recent attention.

Foot-in-the-door is a persuasion technique that uses gradual compliance (Cialdini & Goldstein, 2004; Rodafinos, Vucevic, & Sideris, 2005). Essentially, a communicator persuades a recipient to comply with a small request then gradually increases the magnitude of the request (e.g., asking to borrow \$5 from a friend then changing the request to \$10). Because the recipient has already committed to an earlier smaller request, the larger request is perceived as less of a sacrifice or inconvenience than if it had been presented first. Moreover, because individuals are typically motivated to appear consistent and good-natured, the receiver will feel obliged to agree to the larger request as well (Cialdini & Goldstein, 2004). In contrast, the door-in-the-face technique involves initially presenting a larger request that the recipient will likely refuse, then following with a smaller request (e.g., asking to borrow \$10 from a friend then, after the friend refuses, lowering the request to \$5) (Cialdini & Goldstein; Rodafinos et al., 2005). The recipient is likely to perceive the smaller request as less inconvenient than the original larger request.

Studies comparing the effectiveness of these two techniques have shown mixed results. For example, a recent study has demonstrated that the door-in-the-face technique used during telephone solicitation resulted in greater compliance than both a foot-in-the-door technique and a control group (Rodafinos et al., 2005). Interestingly, however, the foot-in-the-door technique promoted less compliance than simply making a direct request (control group). Other studies have shown that the door-in-the-face technique is more successful when the request is pro-social (i.e., charitable) and have suggested that this is because non-charitable requests are viewed with suspicion (O'Keefe & Hale, 1998, 2001; cited in Cialdini & Goldstein, 2004). In addition, actual fulfilment of the first request appears to be correlated with agreement to the second request in the foot-in-the-door technique (Dolinski, 2000; cited in Cialdini & Goldstein, 2004). Thus, research concerning the relative effectiveness of these persuasion tactics seems inconclusive. Moreover, it seems likely that their effectiveness interacts with other factors such as the type and size of the original request, the interval between the two requests, and factors pertaining to the source and the recipient (Rodafinos et al., 2004; but see O'Keefe, 1999; cited in Cialdini & Goldstein, 2004).

Compliance can also be elicited by the “that's-not-all” technique. This technique involves presenting an initial proposal, then, before the receiver can respond, immediately following it with an even better proposal that makes the exchange harder to resist (Cialdini & Goldstein, 2004). This can occur by either reducing the cost or raising the benefits of the deal (Burger et al., 1999). This effect relies on the recipient perceiving that the communicator has made a concession (Burger et al.), and/or on varying anchor points influencing perceptions about the potential benefits (Burger, 1986; cited in Cialdini & Goldstein, 2004). When using a varying anchor point, an individual perceives an initial condition as highly attractive and s/he subsequently expects a higher standard for future conditions (Burger et al., 1999). Although the “that's-not-all” technique has previously been found to be reliable in sales transactions, recent research suggests that it is also generalizable to requests for altruistic behaviour such as volunteering and donations, but only under certain original request size conditions (Burger

et al., 1999). Specifically, research has shown that a boomerang effect can occur, wherein an initial request that is only slightly larger than the final request achieves greater compliance than an initial request that is much larger than the final request (Burger et al., 1999). One possible explanation for this effect is that the communicator is perceived as untrustworthy when s/he makes an initial oversized request, causing the recipient to be wary of complying (Burger et al., 1999). Thus, research suggests that this technique can achieve compliance, but only if communicators ensure that the initial request is not exorbitant relative to the final request.

The “disrupt-then-reframe” technique is a relatively new persuasion technique (Davis & Knowles, 1999; Cialdini & Goldstein, 2004). This technique relies on subtly confusing the recipient by intentionally introducing an unexpected element into the conversation, then immediately following up with a persuasive appeal while the individual is still actively working to make sense of the unexpected element (Davis & Knowles, 1999). This temporary confusion is meant to heighten the target’s suggestibility to a reframed request with more acceptable terms (Davis & Knowles, 1999). The technique was validated across four studies investigating compliance to door-to-door sales of Christmas cards. Confederates telephoned recipients and asked them to buy Christmas cards for charity. The “disrupt-then-reframe technique” started with an unexpected assertion that the Christmas cards would cost 300 pennies, and this disruption was followed by the reframe statement: “It’s a bargain!”. Two control conditions were also used. In the first, the cards were simply argued to be \$3.00, and in the second, the confederates argued that the cards were \$3.00 and that this was a bargain.

Results showed that the most compliance occurred when the “disrupt-then-reframe” technique was employed. In fact, this technique was more successful than control groups without the disrupt and reframe elements in close succession, and more successful than the reframe and disrupt elements on their own or in the reverse order.

The disruption-then-reframe technique was recently generalized to non-prosocial (i.e., non-helping) appeals in a study involving telephone solicitation of commercially produced playing cards (Fennis, Das, & Pruy, 2006). The disruption technique facilitated lower levels of cognitive processing, resulting in “compliance to the extent that [the reframe] functions as a heuristic or peripheral cue” because it lessens the probability of counter-argumentation (Fennis et al., 2006, p. 138). Future research should investigate the generalizability of the disruption-then-reframe technique to situations wherein the recipient is highly motivated to attend to the message, such as in non-urgent conditions in which the recipient can therefore be far more rational and probably less susceptible to disruption tactics (Davis & Knowles, 1999). It also seems that this technique would be most suited to situations in which there is little lag time between the phases. When there is a long interval among these stages, it seems more likely that the recipient may have more time to develop counterarguments (i.e., Davis & Knowles, 1999; Fennis et al., 2006). Thus, this technique may be best suited for instantaneous word-of-mouth media rather than time-lagged print media. However, it may also be possible to alternate media types to achieve the desired effects. For example, a word-of-mouth message intervened by a printed disruption, followed by a word-of-mouth reframe. Obviously, research is needed to resolve these critical details.

The “fear-then-relief” technique is an influence strategy that gains its power from the use of affect. Forgas’ Affect Infusion Model (AIM; 1998; cited in Cialdini & Goldstein, 2004), for example, argues that mood can promote the systematic processing of requests. And, people are much more likely to be compliant if they process the information more carefully. Studies



of the fear-then-relief technique demonstrate that compliance rates are higher after the experience of a negative emotion that is subsequently assuaged by the influence message (e.g., Dolinski & Nawrat, 2001; cited in Cialdini & Goldstein, 2004). One theory about why this occurs is that individuals exposed to anxiety or fear are placed in a state of reduced rationality, which makes them more susceptible to influence messages (Cialdini & Goldstein, 2004).

A number of other approaches have also been argued to induce compliance to persuasive messages. The use of ingratiation, of course, is a very common persuasion tactic. Ingratiation or flattery of the target is intended to make judgements of the source more favourable (van Knippenberg & Steensma, 2003). Once the source is viewed in a highly favourable light, the receiver will be more motivated to believe they are credible and more likely to accept their influence message (Cialdini & Goldstein, 2004). Similarly, the greater an individual's sense of affiliation with a source, the more likely they are to be persuaded (Cialdini & Goldstein, 2004). Sources that behave in ways that are similar to the receiver (e.g., facial expressions and gestures) have also been shown to be more likable (Chartrand & Bargh, 1999; cited in Cialdini & Goldstein, 2004). In addition, relying on the power of reciprocation norms is another common compliance technique. As such, giving something of value to targets may make them feel obliged to reciprocate (Cialdini & Goldstein, 2004). That is, a receiver may feel obliged to respond to a request made by a source that had previously done a good deed for him or her.

Other influence tactics include apprising which includes providing “an explanation of how the [recipient] will benefit by complying with a request” (Yukl, Chavez, & Seifert, 2005, p. 707). Apprising tends to be a less effective tactic when used alone, but can be relatively effective when used in conjunction with rational persuasion or an offer of collaboration. Lastly, influence tactics can also be categorized along a hard-soft continuum. Hard tactics are more direct and aggressive than soft tactics and can include threats, coercion and control. Because of their aggressiveness, however, hard tactics may endanger the relationship between the communicator and recipient (Fink, Cai, Kaplowitz, Chung, Van Dyke, & Kim, 2003; Knippenberg & Steensma, 2003). In contrast, soft tactics include ingratiation, inspirational appeals, and rationality, and leave the recipient believing s/he has some freedom in whether or not to oblige the communicator (Knippenberg & Steensma, 2003). Research indicates that communicators tend to use hard tactics less often in situations in which they believe there will be future interaction with the recipient (Knippenberg & Steensma, 2003). Various compliance techniques are defined and explained in Table 8.

**Table 8. Compliance techniques**

Compliance Technique	Definition	Factor	References
Foot-in-the-door	Initial (e.g., small request) proposal is immediately followed by a less attractive proposal (e.g., larger request)	Research is equivocal: effectiveness may depend on other factors such as the type and size of the original request, the interval between the two requests, and the communicator and the recipient	Rodafinos et al., 2005
Door-in-the-face	Initial (e.g., large request) proposal is immediately	Research is equivocal: effectiveness may depend on	Rodafinos et al., 2005

	followed by a more attractive proposal (e.g., smaller request)	other factors such as the type and size of the original request, the interval between the two requests, and the communicator and the recipient	
That's-not-all	Initial (e.g., large request) proposal is immediately followed by a more attractive proposal (e.g., smaller request)	Initial request must be moderate in comparison to the final request	Burger et al., 1999
Disrupt-then-reframe	A request is presented then the recipient is subtly distracted and the request is reframed in <i>seemingly</i> more acceptable terms	Disruption must precede reframing	Davis & Knowles, 1999; Knowles & Linn, 2003, cited in Cialdini & Goldstein, 2004

As a whole, then, there are many different techniques described in the literature as promoting compliance. These techniques, however, have only been subject to empirical validation in limited contexts. As such, their applicability in the broader CF influence domain is unclear, but this is worthy of future research attention, as these techniques provide a number of possible ways in which the effectiveness of influence messages could be enhanced.

## 6.5 Summary and Implications for CF Influence Ops

Social influence research is clearly complex and large and provides a great deal of information about the basic processes of social influence.

- 1) Majority influence is typically more strongly associated with normative factors and derives from processing of peripheral or heuristic cues. This suggests that persuasive messages that aim to influence people to adapt the view of the majority should focus on strong heuristic cues rather than strong persuasive messages.
- 2) Majority influence increases as group size, uncertainty, group attractiveness, and personal visibility increase.
- 3) Unlike majorities, strong minority messages should be more successful than weak minority messages because minorities must rely on the informational value of their messages. Moreover, strong minority messages will generate systematic processing, and when this happens, making attitudes more consistent with the views of the minority will be more likely.
- 4) Minority influence promotes more systematic processing than does majority influence and can lead to deeper attitude change rather than simply surface level compliance. Even when minority messages are successful, however, they are not likely to be publicly and directly influential, but rather privately and indirectly influential. As such, they are likely to bring private attitude change. Understanding how to change private attitude change into public attitude change, then, would be critical.



- 5) Obedience to authority can occur when the authority figure is perceived as having legitimate authority that is sanctioned by social hierarchies, or when the authority figure is perceived as an expert in topics relevant to the influence.
- 6) Resistance to influence has received some attention in the literature, but is likely to be very relevant to the goals of CF personnel attempting to exert influence. This is true in terms of both offensive (e.g., targets that counter persuasion) as well as defensive (e.g., protecting one's own personnel from influence attacks) operations.
- 7) Many different influence tactics have been shown in the literature to promote behavioural compliance. Many of these techniques, however, are not well grounded in theory. Nonetheless, these techniques may provide easily understood and implemented forms of social influence useful within limited circumstances.

Social influence processes are relevant to the functioning of the CF and to Influence Operations in several different ways. At the direct level, this literature provides good information about how best to design persuasive messages depending on the social context in play. The majority/minority research, for example, argues that conformity is most influenced by the belief that large numbers of other self-relevant groups share the same opinion. As such, designing messages that exert normative pressures will increase their persuasiveness. At the same time, however, this literature also argues that message quality will be less critical when normative factors can be enacted. This suggests that invoking normative factors when the logic and clarity of persuasive messages are naturally weaker will promote more social influence.

At a very more indirect level, information about basic social influence processes may promote a better understanding within the CF about the potential dangers of social influence at the more defensive level. Simply put, there is little reason to believe that CF personnel are likely to be wholly protected from negative social influence effects. Of course, if they have received good training, and have been taught to adopt a critical approach and to continually think for themselves (regardless of the authority pressures, etc.), this would lessen the potentially negative effects of social influence. However, there is still good reason to be concerned about the power of the situation at the operational level. Military personnel in operations face a broad range of stressors and influences, and they are charged with making extremely difficult decisions in chaotic environments. Within these environments, the dangers of social influence are very real. The Abu Ghraib incident in the U.S. military, for example, is a good example of how powerful situations can contribute to atypical and socially unacceptable behaviour. The Abu Ghraib incident is one that certainly shows the potential power of social influence combined with possible errors in leadership. Although this is not necessarily the sole purview of the CF Influence Ops team, this team is likely as subject as any other team to these pressures.

In this sense, it seems critical that knowledge about social influence processes should also permeate CF training, doctrine and discourse, and there is at least indirect evidence that this is already the case. In a very real way, leaders are capable of exerting a very high level of positive social influence, of convincing their followers to take on critical values and attitudes that will promote their ability to make the right decision whether monitored or not. Interestingly, one of the CF's key responses to the Somalia incident in the 90's (after having undertaken a critical self-examination), was to give more attention to promoting excellent leadership. If potential problems of discipline and personnel likely to exert negative





influences on other personnel can be “weeded out” by leaders at the early stages of training, this would clearly make a positive contribution to ensuring that these negative forces do not lead others astray (via social influence) in the course of operations. One potential problem with this approach, however, is that many very negative acts are often identified as being “out of character” for the perpetrator, and a total surprise to the many people that knew the perpetrator before negative events occurred. The potential challenge, then, is that problems of social influence are not necessarily previously identified sources. Nonetheless, it is critical that serious effort goes into working to ensure the highest possible level of personnel character, training and discipline that is possible. Ensuring that the CF does this is a good way to maximize the power of positive social influence, as well minimize the power of negative social influences.



## 7. Recommendations

Given the literature just reviewed, this section provides recommendations for a long-term program of research in support of CF influence efforts.

This recommendation chapter will work to identify:

- areas where existing scientific knowledge has the potential to provide the underpinning for current and future CF influence activity, but is not currently exploited
- areas where there is a requirement for improved underpinning but the science base is immature
- requirements for future research to enable improved scientific support to influence operations
- areas where there is potential to exploit the existing knowledge base through product development (e.g. military guidance documents).

This analysis necessarily proceeds on the assumption that publicly available information on CF influence operations methods and products is complete and accurate. Nevertheless, it is stressed that in the next phase of this project, further effort will need to be expended in validating these initial, tentative, conclusions and recommendations in conjunction with relevant CF personnel including PSYOPS.

### 7.1 Start-up Activities

**Understanding Client Group Needs** – The obvious first step to any research program is understanding the needs of the client group, and the needs of the CF personnel actually involved in conducting formal influence operations. Understanding the current theoretical and empirical underpinnings of the current CF PSYOPS process would require focused meetings with both past and current PSYOPS personnel. This consultation would need to include formal discussion of exactly how the PSYOPS process is enacted within the CF and the current strengths and opportunities within the system, as well as discussion of how research might be able to contribute to this system. Throughout this process and in the longer term, it would be critical to continually balance the needs and interests of CF personnel involved in actual PSYOPS with the needs and interests of researchers. For example, CF personnel will necessarily have different goals than those of researchers, and may not see the immediate value of taking a more theoretical scientific approach when their goals are very pragmatic and their windows typically very short. At the same time, however, some of the important issues to be explored in a future program of study may not be immediately amenable to producing discrete “products”, as complex patterns often require multiple iterations and multiple experiments to narrow down the many different constructs that can interact. An adequate balance can only be achieved by building relationships that facilitate honest and frank conversation.

Of course, it will also be helpful to begin to “scope out” the CF PSYOPS domain, in terms of the relevant departments (both military and otherwise) that impact on how the PSYOPS personnel fulfil their role. This scoping could be best described as a sort of social network

analysis showing the different people and agencies that interact with, contribute to, and are affected by the PSYOPS cycle. It should be noted that although CF doctrine (p. 5-4) defines several agencies as involved in the PSYOPS cycle (e.g., Solicitor General, Department of Justice, Royal Canadian Mounted Police, etc.), this listing of relevant agencies provides no information about how they actually interact with and impact on the PSYOPS process. Such an analysis, for example, could include the early stages of a PSYOPS message, and how it is shaped as it travels through the different levels of approval, how PSYOPS personnel enter, are trained and move through the system, and whether/how these personnel could contribute to the PSYOPS process after completing their assignments. This analysis would hopefully provide a more complex view of how the PSYOPS process actually works, with a view to understanding how a program of research could contribute to furthering the CF's influence goals.

## 7.2 Unexploited Areas of Existing Scientific Knowledge

This section defines areas where existing scientific knowledge has the potential to provide the underpinning for current and future CF influence activity, but is not currently exploited. Although it is clear that CF PSYOPS doctrine was informed by the persuasion/attitude change literature, initial indications suggest that this literature may be underexploited in current CF practice. Although many of the key constructs of persuasion and attitude change are addressed in CF doctrine, the focus seems to be on main effects than on interaction effects. As such, many of the complexities explored in existing scientific research may not be tapped. For example, although there is evidence that the CF PSYOPS approach understands the importance of considering the source of a persuasive message, it seems less likely that current practice emphasizes the very specific finding, for example, that the source is particularly critical when the argument strength of a message is low. As such, finding ways in which the complex interactions evident in the literature can assist the CF influence operations process should be a key priority of a long-term program of research. One possible approach, for example, could involve creating “if-then” trees showing the complex system of contingencies.

Moreover, with the pace at which the literature is currently developing, it seems unlikely that PSYOPS practice integrates the findings of developing research as it is produced. This lack of recency is only a problem if it significantly inhibits the ability to produce influence messages and products. However, there are three ways in which this could impact PSYOPS efforts. Perhaps the biggest potential danger is that persuasive messages might have unintended negative effects that could have been predicted by the literature. Or, persuasive messages could simply have no effects. Lastly, failing to utilize existing literature as it develops could result in the inability to realize the potential positive benefits that are evident in the literature.

On the other hand, it is also important to note that PSYOPS personnel may also have very good reasons (both implicit and explicit) for not fully tapping the knowledge available in the current scientific literature. The goals of scientific researchers are obviously somewhat different from the goals of PSYOPS personnel. Whereas researchers may be interested in understanding the theoretical underpinnings of influence, PSYOPS personnel need usable and accessible advice that is empirically based, but that can be easily applied to the problem at hand. Moreover, these personnel must operate in complex environments where many of the factors likely to be in play within an influence context may not be known, let alone controlled.



Another challenge that hinders the application of existing scientific knowledge to military influence settings is that the literature is often confusing and contradictory. For those in need of “quick and dirty” answers to a very specific question, this has the potential to be very frustrating.

Perhaps the best way to support CF PSYOPS personnel, then, is help them to apply the findings of empirical research to the complex applied problem at hand, but this is currently very difficult. In the longer term, then, one way to maximize exploitation of the available literature would be to attempt to synthesize all of the existing literature into decision rules about the most well established and supported findings, and to eliminate some of the potential ambiguity and inconsistencies. This would require a very strong knowledge of both the existing literature and of the military influence domain. However, taking the complex scientific information that is available and converting it into a form that it can be used by PSYOPS personnel should be one of the key goals of the proposed program of research.

**Persuasion Factors (SCAME)** - Scientific research shows that many factors impact influence (e.g., source, content of message, audience, etc.). One of the critical choices to make as a research planner is to decide how to target one’s efforts. With source, message, media and receiver effects, there are many different research issues that could be explored. In truth, any one of these areas of research could make a meaningful contribution, as there are few existing studies that have explored them in the domains most relevant to PSYOPS. Decisions around how to prioritize these dimensions can be made in consultation with CF PSYOPS personnel.

For the early stages of research, however, message effects are likely to be the most critical area of exploration. Understanding the elements of a persuasive argument that would make it a strong message within a specific context would be an important contribution. The other area that seems most critical is the impact of target audience characteristics on the motivation and ability to process persuasive messages. This issue is particularly important because the contexts in which influence products are likely to be processed are often highly chaotic, and a target’s motivation may be limited. In war-torn countries, targets may be disjointed, uprooted, and in motivational states that are not conducive to attending to or complying with influence messages. As such, finding ways to increase the motivation (e.g. heightening perceived personal relevance) to process influence materials systematically may be a critical research contribution.

Although the only PSYOPS products that could be accessed for this report were created by other countries (particularly the U.S.), at least in these products, the source of a persuasive message is typically more implicit than explicit. This suggests that, at least in the earlier stages of a program of research, understanding source effects might be a less critical priority. Moreover, given the relatively limited resources likely to be available to CF PSYOPS personnel, even though a wealth of media delivery systems may exist, at least in the short to mid-term, it seems likely that Canadian PSYOPS products may naturally rely on more conventional delivery systems (e.g., leaflets). As such, extensive research exploring the relative merits of different delivery media may be less critical at the early stages of a long-term research effort. Nonetheless, it still seems important to work to explore the impact of various media on persuasion in preparation for more complex delivery systems, as technology is likely to receive growing emphasis.

It appears, then, that the CF Ops Joint Doctrine (DND; 2004) captures the critical factors involved in persuasion, but critical nuances such as the interrelations among the SCAME

factors appear to be missing. With rare exceptions, the ideal when attempting to design persuasive messages is to have the following elements (source: credible rather than not credible; message: strong rather than weak; receiver: motivated rather than unmotivated), and to then enact whichever social influence factors (e.g., conformity) might assist these efforts. The challenge for future practitioners, however, is that there are few clear and unequivocal answers about the most effective combination in every situation, and considerable work would need to be done to provide these rules or heuristics for influence ops personnel. Given the number of possible combinations, however, for a long term program of research striving to achieve the greatest possible level of success, it would be critical to work to identify and dimensionalise the nature of the typical problem space. If there are some common situations (or even persistence characteristics within these situations) that could be identified, this could focus research efforts and assist the application of existing knowledge to this problem. Barring this, a broad range of heuristics could be offered for non-specific situations, and this might not be very helpful to the practitioners seeking “quick and dirty” answers to specific problems. This literature review suggests that increased understanding of the factors noted in the existing literature (including empirical testing of their relationships in complex environments), may provide the CF with important advantages when undertaking influence operations.

**Integration of Social Influence Research** – Although the available materials suggest that the basic persuasion principles have been incorporated into the CF PSYOPS approach, there is little evidence suggesting that the rich social influence principles are actually in use.<sup>12</sup> In a very real sense, however, during military operations, the transmission of a persuasive message is likely to impact both directly (e.g., through individuals reading influence products) as well as indirectly when they hear about the persuasive messages from family and friends. For example, the social influence literature argues that the framing of a persuasive message should depend on whether this message is likely to appeal to the majority or minority. If targeted to appeal to majorities, such a message should use normative influence; if a minority message, it should use logic and evidence in order to promote more systematic processing. Our observation from the PSYOPS materials available (and Influence Ops workshop discussion) is that much more attention and energy has been directed at the direct forms of influence (e.g., via discrete products) than on the indirect forms of influence. This is unfortunate because the indirect forms of influence may be just as powerful as discrete messages, but must unfold over longer periods of time and contact with the target population. This suggests that more elaborated exploration of social influence processes, and of how this information could be integrated into training and doctrine might be very beneficial to the CF.

### 7.3 Areas Where Future Scientific Work Necessary

The purpose of this section is to identify research areas that are critical to supporting Influence Ops, but where the scientific base is immature. Pragmatically, receiving and maintaining long-term funding may be somewhat dependent on the ability to identify both potential short-term and long-term gains in the program of research. Strategically, then, it might be critical to identify areas of research likely to provide practical, efficient and effective answers to the CF that would be of more immediate use, and to work toward using

---

<sup>12</sup> Again, this could be because of our limited exposure to the actual materials that CF personnel use.

this success as a basis for a more complex program of research that may take years to come to fruition. There are several avenues that may be explored.

**Context-Specific Definitions and Influence Models** - One of the most problematic issues noted at the Influence Ops workshop was the lack of a common definition of exactly what influence is, and various attempts were made during the workshop to create a common definition. These efforts seemed to have met with limited success. From our psychological perspective, the core of influence involves changing the beliefs, attitudes, intentions (and ultimately) the behaviour of the target audience. However, the psychological terms in this definition may not resonate with the operational community. It will be critical to determine, however, whether there is actually a core disconnect between how these terms are actually being used, or whether natural differences in perspective, focus and vocabulary (as the result of background and training) simply makes the concept of influence difficult to define in a way that is acceptable to everyone. Either way, it will be important to ensure a common understanding of what influence is, and how it is manifested within Influence Operations.

At the most basic level, there is no indication in the available literature that CF PSYOPS personnel currently base their efforts on a clearly defined and specified model of exactly what influence is. The only obvious reference to theoretical models in the available literature occurred in a conference presentation by LCol Bruno Vanasse (2007), Chief of Staff, CF PSYOPS, arguing that the influence cycle could be compared to the Boyd OODA loop. Unfortunately, there was no indication that this has since been developed, and this might be an issue to pursue in further conversations. As such, having a clear model of exactly what is meant by the term “influence” and how it fits into the broader goals of the CF/DND would be very helpful. This could be an important first step for a program of future influence research.

**Influence in High Complexity, High Risk Environments** - The primary problem facing potential influence ops researchers (and hence, practitioners) is that the generalizability of existing research and literature is unknown. As noted throughout this report, it is unclear how well the findings noted in the scientific research can be generalized to the context of influence operations, as existing research is typically conducted in very sterile environments. There is a great need for rigorous scientific research that is relevant to the highly chaotic and risky domains in which PSYOPS is likely to occur. Any program of research needs to grapple with both simple main effects (e.g., is video more influential than audio in a highly complex environment) as well as more complex effects that combine features of the source, receiver, message and media. For example, one of the issues left seemingly untouched by existing research is how persuasive messages are likely to be when they are only one of the many pieces of information that the receiver must juggle. Examples of such complications include the likelihood that the target will be distracted with some other behaviour at the time that the message is delivered, or the very real possibility that the target country or culture will launch their own counter-influence campaign (CF PSYOPS Joint Doctrine Manual, 2004). Researchers and CF PSYOPS personnel need to more fully understand how to communicate influence messages successfully in the face of unmotivated or overloaded individuals and other context-specific forces (e.g. counter campaigns). One way to begin to tackle this problem is to work with PSYOPS personnel and other experts to define the empirical research questions that would be most critical to have answered in the influence ops context.

Overall, then, a critical research activity at the early stage of research would be attempting to understand the problem space in which influence operations are most likely to occur. Questions such as the core features of the situations that are typically encountered, the many

different factors at play within these situations would be helpful as a way of understanding the most critical priorities for future research. If, for example, previous PSYOPS operations have had little need for considerations of the message source, but huge issues arising from message content, this suggests that message quality should receive more attention in a long term program of research.

In attempting to undermine influence in military contexts, it will be critical to consider both direct (e.g., persuasion) and indirect (e.g., conformity) forms of influence. Indirect forms seem to have been mostly overlooked to this point. However, influence operations must rely on both the people in direct receipt of a persuasive message, as well as on social influence processes that help to shape the distribution and even the interpretation of the message. The extent to which the message permeates within a given culture, for example, will be affected by the communicative ability and motivation of the people in direct receipt of the message. In highly chaotic environments, this may be a critical link in the chain, but one that could be facilitated by simple influence techniques that could be incorporated into the message. More consideration of these social influence effects, then, could promote message effectiveness at both a direct and indirect level.

**Culture and Influence** - In general, theorists and researchers argue that the role of cultural differences in influence has not been well researched (e.g., Pornpitakpan, 2004). One of the most critical needs identified by CF personnel, however, was to have culture-specific information about the influence and persuasion tactics that are likely to be effective. Future research could explore the nuances of the culture that would be in play when conducting a PSYOPS operation. PSYOPS personnel noted that they had received only brief training on Afghani culture before deploying to the mission area. This information, however, did not capture many of the critical factors, such as specifics related to the tribal system in Afghanistan. This left them in the position of having to decipher important culture-specific nuances by trial and error, and their effectiveness was much lower until these nuances could be ascertained. This suggests that a potentially helpful research activity would be efforts focused on documenting the cultural aspects of the mission area that would need to be considered in conducting the target audience analysis. From another perspective, then, PSYOPS personnel would also benefit from help describing how best to tailor these messages, and what persuasion techniques are likely to be most effective in given cultures.

As noted earlier in this report, however, there is some evidence that people in collectivistic cultures are likely to define situations differently, and to feel more compelled to act when other people are in need. Even these basic differences could be employed in the development of influence products. For example, influence messages in individualist cultures should be designed to appeal to objective data including previous examples of the results of compliance to the message, or to legal sanctions, whereas influence messages in collectivist cultures may be better designed to appeal to emotion and to the meaning of relationships. Of course, these ideas are speculative, but there is good evidence that culture is likely to have a very big impact on how persuasive messages are received and understood. It should be noted that although there is likely not extensive research directly investigating culture and persuasion, as the examples above shown, much existing research is likely to be relevant. This suggests that if future research will focus on the relationship between culture and influence, a more focused literature review would be helpful.

**Longitudinal Research** - There is strong agreement in the literature that one of the areas of research most in need of attention is longitudinal effects (e.g., Payan & McFarland, 2005;



Pornpitakpan, 2004). Studies are typically short term, and the “time course” of persuasive attempts remains an unaddressed issue. However, some research does suggest that the time component has great importance for influence because a message that appears to be ineffective a day after it is presented can be highly influential three months later particularly if it comes from a low-credibility source (Dholakia, 1986; cited in Pornpitakpan, 2004).

Although longitudinal studies are more time and resource intensive, this area of research may be particularly relevant to CF psychological operations. In many cases, it may take a long time before the effects of CF psychological influence messages can be known, and before the presence or absence of the target behaviour could be assessed. Thus, it seems particularly important to use longitudinal studies to understand the ways in which a message may impact on attitude change over time, as well as assessing the possible impact on the shift from attitudes to behaviour. Thus, longitudinal research to understand the impact of persuasive messages over time (and in more complex environments) could contribute to the effectiveness of influence operations.

**Message/Argument Strength** – Given that persuasive messages are the unit of currency in an Influence Ops environment, understanding how to create messages with the optimal strength for the situation would be an important ability. As there is no available evidence of an easy way to conceptualize the strength of persuasive messages, a program of empirical research might be able to assist with this. As noted earlier in the review, there are many different potential elements of message strength, including logic and coherence of the argument, the style with which the message is presented and the framing of the persuasive message within the broader context. Moreover, message strength is particularly critical in some situations (e.g. when working to exert minority influence) than in others (e.g., when the message source is perceived to be highly credible).

As described in the upcoming Product section, this research could culminate in a product for the CF providing empirically based advice allowing PSYOPS personnel a method by which they could quantify the strength of their persuasive message. This, of course, would allow them to pit several different versions of persuasive message against each other to determine the most effective.

**Resistance to Persuasion and Influence** – From the perspective of PSYOPS, a good deal of attention is typically directed at the need to understand the target audience. Given its importance, however, the issue of how persuasive messages can be resisted has been given little or no emphasis. This area of research could address research questions such as whether individuals in different cultures use the same or difference resistance strategies, or whether some types of persuasive messages are likely to be more resistant than others. Other possible research questions could include whether resistance can be overcome with persistent messages that target different aspects of the receiver (e.g., targeting core values) and by varying the type of persuasive message (e.g. emotional as well as cognitive appeals). It is important to note there that resistance processes are important both from the offensive perspective (e.g., understanding how targets and receivers can resist messages), as well as from the defensive perspective (e.g., understanding how one’s own personnel can resist counter attacks). Knowledge about social influence will be critical for both being able to understand and predict the thought, motivation and behaviour of adversaries as well as for protecting one’s own forces from negative impacts of social influence processes that might affect them.



**Measuring the Effectiveness of Influence Operations** - One important area of future development for a research program will be helping to measure the actual effectiveness of the influence attempt. Sammons (2004) has argued that there are two major areas of influence effectiveness:

- 1) Whether or not the intended message was received: Was the message delivered successfully? For example, how often did audience members actually tune into the message, were they able to read the message, did they understand the language (dialect) in which the message was framed?
- 2) To what degree did the message have the intended effect on the emotions, motives, attitudes, objective reasoning and behaviours of the target audience?

The CF PSYOPS Joint Doctrine Manual (2004) notes that there are direct and indirect indicators of the effectiveness of persuasive messages. Direct indicators are observable indicators that show the target's behaviour as being consistent with the influence message. Evidence of responsive action in the form of writing letters, refusing to obey orders, defecting, or voting are all examples of direct evidence that the message was effective. If the influence message is intended to change certain behaviours, data gatherers must clearly understand the behaviours that are (and are not) indicative of behaviour change. In some cases, special tools may be required to record the data such as portable computers or Blackberries. Other indications of message effectiveness could stem from observer commentaries from uninvolved but interested individuals or witnesses who live near the target area (PSYOPS Joint Doctrine Manual, 2004).

More indirect measures include participant reports collected from questionnaires and interviews which are used to gather targets' opinions, values, attitudes, or desires relevant to the influence attempts (PSYOPS Joint Doctrine Manual, 2004). Although this would need to be discussed more with CF PSYOPS personnel, an informal conversation at the Influence Ops workshop indicated that one of the challenges for current CF PSYOPS is that information about local attitudes is currently only available through American polling sources. It is unclear how representative these sources might be of actual attitudes in the target region. This kind of information may be very difficult to attain, but perhaps further liaison with human intelligence (HUMINT) sources in the longer term might be one way to receive this information. This again suggests the need to look at the PSYOPS context at a broad level, and to understand all of the possible resources that might contribute to promoting PSYOPS efforts.

Several different factors will be necessary to begin to measure the effectiveness of persuasive messages. These include the necessary proximity to the receivers, common language, an appropriate number of data gatherers necessary to do the job, timeliness, and capability and opportunity to observe. Some of these probable challenges to assessing message effectiveness are recognized in the CF PSYOPS Joint Doctrine Manual (DND, 2004) including cultural and language differences, difficulty acquiring targets for feedback, and failure to recognize situational factors that may make data collection difficult or politically incorrect.

Another critical question pertains to how exactly influence effectiveness is measured. At one end of the proximity spectrum, data gatherers may be required to be "down on the ground" talking either directly with targets or getting indirect information about their views and behaviours (e.g. HUMINT). Or, at the other extreme end of the proximity spectrum, data gatherers may be able to passively observe from a distance including listening to "radio



communications, newspapers, and other publications [including] captured documents, opponent propaganda” (DND, 2004). Indeed, the CF Joint Doctrine Manual (DND, 2004, p. 5-5) indicates that when *planning* PSYOPS, such intelligence is accessed “from intelligence databases and open source documents that include information about historical and current events... relevant to the particular target audience”. Events like death or important developments involving prominent social or political figures, a drop in the economy, or extreme or unpredicted weather conditions such as drought or severe storms could impact on both PSYOPS planning and the effectiveness of targeted messages. Regardless of the data sources that could be used to determine message effectiveness, the PSYOPS Joint Doctrine Manual (2004) noted correctly that the post-testing methods and the pre-testing methods should be the same in order to facilitate comparison of the data. Some of the methods noted include using surveys, a panel of representatives, and a panel of experts to determine the effectiveness of the message.

Another critical factor in determining message effectiveness may be to examine whether other factors occurring around the same time of the influence operation could explain the effect rather than the persuasive message itself (DND, 2004). For example, in the case of an election if a candidate or someone close to candidate was discovered to have committed an act that offends the targets, it may be possible that the outcome of the election was not entirely due to the influence operation, but to other factors. This level of sophistication would require close monitoring of the events in the target culture around the time of the influence attempt in order to rule out other causes.

One critical question that must be answered before research on influence effectiveness advances too far is whose responsibility it is to measure the effectiveness of PSYOPS campaigns. The CF PSYOPS Joint Doctrine Manual (DND, 2004) seems to suggest that the effectiveness analysts are CF personnel who are part of the influence operation. However, although this might be the most pragmatic option, from a scientific perspective, having analysts outside the CF help with this process could lower the potential for bias.

Another issue that will need to be determined is exactly what level of effectiveness must be reached before a message can actually be declared effective. The effectiveness of a persuasive message may not be all-or-nothing. Suppose an influence message is designed to solicit reports of suspicious activity from the locals to CF personnel. For this message, increases of 20% in the target behaviour may be considered successful. But for another message, even 50% compliance may be deemed unsuccessful. Defining precisely what the target attitudes, motivations and behaviours would be is a critical antecedent to understanding message effectiveness. However, if the influence is directed toward broader behaviours and attitudes, a one-time measure may not provide an adequate account of the effectiveness of the influence attempt. In these cases, it may be necessary to take repeated measures of targets’ behaviours and attitudes in order to determine the average effect over time and the longevity of the effect over time.

Of course, given the relative recency of CF PSYOPS efforts, it seems reasonable to assume that other military systems may be somewhat more advanced in assessing message effectiveness. Although there were some indications in our literature search of the approaches of other militaries in assessing PSYOPS effectiveness (e.g. the MITRE Grimes Value-Focused Thinking Approach in the U.S.), detailed information about these approaches could not be accessed in the time available. As such, it might be helpful to “mine” existing scientific and military literature to accumulate the research and information relevant to

influence measures of effectiveness. In doing so, the research may uncover other potentially useful pieces of information about other nations' approaches to PSYOPS, as well as understanding how researchers in similar areas (e.g., assessing marketing effectiveness) measure the effectiveness of persuasive appeals.

Based on the potential research areas identified in this section, the following section considers the requirements for future scientific work.

## **7.4 Requirements for Future Scientific Work**

This section describes requirements for future research to enable improved scientific support to influence operations. The scientific work necessary to support influence operations is both theoretical and empirical, so the requirements in each area are considered.

### **7.4.1 Theoretical Requirements**

One of the challenges likely to be faced by future researchers is a lack of critical theoretical groundwork in some areas. Having a theoretical basis is important, as it can provide an organizing structure that links the many relevant factors, as well as providing the basis for further predictions. The lack of theoretical basis of many influence studies likely stems from the fact that researchers in other areas simply have pragmatic rather than theoretical goals. Ultimately, however, even literature that provides empirical research without a clear theoretical base could be important to continue to tap, but this research would ideally be combined with a more integrated and theoretical approach to understanding influence.

Staying abreast of the scientific theory related to influence will require concerted effort due to the size of the emerging literature, and whatever "shortcuts" could be imagined should be pursued. One possible strategy would be to seek opportunities to interact with persuasion experts at regular intervals to maintain "state of the art" knowledge. One of the important points to note here is that there are many different types of researchers working in the persuasion and attitude change area. Many are in university settings, but many others work in business schools providing advice in more applied settings (e.g. marketing, advertising). As such, within this area of research, there is a wider range of researchers than normal who run the gamut from very basic to very applied in their research goals and interests. Moreover, for researchers with applied interests (particularly when working in a university setting), being able to conduct persuasion research with a non-undergraduate sample (e.g. with CF military personnel) may be very attractive option.

The upshot of this is that it may be possible to "link in" to an existing persuasion or attitude change laboratory. This could be mutually beneficial if, for example, they could be provided with an opportunity to access a "real world" subject pool, and if CF influence research could benefit from their knowledge and expertise. It is also important not to underemphasize the extent to which it might be possible to influence the course of influence research, in the sense that many basic researchers are interested in applying their knowledge and theories to complex domains, but typically have little opportunity to do so. Providing them with "real life" influence and persuasion problems may help to shape the research toward the more applied (but just as critical research questions). At the very least, it would be advisable to attempt to forge relationships with a persuasion researcher with some knowledge of the PSYOPS context, who could help to pass along relevant findings as they emerge.



For the long term, a critical research activity will be keeping up with the existing literature as it develops, and as it shapes both basic research and practice. There are, of course, too many potential sources of information to monitor all possible sources closely. However, it is important to note a new journal called *Social Influence* that started in 2006 and specifically publishes research and theory in the domain of social influence. It is published by Psychology Press, the Taylor and Francis Group. The aims and scope of this journal are as follows<sup>13</sup>:

*Social Influence* is a new journal that provides an integrated focus for research into this important, dynamic, and multi-disciplinary field. Topics covered include: conformity, norms, social influence tactics such as norm of reciprocity, altercasting, and scarcity, interpersonal influence, persuasion, power, advertising, mass media effects, persuasion in democracy, propaganda, comparative influence, compliance, minority influence, influence in groups, cultic influence, social movements, social contagion, rumors, resistance to influence, influence across cultures, and the history of influence research.

The journal publishes a variety of papers, including empirical reports of experiments, surveys, case studies, and field studies; state-of-the-art reviews; theoretical articles; literature reviews; controversies; analytic papers on important social topics; and teaching notes. It appeals to a broad range of researchers from social psychology, consumer psychology, communication studies, political science, organizational behavior, media studies, and advertising.

As such, this journal might be a potential resource to pursue as the research program proceeds. Other relevant sources could include access to the journals of the American Psychological Association (APA), as this is the largest reservoir of information related to recent publications in the persuasion, attitude change and influence theory and research in North America. Of course, other sources outside of North America should also be pursued. It is important to note the ability of APA members to identify sets of keywords (e.g., persuasion, attitude change, etc.), and to be sent email links when articles containing these keywords are published. Undoubtedly, similar procedures are likely also in place in other publication venues likely to be relevant (e.g. business or consumer journals).

#### 7.4.2 Empirical Research Requirements

From a psychological perspective, research into influence operations must place critical emphasis on the complexity of actual PSYOPS environments and strive toward realistically incorporating them into research studies. Research will need to include both laboratory experiments and field studies, as they enable varying levels of experimental control but provide varying degrees of complexity and realism.

Empirical investigations include laboratory experiments and field studies. Both of these represent viable means that could be used to further explore CF influence operations. However, they each come with unique requirements.

**Laboratory Research** – Research programs often proceed from relatively controlled laboratory work (e.g., correlational studies and then experiments). Laboratory studies have the benefit of providing a highly controlled environment, allowing researchers to manipulate variables with greater precision. Despite the level of control they provide, however, laboratory studies also suffer in terms of their realism and generalizability, as real life circumstances are usually more complex than laboratory settings allow.

<sup>13</sup> <http://www.informaworld.com/smpp/title-db=all-content=g772894369-tab=summary>

Given the nature of persuasion and attitude change, there is good reason to believe that laboratory research will be required. Attitude change, for example, is very often subtle, and even if attitude change does occur, participants are sometimes able and motivated to report these changes and are sometimes not able to do so. Social desirability biases may limit their comfort about reporting negative attitudes about potentially contentious topics, or when they disagree with others. Moreover, there is also good reason to believe that participants are not necessarily very reliable reporters even of their own internal states and attitudes (Nisbett & Wilson, 1977). As such, both direct (e.g. questionnaires, etc.) and indirect (e.g. Implicit Association Test, Fazio & Olsen, 2003) indicators of attitudes may be required.

A critical aspect of conducting laboratory research, however, is finding tasks and environments that provide the highest possible level of realism. One possible research platform could be the 1<sup>st</sup> person gaming laboratory at DRDC Toronto. The testbed facility was developed to achieve a virtual mission environment where a collective task could be undertaken by a team in real time. The gaming network comprises eight PC computer workstations that can be linked together in a multi-player virtual mission environment. In addition, the laboratory also provides communication capture capability that tracks and logs all radio voice communications during each mission, and two PC servers/controller workstations. To this point, this laboratory has been used almost exclusively for running Rogue Spear, a commercial software package in which participants play against each other or enemy “terrorists”. However, many current commercial packages are able to simulate a range of military situations (e.g. Command and Conquer), and other packages could be tailored to do so. There are likely other research platforms within DRDC Toronto (e.g. Titan) that could be used, depending on the research questions being asked and the level of fidelity required. One possible preparatory research activity, then, could be further review of the many different possibilities for researching persuasion and influence research in the laboratory context.

This program of research, however, will face the challenges of many other military research programs. The biggest current problem is getting access to military participants with the current operational tempo. In the end, this problem will only be solved by building long-term relationships with military units in which there can be mutual benefits for both parties. If somewhat more academic research is pursued (or if partnerships could be built with universities, etc.), one option is to use university settings when high numbers of participants are required. However, this obviously impacts on realism and generalizability. However, once basic relationships have been established in the laboratory, research can be ported over to more resource intensive field studies.

**Field Research** - Field studies have less experimental control, and can provide more realistic environments. Because field studies are generally more resource intense than laboratory studies, researchers generally conduct laboratory studies on the phenomenon of interest first, then, if the results are in the expected direction, the experiment is taken to the field. One of the most critical challenges for future research will be simulating the influence context in as realistic a way as possible. Conducting persuasion and attitude change research would require access to a range of environments, ranging from very simple to very complex and chaotic. However, it is important to note that given the low levels of fidelity evident in persuasion research in the existing literature, most field contexts would be an improvement on the current research.



What seems most critical is to construct scenarios that allow the best possible matching possible to the environment in which influence ops materials and products would be encountered by targets/ receivers. These environments could be relatively simple at the early stages, with only a few factors in play. Early research, for example, could explore participants' reactions to a persuasive message presented by a face-to-face source with varying levels of argument strength and presentation of either a majority or minority message. At more elaborated stages, exploring receivers' ability to process persuasive messages when faced with either high or low demands combined with varying levels of affect (e.g., anxious or happy) would be a more complex field study.

Other field work would be necessary to test the utility of influence effectiveness tools in the field. For example, if an effectiveness tool could be created, it would be necessary to test this tool in both laboratory and field environments in order to validate that it can accurately capture changes in target attitudes and behaviours.

The potential problem with both field and laboratory research required to test influence tools or to understand influence effects is that culture will often be in play in actual environments, so will need to be included in empirical research regularly. Subtle differences between cultures could strongly influence the persuasive power of any message, and these differences would obviously be obscured if tested in the non-target culture. From a research perspective, then, this suggests that having access to pools of participants from diverse cultures likely to be implicated in future CF influence activities would be critical for assessing effectiveness of these tools prior to introduction into the operational theatre. As such, getting access to a multinational sample might be a critical requirement of this program of research. Given that influence researchers working to support PSYOPS throughout many different military systems throughout the world will likely find themselves in the same position, it may be beneficial to pursue partnerships with other researchers needing participant samples from North American cultures.

**Understanding Training of PSYOPS Personnel** - A critical part of a future research program could include consideration of the current training processes for personnel assigned to the PSYOPS team. Currently, for example, the Peace Support Training Centre at CFB Kingston offers four PSYOPS courses. These include the Target Audience Analyst course, the Disseminator course, Production Specialist course and PSYOPS Planner course. These courses are currently open only to personnel who will occupy a PSYOPS position following the course.

Unfortunately, there is currently no available information on the content of these courses. It should be noted that building a long-term relationship with PSYOPS personnel is critical. One way to do this is to immerse future researchers in the "world" of how PSYOPS is trained within the CF. For example, if permission could be granted for a civilian researchers to take the PSYOPS course, this could facilitate both a deep understanding of the training, as well as to begin to build relationships with personnel doing PSYOPS in Canada. This, presumably, could help the level of rapport needed to get candid feedback about the kinds of products that would be most advantageous to deployed PSYOPS personnel, or even about preparatory activities that would be helpful. Given our assumptions about the current state of CF PSYOPS materials and resources, an important contribution for the longer term would be finding a way to incorporate relevant findings of this research program into the existing PSYOPS training curriculum.

## 7.5 Recommendations for Product Development

This section describes areas where there is potential to exploit the existing knowledge base through both immediate and long term product development (e.g. military guidance documents). A program of influence research could contribute many different products to help refine how Influence Operations are conducted, both by helping to refine existing processes, and by providing tools to make these processes more easy for constantly changing personnel to implement. Discussion with PSYOPS personnel during future visits would hopefully help to further define the most critical products that could be helpful.

**Lessons Learned Capability** - In the Influence Workshop conversations on 23-24 May 2007, it was clear that finding a way to capture the Lessons Learned about Afghani culture could be a very helpful and immediate product. This simple product could involve a simple videotaped/audiotaped interview with PSYOPS personnel recently back from the mission area, in which they discuss what they learned about Afghani culture and the PSYOPS process in ongoing operations. This would provide both critical information relevant to target audience analysis, as well as give insight into the challenges faced while performing the PSYOPS process. In the short term, these personnel might also be able to identify how this information could be best distributed to be helpful to personnel about to be deployed.

In the longer term, it would be important to establish whether there is an active Lessons Learned function with PSYOPS personnel who have returned from operations. This could range from questionnaires that they complete following deployment, to phone or face-to-face interviews, or even small focus groups. The purpose of this would be to capture information that could help future PSYOPS personnel to learn from the lessons and mistakes of others in order to improve their own performance conducting influence operations. At the highest level of effort, these lessons learned (combined with knowledge of other PSYOPS processes) could be gathered together to provide a handbook/resource book for PSYOPS personnel. For example, United Nations military observers receive a small handbook before they deploy (and following their training at the Peace Support Training Centre) that summarizes many different aspects of their role and the information that they have received during training about being a peacekeeper. If such materials do not currently exist for PSYOPS personnel, this might be a helpful product. It could contain basic persuasion principles and provide detailed examples of persuasive messages of varying levels of effectiveness, depending on the target audience.

**Database of Ongoing Influence Theory and Research** - The proposed program of research could also work to establish a function by which new influence literature and research could be made accessible to CF personnel working to conduct PSYOPS. Given the speed with which literature is now accumulating, even highly motivated practitioners would be hard pressed to stay abreast of newly published theory and research relevant to the PSYOPS domain. Although it is clear throughout this report that the majority of the existing literature has not been conducted in the kind of environments faced by PSYOPS personnel, having a ready reservoir of information about influence might be helpful for “as needed” research about specific challenges faced in operations. Simply providing persuasion and influence articles, however, is not likely to be maximally helpful. What seems ideal is a searchable database of existing research, with its structure and content ideally being developed and refined with the end users (that is, CF personnel). This database should indicate the goals, measures, hypotheses and key findings of each study, as well as include a rating allowing



more highly relevant research to “rise to the top”. Such a database would hopefully provide a rich source of helpful information to influence personnel and researchers.

**Measures of Message Effectiveness and Argument Strength** - This research could culminate in 2 products. The first would aim to provide an initial measure of the argument strength of a persuasive message. This would be intended to be used during message development in order to determine the critical elements of the argument (given the target) and the most effective way to frame the persuasive argument. Measures of argument strength would allow influence personnel to pit several different versions of persuasive message against each other to determine the most effective.

Secondly, a measure of message effectiveness would work to quantify the impact of a persuasive message once delivered. This tool could provide empirically based advice allowing PSYOPS personnel a systematic method by which they could quantify both the post-facto effectiveness of a persuasive message.

**Refinement of PSYOPS Processes** – At first glance, several PSYOPS processes could benefit from further refinement. Existing materials may provide a good basis for understanding the principles behind the formal process, but may not provide a quick and easy way to know how to actually implement these principles on the ground. For example, one issue noted by experienced CF personnel was the fact that the full process of target audience analysis (as currently defined) is not typically conducted. One of the reasons cited was that the analysis would be very time consuming. Another reason cited was that personnel in the PSYOPS unit are often expected to perform with little notice and after only limited training. As such, one possible research contribution could be working with the CF PSYOPS force to explore ways to streamline the process of target audience analysis, and/or to make the process easier to be conducted by less experienced personnel.

**Contributions to Doctrine** – In the longer term, given the speed with which this area of research is developing (and as this program of research proceeds), it will be critical to understand ongoing efforts that might actively working to revise CF doctrine related to Influence Ops. Senior officers at the Influence Ops workshop indicated, for example, that Information Ops doctrine is currently being updated. It would be unfortunate if, as they emerge, the findings of this research program were not able to impact on doctrine development. This will require having knowledge about work relevant to PSYOPS doctrine. One important question to be asked, then, is whether there are current efforts to revise CF PSYOPS doctrine, and to connect with the personnel undertaking these efforts (e.g. at the Directorate of Doctrine).

As a whole, then, there is considerable opportunity for working to understand the current CF influence approach, and then helping to integrate existing research and theory into practice. Moreover, defining and conducting research that would help to fill the many gaps in knowledge within very complex environment faced by CF personnel conducting influence operations would hopefully assist with building knowledge as well as providing useful influence products.



## References

- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27-38.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50 (2), 179-211.
- Allen, M., Hale, J., Mongeau, P. & Berkowitz-Stafford, S. (1990). Testing a model of message sidedness: Three replications. *Communication Monographs*, 57(4), 275-291.
- Areni, C. S. & Sparks, J. R. (2005). Language, power and persuasion. *Psychology & Marketing*, 22 (6), 507-525.
- Baron, R. S., Vandello, J. A., & Brunzman, B. (1996). The Forgotten Variable in Conformity Research: Impact of Task Importance on Social Influence. *Journal of Personality and Social Psychology*, 71 (5), 915-927.
- Barrett, D. W., Wosinska, W., Butner, J., Petrova, P., Gornik-Durose, M., & Cialdini, R. B. (2004). Individual differences in the motivation to comply across cultures: the impact of social obligation. *Personality and Individual Differences*, 37, 19–31.
- Barry, B., Fulmer, I. S. (2004). The medium and the message: The adaptive use of communication media in dyadic influence. *Academy of Management Review*, 29 (2), 272-292.
- Bell, R.W. (2005). Directorate of Army Doctrine Update: Information Operations Doctrine Review. *Canadian Army Journal*, Volume 8.2.
- Blankenship, K. L. & Craig, T. Y. (2007). Language and persuasion: Tag questions as powerless speech or as interpreted in context. *Journal of Experimental Social Psychology*, 43 (1), 112-118.
- Blass, T. (1996). Attribution of responsibility and trust in the Milgram Obedience Experiment. *Journal of Applied Social Psychology*, 26 (17), 1529-1535.
- Blass, T. & Schmitt, C. (2001). The Nature of Perceived Authority in the Milgram Paradigm: Two Replications. *Current Psychology: Developmental, Learning, Personality, Social*, 20 (2), 115-121.
- Bohner, G., Rank, S., Reinhard, M., Einwiller, S., Erb, H. (1998). Motivational determinants of systematic processing: Expectancy moderates effects of desired confidence on processing effort. *European Journal of Social Psychology*, 28(2), 185-206.
- Bond, R. (2005). Group size and conformity. *Group Processes & Intergroup Relations*, 8 (4), 331-354.
- Booth-Butterfield, S. (2007). Primer of practical persuasion. Retrieved June 4, 2007, from [www.healthyinfluence.com/Primer/primer.htm](http://www.healthyinfluence.com/Primer/primer.htm)
- Burger, J. M., Reed, M., DeCesare, K., Rauner, S., & Rozolis, J. (1999). The effects of initial request size on compliance: More about the “that's-not-all” technique. *Basic and Applied Social Psychology*, 21 (3), 243-249.



- Cacioppo, J. T. & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42 (1), 116-131.
- Cacioppo, J. T., Petty, R. E., Feinstein, J. A., Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin*, 119 (2), 197-253.
- Carli, L. L. (1999). Gender, interpersonal power, and social influence. *Journal of Social Issues*. Special Issue: Social influence and social power: Using theory for understanding social issues, 55 (1), 81-99.
- Chaiken, S. (1987). The heuristic model of persuasion. In M. P. Zanna, J. M. Olson, and C. P. Herman (Eds.), *Social influence: The Ontario Symposium* (Vol 5, pp. 3-39). Hillsdale, NJ: Erlbaum
- Chen, H. C., Reardon, R., Rea, C., & Moore, D. J. (1992). Forewarning of content and involvement: Consequences for persuasion and resistance to persuasion. *Journal of Experimental Social Psychology*, 28 (6), 523-541.
- Chen, S., Shechter, D., & Chaiken, S. (1996). Getting at the Truth or Getting Along: Accuracy- Versus Impression-Motivated Heuristic and Systematic Processing. *Journal of Personality and Social Psychology*, 71 (2), 262-275.
- Chrysoschoou, X., & Volpato, C. (2004). Social Influence and the Power of Minorities: An Analysis of the Communist Manifesto. *Social Justice Research*, 17 (4), 357-388.
- Cialdini, R. & Goldstein, N. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, 55, 591-621.
- Cialdini, R. B. (2005). Basic social influence is underestimated. *Psychological Inquiry*, 16 (4), 158-161.
- Claypool, H. M., Mackie, D. M., Garcia-Marques, T., McIntosh, A., & Udal, A. (2004). The effects of personal relevance and repetition on persuasive processing. *Social Cognition*, 22 (3), 310-335.
- Crano, W. & Prislin, R. (2006). Attitudes and persuasion. *Annual Review of Psychology*, 57, 345-374.
- Crano, W. & Chen, X. (1998). The leniency contract and persistence of majority and minority influence. *Journal of Personality and Social Psychology*, 74 (6), 1437-1450.
- Crowley, A.E. & Hoyer, W. (1994). An integrative framework for understanding two-sided persuasion. *Journal of Consumer Research*, 20, 561-574.
- Dahl, S. (2005). Intercultural research: The current state of knowledge. Retrieved November, 15, 2005, from [http://stephan.dahl.at/intercultural/about\\_culture.html](http://stephan.dahl.at/intercultural/about_culture.html).
- Dallaire, M.R. (2003). *Shake Hands With the Devil: The Failure of Humanity in Rwanda*. Toronto: Random House Canada.
- Darke, P. & Chaiken, S. (2005). The pursuit of self-interest: Self-interest bias in attitude judgment and persuasion. *Journal of Personality and Social Psychology*, 89(6), 864-883.
- Davis, B. P. & Knowles, E. S. (1999). A disrupt-then-reframe technique of social influence. *Journal of Personality and Social Psychology*, 76 (2), 192-199.

- Davis, K. (2005). Psychological operations: The battlefield's human dimension. The Maple Leaf, August, Volume 2.
- Defense Science Board (2000). The creation and dissemination of all forms of information in support of psychological operations (PSYOP) in time of military conflict.
- Department of National Defence (2004). CF Psychological Operations Joint Doctrine Manual. B-GJ-005-313/FP-001, Ottawa.
- Department of National Defence (1998). Canadian Forces Information Operations. B-GG-005-004/AF-033, Ottawa.
- Dijkstra, M., Buijtel, H. J. J. M., & van Raaij, W. F. (2005). Separate and joint effects of medium type on consumer responses: A comparison of television, print, and the Internet. *Journal of Business Research*, 58 (3), 377-386.
- Eagly, A. & Chaiken, S. (1993). *The Psychology of Attitudes*.
- Epley, N. & Gilovich, T. (1999). Just going along: Nonconscious priming and conformity to social pressure. *Journal of Experimental Social Psychology*, 35 (6), 578-589.
- Evans, L. M. & Petty, R. E. (2003). Self-guide framing and persuasion: Responsibly increasing message processing to ideal levels. *Personality and Social Psychology Bulletin*, 29 (3), 313-324.
- Fabrigar, L. R., Priester, J. R., Petty, R. E., Wegener, D. T. (1998). The impact of attitude accessibility on elaboration of persuasive messages. *Personality and Social Psychology Bulletin*, 24 (4), 339-352.
- Fazio, R. and Olson, M. (2003). Implicit measures in social cognition research: Their meaning and uses. *Annual Review of Psychology*, 54, 297-327.
- Fennis, B. M., Das, E., & Pruyn, A. T. H. (2006). Interpersonal communication and compliance: The disrupt-then-reframe technique in dyadic influence settings. *Communication Research*, 33 (2), 136-151.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Oxford, England: Row, Peterson.
- Fiske, S.T., and S.E. Taylor (1984). *Social Cognition*. New York, NY: Random House.
- Garcia-Marques, T. & Mackie, D. (2001). The feeling of familiarity as a regulator of persuasive processing. *Social Cognition*, 19(1), 9-34.
- Gardikiotis, A., Martin, R., & Hewstone, M. (2005). Group consensus in social influence: Type of consensus information as a moderator of majority and minority influence. *Personality & Social Psychology Bulletin*, 31 (9), 1163-1174.
- Garst, J., Bodenhausen, G. (1996). "Family values" and political persuasion: Impact of kin-related rhetoric on reactions to political campaigns. *Journal of Applied Social Psychology*, 26(13), 1119-1137.
- Guadagno, R. E. & Cialdini, R. B. (2002). Online persuasion: An examination of gender differences in computer-mediated interpersonal influence. *Group Dynamics: Theory, Research, and Practice*, 6 (1), 38-51.
- Hale, J., Mongeau, P. & Thomas, R. (1991). Cognitive processing of one- and two-sided persuasive messages. *Western Journal of Speech Communication*, 55(4), 380-389.



- Hart, J. W., Stasson, M. F., & Karau, S. J. (1999). Effects of source expertise and physical distance on minority influence. *Group Dynamics: Theory, Research, and Practice*, 3 (1), 81-92.
- Hass, R. G. & Grady, K. (1975). Temporal delay, type of forewarning, and resistance to influence. *Journal of Experimental Social Psychology*, 11 (5), 459-469.
- Heath, C., & Heath, D. (2007). *Made to stick: Why some ideas survive and others die*. New York: Random House.
- Hertwig, R., Gigerenzer, G., & Hoffrage, U. (1997). The reiteration effect in hindsight bias. *Psychological Review*, 104 (1), 194-202.
- Hock, R. (1999). *Forty studies that changed psychology: Explorations into the history of psychological research*. New York: Prentice Hall.
- Hofstede, G. (2005). *Cultures and Organizations: Software of the Mind*. London: McGraw-Hill.
- Holtgraves, T. & Lasky, B. (1999). Linguistic power and persuasion. *Journal Of Language And Social Psychology*, 18 (2), 196-205.
- Hovland, S. & Janis (1959). *Personality and Persuasion*. Connecticut: Yale University Press.
- Humpel, N., Marshall, A.L., Iverson, D., Leslie, E., & Owen, N. (2004). Trial of print and telephone delivered interventions to influence walking. *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 39 (3), 635-641.
- Itsukushima, Y., Nishi, M., Maruyama, M., & Takahashi, M. (2006). The effect of presentation medium of post-event information: Impact of co-witness information. *Applied Cognitive Psychology*, 20 (5), 575-581.
- Jacks, J. & Cameron, K. (2003). Strategies for resisting persuasion. *Basic and Applied Social Psychology*, 25(2), 145-161
- Jacks, J. Z. & Devine, P. G. (2000). Attitude importance, forewarning of message content and resistance to persuasion. *Basic and Applied Social Psychology*, 22 (1), 19-29.
- Johnson, N.M. (2006). The importance of PSYOPS in 4<sup>th</sup> generation warfare. Retrieved on May 11, 2007 from [www.army.dnd.ca/3PPCLI/Downloads/PSYOPS.pdf](http://www.army.dnd.ca/3PPCLI/Downloads/PSYOPS.pdf)
- Kelman, H. (2006). Interests, relationships, identities: Three central issues for individuals and groups in negotiating their social environment. *Annual Review of Psychology*, 57, 1-26.
- Klein, C. T. F. & Webster, D. M. (2000). Individual differences in argument scrutiny as motivated by need for cognitive closure. *Basic and Applied Social Psychology*, 22 (2), 119-129.
- Kumkale, G. T. & Albarracín, D. (2004). The Sleeper Effect in persuasion: A meta-analytic review. *Psychological Bulletin*, 130 (1), 143-172.
- Lau-Gesk, L. (2003). Activating culture through persuasion appeals: An examination of the bicultural consumer. *Journal of Consumer Psychology*, 13(3), 301-315
- Lavine, H. & Snyder, M. (1996). Cognitive processing and the functional matching effect in persuasion: The mediating role of subjective perceptions of message quality. *Journal of Experimental Social Psychology*, 32 (6), 580-604.

- Lutsky, N. (1995). When is 'obedience' obedience? Conceptual and historical commentary. *Journal of Social Issues*, 51 (3), 55-66.
- Maio, G. R., Bell, D. W., & Esses, V. M. (1996). Ambivalence in persuasion: The processing of messages about immigrant groups. *Journal of Experimental Social Psychology*, 32 (6), 513-536.
- Markus, H.R. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 2, 224-253.
- Mandel, D. R. (1998). The Obedience Alibi: Milgram's account of the Holocaust reconsidered. *Analyse & Kritik: Zeitschrift für Sozialwissenschaften*, 20, 74-94.
- Mandel, D. R. (2001). Gain-loss framing and choice: Separating outcome formulations from descriptor formulations. *Organizational Behavior and Human Decision Processes*, 85, 56-76.
- Mandel, D. R. (2005). Are risk assessments of a terrorist attack coherent? *Journal of Experimental Psychology: Applied*, 11(4), 277-288.
- Martin, R., Gardikiotis, A., & Hewstone, M. (2002). Levels of consensus and majority and minority influence. *European Journal of Social Psychology*, 32, 645-665.
- Martin, R., Hewstone, M., & Martin, P. Y. (2007). Systematic and heuristic processing of majority- and minority-endorsed messages: The effects of varying outcome relevance and levels of orientation on attitude and message processing. *Personality and Social Psychology Bulletin*, 33 (1), 43-56.
- Martin, R., & Hewstone, M. (2003). Social influence processes of control and change: Conformity, obedience to authority and innovation. In M. Hogg, & J. Cooper (Eds.), *Sage Handbook of Social Psychology* (pp. 347-366). London: Sage.
- McGuire, W. J. & Millman, S. (1965). Anticipatory belief lowering following forewarning of a persuasive attack. *Journal of Personality and Social Psychology*, 2 (4), 471-479.
- McGuire, W. J. & Papageorgis, D. (1961). The relative efficacy of various types of prior belief-defense in producing immunity against persuasion. *Journal of Abnormal and Social Psychology*, 62 (2), 327-337.
- Milgram, S. (1974). *Obedience to authority*. New York: Harper and Row.
- Mitchell, M. M., Brown, K. M, Morris-Villagran, M., & Villagran, P. D. (2001). The effects of anger, sadness and happiness on persuasive message processing: A test of the negative state relief model. *Communication Monographs*, 68 (4), 347-359.
- Murphy, P. K., Holleran, T. A., Long, J. F., & Zeruth, J. A. (2005). Examining the complex roles of motivation and text medium in the persuasion process. *Contemporary Educational Psychology*, 30, 418-438.
- Nelson, T. E. & Garst, J. (2005). Values-based political messages and persuasion: Relationships among speaker, recipient, and evoked values. *Political Psychology*, 26 (4), 489-515.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231-259.



- Olson, J. M. & Zanna, M. P. (1993). Attitudes and attitude change. *Annual Review of Psychology*, 44, 117-154.
- Payan, J. M. & McFarland, R. G. (2005). Decomposing influence strategies: Argument structure & dependence as determinants of effectiveness of influence strategies in gaining Channel Member compliance. *Journal of Marketing*, 69 (3), 66-79.
- Petty, R. E. & Cacioppo (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol 19, pp. 123-205. New York: Academic Press.
- Petty, R. E. & Krosnick, J. A. (1995). *Attitude strength: Antecedents and consequences*. England: Lawrence Erlbaum Associates, Inc.
- Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). Attitudes and attitude change. *Annual Review of Psychology*, 48, 609-647.
- Pfau, M., Holbert, R.L., Zubric, S.J., Pasha, N.H., & Lin, W.K. (2000). Role and influence of communication modality in the process of resistance to persuasion. *Media Psychology*, 2, 1-33.
- Pornpitakpan, C. (2004). The persuasiveness of source credibility: A critical review of five decades evidence. *Journal of Applied Social Psychology*, 34 (2), 243-281.
- Postmes, T. Spears, R., Sakhel, K., & de Groot, D. (2001). Social influence in computer-mediated communication: The effects of anonymity on group behavior. *Personality & Social Psychology Bulletin*, 27 (10), 1243-1254.
- Pratkanis, A. R. & Gliner, M. D. (2004). And when shall a little child lead them? Evidence for an Altercasting Theory of source credibility. *Current Psychology: Developmental, Learning, Personality, Social*, 23 (4), 279-304.
- Priester, J. R. & Petty, R. E. (2003). The influence of spokesperson trustworthiness on message elaboration, attitude strength, and advertising effectiveness. *Journal of Consumer Psychology*, 13 (4), 408-421.
- Rains, S. A. (2007). The impact of anonymity on perceptions of source credibility and influence in computer-mediated group communication. *Communication Research*, 34 (1), 100-125.
- Reingen, P., Kernan, J. (2003). Social perception and interpersonal influence: Some consequences of the physical attractiveness stereotype in a personal selling setting. *Journal of Consumer Psychology*, 2(1), 25-38.
- Reinhard, M. A., Messner, M., & Sporer, S. L. (2006). Explicit persuasive intent and its impact on success at persuasion: The determining roles of attractiveness and likeability. *Journal of Consumer Psychology*, 16 (3), 249-259.
- Rhoads, K. (1997). *Working psychology: Introduction to influence*. Available at <http://www.workingpsychology.com/definit.html>.
- Rodafinos, A., Vucevic, A., & Sideridis, G. D. (2005). The effectiveness of compliance techniques: Foot in the Door versus Door in the Face. *Journal of Social Psychology*, 145 (2), 237-239.

- Ross, M., Heine, S.J., Wilson, A.E., & Sugimori, S. (2005). Cross-cultural discrepancies in self-appraisals. *Society for Personality and Social Psychology*, 31, 9, 1175-1188.
- Ross, L., Greene, D., & House, P. (1977). The false consensus phenomenon: An attributional bias in self-perception and social perception processes. *Journal of Experimental Social Psychology*, 13, 279-301.
- Sagarin, B. J., Cialdini, R. B., Rice, W. E., & Serna, S. B. (2002). Dispelling the illusion of invulnerability: The motivations and mechanisms of resistance to persuasion. *Journal of Personality and Social Psychology*, 83 (3), 526-541.
- Sassenberg, K., Boos, M., & Rabung, S. (2005). Attitude change in face-to-face and computer-mediated communication: Private self-awareness as mediator and moderator. *European Journal of Social Psychology*, 35, 361-374.
- Sengupta, J., & Johar, G. V. (2001). Contingent effects of anxiety on message elaboration and persuasion. *Personality and Social Psychology Bulletin*, 27 (2), 139-150.
- Somech, A. & Drach-Zahavy, A. (2002). Relative power and influence strategy: The effects of agent/target organizational power on superiors' choices of influence strategies. *Journal of Organizational Behavior*, 23 (2), 167-179.
- Taylor, S.E. (1991). The interface of cognitive and social psychology. In J.H. Harvey (Ed.), *Cognition, social behavior and environment* (pp. 189-121). Hillsdale, NJ: Erlbaum.
- Ten Velden, F. S., Beersma, B., & De Dreu, C. K. W. (2007). Majority and minority influence in group negotiation: The moderating effects of social motivation and decision rules. *Journal of Applied Psychology*, 92 (1), 259-268.
- Thomson, M., Sartori, J., Taylor, T., Adams, B. (2007). Culture and moral and ethical decision-making review. Draft report in progress for Defence and Research Development Toronto.
- Tormala, Z. L. & Petty, R. E. (2004). Source credibility and attitude certainty: A metacognitive analysis of resistance to persuasion. *Journal of Consumer Psychology*, 14 (4), 427-442.
- Tormala, Z. L. & Petty, R. E. (2007). Contextual contrast and perceived knowledge: Exploring the implications for persuasion. *Journal of Experimental Social Psychology*, 43 (1), 17-30.
- Tormala, Z. L., Briñol, P., & Petty, R. E. (2006). When credibility attacks: The reverse impact of source credibility on persuasion. *Journal of Experimental Social Psychology*, 42 (5), 684-691.
- Tormala, Z. L., Clarkson, J., & Petty, R. E. (2006). Resisting persuasion by the skin of one's teeth: The hidden success of resisted messages. *Journal of Personality and Social Psychology*, 91 (3), 423-435.
- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453-457.
- Vanasse, B. (2007). Countering Hostile Propaganda in Afghanistan. Canadian Army PSYOPS. Presented at Influence Workshop, DRDC Toronto, 23-24 May 2007.



- van Knippenberg, B. & Steensma, H. (2003). Future interaction expectation and the use of soft and hard influence tactics. *Applied Psychology: An International Review*, 52 (1), 55-67.
- Wade-Benzoni, K.A., Okumura, T., Brett, J.M., Moore, D.A., Tenbrunsel, A.E., & Bazerman, M.H. (2002). Cognitions and behavior in asymmetric social dilemmas: A comparison of two cultures. *Journal of Applied Psychology*, 87, 87-95.
- Wathen, C. N. & Burkell, J. (2002). Believe it or not: Factors influencing credibility on the Web. *Journal of the American Society for Information Science and Technology*, 53 (2), 134-144.
- Weisbuch, M., Mackie, D. M., & Garcia-Marques, T. (2003). Prior source exposure and persuasion: Further evidence for misattributional processes. *Personality and Social Psychology Bulletin*, 29 (6), 691-700.
- Wilson, E. V. (2003). Perceived effectiveness of interpersonal persuasion strategies in computer-mediated communication. *Computers in Human Behavior*, 19 (5), 537-552.
- Wood, W. (2000). Attitude change: Persuasion and social influence. *Annual Review of Psychology*, 51, 539-570.
- Wood, W., & Quinn, J. M. (2003). Forewarned and forearmed? Two meta-analytic syntheses of forewarnings of influence appeals. *Psychological Bulletin*, 129 (1), 119-138.
- Wood, W., Lundgren, S., Ouellette, J.A., Busceme, S., & Blackstone, T. (1994). Minority influence: A meta-analytic review of social influence processes. *Psychological Bulletin*, 115 (3), 323-345.
- Wood, W., Pool, G. J., Leek, K., & Purvis, D. (1996). Self-definition, defensive processing, and influence: The normative impact of majority and minority groups. *Journal of Personality and Social Psychology*, 71(6), 1181-1193.
- Yukl, G., Chavez, C., & Seifert, C. F. (2005). Assessing the construct validity and utility of two new influence tactics. *Journal of Organizational Behavior*, 26 (6), 705-725.
- Zimbardo, P. G. (2007). *The Lucifer Effect: Understanding How Good People Turn Evil*. Random House, New York.



## Distribution list

---

Document No.: DRDC TR [enter number only: 9999-999]

### LIST PART 1: Internal Distribution by Centre

- 1 Keith Stewart
- 1 Chief Scientist, CORA
- 5 Library

---

7 TOTAL LIST PART 1

### LIST PART 2: External Distribution by DRDKIM

- 1 Library and Archives Canada
- 1 Dr. Tony van Vliet (tony.vanvliet@TNO.nl)
- 1 Mr. Philip Jones (prjones@dstl.gov.uk)
- 1 Dr. Simon Davies (sjdavies@dstl.gov.uk)
- 1 Mr. George Brander (gnbrander@dstl.gov.uk)
- 1 Ms. Ann Stow (PASTOW@mail.dstl.gov.uk)
- 1 Mr. Steve Welch (steve.welsh@soca.x.gsi.gov.uk)
- 1 CDA-Commander (Gosselin MGen JYPD@CDA-ACD@Kingston)
- 1 CFC-Commandant (Fraser Bgen DA CMDT@staff@CFC Toronto)
- 1 CLFCSC-Commandant (Lewis Col FA@CLFCSC@Kingston)
- 1 RCM-Head DMPL (St-John RC@RMCMPL@Kingston)
- 1 Maritime Warfare Centre-CO (Gardam Capt(N) DC@CFMWC CO@Halifax)
- 1 Air Warfare Centre-CO (Cottingham Col J@CFAWC@Trenton)
- 1 LFDTS-Commander (Beare MGen SA@LFDTS HQ@Kingston)
- 1 LFDTS-DLRDT (Hamel Col CS@LFDTS HQ@Kingston)
- 1 DGLCD (Tremblay BGen AJR@CLS CLS Sec@Ottawa-Hull)
- 1 PSYOPS- Deputy Director (Vanasse LCol JNB@OPSPSY@Montreal)
- 1 D PSYOPS-Development Officer (Gauthier Capt N@OPSPSY@Montreal)
- 1 DAD4 (Rankin LCol RC@LFDTS HQ@Kingston)



- 1 DLCD-Concepts (Rostek LCol MA@DGLCD@Kingston)
- 1 Public Safety Canada- Communications Officer([mary-beth.deline@ps-sp.gc.ca](mailto:mary-beth.deline@ps-sp.gc.ca))
- 1 Cdr Andrew Reed, UK MOD Development, Concepts and Doctrine Centre ([dcdc-jointcmd@defence.mod.uk](mailto:dcdc-jointcmd@defence.mod.uk))

---

22 TOTAL LIST PART 2

**1 TOTAL COPIES REQUIRED**

# UNCLASSIFIED

<b>DOCUMENT CONTROL DATA</b> (Security classification of the title, body of abstract and indexing annotation must be entered when the overall document is classified)		
<b>1. ORIGINATOR</b> (The name and address of the organization preparing the document, Organizations for whom the document was prepared, e.g. Centre sponsoring a contractor's document, or tasking agency, are entered in section 8.)  Publishing: DRDC Toronto Performing: Humansystems® Incorporated Monitoring: Contracting:		<b>2. SECURITY CLASSIFICATION</b> (Overall security classification of the document including special warning terms if applicable.)  <b>UNCLASSIFIED</b>
<b>3. TITLE</b> (The complete document title as indicated on the title page. Its classification is indicated by the appropriate abbreviation (S, C, R, or U) in parenthesis at the end of the title)  <b>Military Influence Operations: Review of Relevant Scientific Literature (U)</b> <b>(U)</b>		
<b>4. AUTHORS</b> (First name, middle initial and last name. If military, show rank, e.g. Maj. John E. Doe.)  <b>Barbara D. Adams; Jessica Sartori; Sonya Waldherr</b>		
<b>5. DATE OF PUBLICATION</b> (Month and year of publication of document.)  <b>November 2007</b>	<b>6a NO. OF PAGES</b> (Total containing information, including Annexes, Appendices, etc.)  <b>130</b>	<b>6b. NO. OF REFS</b> (Total cited in document.)  <b>125</b>
<b>7. DESCRIPTIVE NOTES</b> (The category of the document, e.g. technical report, technical note or memorandum. If appropriate, enter the type of document, e.g. interim, progress, summary, annual or final. Give the inclusive dates when a specific reporting period is covered.)  <b>Contract Report</b>		
<b>8. SPONSORING ACTIVITY</b> (The names of the department project office or laboratory sponsoring the research and development – include address.)  Sponsoring: Tasking:		
<b>9a. PROJECT OR GRANT NO.</b> (If appropriate, the applicable research and development project or grant under which the document was written. Please specify whether project or grant.)	<b>9b. CONTRACT NO.</b> (If appropriate, the applicable number under which the document was written.)	
<b>10a. ORIGINATOR'S DOCUMENT NUMBER</b> (The official document number by which the document is identified by the originating activity. This number must be unique to this document)  <b>DRDC Toronto CR 2007-146</b>	<b>10b. OTHER DOCUMENT NO(s).</b> (Any other numbers under which may be assigned this document either by the originator or by the sponsor.)	
<b>11. DOCUMENT AVAILABILITY</b> (Any limitations on the dissemination of the document, other than those imposed by security classification.)  <b>Unlimited distribution</b>		
<b>12. DOCUMENT ANNOUNCEMENT</b> (Any limitation to the bibliographic announcement of this document. This will normally correspond to the Document Availability (11). However, when further distribution (beyond the audience specified in (11) is possible, a wider announcement audience may be selected.)  <b>Unlimited announcement</b>		

**UNCLASSIFIED**

# UNCLASSIFIED

## DOCUMENT CONTROL DATA

(Security classification of the title, body of abstract and indexing annotation must be entered when the overall document is classified)

13. **ABSTRACT** (A brief and factual summary of the document. It may also appear elsewhere in the body of the document itself. It is highly desirable that the abstract of classified documents be unclassified. Each paragraph of the abstract shall begin with an indication of the security classification of the information in the paragraph (unless the document itself is unclassified) represented as (S), (C), (R), or (U). It is not necessary to include here abstracts in both official languages unless the text is bilingual.)

(U) DRDC Toronto is embarking on research aimed at enhancing the CF's ability to plan, implement, and evaluate defensive and offensive influence campaigns in future expeditionary operations. This report explores the current CF influence capability, and explores the concept of influence in the scientific literature and in specific application to the CF domain.

The main body of the report reviews the scientific literature related to influence. It distinguishes between two related bodies of literature, the persuasion (and attitude change) literature and the social influence literature. The persuasion literature argues that messages can be processed either systematically or heuristically, and that messages that are processed more carefully are, in general, more likely to be persuasive. Persuasion research has identified several factors that influence the persuasive power of a message. These include the source of a persuasive message, the message itself, the receiver or target of the message, and the medium through which the message is delivered. The second half of this review explores social influence processes, including the roles of normative (e.g., the actions of other people are used as a guide) and informational (e.g., the actions of other people provide meaningful information) factors. The literature relevant to majority influence (or conformity), minority influence and obedience are reviewed. The goal of this review is to describe how the existing scientific research on influence could benefit the CF's influence efforts. Toward this end, the final chapter of this report provides recommendations for a proposed long-term program of influence research in support of CF influence efforts. Promoting increased exploitation of the complex persuasion and influence literature is an important way to promote CF influence efforts. This would involve conducting research exploring combinations of key persuasion factors, and converting the complex scientific research into a form that is more usable for PSYOPS personnel.

This report also proposes several new areas of scientific research. These include the development of a theoretical model of influence, designing and conducting research in more realistic environments, as well as specific research related to influence and culture, longitudinal influence research, research on message strength, resistance to persuasion, and measures of influence effectiveness. Potential products that could emerge from this program of research include a Lessons Learned function, a database that captures relevant research, and measures of message strength and message effectiveness. Lastly, helping to streamline key PSYOPS processes (e.g., target audience analysis) could also promote CF influence efforts in the long term.

(U) RDDC Toronto entreprend une recherche visant à améliorer la capacité des Forces canadiennes (FC) à planifier, à mettre en œuvre et à évaluer les campagnes d'influence défensives et offensives dans le cadre d'opérations expéditionnaires futures. Le présent rapport étudie la capacité actuelle d'influence des FC ainsi que le concept de l'influence selon la documentation scientifique et les manières dont il s'applique précisément au domaine des FC.

Le corps du rapport examine la documentation scientifique traitant de l'influence. Il établit une différence entre deux groupes reliés de documentation : la documentation sur la persuasion (et le changement d'attitude) et la documentation sur l'influence sociale. La documentation traitant de la persuasion soutient que des messages peuvent être traités de façon systématique ou heuristique et qu'en règle générale, les messages qui sont traités plus rigoureusement sont plus susceptibles d'être persuasifs. Les recherches sur

la persuasion ont cerné plusieurs facteurs qui influent sur le pouvoir de persuasion d'un message. Ces facteurs comprennent la source du message à caractère persuasif, le message même, le destinataire ou la cible du message et le moyen par lequel le message est communiqué.

La deuxième partie du rapport étudie les processus d'influence sociale, dont le rôle des facteurs normatifs (p. ex. se servir des actions d'autres personnes pour s'orienter) et informatifs (p. ex. les actions d'autres personnes fournissent de l'information importante). Des ouvrages concernant l'influence de la majorité (ou la conformité), l'influence de la minorité et l'obéissance sont à l'étude.

Le but de l'étude consiste à décrire la manière dont la recherche scientifique actuelle au sujet de l'influence pourrait profiter aux initiatives d'influence des FC. À cette fin, le dernier chapitre du rapport fournit des recommandations relatives à un programme à long terme de recherche sur l'influence à l'appui des initiatives d'influence des FC. La promotion de l'exploitation accrue de la documentation complexe portant sur la persuasion et l'influence est une manière importante de favoriser les initiatives d'influence des FC. Cela exigerait la réalisation d'études sur les combinaisons de facteurs clés et la conversion de données scientifiques complexes en un format qui est plus convivial pour le personnel chargé des activités d'influence.

Le présent rapport propose également plusieurs nouveaux domaines de recherche scientifique, dont l'élaboration d'un modèle théorique de l'influence, la conception et la réalisation d'études dans des milieux plus réalistes, ainsi que des recherches précises portant sur l'influence et la culture, la recherche sur l'influence longitudinale, la recherche sur la puissance des messages, la résistance à la persuasion et les mesures de l'efficacité de l'influence. Les produits pouvant découler de ce programme de recherche comprennent une fonction de « leçons apprises », une base de données contenant les données de recherche pertinentes, ainsi que des mesures de la puissance d'un message et de son efficacité. Enfin, aider à rationaliser les processus clés des activités d'influence (p. ex. l'analyse du public cible) pourrait également favoriser les initiatives d'influence des FC à long terme

14. KEYWORDS, DESCRIPTORS or IDENTIFIERS (Technically meaningful terms or short phrases that characterize a document and could be helpful in cataloguing the document. They should be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location may also be included. If possible keywords should be selected from a published thesaurus, e.g. Thesaurus of Engineering and Scientific Terms (TEST) and that thesaurus identified. If it is not possible to select indexing terms which are Unclassified, the classification of each should be indicated as with the title.)

(U) influence, PsyOps

**UNCLASSIFIED**