

**PERSONALITY TRAITS AND NATIONAL DILEMMA:  
PSYCHOLOGICAL PERSPECTIVES ON ATTITUDES  
TOWARD THE PEACE PROCESS  
IN THE MIDDLE EAST**

submitted by

**SHIRA TIBON**

for the Ph.D degree in Psychology at

**GOLDSMITHS COLLEGE, UNIVERSITY OF LONDON, 1998**



### Abstract

The general hypothesis that there are common dispositional personality traits that relate to individuals' attitudinal systems concerning a national dilemma was examined in a sample of 197 Israeli students. The specific research question was why do some people support the Peace Process in the Middle East while others do not.

Since there is as yet relatively little published research examining personality traits as related to peace attitudes and membership in political movements, such a focus is considered to contribute to the field of personality psychology as well as to that of peace research, conflict resolution and international relationships.

The basic assumption of various statements that relate mental disorders to membership in political movements is that personality traits are drawn upon, transformed and used by the movements to guide their activities, and to articulate their aims and values. Such statements form the stimulus field of the present research, examining the challenging puzzle of which configuration of personality traits, characterizes the "Pro-Peace Personality".

A multi-methodological approach, integrating self-rating scales (the four factors of the General Survey, GS, and the Big Five Inventory, BFI) and the Rorschach (examined on a sub-sample of 26 subjects) has been suggested for the empirical examination of personality traits. The Pro-Peace Attitudes Index, PPAI, has been developed for investigating the attitudinal system. The results point to the existence of a "Pro-Peace Personality" that tends to be non-religious, less authoritarian conformist, more agreeable and unconventional, high on integrative complexity in psychological

functioning, high in awareness to drives and impulses, less intensively reacting to affective stimuli, and high in open-mindedness and creativity.

A question is raised as to whether the results can be replicated on other groups of the Jewish Israeli population, on the Israeli Arab population, on the Arab countries' population and the Palestinians, as well as on other nations involved in political conflicts, such as within Northern Ireland. Generally, the research might be considered as bridging the gap between the micro and macro levels of analysis in social sciences by examining a problem in the field of international relations with concepts and tools of clinical psychology.

### Acknowledgements

I would like to thank Herb Blumberg who supervised the dissertation, unfailingly providing me with exceptional knowledge, creative ideas, invaluable support and a fine sense of language felicity, which made my English understandable.

I am grateful to Kate Loewenthal, Royal Holloway, University of London, for her interesting and useful comments.

Throughout this work I received enthused support from Joshua Strich whose broad knowledge in psychiatry and his ability to understand and to clarify mental dynamics provided me with most important and fruitful ideas.

I would like to thank the students in the different institutions, who helped during the data collection phases, and my colleagues who helped in administering and analyzing the psychological tests.

I am grateful to Peter Smith, University of London, Goldsmiths College, Chair of the Psychology Department and Goldsmiths College Postgraduate Committee, for his advice on various matters.

The Psychology Department at Goldsmiths, the Anglo Israel Association and the British Council in Israel provided me with funds and support for this work.

The indisputable support of my mother, Regina Czopp, demonstrating immense interest in each phase of the research made this work possible.

My husband, Yariv and my children, Roni and Lior, provided me with extraordinary backing not only by being highly tolerant of my pokey rate at home but also by solving some of the most difficult problems, which were raised during the computer work.

## CONTENTS

	<i>Page</i>
<i>Abstract</i>	2
<i>Acknowledgement</i>	4
<i>List of Tables</i>	11
<b>CHAPTER ONE:</b>	<b>14</b>
<i>Overview</i>	
<b>CHAPTER TWO:</b>	<b>20</b>
<i>Personality Research and National Dynamics</i>	
1. <i>Preface</i>	20
2. <i>The Peace Process in the Middle East – The Historical Context</i>	23
3. <i>Peace Psychology: The Individual Level of Conflict Resolution</i>	34
3.a. <i>Generalization in Peace Research</i>	34
3.b. <i>Social and Psychological Issues in Peace Research</i>	36
3.c. <i>Psychological Characteristics of Policy Decision-Makers</i>	39
3.d. <i>Public Opinion and Peace Research</i>	41

	<i>Page</i>
<b>CHAPTER THREE:</b>	<b>43</b>
<b><i>Conceptual and Empirical Issues in Personality Research – Literature Review</i></b>	
<i>1. Introduction</i>	43
<i>2. The Interdisciplinary Approach in Personality Research</i>	46
<i>3. Personality Traits as Conceptual Units</i>	48
<i>3.a. Traits and Attitudes: A Mutual Linkage</i>	48
<i>3.a.1. Two Approaches to Studying Personality-Culture Relations</i>	48
<i>3.a.2. Content and Psychological Dimensions of Attitudinal Systems</i>	50
<i>3.b. Authoritarianism</i>	54
<i>3.b.1 The Authoritarian Personality: Theory and Operationalization</i>	54
<i>3.b.2. The Origins of Authoritarianism</i>	56
<i>3.b.3. Authoritarianism and Related Variables</i>	60
<i>3.c. Openness to Experience</i>	67
<i>3.c.1. The Multi-Dimensionality of Openness to Experience</i>	67
<i>3.c.2. The Enterprising Coception</i>	68
<i>3.c.3. The Communal Conception</i>	69
<i>3.c.4. Openness to Experience in the Empirical Context</i>	70

	<b>Page</b>
<i>4. Integrative Methodology in Personality Assessment</i>	73
<i>4.a. Personality Traits – Operationalization of the Conceptual Units</i>	73
<i>4.b. Self-Rating Scales: Theoretical and Empirical Considerations</i>	74
<i>4.b.1. Descriptive Models in Personality Assessment</i>	74
<i>4.b.2. The Lexical-Language Model: The Big Five</i>	75
<i>4.b.3. Personality Dimensions Measured by Questionnaires: The General             Survey</i>	78
<i>4.b.4. The Five Factor Model – Oppositional Views</i>	80
<i>4.c. The Use of the Rorschach in Research</i>	84
<i>4.c.1. The Complexity of Transferring a Clinical Instrument to the             Research Field</i>	84
<i>4.c.2. The Conceptual and Empirical Approaches to Rorschach Research</i>	88
<i>4.c.3. Data Analysis – Parametric and Nonparametric Statistics</i>	90
<i>4.c.4. Different Perspectives in Rorschach Interpretation</i>	92
<i>4.c.5. Rorschach-Derived Measures as Research Variables</i>	94
<i>4.d. The Use of Self-Rating Scales and the Rorschach in the same Enquiry</i>	100
<i>4.d.1. Inferential Issues in Integrating Self-Rating Scales and             the Rorschach</i>	100
<i>4.d.2. Cross-Methods Discrepancies</i>	102
 <i>5. Hypotheses</i>	 107

	<i>Page</i>
<b>CHAPTER FOUR:</b>	<b>109</b>
<b><i>Method</i></b>	
1. <i>Sample</i>	109
2. <i>Measures and Research Instruments</i>	111
2.a. <i>The Pro-Peace Attitudes Index – PPAI</i>	111
2.b. <i>The General Survey</i>	114
2.c. <i>The Big Five Inventory</i>	121
2.d. <i>The Rorschach-Derived Measures</i>	126
2.d.1 <i>Test Material, Administration Procedure and Scoring</i>	126
2.d.2. <i>The Measures' Definition</i>	127
2.d.3. <i>Descriptive Comparative Data</i>	131
3. <i>The Research Procedure</i>	136
 <b>CHAPTER FIVE:</b>	 <b>139</b>
<b><i>Results (A) The Main Measures</i></b>	
 <b>CHAPTER SIX:</b>	 <b>151</b>
<b><i>Results (B) Personality Traits Measured by Self-Rating Scales and Attitudes</i></b>	
<b><i>Toward the Peace Process</i></b>	

	<i>Page</i>
<b>CHAPTER SEVEN:</b>	<b>157</b>
<i>Results (C) Rorschach-Derived Measures and Attitudes Toward the Peace Process</i>	
<b>CHAPTER EIGHT:</b>	<b>169</b>
<i>Results (D) Discriminant Analysis on Groups Defined by the PPAI</i>	
<b>CHAPTER NINE:</b>	<b>190</b>
<i>Discussion and Conclusions</i>	
1. <i>Potential Application of the Research Results</i>	190
2. <i>The Personality Perspective of Peace Research</i>	191
3. <i>Using Self-Rating Scales as Personality Measures</i>	203
4. <i>Transferring the Rorschach from the Clinical Context to Research</i>	213
5. <i>Toward the Integration of Personality Assessment Methods in Research</i>	232
6. <i>Statistical Considerations</i>	241
7. <i>The Pro-Peace Personality in the Middle East Scene</i>	252
<b>Bibliography</b>	<b>269</b>

*APPENDICES 297*

*Appendix 1: The Hebrew Version of the Measures 298*

*Appendix 2: Factor Loadings for the Self-Rating Scales - The Original  
English Version 304*

*Appendix 3: Card II of the Rorschach 310*

*Appendix 4: Rorschach Report 311*

*Appendix 5: Distributions of Attitudes Toward the Peace Process in Israeli  
National Polls 318*

*Appendix 6: A Map of the Region 320*

List of Tables

- 4.1 *Percentage distribution of the PPAI in the general sample 113  
and in the sub-sample*
- 4.2.a *Reliability analysis of the GS Authoritarian Conformity scale 115*
- 4.2.b *Reliability analysis of the GS Aggressive Mistrust scale 116*
- 4.2.c *Reliability analysis of the GS Anxiety scale 117*
- 4.2.d *Reliability analysis of the GS Extraversion scale 118*
- 4.2.e *Correlation matrix of the GS scales 119*
- 4.3.a *Reliability analysis of the BFI Agreeableness factor 121*
- 4.3.b *Reliability analysis of the BFI Extraversion factor 122*
- 4.3.c *Reliability analysis of the BFI Neuroticism factor 122*
- 4.3.d *Reliability analysis of the BFI Conscientiousness factor 123*
- 4.3.e *Reliability analysis of the BFI Openness factor 123*
- 4.3.f *Correlation matrix of the BFI factors 125*
- 4.4.a *Means and Standard Deviations of Rorschach-derived measures 133  
in the sub-sample as compared to normative population*
- 4.4.b *Correlation matrix of the Rorschach-derived measures 135*

- 5.1 *General distribution of the PPAI items* 140
- 5.2.a *Factor Loadings for the PPAI items* 141
- 5.2.b *Factor analysis of the PPAI* 142
- 5.3 *Reliability analysis of the PPAI* 143
- 5.4 *Correlation matrix of the PPAI items* 144
- 5.5 *Correlation coefficients between the GS and BFI factors* 145
- 5.6 *Correlation coefficients between the Rorschach-derived measures* 147  
*and the GS scales*
- 5.7 *Correlation coefficients between the Rorschach-derived measures* 149  
*and the BFI factors*
- 6.1 *The GS scales in the lower and higher PPAI groups* 152
- 6.2 *The BFI factors in the lower and higher PPAI groups* 154
- 7.1 *Rorschach-derived measures in the lower and higher* 159  
*PPAI groups*

- 7.2.a *Responses to Card II of the Rorschach: Examples of lower PPAI 163*  
*subjects' protocols*
- 7.2.b *Responses to Card II of the Rorschach: Examples of lower PPAI 164*  
*subjects' protocols*
- 8.1 *Discriminant analysis of the GS scales on the PPAI groups 171*
- 8.2 *Discriminant analysis of the BFI factors on the PPAI groups 174*
- 8.3 *Discriminant analysis of the GS and BFI factors on the 177*  
*PPAI Groups*
- 8.4 *Discriminant analysis of Rorschach-derived measures on the 180*  
*PPAI groups*
- 8.5 *Discriminant analysis of religiosity, Authoritarian Conformity 184*  
*and Agreeableness on the PPAI groups*
- 8.6 *Discriminant analysis of religiosity, Xu% and FM on the 187*  
*PPAI groups*

## CHAPTER ONE

### Overview

The present research has examined the question of why do some people support the Peace Process in the Middle East while others do not. More especially, it considers the evidence for hypothesizing that there are common dispositional personality traits that relate to individuals' attitudinal system concerning a national dilemma. In measuring personality traits, the research uses strategies of integrative methodological pluralism, including both self-rating scales and the Rorschach.

Following the overview, presented in Chapter One, the discussion in Chapter Two introduces the reader to the topic of personality research and national dynamics. It opens with the historical context of the Peace Process in the Middle East, the main developments in the region and the polarization in the Jewish Israeli population. Further, it explores the current state of knowledge pertaining to peace research in general and to peace psychology in particular. It shows that since there is as yet relatively little published research examining personality traits as related to peace attitudes, such a focus, as has been made in the present study, might contribute to the field of personality psychology as well as to that of conflict resolution and international relationships.

Chapter Three reviews the literature relating to the conceptual and empirical perspectives in personality research. It opens with the interdisciplinary perspective of the field. Next, it taps into the topic of traits and attitudes, focusing on authoritarianism and openness to experience as dispositional personality traits that might be considered as especially related to the individual's attitudinal system toward conflict resolution.

The authoritarian personality is described as mainly conventional, submissive, lacking individuality and aggressive. Different variables are assumed to be related to authoritarianism - rigidity of thought, lack of integrative complexity, conservatism, tough-mindedness, particular orientation to the ingroup and religiosity. Openness to experience is defined in terms of intellectual curiosity, interest in varied experiences, emotional differentiation and individuality. Following the theoretical discussion, the operational dilemma of how to assess or measure personality traits is raised.

A multi-methodological approach, using both self-rating scales and the Rorschach, is suggested for the empirical examination. In light of these conceptual and empirical perspectives, the research hypotheses are presented.

Chapter Four presents the method. It describes the general sample (N=197) and the sub-sample of subjects who have been examined by the Rorschach in addition to the general questionnaire (N=26), indicating that this sample size is customary in many Rorschach studies. Following this description, the measures and research instruments are presented: the Pro-Peace Attitudes Index - PPAI, the self-rating personality scales (the General Survey, GS, and the Big Five Inventory, BFI), and the Rorschach-derived measures. The chapter concludes with the description of the research procedure.

The research results are presented in the following four chapters. Chapter Five deals with statistical analyses relating to the main measures. The descriptive statistics, factor analysis and reliability analysis of the PPAI point out that the attitudes toward the Peace Process in the Middle East in a variety of issues, concerning different partners and at different levels, compose an entity that can be looked at as one attitudinal system. Next, intercorrelations between the personality self-rating measures are presented, showing that the two measures - the GS and the BFI - probably refer to

similar but yet differentiated dimensions of personality traits and that the use of both measures might give a much broader picture of the personality. The chapter ends with the presentation of the relations between different levels of personality assessment - the self-rating scales and the Rorschach-derived measures.

Chapter Six summarizes the results as to the differences between lower and higher peace supporters in terms of the self-rating personality scales. The results point out that the higher peace supportive individual is mainly less authoritarian conformist, less anxious and more agreeable (kind, warm and cooperative) in interpersonal relationships.

Chapter Seven presents the results as to the differences between lower and higher peace supporters in terms of the Rorschach-derived measures. These results generally strengthen and emphasize those derived from examining the self-rating scales, indicating that subjects scoring higher in peace supportive attitudes are less conventional (giving more *unusual responses*,  $Xu\%$ ) and more individualistic (higher *Egocentricity Index*), two traits that are considered as characterizing the non-authoritarian personality. Moreover, the Rorschach-derived measures indicate that the higher peace-supporters are characterized by more experiential openness as indicated by their integrative complexity (higher frequency of *Blends*, and of *organizational activity*,  $Zf$ ). They are also characterized by more vitality and awareness to their inner as well as the external world (higher frequency of *animal-movement responses*,  $FM$ , and of *Pair responses*). Subjects who are less supportive to the Peace Process tend to give more distorted-quality responses and to react more intensively to affect-loaded situations, as expressed in the Rorschach. The two groups are not differentiated as to their reality testing.

Chapter Eight presents the results of different stepwise discriminant analyses on groups defined by the PPAI. Summing up the results of these analyses when the examined variables are the self-rating scales, it is shown that the lower and higher PPAI groups are mainly discriminated on the basis of authoritarian conformity entered in Step1, and agreeableness entered in step 2. Thus, 64.47% of the subjects have been correctly “grouped” on the basis of these two variables, indicating that the combination of authoritarianism and agreeableness characterizes the Pro-Peace Personality in most of the cases, the higher peace supporters tending to be less authoritarian and more agreeable than the lower supporters.

The results of the stepwise discriminant analysis when the examined variables are the Rorschach-derived measures are even more impressive though it should be reemphasized that the Rorschach results are based on a very small sample. The discriminant analysis examining the Rorschach measures show that 88.46% of the subjects have been correctly “grouped” on the basis of the animal-movement responses, *FM*, indicating some awareness of drives (step 1) and the unusual responses *Xu%*, indicating non-conventionality (step 2). The combination of these two variables as characterizing the profile of the Pro-Peace Personality points out that the higher peace supporters might mainly be seen as more open to their experiences, suppressing and inhibiting their drives less and stressing their individuality more than the lower supporters.

Following the conceptual and empirical relations between religiosity and attitudinal variables on the one hand, and between religiosity and personality traits on the other, a stepwise discriminant analysis on the two PPAI groups by authoritarian conformity, agreeableness and religiosity is being presented. The results show that all the three

variables are entered to the equation significantly, with religiosity, as expected, in the first step, authoritarian conformity in the second and agreeableness in the third step. The classification results show that 82.23% of “grouped” cases are correctly classified by these variables. The discriminant analysis based on the combination of the Rorschach-derived measures and religiosity show that religiosity is entered in the first step and the  $Xu\%$  in the second. The  $FM$  measure was not entered into the equation, probably because of its relation to religiosity. The classification results have shown that 92.31% of “grouped” cases are correctly classified by these variables.

Summarizing the results, it is concluded that religiosity, authoritarian conformity, disagreeableness, conventionality, lack of integrative complexity, stronger reactivity to affective stimulus, suppression of drives and close-mindedness discriminate between those who are less supportive as compared to those who are more supportive toward the Peace Process in The Middle East. Thus, *the Pro-Peace Personality tends to be non-religious, less authoritarian conformist, more agreeable and unconventional, more complex and integrative in psychological functioning, to express more awareness to drives and impulses, to react less intensively to affective stimulus, and to demonstrate more open-mindedness and creativity.*

Chapter Nine concludes with a discussion of the main results indicating that a “Pro-Peace Personality” does exist, and investigates the contributions and applications of the study as regard to the following domains: peace research, personality psychology, statistical considerations, and the Peace Process in the Middle East.

An interesting question raised by the results is whether they can be replicated on other groups of the Jewish Israeli population, on the Israeli Arab population, on the Arabs in the neighbouring countries, as well as other nations involved in political

conflicts, such as those within Canada, South Africa and Northern Ireland.

Generally, it is concluded that the research is bridging the gap between the micro and macro levels of analysis in social sciences by examining a problem anchored in the field of international relations with concepts and tools of clinical psychology.

## CHAPTER TWO

### Personality Research and National Dynamics

#### 1. Preface

The main aim of the present research is to examine whether there are personality traits that discriminate between people with different national attitudes.

The research question, which is examined among Israeli students, deals with the attitudes toward the Peace Process in the Middle East.

The choice of higher education in Israel as the research field is based on the assumption that Israel is usually considered to be a natural laboratory for the study of psychological stress and its impact on attitudes and behaviour (Lazarus, 1982). The Israeli student population is very involved in national and political issues, representing a variety of opinions. This involvement of the students in contemporary political issues was manifested in its extremism in the assassination of Prime Minister Rabin by a student who claimed an ideological motive. This traumatic event reformulated the symbolic boundaries of the national community and emphasized the polarization in public opinion around the Peace Process in the Middle East. Questions about whether actors' inner dispositional traits are predictors of their attitudes and behaviour have frequently become the focus of public debates. Various statements that relate mental disorders to membership in political movements have emerged, emphasizing that irrational political behaviour has its roots in the personality structure of the individual. Such statements, considering the symbolic, social-psychological as opposed to the structural dimensions of social movements (Hart, 1996) form the stimulus field of the present research which examines the challenging puzzle of which configuration of personality traits is related to specific political attitudes and behaviour.

Greenstein (1986) shows that fundamental issues of how to explain human behaviour in general and political behaviour in particular are the basis of many controversies in the field of personality and politics: What is appropriate evidence? What kinds of inferences are plausible? What conceptual strategies are productive? He emphasizes that the impact of psychology on politics is seen in ongoing, historical processes.

The present research which deals with the Peace Process in the Middle East is not intended to suggest a total explanation of the old debate over the ultimate motives underlying the Arab-Israeli conflict, nor a unique resolution to this conflict. The objectives are more modest. The study tests a number of limited and specific hypotheses concerning the role of psychological traits in the individual's attitudes toward the Peace Process.

In measuring dispositional personality traits the research uses strategies of an integrative methodological pluralism, including both self-rating scales and one of the most widely used projective techniques, the Rorschach. Following Pervin's suggestion to see these two methods as complementary rather than competing the research intends to capture the conscious and unconscious processes in personality functioning (Pervin, 1993).

Such an integrative methodological pluralism has been used in the much discussed work of Adorno et al., (1950, 1982) empirically based on self-rating scales and the Thematic Apperception Test, TAT, in assessing the characteristics of the authoritarian personality. The use of the Rorschach in the present study is aimed to show the potential of this technique in assessment of personality traits related to attitudinal systems for a research topic, which is at the intersection of personality and social psychology.

Following the question posed by Klandermans (1992) about what makes people define their situation in such a way that participation in a specific social movement seems appropriate for them, the present work searches for the answer in terms of personality traits. The basic assumption might be that such personality traits are drawn upon, transformed and used by social and political movements to guide their activities and to articulate their aims and values.

The present work aims to examine the extent to which it is correct to assume that political behaviour has psychodynamic roots and if so, whether those roots can be empirically studied. The central question is whether there is a specific configuration of dispositional traits that characterizes the "Pro-Peace Personality".

## 2. The Peace Process in The Middle East - The Historical Context

The term Peace Process began to be widely used to describe the possibility of a negotiated peace between Israel and its Arab neighbours after the Six Day War in 1967. Until then, the Arab-Israeli conflict had seemed almost frozen, without any move toward resolution (Quandt, 1993).

In the years 1948 - 1967 the Israelis had been preoccupied with many existential questions: Would the Arabs ever accept the idea of a Jewish state? Would recognition be based on security arrangements that could be relied on? Would the Arabs insist on the return of hundreds of thousands of Palestinian refugees who had fled their homes in 1948, thereby threatening the Jewishness of the new state? Would the Arabs insist on an Israeli withdrawal to the indefensible lines of the 1947 United Nations partition agreement? Would Israel be able to negotiate separately with each Arab regime, or would the Arabs insist on a comprehensive approach to peacemaking?

Referring to the Arab perspective, the conflict seemed generally intractable, although differences could be observed between the interests of existing regimes and the interests of the Palestinians. Whereas some of the Arab states, mainly Jordan and Lebanon, were content with the armistic arrangements and even maintained secret agreements with the Israelis, the Palestinians used all their political power to prevent any Arab regime from recognizing the Jewish state.

The Six Day War was a turning point in this conflict, altering the regional balance of power and bringing various dramatic changes in the domestic and foreign policies of the actors involved. This war gave Israel control of the Sinai desert, the West Bank of the Jordan River, East Jerusalem, Gaza Strip with its refugee camps, and

the strategically important Golan Heights. More than a million Palestinians came under the control of the Israeli military, creating an acute dilemma for Israel. None of the post British mandate of Palestine was now free of Israeli control.

Thus, until the Six Day War the Arab-Israeli conflict was predominated by the interstate dimension, focusing on the conflict between Israel and its Arab neighbours. The main topics in dispute were still those left unresolved from 1948, when the state of Israel was established. The conflict after the Six Day War regained the intercommunal dimension with the Palestinians, which had predominated until the establishment of the state of Israel (the map of the region see Appendix 6).

A certain self-criticism took place in Arab intellectual circles, and political realism began to emerge, but no one made any serious step toward peace immediately after the Six Day War. Thus, in September 1967 Arab parties had all agreed there would be no negotiations with Israel, no peace and no recognition. Israel claimed the unilateral expansion of the municipal boundaries and the annexation of Eastern Jerusalem while the Palestinians living there were offered the right to become Israeli citizens. All the other areas seemed to be looked upon as subject to bargaining in a peace process. Once again, since the Arab states could not see a prospect of victory and feared the high costs of defeat, they preferred the option of "neither war nor peace" which seemed also to be tolerable for Israel. Nevertheless, permanent rejection of peace with Israel remained the most fundamental principle of inter-Arab politics. When an Arab leader, as King Hussein, sought seriously to negotiate, he was discouraged from doing so by internal and external pressures (Quandt, 1993; Rubin, 1996).

Within the Israeli government, discussion focused more on transition arrangements in the territories than over their ultimate status. The Allon plan called for the creation of a

ring of Jewish settlements around the Arab inhabited regions of the West Bank.

Although the plan was never officially adopted it was followed quite closely. A basic premise was that the West Bank Arab population would govern itself with as little interference as possible from occupation authorities but that all strategic points would remain under Israeli military control.

In 1969-1970 the Egyptian-Israel War of Attrition reflected the difficulties in finding a solution for the conflict. Generally, Israel's aim was to attain a full peace with the Arabs recognizing its pre 1967 borders, preferably with some favourable alterations. Until there is a negotiated peace Israel would have to keep the territories as bargaining chips to enhance the prospect of finding a diplomatic solution on terms it could accept.

The Yom Kippur War in 1973 was especially traumatic, when the Egyptian and Syrian armies combined in a surprise attack, and had the upper hand in the first days, although the final state of affairs could be seen as favourable for Israel.

Following this war several agreements were signed between Israel and its neighbours: The disengagement agreements with Egypt and Syria in 1974-1975 which strengthened the willingness to give up territories, the Camp David Accords in 1978 and the Israel-Egypt Peace Treaty in 1979. Nevertheless, during this period there were no actions directly addressing the intercommunal dimension of the conflict, except the Autonomy Plan in the Camp David Accords. This plan, however, was deemed inadequate by the Palestinians who argued that it would not lead to the realization of their demands for self-determination.

At the same time, there was a gradual transformation of the focus from the interstate dimension to the intercommunal one. This transformation was expressed in the rise of the Palestine Liberation Organization, PLO, originally supported by Arab regimes to

keep Palestinians under control, which quickly became an independent actor in the region, and the legitimate representative of the Palestinian people, emphasizing the centrality of their participation in any negotiated settlement. It symbolized the expectations of the Palestinians and caused much concern among established Arab regimes, which were not used to seeing the Palestinians control matters on their own. In theory, these changes in the Arab world might have opened the way for an easing of the Arab-Israeli conflict.

The visit of the Egyptian president Sadat to Jerusalem in 1977 started a new process in Israel-Arab affairs. It required a symmetric response if Israel were to maintain its reputation in the international community. Jimmy Carter, president of the U.S. was able in 1978 to preside over the Camp David agreement between Israel and Egypt, considered as his greatest foreign policy triumph (Halliday, 1983). Following Sadat's initiative and the Israel-Egypt Peace Treaty, signed in 1979, further shifts toward the readiness of Israel to give up territories for peace was observed. This trend was strengthened after the war started in 1982 known as The Galilee Peace Operation, which brought Israel to be heavily engaged in Lebanon for a long period of time.

In December 1987, the Intifada, the rise of the Palestinians in the territories, broke out: What started out as a riot in a refugee camp in Gaza, soon spread over all the Gaza Strip and the West Bank, taking on diverse forms and varied levels of intensity. The Intifada entailed massive demonstrations, strikes, and attacks on Israeli soldiers and civilians, and shifted from stones to shootings. The events of the Intifada were of such a nature that they captured attention from the individual cognitive and emotional perspective, as well as from the political, social and communicational perspective. The most extreme and negative events were unusual and unexpected in terms of Israel's

past experience in the territories, being very significant for the basic interests and values of the Israelis.

Arab leaders realized that their interests required a reinterpretation of the conflict, in which Arab states offered peace in exchange for the territories. Palestinians became ready to trade recognition of Israel for an end to the post 1967 occupation and for their own state on part of the land. Rather than setting the boundaries for permissible discourse and intimidating any dissent, the militants now found themselves isolated and on the defensive (Rubin, 1996).

The Gulf War in 1991, in which Israel, under considerable American pressure, did not retaliate and the Arab states held firm, opened the way for the Palestinians to participate in the Peace Process. The defeat of Iraq would convince even the most militant Arabs that a military solution to the Arab-Israeli conflict was impossible.

In October 1991, the Madrid Peace Conference convened, bringing together Israel and some of the Arab leaders, including a Palestinian delegation. This was the beginning of the Peace Process.

Perhaps most encouraging for the Peace Process was the evidence that many Israelis and many Arabs were tired of the conflict and were ready for an historic compromise. The Israeli elections in 1992 brought to power a government committed to swift movement in the negotiations.

With the PLO readiness to meet Israel's minimal conditions, the Oslo agreements, signed in 1993, came relatively easily. The dramatic events in Jerusalem, Tunis and Washington in 1993 when the leaders of Israel and Palestinians met in the White House and signed the Gaza-Jericho autonomy plan were a diplomatic breakthrough in the development of the Peace Process. This diplomatic breakthrough can be seen as an

Israeli success in terms of its original goals: ending the conflict, gaining recognition and peace from the Arab side, and securing its pre 1967 territories.

The United States succeeded in opening a new round of negotiations, more promising in scope than any other before. The general framework for negotiations could be distilled from previous positions, mainly UN resolution 242 from 1967, summarized in the formula of land for peace, and the Camp David accords.

The Oslo accord created a tight linkage between the PLO and the process of Israeli withdrawal from the West Bank and Gaza Strip. Nevertheless, military attacks by the Hamas, the Islamic resistance movement that emerged as a religious alternative to the secular PLO, against Israeli targets risked the Peace Process. The policy of the Hamas, based on the adherence to the radical Islamic principle of The Jihad, holy war against Israel as the most effective way to liberate Palestine, could lead to violent confrontation with the Palestinian National Authority, PNA, which the Hamas insisted on preventing.

The signing of Oslo B agreement in September 1995, apparently brought Hamas leaders inside the territories to a decision to suspend the terrorist attacks against Israel. This decision was intended to avoid interruption of the Israeli withdrawal from the Palestinian cities, and the preparation for elections to the PNA Council, which could upset the Palestinian public.

The assassination of Prime Minister Rabin by a fanatic religious Jewish student in November 1995 again raised the question of whether the Peace Process is feasible.

This question became more significant when the right-wing party won the elections in 1996 and the new government began to reevaluate the whole process. Nonetheless, according to the Oslo agreements, the talks with the Palestinians continued. The Palestinians claimed that they expected an independent state with Jerusalem as its

capital. Israel has made it clear that Jerusalem would be the undivided capital of the Jewish state. Israel Defense Forces, IDF, delayed for a while the withdrawal from Hebron, which had been accepted in the Oslo agreements, in order to guarantee the security of the small Jewish settlement surrounded by a large Palestinian population. In the northern border with Lebanon, Israel's goal had been defined as stopping the attacks of the Iranian backed Hizbullah guerrillas, which constantly threatened the Israeli residents. The peace agreement with Syria would be possible, according to Syrian claims, only if Israel retreats from the strategic Golan Heights, and leaves the southern Lebanon security zone, once the peace agreement is achieved.

Referring to the Israeli public opinion toward the conflict, different authors show that Arab-Israel relationships have presented a major cleavage in Israeli politics. This cleavage was defined in terms of basic aspects of national existence, Israel's place among nations, the relations with the Arab states, and the relations with the Arabs within Israel (Arian et al., 1992).

Quandt (1993) argues that in the years 1948-1967 most Israelis felt certain that the Arabs would not provide reassuring answers to the unresolved questions, and therefore saw little prospect for successful negotiations.

Since 1967 the polarization within the Jewish public has grown and the cleavage was concretely defined mainly in terms of territories. The political debate has involved security concerns as well as national, historical and religious claims. Basically, the rightist central idea stated that none of the occupied territories from the Six Day War should be returned, in its extreme expressions suggesting the Arab population transfer. The leftist central idea was that all the territories or part of them should be given up as a solution to the conflict (Arian & Shamir, 1983; Arian et al., 1992; Shamir 1986).

Researchers from different fields show that the tensions among the various elements of the Israeli public had roots in the interpretation of the basic ideas of the Israeli political culture, already found in the Declaration of Independence, signed in 1948, establishing the State of Israel. While not legally binding, the Declaration has usually been interpreted to embody the basic values of Israeli society (Rubinstein, 1991).

The right of the Jewish people to its homeland, binding the notion of the state closely to the land, is the basic idea for the Zionist justification for the establishment of the State of Israel. Another semi-constitutional principle is that of democracy. The Declaration of Independence states that Israel will ensure complete equality of social and political rights to all its citizens irrespective of religion, sex or race, and expresses the aspiration for peace, as a common aspiration, which since 1991 seems more feasible.

The complex interactions and tensions among these central values of the Jewish state, binding the notion of the state closely to the land with historical and religious roots, democracy and aspiration for peace, are the main issues of polarization in the Israeli public.

Thus, the debate is mainly defined in terms of the 1967 occupied territories. If the state opts for the Six Day War boundaries, it must either restrict the political rights of the Arabs in the territories or face the possibility of a country without a Jewish majority, strengthening the possibility of war. If the democratic state with Jewish majority seems preferable, keeping the occupied territories becomes less attractive. Activists on the right argue that the strategic depth provided by the territories, together with Jewish massive immigration, will offset the demographic advantage of the Arabs in the territories. The leftists state that peace is possible only by returning the territories

and avoiding the necessity of dealing with a large population of Palestinian Arabs under Israeli military rule. The idea of trading territories for peace is the essence of contemporary Israeli politics.

These dilemmas are not new. They had characterized the Zionist movement from the onset but they were under the surface. In 1937 when the idea of partition was raised, the issue of territorial flexibility of Zionism became an actual controversy, with the alternatives of either more sovereignty in less territory, or more territory at the cost of sovereignty. After the establishment of the state in 1948, when these questions appeared to have been settled, the strains among the competing values were diminished although they were always relevant to the status of the Arabs citizens of Israel (Horowitz & Lissak, 1978; Shamir & Shamir, 1993).

These questions were pertinent again after the victory of the Six Day War in 1967, but became explicit only with Sadat's peace initiative starting with his visit to Israel in 1977 and went on in signing the peace agreement between Israel and Egypt in 1979. The strain among the values of 1967 borders, democracy, peace and Jewish majority became more conspicuous. The moral, political, military, democratic and economic costs grew and the demographic problem of larger land or Jewish majority became relevant again.

Generally, there have been considerable differences in the attitudes toward the various issues, the public being much more ready to give up Gaza Strip as compared to the Golan heights, or Jerusalem. Furthermore, changes have also been observed over time, the general trend showing that even if preferences do not change much, people became more compromising, expressing more willingness to return territories (Arian et al., 1992; Shamir & Shamir 1993).

A new phenomenon emerged on the domestic scene after the Yom Kippur War. Formed as a faction within the National Religious Party in 1974, The Bloc of the Faithful soon extended its membership to include non-orthodox nationalists opposed to the return of the occupied territories. Although relatively small in numbers, this bloc's patriotic dedication to Jewish settlement of the West Bank soon won extensive influence, especially in the right-wing parties. The organization pursued its program with militant activism, frequently confronting the Labour government with the establishment of illicit West Bank settlements. As a result, Jewish settlement areas were extended beyond those envisaged in the Allon plan.

The land-for-peace stand remained that of Israel's Labour Party and about half of the Israeli public. While, in principle, the Israeli government refused to deal with the PLO, given the organization's goals and methods in 1974 it presented the conditions under which it would be ready to negotiate. Two decades later, this idea formed the basis of the Oslo agreements.

A different position gained power only in 1977, with the accession of the right-wing Likud government, which asserted that experience proved the Arabs would never make peace and that apparent change by them was a ploy to strengthen them toward the next war. The Likud party and its allies insisted that Israel must keep the territories for self-defense, a permanent hold that would be guaranteed by establishing Jewish settlements there. Some cited religious grounds for doing so but the main justification was Israeli security. The Intifada brought further polarization in Israel public opinion, with further increase in the number of people preferring compromise, including support for an independent Palestinian state, on the one hand, and more intensive opposition to give up territories, on the other (Arian, 1992).

The debate within Israel over the opportunity for peace, became an immediate matter during the 1988-1990 round of talks to start negotiations. While the PLO was moving toward a policy change, its stand was still ambiguous.

Generally, it can be observed that there is a consistent and quite strong relationship between religiosity and attitudes toward the Peace Process. People who are more observant of religious tradition are more likely to object to the process, and maintain their attitudes or even move to more extreme ones over time (Shamir & Shamir, 1993).

Psychological dimensions have rarely been examined in connection to attitudes toward the Peace Process in the Middle East, though research usually emphasizes that foreign policy belief systems do not exist in isolation from the broader dimensions of individual differences in interpersonal style, cognitive style and basic affective and motivational variables (Tetlock & McGuire, 1986). Nevertheless, it is suggested that psychological dimensions of conflict resolution would ultimately be recognized by political leaders (Kelman, 1986). Those psychological dimensions that have been examined in relation to the Peace Process in The Middle East, show a tendency for higher self-esteem subjects to move more often in the more supportive direction. Among the rightists, those with higher self-esteem allow themselves to become more compromising over time (Shamir & Shamir, 1993).

The psychological dimensions are in the focus of the present research examining the dispositional personality traits that discriminate between individuals with different attitudes toward the Peace Process in the Middle East.

### 3. Peace Psychology: The Individual Level of Conflict Resolution

#### 3.a. Generalization in Peace Research

Peace research is a comparatively recent field with no firm boundary, including various perspectives to the nonviolent avoidance of war and facilitating peace (Blumberg, 1993). The field is generally considered to be an interdisciplinary enquiry into the conditions of war and peace, including conflict and cooperation at the global and international as well as in the intra-state and community level, exploring the causes of violence in society and between societies and presenting methods of peace-building and reconciliation.

Various authors emphasize the distinction between positive and negative approaches to peace, stating that the basic orientation in peace research has been negative, avoiding war rather than achieving social justice (Wagner, 1988; White, 1988).

Generally, there is a tendency to examine the common features of different conflicts across countries, each analogy suggesting implicit or explicit political predictions and prescriptions. Thus, for example, Tetlock et al., (1991) note that there are many conflicts that experts have compared to Vietnam, including those of Chad-Libya, Ethiopia-Eritrea, Cuba-Angola etc. The authors state that it is unlikely that the Vietnam analogy fits each case equally well. Another comparison between different conflicts made by Tetlock (1992), draws on the results of a study that examined experts' prognosis of three different conflicts - U.S. and Soviet Union relations, the conflict in South Africa and the Gulf War. The study explores distinct psychological perspectives on good judgment in international conflicts that might be applicable, at least partially, to each of these conflicts. Tetlock concludes that a research challenge is to identify the

conditions under which each perspective is most useful, assuming that generalization could be made between different conflicts.

Fisher (1993) points out a variety of developments in the field of peace research that aim to facilitate the understanding of differences and similarities of conflicts between antagonistic groups or states, and to find creative solutions that could be implemented. Implicit in this emerging field, which Fisher has labeled as Interactive Conflict Resolution, ICR, is the assumption that there are common methods of social-psychological approach that might be applied in different international and intranational conflicts, ignoring the unique factors of each of these conflicts. Such an application of the ICR is shown in various conflicts including those between Malaysia, Indonesia and Singapore; Greek and Turkish Cypriots; Ethiopia, Somalia and Kenya; Catholics and Protestants in Northern Ireland; Britain and Argentina; India and Pakistan and the conflict between Israel and the Arabs, which is in the focus of the present research.

### 3.b. Social and Psychological Issues in Peace Research

The need for an interdisciplinary perspective to the studying of peace and conflict resolution stems from the nature of the examined phenomena. Conflict and cooperation are social realities which do not shape themselves to the molds of social sciences, but rather might be viewed from the perspective of each of the various disciplines that comprise this field (Deutsch, 1977; White, 1986). None of these disciplines can be seen as a substitute for another. Certainly, this might raise a problem of integration. This problem, however, is a known issue whenever social scientists have an interest in a given social reality rather than in abstract social science concepts and relations.

In the preface of his book *Nonviolence: Social and Psychological Issues*, Kool (1993) states that the study of nonviolence has a legitimate place in the field of psychology, as he claims that psychology has virtually overlooked the topics of nonviolence and peace.

The current flow of psychological interest in peace research began in the 1980s, although various authors have been dedicated to the issue even before (Deutsch, 1961; Frank, 1960).

Examination of reviews on peace psychology literature shows that areas, which widely contribute to peace research are not evenly dispersed across psychology as a whole although virtually all of the main areas of psychology have relevance to peace. Physiological elements are rarely directly considered, though the biological roots of aggression have been studied. Social psychology, and increasingly, cognitive approaches are used widely, especially manifesting in the topics of attitudes and images (Blumberg, 1997). Some categories of work in peace psychology have emphasized traditional psychological topics, whereas others can be considered as being in the

intersection between psychology and other disciplines (Suedfeld & Tetlock, 1992; White, 1986; Wollman, 1985).

Furthermore, changes in the research focus have been observed over time. Thus, whereas many of the publications during the cold war dealt with nuclear anxieties, recent publications deal much more with international relations, peacemaking and conflict resolution (Blumberg 1997; Blumberg & French, 1992; Kramer & Moyer, 1991).

The basic assumption implicit in the examination of psychological variables as related to peace attitudes is that conflict resolution is not solely a state-level occurrence but might also be viewed in the individual-level, referring to certain personality characteristics that predispose or block the individual in supporting conflict resolution.

The present research refers to the topic of peace psychology, from the point of view of two main areas in psychology - social psychology and personality. Social psychological analysis suggests an approach to conflict resolution in which changes in individual attitudes and images, produced through direct interaction between conflicting parties, serve for changes at the policy level. Such an analysis, however, cannot be seen as a substitute for political analysis. Psychological and political factors act in interaction, and thus should be integrated in a comprehensive theory of international conflict and resolution (Kelman, 1986).

Whereas the conceptual framework of social psychology is obvious in any examination of attitudinal system in general, and peace attitudes in particular, the role of personality psychology in peace research is much less obvious.

In reviews of peace psychology literature, publications related to personality variables are generally included in the broad category of psychodynamic and mental health

aspects (Blumberg, 1993; Kramer & Moyer, 1991) dealing with different topics: mutual nuclear anxieties (Blumberg, 1997; White, 1984), the sense of threat and insecurity (Rouhana & Fiske, 1995), the role of imagination in issues related to conflict resolution (Boulding, 1988; Watkins, 1988), the characteristics of the spiral process of hostile interaction (Deutsch, 1986), mutual perceptions, mutual threat, cognitive distortions and biases in images of the parties involved in the conflict (Jervis, 1976; Moyer, 1985; White, 1984), the potential for hostility toward other human groups (Staub, 1988) and prosocial value orientation which characterizes cultures that lead to cooperation and nonviolent conflict resolution (White, 1986).

Some psychologists and psychiatrists tend to extrapolate from what they have learned about individual human beings and interaction with others in small groups, to international conflicts. There is a question as to whether such knowledge can be directly applied to nations interacting with other nations or to the behaviour of leaders or the public in an international context (White 1986).

Nevertheless, the use of personality terms in peace research has usually focused on specific variables which have a direct and obvious relation to war and peace rather than on more general configurations of traits that might explain the individual's attitudes toward peace and conflict resolution. Those studies, which do examine the association between personality and peace attitudes, tend to focus on policy-makers, ignoring the role of public opinion as defining the domestic context of conflict resolution.

### 3.c. Psychological Characteristics of Policy Decision-Makers

Psychological characteristics as related to peace attitudes have usually been examined among the policy-making elite (Astorino, 1995; Tetlock, 1986). De Rivera and Laird (1988) state that psychologists have tended to focus on the policy-making elite rather than on the political will of the people.

Following the assumption of different authors that decisions about nuclear weapons are made by a small number of people (Burke, 1988; McLean, 1986; Miall, 1987), Hamwee et al. (1990) have investigated whether those who make nuclear weapons decisions share a distinctive approach to - and form of reasoning about - nuclear weapons issues. They have used a technique of "cognitive mapping" to create both a map of each individual decision-maker's system of thought, and to find common thoughts and assumptions of the examined sample of decision-makers.

To assess the impact of decision-makers on the course of international conflicts there is a wide-range of studies that connects the cognitive traits of national leaders to the foreign policy of their states.

White (1986) refers to the term cognitive as being very significant in this issue. On the one hand, the term implies a willingness to refer to a person's mind, but on the other hand, it excludes feelings, unconscious motives and defenses, terms emphasized by psychoanalytically oriented researchers. There is a tendency to give more attention to non-affective, non-motivational concepts such as the influence of previous beliefs on present perception or the availability of various ideas influenced by recent experiences.

A basic construct in these cognitive studies has been that of *integrative complexity* (Harvey et al., 1961; Schroder et al., 1967; Tetlock, 1984). As originally formulated, integrative complexity theory aims to explain individual differences in the complexity of

the cognitive rules that people use to process and analyze information. One of the principal hypotheses is that increases in the integrative complexity of key policy-makers are associated with shifts toward more cooperative state behaviours. This hypothesis has been examined in a variety of situations and periods. Typical of this work, Suedfeld and Tetlock (1977) and Walker and Watson (1994) show changes in the complexity of diplomatic and governmental argumentation prior to and during international crises. Tetlock (1985) found that the complexity of both America and Soviet foreign policy statements and that in the American presidential speeches are associated with shifts toward more cooperative relations. Similarly, Maoz and Astorino (1992) found positive relationships between the integrative complexity of Egyptian and Israeli decision-makers and the tendency toward conflict resolution. Blumberg (1990) shows that low integrative complexity is associated with crises between countries and with poor decision-making. However, where communication does not get beyond the hurdles that may block or distort communications, international misperception in an escalating conflict may block a potential resolution.

### 3.d. Public Opinion and Peace Research

For Tetlock's (1985) purposes, a nation's views were presented by statements from major representatives of its government. Blumberg (1990) suggests that in a systematic expansion of Tetlock's work on integrative complexity, one can imagine not only the inclusion of formal changes in administration, but also the addition of public attitude variables from various sectors within and across countries.

The need to relate to personality variables in relation to public attitudes toward conflict resolution, in general, and toward the Peace Process in the Middle East in particular, has been stated by both researchers and politicians. Jimmy Carter claimed in 1994 that the most unremitting conflicts of the Middle East are in the minds of the people.

However, in comparison to the wide-range literature concerned with psychological traits of decision-makers as related to policies of conflict resolution, the role of the individual's traits in shaping public opinion on issues of peace and conflict resolution seems rather neglected. The social-psychological perspective of peace research has assigned a significant role to public opinion as defining the domestic context of conflict resolution, while recognizing that basic foreign policy decisions are made by the political elite. This perspective, however, relates to the attitudes and moods within the society but neglects almost completely the consideration of personality constructs that might explain them. This might be shown in studies dealing with attitudes of various groups toward the Peace Process in the Middle East (Arian, 1989; Astorino, 1995) as well as by those dealing with other international and intranational conflicts (Jakobi, 1992; Mann, 1993; Voss & Dorsey, 1992).

One of the main questions in studies dealing with public opinion on issues related to conflict resolution is how to break the spiral process of hostile interaction and to ease international conflict. Different researchers relate to the type of actions that should be taken or avoided (Deutsch, 1986) and to the hurdles that should be removed in order to begin a process of conflict resolution in terms of attitude change rather than military or political actions (Blumberg, 1990). It seems that no diplomatic or political peace process would proceed unless the psychological obstacles to conflict resolution are removed.

Following the above discussion, the aim of the present research is to explore the psychological factors that contribute to and block the success of the Peace Process in the Middle East from the point of view of Israeli domestic public opinion.

## CHAPTER THREE:

### Conceptual and Empirical Issues in Personality Research - Literature Review

#### 1. Introduction

The conceptual framework of the present research project is anchored mainly within the field of personality psychology, absorbing additional contributing theoretical concepts and/or empirical variables from diverse other disciplines e.g. social psychology, sociology, education and political science.

Personality might be conceptualized from a variety of theoretical perspectives, and at various levels of abstraction or breadth. Generally, the conceptualization of personality refers to the dynamic interaction among its components and to the permanent interaction with the surrounding environment. It includes questions such as integration, conflicts, system functioning and self-regulation (Hampson et al., 1986; John, 1990; McAdams, 1996; McClelland, 1989; Pervin, 1996).

Among the various conceptual approaches to personality, the trait approach, referring to a person's relative position on a series of general dimensions seems most suitable for the aim of the present research. This approach provides fundamental information on the person which is comparative, nonconditional, and thus, relatively independent of context (McAdams, 1996; Pervin, 1996).

The state of the personality psychology field has recently been discussed by a group of leading researchers, who were invited to reflect on theoretical and research potential developments (Pervin, 1996). They were asked for their thoughts about various questions: Is personality more than a collection of individual differences? Should the field be regarded as a kind of confederation of workers who deal with discrete topics? Is personality essentially a broad domain of various research areas? Are there particular

classes of variables that should play a key role in the study of personality? etc.

Although the authors do not always agree about either current problems or their solutions, there are three common ideas that can be used as guidelines for personality research.

1. There is a need for *an interdisciplinary approach in personality research*. This need is clearly emphasized by different authors, some of them claiming that present personality research designs must recapture the prominent interdisciplinary role of the field (Baumeister & Tice, 1996; Pervin, 1996). The interdisciplinary perspective is supposed to be expressed both in the linkages between personality psychology and other fields within psychology and in the connections with other disciplines (Carver, 1996; Epstein, 1994; Sarason, 1996). Luce's recent discussion of the importance and difficulty of capturing such dynamic process is especially illuminating in this regard (Luce, 1995).
2. The *conceptual units* in the field of personality psychology should describe and explain human individuality. Nevertheless, any understanding of human individuality implies also an understanding of groups of individuals, so that the ultimate goal of any research in the field, can be defined as the development of a set of propositions and interrelated constructs that presents a systematic view of the examined phenomena (Exner, 1995). This might be accomplished by diverse units or dimensions such as dispositional traits (Diener, 1996; McAdams, 1996), goals and affects (Pervin, 1996), personality processes (Westen, 1996) and behavioural expressions (Shoda & Mischel, 1996).
3. The basic research model in this field should include measures and research strategies in *an integrative methodological pluralism* (Craik, 1986). This need is expressed in

Pervin's statement that although he used self-report measures in virtually all of his research, he has never been quite comfortable with them (Pervin, 1996). An understanding of the role of unconscious processes in personality functioning, whether conceived in terms of a psychoanalytic dynamic unconscious or a social cognitive automatic unconscious, seems to him to be one of the critical tasks in the field. He agrees with those who argue that self-report measures can be useful for many purposes, but also with those who argue that often it is difficult to tell just when they will be accurate and when subject to distortion (Wilson, 1994). The main suggestion is, thus, to integrate, rather than to view as competing, the self-report and projective measures of personality assessment. Assuming the alternative methods are linked with different personality theories, each of them captures a glimpse of the total individual (Pervin, 1993). This suggestion is common to many researchers in the field, looking for progress to be made from the point of view of construct validity (McAdams, 1996; Westen, 1996).

## 2. The Interdisciplinary Approach in Personality Research

The interdisciplinary perspective in personality research is exemplified especially in those studies dealing with attitudes as related to personality. The examination of attitudes is probably one of the most frequent activities of empirically working social sciences. Involved in this activity are mainly personality, psychometric and social psychologists, statisticians, political scientists, educational scientists, sociologists and market researchers. Nevertheless, often there is no exchange of theoretical ideas and methods between the different disciplines.

The interdisciplinary perspective does not mean merely bringing together work done in various fields of study, but the mobilization of different methods and skills, developed in distinct fields of theory and empirical investigation, for one common research program. Such cross-thinking of different branches of the social sciences and psychology was exactly what has been done in the work of Adorno et al., (1950, 1982), aimed to describe the authoritarian personality. In this work, experts in the fields of social theory and depth psychology, content analysis, clinical psychology, political sociology, and projective testing pooled their experiences and findings. Their research was guided by the major hypothesis that the political, economic, and social convictions of an individual often form a broad and coherent pattern, and that this pattern is an expression of deep trends in the personality.

Certainly, research methods do not easily cross disciplinary boundaries. Anthropologists might be reluctant to administer personality inventories. Nevertheless, it is generally accepted that the interdisciplinary approach to personality research seems useful and feasible.

McCrae (1996) points out some of the many ways in which the personality dimension of openness to experience is relevant to the study of social phenomena. Its effects are seen in interpersonal perceptions and interactions, at work, in political and social movements and in cultural innovations. Furthermore, McCrae states that conducting research on attitude formation or change without measuring psychological traits such as experiential openness is like studying educational methods without assessing intelligence. Thus, psychological traits should play a role in the current revival of interest in authoritarianism, and sociologists, political scientists and even historians should become acquainted with it. Nonetheless, he notes that the fact that many different traits are part of the same domain does not mean that they are interchangeable, but it does lead to many intriguing questions about how they are related and what influence they have on attitudes. Such questions might not have arisen in the contexts in which these constructs originated, but an answer to them could contribute to an integration of personality psychology and other fields of social sciences. Furthermore, researchers in different fields claim that studies in social sciences and education have virtually overlooked the topic of peace, stating that the study of nonviolence and peace has a legitimate place in these fields, demanding an interdisciplinary approach (Kool, 1993).

Being an interdisciplinary research, the present project includes theoretical concepts and operational variables from various fields: personality and social psychology, sociology, education and political science. Such an integration can be viewed as strengthening the mutual relationships between clinical psychology and different fields of social sciences and education, an integration which, although recognized as necessary, has hardly been expressed in the empirical field (Westen, 1991).

### 3. Personality Traits as Conceptual Units

#### 3.a. Traits and Attitudes: A Mutual Linkage

##### 3.a.1. Two Approaches to Studying Personality-Culture Relations

The relation of an attitudinal system to dispositional traits represents an important topic at the intersection of social and personality psychology. The linkage, which is considered to be a mutual one, is represented by two different approaches to the enquiry of personality-culture relations.

One approach examines the question of why certain individuals accept certain ideas while others do not. Generally, researchers believe that the consistency in people's attitudes and actions across time and across situations is due, mainly, to personality traits (Dollinger et al., 1996). This approach was already represented by Adorno et al., (1950) describing the authoritarian personality, and by Allport (1961), who showed that personality traits predispose the individual to certain thoughts and actions. Both personality traits and attitudes are broad categories of individual differences. The challenging puzzle is to identify the specific configuration of dispositional traits predicting specific attitudes. Most definitions seem to agree that an attitude is a state of readiness, a tendency to act or react in a certain manner when confronted with certain stimuli (Oppenheim, 1968). Attitudes are considered to be a major part of the individual's value system, and are usually viewed as susceptible to the influence of self-confrontation as well as changes in society. Rokeach (1973) has defined values as enduring beliefs that a specific mode of behaviour or state of existence is preferred to its opposite, a standard that guides and determines attitudes toward objects and situations, ideology, presentation of self and others, evaluations and judgments. As such, attitudes can be expected to converge with personality traits. Yet there has been

relatively little research to establish such connections (Furnham, 1984). Attitudes are, thus, reinforced by beliefs (the cognitive component) and often attract strong feelings (the emotional component) that might produce particular forms of behaviour (Oppenheim, 1968).

A question may be raised as to what is the degree of relationship between attitudes and behaviour. If individuals engage in overt activity, it is usually assumed that their opinions, attitudes, and values are congruent with their action. Nevertheless, if an individual express certain ideas verbally, there is a question whether or not these ideas will be expressed in overt action.

McCrae (1996) points out that historians and political scientists may object to the idea that social movements and political affiliations are reflections of personality traits. Thus, it might be argued that regional, religious, and especially social class differences are often far more important in determining political loyalties, and that politics is not a matter of enduring dispositions but of shifting alliances and oppositions. Yet, it is accepted that there are recognizable patterns that endure beneath shifting political fashions, and the most conspicuous of these is the distinction between liberalism and conservatism. The basis of these two perspectives is ultimately not political, sociological or economic but psychological. Various studies that have been pursued in the United States, Great Britain, South Africa, Germany, Australia, Sweden and Russia show considerable cross-cultural generalization of the psychological correlates of political ideology (McCrae, 1996).

Researchers who examine the influence of cultural factors on personality trait development represent a complementary approach to the enquiry of personality-culture relations. This approach originates in Linton's view, which considers culture as "the



dominant factor in establishing the basic personality types for various societies” (Linton, 1945). Linton added the idea that learned cultural attributes influence cognitive development and in doing so called for cross-cultural research on personality traits and values associations. However, it has only been in the present decade that research comparing the personality profiles of culturally different people has been published (Hozik & Wright, 1996).

Generally, it seems that there are feedback loops in which personality determines the attitudinal system and the attitudinal system determines personality. The difference between the two approaches is in viewing the trait and the culture as either the cause or the consequence of each other.

The answer to the dilemma of which approach should serve as a basis of research hypotheses depends on the specific aims of each study. Nevertheless, this answer seems much less important than the fact that it shows that an integration between personality study and social psychology is necessary and feasible at the scientific level (Higgins, 1990).

### **3.a.2. Content and Psychological Dimensions of Attitudinal Systems**

The integration between social psychology and personality study points to the problem of discrimination between content and psychological dimensions of attitudinal systems.

Rokeach (1960) relates to the split between the *content* and the *psychological style* of the individual's system of beliefs. He states that this system generally includes two elements - the ideological and the personal. Thus, in addition to the socially shared beliefs, each system contains highly personalized pre-ideological beliefs. This issue is

exemplified by the variable that contrasts an individual's open-mindedness with dogmatism. The theory is that open-mindedness derives from trusting pre-ideological beliefs, which provide the individual with confidence. As a result, the trusting individual is able to evaluate information in a realistic and more balanced way, so that it is discriminated, assessed and acted on according to the objective requirements of the situation. By contrast, feelings of distrust impede the development of rational open-mindedness, because the dogmatic individual's thinking is dominated by the need to ward off threat.

A similar approach is represented by Adorno et al., (1950, 1982) relating to the issue of personality and ideology. The term ideology is used in their work to stand for an organization of opinions, attitudes, and values, a way of thinking about human beings and society. We may speak of individuals' total ideology or of their ideology with respect to different fields: politics, economics, and religion. The authors state that in most of the approaches dealing with the relation between ideology and personality two essential conceptions may be distinguished: the conception of content of ideas and the conception of the underlying individual's needs. Though the two may be thought of as forming an organized whole within the individual's inner experience, they may nonetheless be studied separately. The same ideological trends may in different individuals have different sources, and the same personal needs may express themselves in different ideological trends. Since it is assumed that opinions, attitudes and values depend upon human needs, and since personality is essentially organized around the individual's needs, personality may be regarded as a determinant of ideological preferences. Personality is not, however, to be hypothesized as an ultimate determinant, being influenced by the social context within which it occurs.

Nevertheless, neither the scales of Rokeach (1960) nor those in the work of Adorno et al., (1950, 1982) distinguish methodologically between the content and the psychological style but include items of both kinds in the same scale.

Stone et al., (1993) who refer to the current state of research and theory in the field, conclude that the study of authoritarianism investigates relationships between personality and ideology as a whole entity. This was already noted by Eysenck (1954) who found authoritarianism not to be a basic psychological characteristic but rather as a combination of "tough-mindedness" and extreme right or left wing political attitudes. Billig (1982) suggests that what is required is a means of splitting the measurement of attitudes from their underlying personality traits.

Summing up the above approaches, it is generally agreed, as Stone et al., (1993) state, that it is a mistake to confuse the personality characteristics that affect a person's choices among competing ideologies with the ideology itself. Thus, hypotheses relating to the individual's susceptibility to certain attitudes should distinguish between psychological style and attitudinal contents.

A question might be raised as to which dispositional traits should be examined as related to certain attitudinal contents. It seems that the answer to this question depends on the specific content of attitudes, examined in each study. Thus, studies relating to political attitudes would examine different dispositional traits than studies relating to attitudes toward minorities. Nevertheless, a research design might also be traced as explorative, examining a pool of dispositional traits, searching which of them are in fact related to the individual's susceptibility to certain attitudes.

Following the view of different authors showing that variations in authoritarianism and openness to experience are considered to be the major psychological determinants

of political polarities (Adorno et al., 1950, 1982; McCrae, 1996; Stone et al., 1993), the present research examines the relation between these traits and attitudes toward the Peace Process in the Middle East. The operationalization of the research variables would isolate the dispositional traits from the attitudinal aspect of the examined personality syndromes, using both self-rating scales and the Rorschach.

### **3.b. Authoritarianism**

#### **3.b.1. The Authoritarian Personality: Theory and Operationalization**

The authoritarian personality, as defined by Adorno et al., (1950, 1982), is mainly conventional, submissive to authoritative figures, lacking individuality and has aggressive feelings toward various targets. This “anthropological species” presents a combination of ideas and skills that includes anti-rational beliefs, fear of not being like all others and tendency to submit blindly to power and authority (Adorno et al., 1982).

Authoritarianism has been theoretically defined as consisting of nine clusters: conventionality, authoritarian submission, authoritarian aggression, anti-intraception, superstition and stereotypy, power and toughness, destructiveness and cynicism, projectivity and sex (Adorno et al., 1950, 1982). These clusters were assumed as a theoretical guide for constructing the F scale, designed in integration with clinical interviews and the Thematic Appreciation Test (TAT) to measure the various characteristics of the authoritarian personality. The F scale includes 30 items - some of them appear in two or more clusters and aims to quantify the fascist potential and to estimate its strength in various groups of subjects. Although it is often referred to as a personality scale the F scale differs from most scales of this type in that the items are written in the third person and many of them have ideological content.

Stone et al., (1993) argue that evaluation of the relative discriminatory power of items falling in the F scale's clusters is complicated. The total score is influenced more by items falling in the most heavily represented clusters and it is difficult to separate the influence of membership in one cluster from membership in the other in evaluation. Moreover, some of the items were assigned to clusters without a clear rationale and

some are clearly outdated. However, much of the research that followed the publication of *The Authoritarian Personality* was concerned with measurement issues.

Many researchers argue that changes in ideology affect the content of authoritarian attitudes and that right-wing ideology has influenced research goals, methods and perspectives (Christie, 1984; Samelson, 1986). The literature on left wing authoritarianism discussed by Stone and Smith (1993) leads to a similar conclusion.

Altemeyer (1981) has developed the Right Wing Authoritarianism scale (RWA), based on the theoretical conception that the authoritarian syndrome consists of three factors: submission to authority; conventionality, and righteous aggression. The RWA scale is a balanced Likert scale that contains half pro-authority and half anti-authority items, including two original F scale items, and was validated in various studies. Its conceptualization seems to be both simpler and better proved than the nine cluster syndrome put forth in *The Authoritarian Personality*.

Reviews of the RWA scale were generally favourable relating to the evidence of its validity (Christie, 1984; Ward, 1982). These reviews note that the scale is based on a simplified theory that does not speak of projection, superstition and anti-introspection, concepts reflected in F scale items that grew of its psychoanalytic roots. Nevertheless, some authors criticized the RWA scale, finding many distortions and errors (Eysenck, 1982), while others raised questions about the alleged superiority of the RWA over the F scale (Meloan, 1990).

Despite the criticism of the F scale and the tendency to use the RWA scale as replacing it, there is considerable evidence of F scale's validity as a measure of authoritarianism (Stone et al., 1993). The RWA scale has stimulated research by narrowing the focus to authoritarian submission, aggression and conventionality, but at

the cost of abandoning the still fertile theoretical framework of the F scale. Meehan (1990) reviewed the massive literature on the F scale, particularly the work on specific groups and provided strong support for the descriptive aspects of authoritarian personality theory.

A basic problem in both scales that has not been referred to directly in any of the comprehensive reviews, relates to the issue of differentiation between content and personality style in the operational level (see above). None of the scales has made such differentiation and the pool of items in both of them measures personality traits and attitudinal patterns as if they are related to the same construct. It seems that this crucial problem gives, at least partially, an explanation to the conceptual and empirical confusion that has marked the study in the field, and further methodological developments should be based on the assumption that "trait authoritarianism" and "attitudinal authoritarianism" are two separate constructs, both theoretically and operationally. Certainly, this methodological operation might have significant implications for the theoretical view of authoritarianism as a personality dimension, and for the general understanding of the relations between traits and attitudes.

### **3.b.2. The Origins of Authoritarianism**

Sanford (1973) reviewed the basic personality makeup called authoritarianism and found conventionality, authoritarian submission and authoritarian aggression to be the three main characteristics of this personality. Altemeyer (1988), who found that the literature showed inconsistent support for the entire psychological syndrome described as the authoritarian personality, agrees that these three traits, however, did occur in people scoring high on the F scale. Other traits including dogmatism did not. These

observations were incorporated in his alternative to the F scale, the RWA scale. Nevertheless, the explanation of the origins of authoritarian behaviours by the two authors is different. Whereas Sanford relates to the psychodynamic origins, dealing with the authoritarian syndrome in terms of dispositional traits, Altemeyer conceptualizes the attitudinal cognitive origins, dealing with the syndrome in terms of attitudes and conceptions. It seems that the different explanations reflect mainly the basic problem, discussed above, of the authoritarian syndrome as representing both traits and attitudes. Various researches provided support both to the psychoanalytic and the cognitive explanations of authoritarianism (Tetlock, 1984; Meehan et al., 1988).

Reviews of the literature dealing with explanations of authoritarianism show that results of studies are not discriminative between psychodynamic and cognitive or social learning explanations (Stone et al., 1993). Authoritarian parents do seem to transmit authoritarian attitudes to their children (Altemeyer, 1988; Byrne, 1965), and an autocratic home atmosphere does produce more authoritarian children (Stone et al., 1993).

Adorno et al., (1950) gave a theoretical definition of the authoritarian based on psychoanalytic theory. This view saw the authoritarian as a person who is dependent on parental and other authority by virtue of inadequate ego strength and the consequent use of various defense mechanisms to deal with hostile and sexual impulses.

Authoritarians develop this personality on the basis of drives, which they perceive as socially unacceptable, notably sexual and aggressive ones. When the restraints against expression of these impulses are unusually harsh, the individual becomes anxious, insecure, and unusually attuned to external authority sources for behavioural guidance.

This personality structure represents strong well-entrenched defenses against anxiety. The aggressive feelings are easily directed against outgroup members who are designated as being worthy of contempt by authority. This is the classic displacement mechanism described by Freud. Thus, harsh, punitive, and vindictive background and rigid social codes shape the authoritarian syndrome.

Fairly reliable findings seem to show that the basic psychological pattern running through all authoritarian personalities includes strong inner conflicts or self-contradictions, denial or repression of these conflicts and projection of denied or disliked concepts of the self (Eckhardt, 1991).

It is assumed that the dominant problems of those who are inclined to prejudice and aggression toward minorities are problems of self-assessment and the sense of self-worth. These feelings are denied and are therefore not directly evident. They must be deduced from indirect indications, such as the tendency toward exaggerated sensitivity to criticism, the inclination to boast, tendencies to put blame on others and resist self-criticism, and the inclination to show arrogance toward others. Although these traits and behavioural tendencies of authoritarians were also described in the analysis of the clinical interviews in *The Authoritarian Personality* (Adorno et al., 1950, pp. 393, 409, 423, 430), they drew little attention.

Altemeyer (1988) believes that the basic theoretical conceptualization of the authoritarian personality is faulty. He argues that the tracing of authoritarian personalities to early childhood has not been proved, stating that psychoanalytic concepts such as repressing and displacing aggression toward outgroups, on which this theory was based, are very difficult to test.

As a result, his theory of Right Wing Authoritarianism dismisses the psychoanalytic hypotheses on which *The Authoritarian Personality* was based, in favour of cognitive and social learning theory. Thus, the simplified approach of Altemeyer defines authoritarian personality as a set of closely interrelated attitudes - conventional, aggressive, and submissive - that could be taken to reflect the underlying dynamics suggested by *The Authoritarian Personality*.

Stone et al., (1993) state that Altemeyer goes so far as to describe the tendency to self righteousness as a particularly important explanation for authoritarian aggression. They argue that Altemeyer's contribution has been in the creative testing of hypotheses about the behaviour and motivation of high and low RWA scores, but it could be argued that his theoretical perspective is implicit rather than explicit, and that his major contribution is in the establishment of empirical relationship between RWA and certain behaviours. Thus, he did not prove that the social learning approach more aptly describes the authoritarian personality than does the psychoanalytic approach underlying the F scale.

Summing up the above discussion, it seems that consideration of generally neglected traditions in research on authoritarianism can contribute to a deeper understanding of the origins of authoritarian dispositions. A reconsideration of these traditions can point the way for new emphases in research. It is suggested that, in comparison to the approach used in the research tradition of the authoritarian personality, emphasis should be placed on narcissistic problems in the behaviour of authoritarians and on a more intensive analysis of the defenses mechanisms of authoritarians, specifically their tendencies toward denial. The question of the idealization of parents should be seen as a partial aspect of this general problem. Research designs for this topic must differ from

the prevailing models of research on authoritarianism. Sampling of respondents should not follow the way of convenience and easy access, as has been common in authoritarianism research, but should be directed by theoretical considerations and the need to systematically survey the social behaviour of the selected groups. The possibility of cooperating with psychoanalytically oriented psychologists as did Adorno et al., (1950, 1982), should also be considered as relevant for developing further research on authoritarianism. Criticizing their work cannot as Altemeyer implies, simply dismiss this perspective. Since this work has been published, great progress has been made both in social psychology research and in psychoanalytically oriented developmental psychology. Research on authoritarianism should take notice of this development (Stone et al., 1993).

### **3.b.3. Authoritarianism and Related Variables**

Considerable disagreement and conceptual confusion have marked the study of authoritarianism since 1950, when *The Authoritarian Personality* was first published.

Many investigators seem to take the position that authoritarianism is rigidity. Thus, rigidity of thought, closed-mindedness and other concepts that are considered as related to lack of *integrative complexity* have been used to characterize the thought processes of authoritarians. As originally formulated, integrative complexity theory explains individual differences in the complexity of the cognitive rules that people use to process and analyze incoming information (Harvey et al., 1961). The theory focuses on two cognitive stylistic variables: differentiation and integration. Differentiation refers to the number of distinct dimensions of a problem that are taken into account in

interpreting events. Integration refers to the development of complex connections among differentiated characteristics (Tetlock, 1985).

Schroder et al., (1967) developed a scoring system for integrative complexity, referring to the combined ability of an individual to both differentiate and to integrate complex information. A person low in integrative complexity tends to use undifferentiated thinking and to be prone to misperception or distortion of information. Integrative complexity has, thus, to do with whether a situation is seen and judged simply according to a single standard or according to a variety of criteria (Blumberg, 1990). Researchers applied the coding system to such diverse archival sources as the writings of revolutionary leaders (Suedfeld & Rank, 1976), pre and post election presidential speeches (Tetlock, 1981), and diplomatic communications in international crises (Levi & Tetlock, 1980; Raphael, 1982).

Tetlock (1984) suggested connections between the black and white thinking that is one characteristic of the authoritarian personality and integrative complexity. Furthermore, he considered patterns over time in American-Soviet rhetoric in policy-makers' speeches, and showed that they were influenced partly by their own previous level of integrative complexity, but also by the other side's integrative complexity, indicating that integrative complexity is at least partially a product of the environment (Tetlock, 1985). He concluded that all other things being equal, low integrative complexity would be associated with competitive behaviour, and high integrative complexity with coordinative behaviour. Violence as a response to frustration was much more likely among integratively simple subjects (Schroder et al., 1967). Pruitt and Lewis (1975) show that low integrative complexity predisposes policy makers to adopt competitive initiatives in which little consideration is given to

the perspective of the other side. High integrative complexity encourages policy makers to seek compromise agreements in which the interests of both parties are taken into account. Suedfeld and Tetlock (1977) found through content analysis, that diplomatic communications exchanged in crises that culminated in war were characterized by lower integrative complexity than were communications exchanged in crises resolved by peace process.

Eckhardt, a peace psychologist, has reviewed much of the early work on the variables that overlap with authoritarianism: *radicalism-conservatism, nationalism, militarism, dogmatism, religiosity and tough-mindedness*. He classifies the contents of different variables in authoritarianism research, according to the emphasis on affect, cognition, ideology, behaviour and morality, and argues that the pattern of relationship holds up quite well in most of these areas (Eckhardt, 1991).

Tomkins (1991) thinks that feelings of *self-worth* showing how positively or negatively individuals learn to feel about themselves and about others will determine their general posture toward the entire ideological domain.

Although *aggression* is a constant accompanying factor of authoritarianism, many researchers look at it as a separate factor. This conception has been shown in the General Survey (GS) measure of personality dimensions, developed by Couch (1960), distinguishing between the construct of authoritarian conformity and that of aggressive mistrust. Studies, in which this measure was used, mainly in its short version, have validated this conception (Blumberg et al., 1972; Kritzer et al., 1974). Moreover, experimental studies which have dealt with the relationship between authoritarianism and aggressive responses do not seem to indicate that the responses of authoritarians

are indiscriminately hostile and aggressive, but that they respond with punishment and negative sanctions only in specific situations (Byrne, 1974). Stone et al., (1993) state that authoritarianism is only one of a multitude of factors involved in acts of aggression.

The much discussed theory of Duckitt (1989) conceives of authoritarianism as a *particular orientation to the ingroup*. This perspective on authoritarianism, based on the importance of in and out groups to understanding the nature of prejudice (Allport, 1988), taps into the extensive research on group attachment by Tajfel (1981). An important field experiment by Downing and Monaco (1986) provides support for the idea that authoritarians are particularly attached to their groups. Furthermore, it is important to note that in more permanent groups the effects of group orientation are magnified. Also, groups have shared ideologies, and the authoritarian responds both as a group member and as one who has been attracted to the particular ideology that is embedded in that group (Stone et al., 1993).

Christie (1991) states that a sample of experiments typical of work done in the fifties and the seventies shows a shift from an emphasis on the expectation that high authoritarians would behave differently from lows in almost any situation to one in which increasingly the emphasis has been upon the *situational variables*, indicating which situations would influence the behaviour of high authoritarians.

Stone et al., (1993), in their discussion of the status of authoritarianism relate to the question of *sex differences*. They state that it seems logical that women would have lower scores even on an imperfect instrument as the F scale, and that overall, the groups tested by Adorno et al., (1950) did show lower scores for women, but they felt

that these were sample and not population differences. Furthermore, they argue that the report of no sex differences by Altemeyer (1981) on the RWA scale calls for more careful examination, and rethinking of alternative conceptualizations of authoritarianism.

A central finding in various researches is that right-wing authoritarianism will generally be correlated with *ethnic and racial prejudice*, considering prejudice as a conventional outlet of aggressive impulses (Stone et al., 1993).

The considerable disagreement and conceptual confusion by which the study of authoritarianism has been marked since the publication of Adorno et al., (1950), focus mainly, as has been shown, on the question of whether authoritarianism relates to general *extremism* or only to a rightist position. This question is undoubtedly related to the required conceptual and operational distinction between "trait authoritarianism" and "attitudinal authoritarianism" (see above).

Despite the historical focus of authoritarianism theory and research on attraction to fascism, Shils (1954) insisted that there was a neglected form of authoritarian on the left. The main point is that there are authoritarians of the left as well as authoritarians of the right. Shils' position stems from a belief that there is a similarity between the far left and the far right, and that both extremes have much in common. He suggested that Adorno et al., have assumed the far left and the far right to be polar opposites, and that this assumption had influenced the methodology of the study, the items of the F scale expressing rightist positions. Shils states that left-wing subjects might have disagreed with these items because of their manifest content and the scale would then fail to identify left-wing authoritarianism. He argues that the F scale had to be rejected because it was designed to disclose not the authoritarian personality as such but rather

the right authoritarian. Whether left authoritarians, attracted to communism, and right authoritarians, attracted to fascism, were highly similar people attracted to extreme political movements is unclear in Shils' theory (Stone et al., 1993).

Unlike Shils, Rokeach (1956) did not proceed directly to the statement that the two extremes of politics shared a similar authoritarianism, but examined the general properties held in common by all forms of authoritarianism, so that content of belief became less important than the underlying psychological style.

If we focus on the core characteristics of the prototypical authoritarian personality - a threat-oriented, defensive individual who shows hostility toward weaker members of outgroups - there is certain plausibility to Shils' theory. Setting aside the historical origins of the discovery of this personality syndrome, we can countenance the hypothesis that such a person could accept the authority of a strong and convincing leader or authority of a dedicated party, left or right. A moderate party or leader might be less attractive to such a person than one with clear cut, black and white solutions to the individual's own problems. Rokeach's theory also focuses on such black and white, dogmatic thinking as the core characteristic of authoritarianism.

Following the attempt by Rokeach (1956) to develop a measure of general authoritarianism, and the suggestion made by Shils (1954) that authoritarianism exists on the left as well as the right, the idea of left-wing authoritarianism has come to be generally accepted. Specific empirical studies dealing with the issue have been meager.

Stone (1980) found the arguments of left-wing authoritarianism to be generally without substance, stating that if we look at the content of left and right ideologies, the extremism hypothesis concerning ideology and authoritarianism become less appropriate. Thus, there may be some similarities between the extremes, but there are

vast differences between individuals drawn to an ideology that stresses equality above all and one that stresses hierarchy and superiority of one group over another one. According to Stone and Smith (1993) this makes the hypothesis of mirror image authoritarianism seem less viable.

Following the above discussion, it might be hypothesized that authoritarianism would be negatively associated with supporting attitudes toward the Peace Process in the Middle East. Thus, there would be significant differences between higher as compared to lower peace supporters, higher peace supporters tending to be less authoritarian than the lower ones.

### 3.c. Openness to Experience

#### 3.c.1. The Multi-Dimensionality of Openness to Experience

Openness to experience is generally defined in terms of intellectual curiosity, aesthetic sensitivity, independence, interest in varied experiences and emotional differentiation (McCrae, 1987), a definition that echoes different researchers' description of the creative person (Barron & Harrington, 1981). These terms, which stress people's preferences for variety as against sameness, locate openness as measured in diverse areas as fantasy proneness, empathy and willingness to try new things (Dollinger et al., 1996).

Openness is the most controversial dimension of the Big Five Factor model of personality (Digman, 1990; Goldberg, 1993; John, 1990; McCrae & John, 1992; Saucier, 1992; Trapnell, 1994). Wiggins and Trapnell (1996) state that in recent debates, openness is considered as the most substantively contentious dimension of the Big Five. These debates centre on whether openness, as a lexical factor, reflects social judgments of intellectual ability, competency, and sophistication (Saucier, 1992), or whether it reflects also cognitive-structural and motivational aspects (McCrae, 1994; McCrae & Costa, 1985). Thus, the controversiality seems to stem, at least partially, from the different conceptions being attached to the factor. Trapnell (1994) shows that the factor includes two different kinds of terms and therefore reflects two different although interactive, perspectives: the intellectual and the open-minded. Whereas the intellectual perspective includes adjectives, which are mainly enterprising in that they connote competency and leadership, the open-minded perspective includes adjectives that are more communal in that they connote qualities associated with interpersonal

acceptance and tolerance. Wiggins and Trapnell (1996) provide evidence of such a dyadic-interactional model across a wide range of psychological research literature.

### 3.c.2. The Enterprising Conception

A close association between enterprising interpersonal traits and intellect was assumed already by Cattell (1945), in an early version of his 35 bipolar rating scales, by an item contrasting “sophisticated, intelligent, and assertive” with “simple, stupid and submissive”. Apparently, Cattell considered assertiveness and intellectual sophistication to be empirically so closely associated that markers for them could be collapsed into a single scale.

The enterprising conception is supported by both the consistent, positive correlations between the factor of openness to experience and psychometric indicators of intellectual performance and other indicators of intellectual achievements (McCrae, 1987). Furthermore, it is supported by the consistent, positive correlations between this factor and the extroversion factor whether measured by adjectives (Trapnell & Wiggins, 1990) or questionnaires (Costa & McCrae, 1992). Some authors relate the factor to a wide range of trait measures including Holland’s enterprising vocational type (Holland, 1985), the assured-dominant scale (Wiggins, 1995), and the dominance, capacity for status, achievement via conformance and achievement via independence scales (McCrae et al., 1993).

### 3.c.3. The Communal Conception

The communal conception of openness to experience might be seen in the relation between openness to inner and outer experience and the acceptance of other individuals. As people move toward being able to accept their own experience, they also move toward the acceptance of others' experiences. McCrae (1996) argues that openness is better understood as a fundamental way of approaching the world that affects not only internal experience but also interpersonal interactions and social behaviours. Wiggins and Trapnell (1996) show that the communal implications of openness are evident across studies in many psychological fields. In vocational psychology, a close association between artistic and social occupational interests is exemplified by the adjacent locations of artistic and social vocational types in Holland's model (Holland, 1985).

Moreover, in sociology and political psychology, there is evidence of a close association between liberalism and occupation, pointing out that artists, scientists, educators and journalists are the most liberal. Both the egalitarian social ethos of liberals and their artistic and intellectual vocational choices might be interpreted as having a common source: values, interests and attitudes arising from stable personality differences in cognitive and emotional openness.

McCrae (1996) states that from many perspectives, openness to experience is the personality dimension that most centrally influences social and interpersonal phenomena, although that assertion may seem paradoxical because openness is usually seen as an intrapsychic dimension, describing individual differences in the structure and functioning of the mind. Nonetheless, the idea that the structure of the mind can affect social behaviour is certainly not new. It was perhaps most extensively developed by

Rokeach (1960) who has shown that regardless of ideological content, a rigid cognitive organization of attitudes and values leads to predictable social consequences, including prejudice and authoritarianism.

#### 3.c.4 Openness to Experience in The Empirical Context

Openness to experience is considered the least studied of the Big Five. This lack of study might reflect, at least partially, either the small number of adjectives in the English language to describe aspects of openness, or the degree of abstraction that characterizes this trait and seems to be responsible for its significant correlation with measured intelligence (McCrae 1990). Furthermore, the lack of study might also stem from the use of the term openness in the therapeutic context to refer to an individual's self-disclosure tendencies or lack of defensiveness, meanings which are not necessarily implicated by the concept of openness to experience (McCrae, 1994).

Using personality inventory and measures of divergent thinking, all relevant facets of openness to experience were found as significantly positively correlated with measures of creativity and divergent thinking (Barron & Harrington, 1981; McCrae, 1987). These results have caused some to question the discriminant validity of the openness construct stating that items in self-report measures of openness tend to be synonymous with creativity rather than indicative of it (King et al., 1996).

Openness is conceptually and empirically related not only to creativity (McCrae, 1993), but also to absorption (Glisky et al., 1991). It correlates with level of ego development (McCrae & Costa, 1980), with not having a foreclosed identity (Clancy & Dollinger, 1993), striving for personal goals that are especially congruent with one's own values (Little et al., 1992), with political ideology and liberal values

(Coan, 1972; Dollinger et al., 1996; McCrae, 1987) and along with conscientiousness it predicts academic achievements (Merviedle et al., 1995).

Dollinger et al., (1996) sought to identify the Rokeach values (Rokeach, 1973) which correlate with the Big Five, expecting that openness to experience would predict variation in people's ratings of the Rokeach values better than other personality traits. They argue that being central to a person's cognitive organization (Rokeach, 1979), values should particularly reflect levels of this trait.

The most pertinent finding of their survey to the present research is that open persons hold an abstract communal or universalistic orientation, and they have a preference for inner resources in their valuing (imagination, intellect, broadmindedness, wisdom). The negative correlates suggest that those who score low in openness prefer a restrictively conforming lifestyle with values of being obedient and self-controlled. The value correlates also reflect their political and religious conservatism (national security, salvation), cognitive and emotional openness (Wiggins & Trapnell, 1996).

McCrae (1996) states that experiential openness is closely related to the low pole of authoritarianism, as measured either by the F scale (Adorno et al., 1950, 1982) or by the RWA scale (Altemeyer, 1981). Nevertheless, it does not mean that openness and authoritarianism are conceptual mirror images, but that openness is an indispensable element in the explanation of the authoritarian personality (McCrae, 1996).

It has been shown that within Western societies, open individuals have an affinity for liberal, progressive left-wing political views, whereas closed individuals prefer conservative, traditional right-wing views. Moreover, variations in experiential openness are considered as the major psychological determinant of political polarities (Trapnell, 1994; McCrae, 1996).

Following the above discussion it might be hypothesized that experiential openness would be positively associated to supportive attitudes toward the Peace Process in the Middle East. It is hypothesized that there would be significant differences between higher as compared to lower peace supporters, higher peace supporters tending to be more open-minded than the lower ones.

#### **4. Integrative Methodology in Personality Assessment**

##### **4.a. Personality Traits - Operationalization of the Conceptual Units**

The research and practice in the field of personality confront a basic methodological problem. Because the measured variables are not directly observable, their existence has to be inferred either directly from self-report descriptions or indirectly from an observer's analysis of projective tests or other relevant material. Whereas the self-rating method has accessibility to traits that are conscious and might be applicable for large groups of people, the indirect method – the Rorschach, T.A.T or any other projective technique - relates to the subjects' internal world but can be used in much smaller samples. The dilemma of how to assess or measure personality traits has usually been solved by considering the assessment's target.

Nevertheless, as stated above, the currently basic model in personality research suggests using research strategies in an integrative methodological pluralism. This suggestion to integrate rather than view as competing the self-report and projective measures is considered as improving the construct validity in personality assessment (McAdams, 1996; Pervin, 1996; Westen, 1996).

#### **4.b. Self-Rating Scales: Theoretical and Empirical Considerations**

##### **4.b.1. Descriptive Models in Personality Assessment**

Researchers accept that like any field of scientific study, personality psychology needs a descriptive model or taxonomy of its subject matter, which would permit researchers to study specified domains of personality characteristics, instead of examining separately the thousands of particular attributes that make human beings individual and unique. An accepted taxonomy might facilitate the accumulation and communication of empirical findings by offering a standard vocabulary for researchers and practitioners in the field of assessment who are faced with an extremely broad pool of personality scales. Some of them with the same title often measure concepts that are not necessarily the same, while others with quite different titles overlap considerably with their item content (John, 1990).

Despite the long tradition of personality taxonomies, psychologists still disagree over such fundamental topics as the selection, classification and nature of traits: Should the taxonomy focus on stable traits or should it also include state terms and social evaluations (Benet & Waller, 1995)? Should the taxonomy focus on descriptive terms (adjectives) or should it also include nouns or phrases (Buss & Craik, 1983)? Does the evaluative component in personality descriptive terms represent substantive variance or individual differences in response-set strength (Saucier, 1992)? Should the taxonomy be descriptive, empirical or explanatory theoretical (Benet & Waller, 1995)? To clarify these issues, different criteria have been developed to assess personality taxonomies, suggesting that a taxonomy should be evaluated according to its comprehensiveness, external validity and generalizability across samples, cultures and languages (Widiger & Trull, 1997).

One of the most popular personality taxonomy being used at present is the Five Factor Model - FFM. This model, known as the Big Five, a version of trait theory, holds that differences among individuals in emotional, interpersonal, experiential, attitudinal and motivational styles can be summarized in terms of five basic factors (McCrae 1991).

The Big Five model has been recently assessed as obtaining construct validation and practical recognition across a broad domain of fields, including clinical psychology, industrial-organizational psychology and social psychology (Widiger & Trull, 1997).

#### **4.b.2. The Lexical Natural-Language Model: The Big Five**

The Five Factor model suggests that there are five major domains of personality: extraversion, agreeableness, neuroticism, conscientiousness and openness to experience (Digman, 1990; Goldberg, 1993; John, 1990; McCrae & Costa, 1987; McCrae & Costa, 1989; Widiger & Trull, 1997). These five factors are seen as related to a vast conceptual domain that encompasses the central human concerns of power, love, work, affect and intellect (Peabody & Goldberg, 1989). Each of these broad domains is differentiated into more specific facets. Thus, extraversion includes energy and enthusiasm, which is seen interpersonally in sociability and dominance, and temperamentally in high activity level and cheerfulness. Agreeableness contrasts trust and cooperation with antagonism and aggressiveness, tender-mindedness and straightforwardness as opposed to deception. Neuroticism or negative affectivity is the dimension underlying the chronic experience of distress, fear, guilt and frustration. Conscientiousness or control encompasses sense of competence and need for

organization. Openness to Experience or originality represents intellectual curiosity, imagination and a liberal attitudinal system (Costa & McCrae, 1995; McCrae, 1991).

The FFM approach is considered to have begun with the work of Allport and Odbert (1936) who examined all the terms that could be applied to their definition of trait as generalized and personalized tendencies, consistent and stable modes of individuals' adjustment to their environment. Cattell (1943) had reduced the number of traits to 35 most significant variables, and used factor analysis as the statistical procedure with which he examined these variables. Five factors, which had rather substantial loadings in Cattell's work, were then found by other researchers who gave empirical support for the existence of the lexical Big Five factors of personality traits (Goldberg, 1981; Norman, 1963). The widely ranging research of Costa and McCrae (1988) brought the FFM, until then based almost exclusively on lexical analyses and adjective ratings, into the questionnaire realm. Research using either natural-language adjectives or questionnaires showed supportive evidence in children, college students and adults of both sexes. The model is considered to be useful both for individual assessment and for the elucidation of a number of topics of interest to personality psychologists, providing a common language for psychologists from different traditions, and a guide to the comprehensive assessment of individuals that should be of value to educational, organizational and clinical psychologists (McCrae & John, 1992). Furthermore, different studies show that individual differences in some general beliefs are robustly related to the Big Five (Langston & Sykes 1997). The claim is that the five factors can be found in all personality instruments based on either the lexical natural-language approach or on sentences-based questionnaires.

The lexical FFM suggests that systematic, objective, and comprehensive studies of the encoded language would define the trait domains and facets that people have found to be most useful and important when describing or characterizing themselves (Goldberg, 1993; Widiger & Trull, 1997). Such lexical studies have been reasonably consistent in defining the five broad domains of the FFM (Digman, 1990; John, 1990). The FFM was based on the assumption that most of the prominent and socially relevant characteristics have become encoded in the natural language (Allport, 1936). The personality vocabulary contained in the dictionaries of a natural language could thus provide an extensive set of attributes.

A variety of instruments have been developed according to the lexical model of the Big Five. Widiger and Trull (1997) compare and present an overview and critique of five such instruments, focusing in particular on their representation of the lexical FFM and its practical application. They show that the decision of which instrument to use in a research project depends on its central question, sample and predicted variables.

Cross-cultural replications of the FFM have been processed in many languages, including German, Dutch, Japanese, Chinese and Hebrew (John et al., 1988). The cross-language research suggests that the model can be replicated very clearly in Western languages, the evidence of other languages being more ambiguous and premature (John, 1990). A question that concerns the current lexical studies is whether analyses of personality nouns or verbs might reveal factors not found in trait adjectives (McCrae & John, 1992).

#### 4.b.4. Personality Dimensions Measured by Questionnaires: The General Survey

The lexical approach is not the only route to obtaining a comprehensive and systematic set of personality descriptions. One frequently used alternative has been to accumulate large numbers of personality questionnaire items and to construct scales from these item pools by factor analysis or criterion group comparisons. This approach, developed by Eysenck (1970) revealed two factors, extraversion and neuroticism, which were extended by other researchers to the Big Five (Tellegen & Atkinson, 1974).

The approach used to construct the questionnaire scales appears similar to the lexical approach, in that some kind of structural analysis - factor analysis, reliability analysis, group comparison - is applied to selected verbal stimuli to construct scales by grouping items from the pool administered to the subjects. In this kind of procedure, one crucial determinant of the results is the selection of the stimulus items (John, 1990). In practice, little attention is paid to the actual items. The number of personality-descriptive sentences is infinite, and it is hard to define or describe them abstractly. The specification of a comprehensive universe of personality-descriptive sentences has been much more complicated and much less systematic than the lexical procedure. As a result, every questionnaire measures a somewhat different subset of dimensions (Goldberg, 1993), and the field has been separated into groups, each adhering to a set of dimensions different in number, titles and nature.

Data collected on both self-report and peer rating of German adjectives and personality inventories, showed five factors in each set of data, generally similar to the Big Five (McCrae, 1991). McCrae and Costa (1985, 1987) showed convergence for all five factors across both observers and instruments when they examined adjective scales and questionnaire measures in an adult sample on whom peer ratings on parallel

instruments were available. Trapnell and Wiggins (1990) reported similar findings.

These studies demonstrate that the correspondences between similarly named factors in the two traditions - the lexical natural-language and the questionnaire-derived one - are empirically justified (McCrae & John, 1992).

Nevertheless, some research in the field has shown that joint factor analyses of questionnaire scales from different inventories tended to yield mainly the extraversion and neuroticism dimensions, so that convergence between questionnaire-based dimensions and the Big Five would be particularly useful, but cannot be taken for granted (John, 1990).

It seems that the most important contribution of the questionnaire tradition to the development of the FFM has been theoretical. Whereas the lexical approach was limited to an analysis of personality traits represented in natural language, and might, thus, have overlooked characteristics of theoretical interest, the questionnaire approach could compare instruments specifically designed to measure psychological constructs of different personality theories, with the Big Five factors (McCrae & John, 1992).

Such an approach was applied in the General Survey, GS (Blumberg et al., 1972), used in the present research. The GS is based on descriptive propositions and includes five personality dimensions: authoritarian conformity, aggressive mistrust, anxiety, extraversion and intelligence. This instrument, which was developed for the purpose of a large research project on the social psychological aspects of nonviolence (Blumberg et al., 1972; Kritzer et al., 1974), was not designed to encompass the whole "space" but rather to find personality dimensions that "make the difference" in a variety of social-psychological studies.

Authoritarian conformity, more than the other GS scales, is anchored in a theoretical rather than an empirical approach, and moreover one that is linked with peace and reconciliation (see above). Nevertheless, it has been shown that authoritarianism is one of the least defined personality traits and is seen rather as a mixed construct of psychological style and attitudinal system. This mixed construct is composed of both tough-mindedness and extreme political attitudes referring to the relationships between personality and ideology in terms of a whole entity (Eysenck 1954; Billig, 1982; Stone et al., 1993). The “contamination” of authoritarianism as a trait might be considered as justifying the suggestion, discussed above, to integrate the methods of self-rating scales with projective methods. This integration might emphasize, in the case of authoritarianism, the splitting of attitudes from their underlying personality traits.

#### **4.b.4. The Five Factor Model - Oppositional Views**

Widiger & Trull (1997) argue that a principal attraction of the FFM has been its empirical foundation. Thus, whereas most models of personality are derived from a particular theoretical perspective, the FFM takes a more empirical position. Some of the criticism of the model views this lack of a single or explicit theory as the main disadvantage of the model, failing to suggest core constructs beyond the level of traits and to provide compelling explanation for human behaviour (Block, 1995; Butcher & Rouse, 1996; McAdams, 1992). Nevertheless, those who support the FFM state that the model is basically designed only to provide a reasonably comprehensive description of personality, presenting those personality traits which seem to be used most frequently in describing oneself in a manner that would not favour any particular theoretical model. This approach is similar to that taken by the American Psychiatric

Association in the Diagnostic and Statistical Manual of Mental Disorders, recognizing that the manual is used by clinicians with various conflicting theoretical perspectives, and that the etiology for the various disorders is often multifactorial (Frances et al., 1990).

Another oppositional view that might be related as well to the atheoretical approach of the FFM, is the perception that there is no single Big Five Model. There is a variation from study to study in factor solutions, terms, definitions and labels of similar factors. Moreover, there are still disagreements regarding the basic questions of the optimal terms with which to characterize each domain and its underlying facets (Zuckerman et al., 1993) and the optimal number of dimensions to characterize the lexical domain (Tellegen & Waller, 1995; Widiger & Trull, 1997). Thus, among the various theoretical and methodological limitations that have been attributed to the Big Five (Block, 1995; Briggs, 1992; McAdams, 1992), one in particular questions its adequacy to fully represent the personality domain. The Big Five were originally developed from a pool of personality descriptive terms and excluded evaluative and state terms (Allport & Odbert, 1936; Cattell, 1943; Norman, 1963). Tellegen and Waller (1995) confirmed that the Big Five model underrepresented or neglected important dimensions. They found that at least seven dimensions are needed in a comprehensive taxonomy of natural language for the description of personality, and labeled them the Big Seven, recognizing that five of these factors were similar to those in the Big Five model. The two additional factors, positive and negative valence, seemingly tap aspects of self-evaluation that are not measured by the popular lexical-based personality inventories. Benet and Waller (1995) claim that the Big Seven

factor structure challenges the comprehensiveness of the Big Five. This claim is based on replicating the results derived from an American sample, in a Spanish sample.

In fact, some of the main critiques against the FFM relate to the number of factors. There are researchers who argue that it encompasses too few factors, while others claim that there are too many of them. Furthermore, some authors give a radical interpretation to the internal structure of traits, revealed by factor analysis in the lexical model, as being an arbitrary artifact of the language rather than a realistic description of personality (McCrae & John, 1992).

Distinctions between self-rating measures and other measures of personality have been shown as revealing different levels of personality descriptions and thus posing a question about the possibility of finding one comprehensive model (see above). Also, the predictive power of the FFM was questioned. Although the five factors were shown to predict external criteria as thinking abilities (McCrae, 1987) and job performance, which provide some impressive evidence to its validity (McCrae & John, 1992), the question of predictive validity to a wide range of variables is still unsolved.

Furthermore, a methodological limitation of the FFM is related to the issue of rating. Thus, for example, an adjective such as “sociable” is nonconditional and fails to specify in which situations such behaviour is displayed. Also, the term rating presumes responses of comparative-nature, but the basic norm to which different subjects compare themselves is not necessarily the same (McAdams, 1992).

The terms used in referring to the Big Five or the Big Seven as representing a model of personality is another point of dispute in the field of personality psychology. Using the term “model” in this context usually provides an understanding that the factors are given a picture of the personality structure, which means theoretically based, logically

coherent representation or simulation that generate the psychological phenomena.

Nevertheless, no theory or model guided the emergence of the factors, and the term “model” might be premature (Block, 1995).

Furthermore, so far the factors have been employed in variable-centered rather than in person-centered research. A distinction should be made between a dimensional model of personality characteristics on the one hand and the structure of personality within a particular individual on the other. Thus, dimensions such as the Big Five derived from factor analysis relate to correlations among personality characteristics across, rather than within individuals. Therefore, they represent the overall structure of the attributes as applied to a sample of individuals. They do not constitute a model of personality structure if the term “structure” means the particular configuration, patterns and dynamic organization of the individual’s total set of characteristics (John, 1990).

#### 4.c. The Use of the Rorschach in Research

##### 4.c.1. The Complexity of Transferring a Clinical Instrument to the Research Field

Projective techniques in general and the Rorschach in particular have been the centre of controversy despite their widespread popularity in clinical settings and their advantages in giving access to results otherwise not being obtained (see above).

The main controversy concerned whether the Rorschach is actually a test or it should more appropriately thought of as a clinical technique only. The problems in using the Rorschach in research have been expressed in the past in terms of being in the pre-research stage (Cronbach, 1949). The very nature of the Rorschach; the divergent systems of administration and scoring; the nature of Rorschach scores and the scores' distributions; and the type of statistics commonly used in Rorschach research - typically nonparametric - seem to favour the critics. Various developments in the test scoring system have made it more applicable for research. Recently, the test has been subjected to several meta-analyses that support the Rorschach, suggesting that its psychometric properties are equivalent to self-rating measures (Acklin & McDowell, 1995).

Many authors show that the Rorschach presents researchers with a multitude of complex methodological and statistical issues (Viglione, 1995). Because of the special test procedures of administering, scoring and processing, some of the Rorschach data are quite different from those yielded by other psychological tests. Rorschach research is marked by complexity more than is the case in many other studies in personality, including those using projective techniques such as TAT which, in integration with other techniques, has been used to examine the authoritarian personality (Adorno et al., 1950, 1982). Nevertheless, the basic precepts of research design are not different for studies using the Rorschach than for other studies. Generally, the Rorschach is used to

test presumed relationships between phenomena of the test and phenomena of the person. This aim is achieved by presenting the subject 10 cards with inkblots, forming an ambiguous stimulus to which the individual's reaction is examined. Exner (1995) states that the Rorschach, as it is commonly used, seeks to explain the manifestations of psychological organization and functioning, both of which contribute to the understanding of the individual as a unique entity. But any understanding of an individual also implies an understanding of groups of individuals. Thus, the Rorschach may be used in research for development of a set of propositions and interrelated constructs that present a general systematic view of the personality and not necessarily clinical phenomena.

Most of the studies dealing with data analysis of the Rorschach for research purposes do not deal directly with many of the issues that confront investigators who use the Rorschach not only in the clinical context but also for research (Exner, 1995). Some of these issues, discussed in the present section, have been selected from recurring problems encountered by researchers. They do not represent an exhaustive survey of the challenging issues encountered in Rorschach research, nor are they fully developed in their whole significance, but rather are used to exemplify some of the problems that arise when a clinical technique is transferred to the research field.

Many authors have addressed *reliability* and *validity* issues in using the Rorschach in research, most of them relate to Exner's method of scoring (Exner, 1974). Although the Rorschach is considered as being reliable and valid (Parker et al., 1988), the general impression is that it is a much more subjective instrument, based more on the clinician's skills than are other instruments in the field of personality assessment. Exner's (1974) Comprehensive System with its emphasis on standardization has increased the reliability

and validity of the test. Interscorer agreement or reliability has been a major issue in Rorschach methodology throughout the history of the technique. Many early studies simply ignored this problem and poor interscorer agreement is probably one of several factors associated with the often inconsistent findings of different studies (Exner, 1995). An acute awareness of this problem has been a major factor in selecting criteria for codes in the development of the Comprehensive System. It is suggested that any Rorschach variable selected for study should previously have demonstrated adequate rater reliability. As the standard for adequate rater reliability, trained scorers should be able to achieve a minimum of 80% agreement for variables included in the research (Weiner, 1995).

Furthermore, being considered as less face valid than many other assessment procedures, Rorschach-derived measures have been examined in systematic studies relating to the criticism against their validity. These studies have placed the test on a solid foundation as a psychometric instrument (Acklin & McDowell, 1995).

Various problems arise as to the question of whether Rorschach data are used as *dependent or independent variables*. When the issue is defining an independent variable, the Rorschach is used to classify subjects according to the measured characteristics. When the Rorschach data are chosen as dependent variables, the investigators predict a specific Rorschach outcome and subject selection is determined by external criteria. Certainly, the question of whether Rorschach data are used as dependent or independent variables is solved according to the hypotheses.

This question relates to various issues of *subjects' selection*, which is a critical procedure in psychological research in general, and in Rorschach research in

particular: the large majority of independent variables in Rorschach studies are immutable subject variables replete with confounding potential; many dependent variables derived from the test protocol are hypothesized to be estimated long standing subject characteristics, available by appropriate subject selection; the test procedure is an interaction between subject and examiner and its impact changes from one subject to another according to their personality structure; cultural influences and personality dispositions have differential effects on the Rorschach results (Exner, 1991).

Another important issue also related to subject selection is *homogeneity and representativeness* of samples. When two groups are being compared, within-group homogeneity for the independent variable represented by the group is essential. If the sample size is small, as it usually is in Rorschach research, homogeneity across comparable groups on potential confounding variables is also desirable because the samples are not usually large enough to depend on random distribution of the confounding effects (Ritzler & Exner, 1995). The trade-off between homogeneity and representativeness is most critical in correlational studies.

Exner (1995) states that researchers often ignore what is considered as clinically almost obvious - the *contextual significance* of Rorschach variables. He notes that single variables have little or no meaning, and if studied independently can be very misleading in the interpretive process. Thus, he argues that variables must be reviewed in clusters that relate to various psychological operations or characteristics, such as capacity for control, tolerance for stress, coping preference, organizing and processing information, emotional responsiveness and self concept. Nonetheless, it seems that this suggestion has relevance mainly in those researches dealing with clinical syndromes, comparing different patients' groups. It does not seem to have such a crucial

significance in using the Rorschach in a research context, where investigators focus on group differences defined by personality traits, and relate them to attitudinal or behavioural variables. These studies may examine isolated Rorschach-derived measures rather than syndromes or configurations of traits.

#### **4.c.2. The Conceptual and Empirical Approaches to Rorschach Research**

Atkinson et al., (1986), who analyzed various validation studies of the Rorschach, classify them as based on either one of two approaches: conceptual or empirical. Whereas the conceptual approach offers an understanding of the processes by which the test works as it does, mainly in terms of psychoanalytic theory, the empirical atheoretical approach, goes from the field to the theory, looking for suitable constructs that will explain significant results found in a statistical analysis. They conclude that conceptual studies are much more likely to support the value of the test. This conclusion is similar to that of several comprehensive analyses, to which the Rorschach has been subjected. Thus, Parker (1983) found that studies guided by theory, prior research or both tended to support the Rorschach but found little support for the Rorschach among studies in which hypotheses lacked a theoretical or empirical rationale. The lack of a conceptual model makes it difficult to discriminate between meaningful and random results when there are differences between the compared groups (Weiner, 1994).

Although Rorschach did not see his procedure as representing a specific theory of personality, different authors did and showed systematic mutual relationships between the Rorschach and the psychoanalytic theory. The theory offers clinical formulations

with the power to broaden test derived inferences. The Rorschach provides the psychoanalytic theorist and researcher with a means for operationalizing concepts that were elusive and abstract, showing how this technique could allow the empirical investigation of important complex formations and thus, could add to the evolving scope of psychoanalytic theory (Lerner, 1996). Rapaport et al., (1968) have made an integration of method and theory as based on drive and structural theory. Authors following Rapaport et al., although not abandoning their integration have made use of other psychoanalytical theories: object relations theory (Lerner, 1991), self theory (Arnou & Cooper, 1988), and developmental theory (Leichtman, 1996). Certainly, the specific theory on which the researcher bases the integration of theory and method is important. As Lerner (1992) noted, the specific theory influences how one conceptualizes the nature of the Rorschach task, frames and expresses test inferences and defines theoretical concepts.

The suggestion of using a conceptual model to Rorschach research (Exner, 1991; Weiner, 1995) seems to be problematic because Exner's Comprehensive System itself is considered by many authors as being a so-called structural and atheoretical approach to scoring (Meyer, 1996). Lerner (1992) states that because of the atheoretical position, test inferences tend to be descriptive, pragmatically useful statements with quite limited clinical value. There have been many developments with a number of more theoretically oriented scoring systems, such as the scale to assess object relations (Gancono, 1990), and the Psychoanalytic Rorschach Profile (Burke et al., 1988). All of these scoring systems have shown that they can quantify clinically and empirically important phenomena using the Rorschach method. But despite these advances, more data are still needed to show Rorschach scores as actually quantifying the latent constructs they

are believed to measure. This is a need facing all measures of personality but because Rorschach-derived measures are less face valid than many other assessment procedures, they may have to meet a higher standard of validation than other tests (Meyer, 1996). Therefore, the general suggestion is to conduct further Rorschach research based mainly on conceptual approach.

Nevertheless, various researches show that this approach does not mean to discourage exploratory research, for it can yield very important findings such as the validation of some of the Rorschach-derived measures which are based on the empirical rather than on the conceptual approach. Thus, it is argued that empirical studies might be worth conducting, but only if there is a clear reason to expect that the findings will provide the level of discrimination that is implicit in the general hypothesis (Viglione & Exner, 1995). Furthermore, as in studies using other research instruments, even when the initial data analysis is based on hypotheses derived from a conceptual framework, the investigator may encounter aspects of the total data that were not anticipated when the design was formulated and warrant additional analyses (Viglione, 1995).

#### **4.c.3. Data Analysis - Parametric and Nonparametric Statistics**

Although it is argued in favour of nonparametric statistics for many Rorschach analyses (Exner, 1991), much Rorschach research has relied on parametric statistics. Comparisons of normative data and clinical samples have routinely employed *t-test*, Pearson correlations, analysis of variance and analysis of covariance methods (Viglione, 1995).

Researchers usually rely on two criteria to select between parametric and nonparametric methods: substantive and statistical (Harwell, 1988). Although the issue

remains controversial, in practice most researchers minimize the importance of the type of measurement scale when selecting a type of statistics. Harwell (1988) emphasized that considerations about scales of measurement are crucial to interpretation. If rank order data are used, it may be appropriate to use parametric statistics, but it is inappropriate to apply numerical precision to differences between groups. Thus, one may assert that one group is higher on a given scale, but to attribute a specific significance to the numerical gap is inappropriate. Basically, Harwell applied the approach of Siegel and Castellan (1988) to the interpretation of statistical analyses rather than to their selection.

Generally, the scale of measurement, is less of a problem for Rorschach data than for objective psychological test data and for personality research in general. Rorschach variables quantify actual behaviours, and because of this they are true ratio scales with meaningful zero points. Nevertheless, once the relationships between Rorschach variables and underlying traits are understood, nonparametric statistics are preferable modes (Viglione, 1995). The issue of interpretation according to type of scale is especially important when Rorschach data are used as dependent variables. Comparing two or more groups, one would be limited to interpretations about who is higher or lower in a certain trait but could not make statements, for instance, about the amount of social skills accounted for by this trait.

Viglione (1995) sums up a systematic presentation of Rorschach's variables, including suitability for parametric analyses without transformations. Skew frequency data and other descriptive data from Exner's comprehensive system (1991) using normative and patients' data were used to classify variables. Although this presentation is very useful as general guidelines for research design, it is not suggested to make rigid

distinctions between those Rorschach variables that are appropriate or inappropriate for parametric analysis. Rather a variable might be appropriate for parametric statistics in one study and inappropriate in another (Viglione, 1995).

#### **4.c.4. Different Perspectives in Rorschach Interpretation**

Exner's Comprehensive System was developed on the basis of the major systems of Rorschach interpretation. After comparing these systems Exner concluded that the breadth of differences among them was so great that the notion of the Rorschach was more myth than reality (Exner, 1993). Exner's attempt to select the most significant features of the different systems has certainly attracted the interest of many psychologists, including some who previously disparaged the instrument. His system is now most widely used. This development has positive features, but a possibly negative aspect to this increasing homogeneity could be that valuable features of some systems might not be included or minimized in their effect on interpretation.

Willock (1992) states that the greatest weakness of Exner's system is its predominantly cognitive-behavioural emphasis. The system does not totally disregard the psychoanalytic perspective, but looks at it as having secondary importance. The bias toward the cognitive behavioural aspects appears to centre on Exner's understanding of projection, the previously most outstanding feature of the test, which he conceives as relatively marginal. With its emphasis on test responses, the response process, and test rationales, Exner's approach has led theorists to focus primarily on the formal features of a test record - the scores and their interrelations (Lerner, 1996).

Nevertheless, in comparison to the firm rules which have been established by Exner (1991) for interpreting the formal elements, only looser guidelines have been offered for the experiential data (Lerner, 1992).

Content oriented approaches have generally been criticized as requiring too many speculations and inferences to specify the links between content symbolism and behaviour in social context. Exner (1991) states that a major limitation in content based methods is the failure to examine test-retest reliability, and shifts in contents among subjects who are examined in a second Rorschach administration are quite extreme, although the structural variables do not show significant changes. Following these problems of reliability Exner (1993) suggests that limited categories of content and special content scores, e.g. scores of aggression and cooperation, are sufficient and that in general we have to look at the content as secondary to structural variables. This suggestion relates to the basic idea of Exner's method that the role of projection in Rorschach interpretation has been overemphasized, and that its impact on test responses is much less significant than it is assumed in the different content approaches.

Recognizing the valuable standardization and the richness of Exner's approach, different authors show that it is not without limitations. There is more in a Rorschach protocol than the formal elements (Lerner, 1996). In addition to the formal scores and their structural summary many elements of the responses are considered as having importance, forming the experiential dimension of the interpretation: the specific contents beyond the broad categories of the structural analysis; the sequence of responses; the subjects' complete verbalization and their behaviour in the test situation.

It seems that the research potential of the Rorschach is not fully extracted because of various problems related to the complexity of administering, scoring and processing test data. Thus, most studies deal with comparisons between patients and non-patients populations, or with validation of the test. It is difficult to find studies, which use the Rorschach as a research tool for examining hypotheses discriminating between non-patient groups.

Following the above discussion the aims of the present research, in terms of personality assessment, would be to recapture the important role of projection and content-related interpretations in Rorschach analysis and to integrate the conceptual perspective with that of Exner's empirical method.

#### **4.c.5. Rorschach-Derived Measures as Research Variables**

There are various Rorschach-derived measures that seem theoretically related to the complex of authoritarian conformity and conventionality on the one hand, and to experiential openness on the other (see Chapter Three).

*The unusual responses (Xu%)* - These are low-frequency answers that can be seen easily in the blot, and do not violate the appropriate use of the blot contours. They reflect a less common way of translating the stimulus field that is still appropriate to the demands of reality. They express some kind of individuality and occur less in records of those who feel more committed to conventionality (Exner, 1993). The unusual responses are similar to what Rorschach has defined as original responses that occur in frequency of 1:100 records of healthy subjects (Piotrowski, 1974). Degrees of originality can be discriminated. Thus, a response that contains a unique visual organization and a unique verbal content is more original than one in which only a part

of the response is original. Original responses, which reflect defects of thought, are not coded as having unusual form quality, but rather as poor or minus form-quality responses (coded in the Comprehensive System as  $X\%$ ). While the poor form originals are not desirable, the good form sharply perceived originals are an asset and reflect the individuals' tendency of expressing their uniqueness instead of being dependent on conventionality. The more numerous the original responses and the better their form quality, the more realistic, productive and creative are the thinking and acting of the individual. Nevertheless, having high  $Xu\%$  does not mean lack of adaptation to basic social norms. The extent to which people adapt themselves to accepted social norms can be concluded from another measure - the number of popular responses ( $P$ ). Thus, expressing one's uniqueness does not have to be at the cost of adaptation to basic social norms. As noted, conventionality is a basic characteristic of the authoritarianism syndrome (see Chapter Three above). Thus, a high number of  $Xu\%$  might indicate individuality and non-conventionality as opposed to authoritarianism.

*The animal-movement response (FM)* – This score is coded for any animal response involving movement whether active or passive. Many authors state that this type of response relates to some awareness of impulses that are striving for gratification, indicating that absence or an extreme low number of  $FM$  responses is a sign of suppression, inhibition or conscious rejection of drives that leads to avoid conceptualization of animals in action. This suppression or conscious rejection might be an unfavourable factor in terms of experiential openness to one's internal world as well as in terms of adjustment capacity. A high number of  $FM$  responses might thus indicate open-mindedness and awareness to one's own drives (Exner, 1974; Klopfer & Kelley, 1942; Piotrowski, 1974). The specific content of the  $FM$  response provides

important information concerning self-image, being projected self-representation. In many cases, the projected material will manifest most directly in the homogeneity of the features of numerous *FM* answers, such as most being passive, aggressive, or markedly emotional.

*The Blends* - These are responses in which more than one determinant is used to form the percept e.g. human-movement, colour, shading. A low number of *Blends* indicates a form of psychological constriction, narrow patterns of processing and less sensitivity to self and environment. It might create difficulties in dealing with complex emotional stimuli. If these difficulties occur, they are most likely to manifest in the modulation of emotional displays (Exner, 1993). A high number of *Blends* indicates experiential openness and awareness to the various components of the stimulus.

*Popular response (P)* - These are responses that occur with an unusually high frequency among most groups of subjects. These responses were originally interpreted as reflecting the ability to perceive and respond to the common features of the blot. A lower frequency of popular responses does not necessarily mean poor reality testing, but rather that the subject offered less typical responses than expected. Thus, lower *P* can simply point out that the subject has not responded in the most conventional way to the requirements. If there is no elevation in the responses with distorted form-quality (*X-%*) it probably indicates a more unique personality who does not violate reality, but instead tends to deal with it unconventionally. Nevertheless, a higher frequency of popular responses does not necessarily mean conventionality, if there is also a higher percentage of unusual responses (*Xu%*).

*Distorted form-quality responses (X-%)* - These are responses that disregard the appropriate use of contours of the blot. These are answers in which the objects

specified are very difficult or rather impossible to be seen, indicating distorted perceptual-mediation. In effect, they are violating reality. Minus responses are not uncommon but usually occur in low frequencies. Exner (1993) states that whenever the  $X\%$  exceeds 25%, the likelihood of major impairment is substantial. Usually it is important to distinguish whether the impairment is specific or diffuse. Thus, for example, subjects who have problems in emotional control tend to show minus form quality specifically in answers that include chromatic colour determinant. If no clustering is found, in a high frequency  $X\%$  protocol, it should be assumed that the impairment has a more diffuse impact.

*The frequency of Z scores (Zf)* – This index relates to organizational activity, such as reporting a meaningful relationship between two parts of the blot. This measure provides important information concerning the extent to which the subject has organized the stimulus field, and has approached the task, using cognitive tactics that typically are more demanding than some other cognitive mediational approaches. Responses that include Z score usually require more experiential openness and cognitive mediational activity than is required in forming a more simplistic response that avoids any organizational activity. Although the  $Zf$  provides information about the initiative of the subject to approach the task with more cognitive activity, the quality of the organized product can be ranging across different levels of sophistication (Exner, 1993).

*The Pair responses (2)* – These are responses in which the subject uses the symmetry of the blot to specify two similar objects. This measure might contribute to evaluation of the subject's openness to social interaction and when assigned to human figures it might also point to the subject's perception of similarities among human beings.

*The Egocentricity Index* – This index, based on *Reflection* and *Pair* responses, provides an estimate of self-concern and possibly self-esteem representing the proportion of reflection and pair responses in the total record. Exner (1993) notes that the index is a crude measure of self-focusing or self-attending behaviour. In many cases a higher *Egocentricity Index* indicates higher individuality and highly positive estimate of personality worth whereas a lower one indicates waiving one's own individuality and negatively estimation of personal worth. Such individuals regard themselves less favourably when compared with other people.

*The Affective ratio (Afr)* – This ratio compares the number of answers to the chromatic coloured cards, to the other cards indicating the interest in emotional situation and provides information about the responsiveness of a person to emotional stimulation. The systematic interpretation of the relationship between colour and affect was made by Rorschach (1941), noting that the influence of colours in perceiving the figures might be taken to represent the extent of emotional excitability, and that colour responses were representatives of the affectivity. Whereas form perception requires the initial perception of the shape on the blot, followed by the recollection of similar shapes and synthesis, colour perception involves a much more immediate and passive experience which requires less in the way of perceptual tools or organizing capacity that could even act as an antagonist against it. Five of the Rorschach inkblots include colours: cards II and III which include red in addition to the achromatic parts of the blot, and cards VIII - X which are composed from different colours and are considered as a unique segment of the test - the colour cards. Their placement at the end of the test forces the subjects to adopt a different strategy than they had become.

used to in responding to the previous predominantly black and white cards, in that for the first time no achromatic alternatives to the chromatic stimuli are provided.

Different authors have suggested that a high proportion of responses to the colour cards is related to a high level of affective responsiveness (Exner, 1993). A subject who scores on the *Affective Ratio* below average is considered to be guarded and/or withdrawn from affective stimulation, while a subject who scores above average, is considered to be very attracted by emotional stimulation. Exner (1993) states that higher *Affective Ratio* basically should not be considered as a liability, but rather simply reflects a stronger interest in emotion. People with higher *Affective Ratio* are intrigued by emotional stimuli. This can become a liability if there are problems with control and modulation because the tendency to seek out emotional stimuli will probably increase the frequency with which such stimuli are required. Although the index does not relate directly to the issue of affective control it can have an indirect relationship, the higher the value of the index, the higher is the tendency toward overresponsiveness, whereas lower values of the index indicate avoidance tendencies. Retest correlations of the *Afr* scores are remarkably high, even after long intervals (Exner, 1986). In pointing out the relationship between form and colour, Rorschach (1975) noted that the more the form influences over the colour the more stable is the affect and the greater is the adaptability. In records where the influence of colour increased in relation to form, there is an increase in moodiness and affective instability of the subject.

#### **4.d. The Use of Both Self-Rating Scales and the Rorschach in the same Enquiry**

##### **4.d.1. Inferential Issues in Integrating Self-Rating scales and the Rorschach**

The use of both self-rating scales and projective techniques in the same enquiry has been suggested by different investigators as enabling to obtain data on the same attitude complex at several different levels (Oppenheim, 1992). However, those studies that use projective techniques in integration with self-rating scales usually use methods other than the Rorschach because of the complexity of transferring this clinical instrument to the research field.

In a special section of *The Journal of Personality Assessment*, different views have been recently presented concerning the relationships between the MMPI and the Rorschach. Many of the issues discussed are not unique to considerations of relationships between the Rorschach and the MMPI but are generally applicable to research and clinical practice involving the use of more than one assessment method, particularly self-report and projective measures (Ganellen, 1996). These views include delineation of major methodological issues to be developed in future research, the relative reliability and validity of each of the assessment methods, and factors to be considered by clinicians and/or researchers when integrating findings from two different methods, both when findings converge and diverge. Few definitive conclusions can be reached based on the existing data, although considerable controversy and debate exist concerning the theoretical, empirical, and practical implications of such examination.

In response to the systematic review of Archer and Kishnamurthy (1993), Viglione (1996) states that because the Rorschach variables are only minimally correlated with MMPI self-reports, some might misunderstand the notion of an objective test and conclude that the Rorschach is not related to objective criteria. He

shows that data from different sources suggest that the Rorschach is related to various self-reports, other reports and behavioural criteria with children and adults.

This conclusion is in accordance with a previous one stating that “The MMPI and the Rorschach are both valid, stable and reliable under certain circumstances. When either test is used in the manner for which it was designed and validated, its psychometric properties are likely to be adequate for either clinical or research purposes” (Parker et al., 1988, p. 373).

Furthermore, the reviews by Parker (1983), Parker et al., (1988), and Ganellen (1996) found both the MMPI and the Rorschach to be significantly related to an external criterion variable, such as psychiatric diagnosis. Thus, regardless of the magnitude of association between the MMPI and the Rorschach, each test has respectable criterion related validity. Determining the presence or absence of an association between self-rating scales and projective techniques has no direct bearing on their relationships to criterion variables. Stated differently, the criterion related validity of self-rating scales is not contingent on finding significant associations between them (Ganellen, 1996).

Based on factor analysis work, Meyer (1992) argues that self-report data should not be applied as validation criteria for the Rorschach, because they sample distinct domains of personality with the Rorschach being less conscious and self-report scales more cognitive. The self-report measures reflect the individual's capacity to create certain impressions when the cues are clear as to what behaviours are expected. The less familiar stimulus in the Rorschach makes it more difficult to inhibit the expression of the faulty means of conceptualizing or processing information. Meyer (1996) states that Rorschach-based assessment aspires to quantify the exceedingly complex

phenomena of personality in all its dynamic richness across levels of awareness and degrees of behavioural expression. Nevertheless, unlike self-report scales that can initially define any intended construct in an obvious fashion through easily understood language, there is no such simplicity when it comes to the Rorschach-derived measures. Rorschach administration, enquiry, and scoring require special skills that are not required in self-rating scales.

#### 4.d.2. Cross-Methods Discrepancies

Usually, it is expected that measures of the same construct would be significantly related to one another. Nevertheless, it is conceivable that two tests developed to measure the same construct, such as dispositional personality traits, might be only weakly correlated with one another even though they have comparable reliability. The two measures might be associated differently with a criterion variable, or the two instruments might be differentially sensitive to specific aspects of the criterion variable. This is particularly likely to be an issue either when the criterion variable is multidimensional and/or when the test variables themselves are multidimensional. As a result, the test variables may each be significantly correlated with the criterion variable while having little or no significant intercorrelations (Ganellen, 1996; Nichols, 1996). The discrepancy between measures seems to have special importance when one assessment method tends to classify certain subjects as being high in a specific trait, while the other tends to classify them as being low in the same trait.

Discrepancies between different measures are explained differently in the clinical as compared to the research context. In the clinical context, these discrepancies are explained in terms of individual differences in how subjects respond to each of the

methods; the defense mechanisms used by the subjects and the extent to which psychological processes are accessible to conscious awareness. In the research context, however, these discrepancies are mainly explained by reasons such as individual deliberate attempts to create an impression that differs from one's inner experience (Archer, 1996; Ganellen, 1996).

Different authors suggest that it is expected to find that some subjects will produce similar results when responding to self-rating and the Rorschach measures while others produce discrepant data. They state that the extent to which these discrepancies influence statistical analysis should be examined by running analysis with and without those subjects producing extremely discrepant scores. The main purpose of this statistical procedure is to find out the impact of such disagreement between measures. It might reveal important information about an individual's psychological adjustment that could not be learned if only one assessment technique had been used in isolation (Sayer et al., 1995; Shedler et al., 1993). Archer (1996) states that although variables from the MMPI and the Rorschach do not bear a high intercorrelation, these variables may be combined to contribute significantly to the prediction of outcome variance in criterion measures. In this view, the combined use of the two methods yields useful conclusions, not obtained by the use of either method in isolation. This perspective is based on illustrations given by different researchers (Archer & Krishnamurthy, 1993; Dana & Bolton, 1982; Weiner, 1993), and seems to represent not only the specific comparison between the Rorschach and the MMPI and the Rorschach but also that of other self-rating and projective measures.

Different researchers show that in general, there is a stronger relationship between assessment instruments using similar methodologies than between instruments using

different methods. This finding is explained by the shared method variance. The shared method variance might be responsible for the higher correlations across similar types of measures as compared to the correlations across divergent sources of information in addition to the variance shared between the assessment measures and the criterion variable (Campbell & Fiske, 1959; Crowley et al., 1992). However, acquiescence scores of a variety of balanced personality and attitudes scales are not necessarily correlated with either main content or with each other (Blumberg, 1973).

A differentiated theorizing about cross-method discrepancies can be found in McClelland 's approach to the measures of motivation. McClelland (1989) notes that measures based on projective technique - TAT - assess implicit aspects of personality, whereas self-report questionnaires assess self-related motivations. He shows that there are many distinctions between these constructs. Implicit motivations are viewed as being more unconscious and physiologically related, as developing earlier and not requiring verbal mediation to solidify, and as being more strongly associated with long term spontaneous behavioural trends. In contrast, self-related motives are understood as having different historical antecedents and as being better predictors of conscious choices and immediate, situational defined behaviours. Furthermore, he shows that people who produce specific cross-method patterns of data, will act in ways that could not be predicted directly from just one source of personality data. Thus, cross-method disagreement is not a question of test invalidity, but rather it is a phenomenon that can lead to a more refined identification of people and more accurate behavioural predictions (McClelland et al., 1989). These hypotheses about TAT measures of achievement motivation, self-report motivation and their interaction have been supported in research conducted by Spangler (1992) which not only validated the TAT

but also showed somewhat higher validity coefficients than self-related motives, particularly when predicting long term spontaneous behaviours.

Meyer (1996) suggests that the sophisticated and differentiated theoretical landscape articulated by McClelland should be the ultimate purpose of future scientific exploration into the combined use of the self-rating and projective assessment techniques. Furthermore, he states that different dimensions of personality are not expected to consistently measure personality in its full scope and complexity. Any state, trait or process defined operationally by a single method of assessment is invalid if it assumed that the measured variable is a complete picture of a specific construct across people. Weiner (1993) argues that apparent contradictions between Rorschach and MMPI are generative and not invalidating.

Ganellen (1996) states that these issues concerning concurrent and criterion-related validity might have several implications for future research. In addition to examining the relationships between measures of the same construct by the different methods, future research should examine the relationships between each method and criterion variables. Relevant criterion variables might include variables such as psychiatric diagnosis, attitudes and patterns of behaviour. Discrepancies between self-rating and Rorschach measures should be explained as being significant in themselves, rather than being only referred to as reflecting methodological problems. Furthermore, there is a difference between examining these discrepancies at the level of individual test scores as opposed to the level of psychological constructs. A psychological construct can be

operationalized conceptually when a set of test scores are combined on the basis of theory or clinical knowledge to tap a particular domain. However, the construct can be defined on the basis of empirical research demonstrating that a specific configuration of scores is associated with it.

## 5. Hypotheses

Following the above discussion six hypotheses might be derived.

1. Authoritarian conformity, as defined by self-rating scales, would be negatively associated with supporting attitudes toward the Peace Process in the Middle East. Thus, there would be significant differences between higher as compared to lower peace supporters, higher peace supporters tending to be less authoritarian conformists than the lower ones.
2. Openness to experience as defined by self-rating scales would be positively associated with peace supportive attitudes. There would be significant differences between higher as compared to lower peace supporters, higher peace supporters tending to be more open-minded than the lower ones.
3. Authoritarian conformity as indicated by the Rorschach measures of lower number of *unusual responses (Xu%)* and lower level of the *Egocentricity Index* would be negatively associated with supportive peace attitudes. There would be significant differences between higher as compared to lower peace supporters in terms of these Rorschach-derived measures, examining conventionality and lacking individuality. It is hypothesized that higher supporters would tend to produce more unusual responses and to score higher on the Egocentricity Index.
4. Openness to experience, indicated by the Rorschach-derived measures of animal-movement responses (*FM*), the *Blends*, organizational activity (*Zf*) and *Pair* responses would be positively associated with pro-peace attitudes. There would be significant differences between higher as compared to lower peace supporters with regard to these four Rorschach-derived measures, higher supporters tending to be

more open-minded, drive-conscious and integrative-complex in their psychological functioning.

Some more Rorschach-derived measures - popular responses (*P*), distorted form-quality responses (*X-%*), and the *Affective Ratio* (*Afr*) - would be examined as related to pro-peace attitudes without pre-hypothesized direction of these relations because of the contradictory hypotheses that might be raised as to these three measures.

5. The differences between the two groups of higher and lower pro-peace individuals would be significant not only in the examination of each of the traits separately, but also in a configurational discriminant function. Thus, there would be a different personality profile that characterizes the higher as compared to the lower peace supporters, both in terms of self-rating scales and in terms of Rorschach-derived measures.
6. Following the conceptual and empirical relations between religiosity and attitudinal variables on the one hand, and between religiosity and personality traits on the other, the concluded hypothesis of the research relates to the profile of the pro-peace personality when religiosity is entered to the configurational discriminant functions. It is hypothesized that the pro-peace personality tends to be non-religious, less authoritarian conformist, more agreeable and unconventional, more integrative-complex in psychological functioning, more aware of drives and impulses and more open-minded and creative.

## CHAPTER FOUR

### Method

#### 1. Sample

The sample included 197 undergraduate and graduate students (94 males and 103 females) with a mean age of 23.71 (SD = 2.67), most of them (86%) born in Israel, from western country of origin. This distribution of the sample by background factors resembles the general distribution of the Israeli student population (1).

The students in the sample study in various faculties of six large Israeli higher education institutions: Tel-Aviv University, The Hebrew University in Jerusalem, Haifa University, Ben-Gurion University, Bar-Ilan University, and "Yeshiva", a religious higher education institution, located in a Jewish settlement in Samaria. Subjects that have been included in the sample are all in a level of average and higher academic achievements, being selected from specific departments that have higher requirements for enrollment. This selection has been made in order to give some control on level of intelligence and to avoid explanations that a considerable gap in the level of intelligence is a potential source of the variance in attitudes. A near even distribution has been found as to the subjects' self-definition of their religiosity (2).

-----

(1) In the academic year 1992-1993 the Israeli student population studying toward the first degree was distributed as follows: 46% males and 54% females; 27% in the age group up to 22, 64% 22-29 and 9% above 30; 74% from Israel and European-American countries of origin and 26% from Asian-African countries.

Source: Table 22.29, *The Israeli Annual of Statistics*, Jerusalem, 1996, pp. 512-513.

(2) Almost half of the sample define themselves as being "extremely religious", "religious" or "traditional" while the others define themselves as being "secular, observing some traditional habits", "secular" or "extremely secular".

It should be emphasized that being a convenience sample it is not assumed to represent the Israeli student population, and thus does not reflect the real distribution of religiosity and attitudes among this population (for data related to the distribution of these attitudes in various national polls see Appendix 5).

A sub-sample of 26 students (13 males and 13 females) with a mean age of 22.77 (SD = 2.70) was drawn from the general sample. It is worth noting that a relatively small sample size seems to be the norm in Rorschach research, probably because administering and scoring procedure can be extremely time consuming, and requires special skills of the examiner (Exner, 1995). The subjects in the sub-sample were chosen randomly from those who noted their willingness to be examined by the Rorschach. An even distribution was found in the sub-sample as to the subjects' self-definition of their religiosity (1).

---

(1) Half of the subjects in the sub-sample define themselves as religious, one of them as "extremely religious" and the others as "religious". The other half define themselves as "secular, observing some tradition habits" (2 subjects), "secular" (10 subjects) or "extremely secular" (one subject).

## 2. Measures and Research Instruments

### 2.a. The Pro-Peace Attitudes Index - PPAI

All the subjects completed a Peace Questionnaire, composed of 20 questions. The Pro-Peace Attitudes Index - PPAI, was operationalized as the mean score of subjects' responses to 8 questions, which were selected as the outcome of item analysis (Oppenheim, 1992). Factor analysis revealed one factor composed of the 8 items with a reliability *alpha* coefficient of .9513 (for the factor loadings of the different items and the reliability analysis see Chapter Five).

The questions, which were originally presented in Hebrew (see Appendix 1), and are here given in English translation, were based on items included in different polls related to the issue (Arian, 1992; Yaar et al., 1997). The polls' questions were adapted to the present research (for data collected in these polls see Appendix 5). The answers, presented in a Likert-type scale, were recoded so that 1 indicates the lowest supportive and 4 the highest supportive attitudes toward the Peace Process. Most of the questions refer to the time of Rabin's Prime Ministry, when the process was initiated and Oslo agreements were signed (see above Chapter Two):

1. Referring to the time of Rabin's Prime Ministry would you, generally, define yourself as being for or against the Peace Process? (presented in the tables as General Support).
2. Referring to the time of Rabin's Prime Ministry, would you define yourself as believing there would be peace between Israel and the Arabs in the near future? (Expectations).
3. Referring to the time of Rabin's Prime Ministry were you satisfied with the Peace Process? (Satisfaction).

4. What is your attitude toward the Oslo agreement between Israel and the PLO?  
(Oslo Agreement).
5. In exchange for peace treaty with the Palestinians, are you for or against giving up most of the Jewish settlements in Judea and Samaria? (Peace for Territories).
6. Do you think that Israel can agree to the establishment of an independent Palestinian state in the case of a peace treaty with the Arabs? (Palestinian State).
7. What is your attitude to the Hebron agreement? (Hebron Agreement).
8. If a peace agreement between Israel and Syria were to be composed of stages, in which Israel would first partially retreat from the Golan Heights in exchange of Syria's recognition of the State of Israel, are you for or against such an agreement? (Syria).

The range of scores on the PPAI was 1 – 4 with 1 indicating the lowest and 4 the highest pro-peace attitudes. Analysis of the index descriptive statistics revealed a mean score of 2.800 (SD = .875), a mode of 3.375 and a median of 3.000 in the general sample (N=197). The median score of 3.000 was chosen to divide both the sample and the sub-sample into two groups of higher and lower peace supporters (for a discussion of the decision to choose the median for categorizing the subjects see Chapter Nine).

Table 4.1 presents the percentage distribution of this index, in the general sample and in the sub-sample.

**Table 4.1 Percentage distribution of the PPAI in the general sample (N=197) and in the sub-sample (N=26)**

<i>Pro-Peace Attitude(1)</i>	<i>General Sample (N=197)</i>	<i>Sub-Sample (N=26)</i>
<i>Lower Supportive</i>	50.30 % (99)	61.54% (16)
<i>Higher Supportive</i>	49.70% (98)	38.46% (10)

-----  
 1. The lower supportive group includes subjects scoring 1 – 3.000 on the PPAI and the higher supportive group includes all the other subjects.

Table 4.1 shows that as compared to the general sample, which has been divided by the median into two even groups of higher and lower peace supporters, the distribution of the sub-sample is much less equal - the lower peace supporters being 61.54% among those who have been tested by the Rorschach. However, as stated above, the two distributions, both that of the general sample and of the sub-sample are not assumed to represent the distribution of the examined attitudes among the Israeli students' population.

### **2.b. The General Survey**

The General Survey questionnaire - GS, is a short personality measure that taps five personality dimensions: authoritarian conformity, aggressive mistrust, anxiety, extraversion and intelligence. This instrument was developed for the purpose of a large research project on the social psychological aspects of nonviolence (Blumberg et al., 1972; Kritzer et al., 1974). The primary population to be tested was relatively well educated participants in the peace movement in the United States.

For the measure of intelligence the original GS used the Quick Word Test by Borgatta and Crosini (1960). The initial item pool for the other four dimensions was taken from the work of Couch (1960) and Bales (1970). The present research includes these four scales, the level of intelligence being controlled, as mentioned above, by choosing a selective population of students (see above).

The items in the four scales of the GS are Likert-type statements, with responses from "strongly disagree" to "strongly agree". The responses were coded on a seven point scale, with nonresponses coded as the middle point 4. In scoring the scales, negative items were reversed. Thus, a high score in each of the scales indicates high level in the trait measured by the specific scale.

Tables 4.2.a to 4.2.d present the items in the four scales of the General Survey and reliability analyses of the scales in the present sample (for the original factor loadings of the different items on the scales as revealed by previous studies, see Appendix 2).

**Table 4.2.a Reliability analysis of the GS Authoritarian Conformity scale (N=197)**

<i>Item no.</i>	<i>Item</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected(1) Item-Total Coefficient</i>	<i>alpha when item deleted</i>
3	<i>Our modern industrial and scientific Achievements are signs of a greater Degree of success than that attained By any previous society.</i>	4.7208	1.5676	.3862	.7469
8	<i>The most important function for education is preparation for practical achievement and financial award.</i>	2.3452	1.4613	.2065	.7739
14	<i>Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.</i>	3.6599	1.7499	.3706	.7516
16	<i>There is hardly anything lower than a person who does not feel a great love, gratitude and respect for his parents.</i>	4.7868	1.6615	.4860	.7294
18	<i>A well-raised child is one who doesn't have to be told twice to do something.</i>	3.4975	1.6151	.4991	.7271
23	<i>Patriotism and loyalty are the first and the most important requirements of a good citizen.</i>	4.3096	1.7145	.5181	.7231
26	<i>What youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.</i>	2.9543	1.6297	.5904	.7099
28	<i>Obedience and respect for authority are the most important virtues children should learn.</i>	3.0761	1.5384	.6133	.7074

*alpha = .7600*

-----  
 1. In this and the following tables the total is corrected so as to be, in each case, the total when the respective item is deleted.

***Table 4.2.b Reliability analysis of the GS Aggressive Mistrust scale (N=197)***

<i>Item no.</i>	<i>Item (1)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Coefficient</i>	<i>alpha when item deleted</i>
2	<i>Most people that you meet are friendly and obliging, more disposed to aid you than to refuse aid.</i>	2.9442	1.3597	.3993	.7569
6	<i>People will be honest with you as long as you are honest with them.</i>	3.4061	1.6468	.6485	.7028
7	<i>Trust others to the limit, and they will trust you to the limit.</i>	3.2335	1.4938	.6591	.7035
9	<i>If you have faith in your friends, they will seldom disappoint you.</i>	3.2478	1.5727	.3982	.7594
13	<i>Most people are generous in their judgments of your actions and are inclined to give you the benefit of doubt.</i>	3.7766	1.4986	.3659	.7647
15	<i>Believe that a man will keep his promise, and he will keep it.</i>	4.1574	1.5388	.5526	.7262
19	<i>Only once in a great while, if at all, does one run into a dishonest and deceitful person.</i>	5.1929	1.3565	.4060	.7557

$\alpha = .7686$

---

(1) For this scale, all items are reflected, or negatively scored, so that a higher score indicates a higher level of aggressive mistrust.

***Table 4.2.c Reliability analysis of the GS Anxiety scale (N=197)***

<i>Item no.</i>	<i>Item (1)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Coefficient</i>	<i>alpha when item deleted</i>
4	<i>I brood a great deal.</i>	5.1574	1.5684	.4983	.8100
10	<i>I wish I could be as happy as others seem to me</i>	3.3909	1.6240	.4358	.8200
11	<i>I very seldom have spells of the blues.</i>	3.1929	1.8108	.5742	.7983
12	<i>At times I think I am no good at all.</i>	2.9188	1.7709	.5665	.7995
21	<i>I worry quite a bit over possible misfortunes</i>	4.0457	1.6109	.5380	.8038
25	<i>I feel anxiety about something or someone almost all the time</i>	2.6142	1.5029	.6492	.7869
29	<i>I sometimes feel overwhelmed with anxiety</i>	2.8274	1.6384	.7141	.7740

alpha = .8230

---

(1) The scores of item 11 in this scale are reflected so that a higher score indicates a higher level of anxiety.

***Table 4.2.d Reliability analysis of the GS Extraversion scale (N=197)***

<i>Item no.</i>	<i>Item (I)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Correction</i>	<i>alpha when item deleted</i>
1	<i>I enjoy being in a crowd just to be with people.</i>	3.9442	1.5582	.2372	.5215
5	<i>If I encounter a group of people whom I have met previously, I begin a conversation with them.</i>	5.5533	1.2010	.2277	.5243
17	<i>I do not avoid large gathering of people.</i>	5.1523	1.5277	.2515	.5162
20	<i>I like to serve as a member of a committee in carrying out some activity or project.</i>	4.7157	1.6352	.1762	.5440
22	<i>I prefer to visit with one person rather than with a group of people.</i>	3.7208	1.4943	.3925	.4670
24	<i>I prefer to stay at home rather than attend social affairs.</i>	4.8376	1.4687	.4118	.4611
27	<i>I work better when I am not being observed by others.</i>	3.3604	1.5410	.1456	.5520
30	<i>I am introverted, serious, shy, introspective.</i>	3.9442	1.6666	.2661	.5114

*alpha = .5467*

*(1) The scores of items 22, 24, 27, 30 are reflected so that a higher score on these items indicate higher level of social extraversion.*

Tables 4.2.a to 4.2.d show that the reliability coefficients of the General Survey scales are generally relatively high (alpha > .75 except for extraversion alpha > .50).

Comparing the reliability analyses of the GS Hebrew version in the present research, to those of the English version in previous study (Kritzer et al., 1974) might point to a similar picture, the anxiety scale having the highest reliability coefficient among the four scales (.8230 in the Hebrew version and .7900 in the English one), and the extraversion scale having the lowest coefficient (.5467 and .5600 respectively). The reliability coefficients of the other two scales, authoritarian conformity and aggressive mistrust, are .7600 and .7686 in the present version as compared to .7200 and .7800 in the previous study.

Table 4.2.e presents the correlation matrix of the GS scales.

***Table 4.2.e Correlation matrix of the GS scales (N=197)***

	<i>Authoritarian Conformity</i>	<i>Aggressive Mistrust</i>	<i>Anxiety</i>	<i>Extraversion</i>
<i>Authoritarian Conformity</i>		-.2405***	-.0204	.2096**
<i>Aggressive Mistrust</i>			.1508*	-.2840***
<i>Anxiety</i>				-.3061***
<i>Extraversion</i>				

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$

Examination of the GS correlation matrix points out that the highest correlation ( $r = -.3061$ ;  $p < .001$ ) is between the anxiety and extraversion scales.

Significant correlations have also been found between the aggressive mistrust and extraversion scales ( $r = -.2840$ ;  $p < .001$ ); aggressive mistrust and authoritarian conformity ( $r = -.2405$ ;  $p < .001$ ); extraversion and authoritarian conformity ( $r = -.2096$ ;  $p < .01$ ) and between the aggressive mistrust and anxiety scales ( $r = .1508$ ;  $p < .05$ ). The correlation between the scales of authoritarian conformity and anxiety has been found as being non-significant.

### 2.c. The Big Five Inventory

The lexical natural language Big Five model has been examined in the present research by the Big Five Inventory - BFI (John et al., 1991). This adjective-based inventory was developed from the Adjective Check List - ACL (Gough & Heilbrun, 1983), and is composed of 43 adjectives which have been shown in previous studies on American and Spanish samples to be univocal, prototypical markers of the Big Five (John et al., 1991; Benet & Waller 1995). The adjectives have been presented with four point Likert-type scales for responses from “extremely unsuitable” to “extremely suitable” as describing oneself. The responses of items to be scored in the negative direction, according to factor analyses of previous studies were recorded and reversed. Thus, a high score on a certain dimension indicates a high level of the specific trait described by this dimension. Tables 4.3.a to 4.3.e present the adjectives included in each of the five factors and reliability analyses in the present sample (for the factor loadings of the items in previous studies see Appendix 2).

**Table 4.3.a Reliability analysis of the BFI Agreeableness factor (N=197)**

<i>Item no.</i>	<i>Item(1)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Correlation</i>	<i>Alpha when item deleted</i>
3	<i>Kind</i>	3.3980	.5947	.4700	.6361
5	<i>Trusting</i>	3.1735	.7446	.4144	.6418
9	<i>Cold</i>	3.4235	.6788	.2936	.6667
10	<i>Helpful</i>	3.4133	.5885	.3764	.6526
16	<i>Cooperative</i>	3.2602	.6859	.4475	.6362
20	<i>Quarrelsome</i>	3.3673	.7073	.3685	.6519
21	<i>Forgiving</i>	3.1888	.7647	.2750	.6722
22	<i>Fault-finding</i>	1.9133	.8275	.3054	.6674
23	<i>Rude</i>	3.0102	.8593	.3111	.6672

*alpha = .6809*

(1) The scores of the items cold, quarrelsome, fault-finding and rude are reflected so that a higher score on these items indicates higher level of social agreeableness.

***Table 4.3.b Reliability analysis of The BFI Extraversion factor (N=197)***

<i>Item no.</i>	<i>Item(1)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Correlation</i>	<i>alpha when item deleted</i>
1	Shy	2.5357	.7934	.6180	.7408
2	Quiet	2.6020	.8319	.6723	.7300
4	Enthusiastic	2.8367	.7469	.5054	.7597
6	Reserved	2.3061	.9160	.4876	.7631
14	Talkative	2.7194	.8580	.5594	.7497
15	Energetic	2.8418	.7977	.5626	.7499
32	Sociable	3.2806	.6388	.4041	.7747
33	Assertive	2.2296	.8372	.1563	.8146

alpha = .7853

-----  
 (1) The scores of the items shy, quiet and reserved are reflected so that a higher score on these items indicate higher level of extraversion.

***Table 4.3.c Reliability analysis of the BFI Neuroticism factor (N=197)***

<i>Item no.</i>	<i>Item(1)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Correlation</i>	<i>alpha when item deleted</i>
8	Worrying	2.5612	.8661	.3840	.8422
11	Nervous	2.2449	.8660	.5523	.8199
13	Moody	2.3827	.9123	.6401	.8077
17	Depressed	1.6582	.7582	.4997	.8259
28	Stable	1.8163	.6920	.3373	.8430
31	Tense	2.2551	.8389	.7224	.7965
34	Calm	2.2653	.7786	.7015	.8009
37	Relaxed	2.2500	.7934	.7114	.7992

alpha = .8370

-----  
 (1) The scores of the items stable, calm and relaxed are reflected so that a higher score on these items indicate higher level of neuroticism

***Table 4.3.d Reliability analysis of the BFI Conscientiousness factor (N=197)***

<i>Item no.</i>	<i>Item(1)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Correlation</i>	<i>alpha when item deleted</i>
7	<i>Planful</i>	3.2908	.7176	.5815	.7414
12	<i>Efficient</i>	3.0255	.7263	.5037	.7549
18	<i>Disorganized</i>	3.0000	.9446	.6232	.7279
35	<i>Thorough</i>	3.0816	.8249	.6234	.7297
36	<i>Persevering</i>	3.0969	.8138	.6082	.7332
39	<i>Distractible</i>	2.8827	.8111	.4966	.7556
41	<i>Careless</i>	3.1735	.8354	.1571	.8195

*alpha* = .7814

(1) The scores of the items *disorganized*, *distractible* and *careless* are reflected so that a higher score on these items indicate higher level of conscientiousness.

***Table 4.3.e Reliability analysis of the BFI Openness factor (N=197)***

<i>Item no.</i>	<i>Item(1)</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Correlation</i>	<i>alpha when item deleted</i>
19	<i>Artistic</i>	2.4286	1.0228	.5384	.6340
24	<i>Imaginative</i>	3.1633	.7605	.4726	.6534
25	<i>Simple</i>	2.4694	.8191	.0974	.7154
26	<i>Reliable</i>	1.4082	.5230	-.1408	.7267
27	<i>Inventive</i>	2.8418	.8293	.6152	.6248
29	<i>Curious</i>	3.3929	.6023	.6152	.6798
30	<i>Original</i>	2.9592	.6931	.3127	.6333
38	<i>Sophisticated</i>	2.9796	.6638	.6188	.6627
40	<i>Reflective</i>	3.2296	.6432	.4319	.7261
42	<i>not artistic</i>	2.8010	1.0937	-.0621	.6555
43	<i>Ingenious</i>	2.6684	.7141	.6703	.6703

*alpha* = .6953

(1) The scores of the items *simple*, *reliable* and *not artistic* are reflected so that a higher score on these items indicate higher level of openness.

The reliability analyses of the BFI factors point to relatively high alpha coefficients of the Hebrew version as used in the present research. The only adjective that seems unsuitable to the factor in which it is included is “reliable” in the Openness scale. As indicated by Table 4.3.e the corrected item-total correlation of this adjective is negative and the alpha of the scale when it is deleted raises from .6953 to .7267. It has to be noted that this item, having a negative factor loading on the Openness scale in previous studies (see Appendix 2), has been recoded as reversed. Thus, being more reliable means, according to the original scale, less open-minded. This empirical finding, based on previous studies with American and Spanish populations, is probably unsuitable to significance of this adjective in the Israeli culture. Plausibly enough in Hebrew usage, “reliability” does not tap close-mindedness. However, in order to use the BFI in its original version, the item has not been deleted.

Table 4.3.f presents the correlation matrix of the BFI measures

**Table 4.3.f Correlation matrix of the BFI factors (N=197)**

	<i>Agreeableness</i>	<i>Extraversion</i>	<i>Neuroticism</i>	<i>Conscientiousness</i>	<i>Openness</i>
<i>Agreeableness</i>		.1293*	-.3238***	.1849**	.0164
<i>Extraversion</i>			-.0107	.1146	.1751**
<i>Neuroticism</i>				-.2485***	-.0602
<i>Conscientiousness</i>					.1654**
<i>Openness</i>					

\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$

Examination of the correlation matrix of the BFI factors reveals a significant negative correlation between Agreeableness and Neuroticism ( $r = -.3238; p < .001$ ), and also between Conscientiousness and Neuroticism ( $r = -.2485; p < .001$ ). The BFI scales of Agreeableness and Conscientiousness have been found to be positively significantly correlated ( $r = .1849; p < .01$ ). Openness to experience has been found to be positively significantly correlated with both Extraversion and Conscientiousness though the correlations are quite mild. All the other correlations between the BFI factors have been found as insignificant.

## **2.d. The Rorschach-Derived Measures**

### **2.d.1. Test Material, Administration and Scoring**

The perceptanalysis system, created by Rorschach (1941), deals with images elicited by a series of 10 symmetrical inkblots which are shown to the subject one at a time. The subject's meaningful interpretation of a blot is called a percept, emphasizing that the response involves both subjective and objective elements, and expresses a link between the individual and the environment. The blots were made by spilling ink on white paper and folding the paper so that a symmetrical design was obtained. Five blots are in various shadings of gray, two in red and gray, and three in several chromatic colours.

Usually, the test has to be administered individually. After a preliminary explanation, the examiner handles the first card and asks what might this be. The complete response, including all the pauses, the changes in quality of verbalization, and the nonverbal behaviour is recorded in the protocol. The subject may give more than one response to a card.

The first part of the examination, the performance or the associations part, is followed by the enquiry part, a review of all responses with the subject. The principal aim of this review is to enable the scoring of the responses. In this part, the examiner has to investigate to which areas of the blot the percepts pertain, what quality of the blot (shape, colour, shading, movement cues etc.) determined the response, and what exactly is included in the subject's visual images.

The scoring, based on both the associations and the enquiry parts of the test, classifies the responses into groups or rating them on scales in order to obtain a good general survey of the test performance. In the present research the Comprehensive

System of scoring has been used (Exner, 1974). The subjects' scores in the present research have been processed by the Rorschach Interpretation Assistance Program, RIAP3 plus, Version 3.1 (Exner & Tuttle, 1994), which produces the different measures of the structural summary and the subject's interpretive report.

### 2.d.2. The Measures' Definition

The Rorschach-derived measures used in the present research have been selected according to two criteria: conceptual and statistical. The conceptual criterion was the extent to which the measure relates to the examined complex of conformity, unconventionality, drive-consciousness, integrative complexity, openness to internal and external experience, originality and creativity (see above Chapter Three).

The statistical criterion was the extent to which the measure is suitable for parametric statistics. Thus, among the variables related to the conceptual framework, nine measures - those which are considered as suitable for parametric statistics (Exner, 1995, p. 211) have been selected and processed (for the conceptual significance related to these measures see above Chapter Three).

*Unusual responses (Xu%)* - These are low-frequencies answers that can be seen easily in the blot, and do not violate the appropriate use of the blot contours. They reflect a less common way of translating the stimulus field and express some kind of individuality.

*Animal-movement responses (FM)* - this is a coding score assigned for any animal response involving animals in activity, and relates to some awareness of impulses. A lower number of *FM* indicates suppression and inhibition, a conscious rejection of drive impulses. As has been noted (see Chapter Three) the specific content of the *FM*, being

perceived as projected material, also provides important information concerning self-image. Exner (1993) states that the probable validity of hypotheses generated from movement responses' content usually can be estimated by using repetition as a basis. Thus, the more often a characteristic or a theme occurs among the answers, the more likely it reflects a dimension of self-image.

*Blends* - These are responses in which more than one determinant is used to form the percept.

*Popular responses (P)* - These are 13 responses that occur with an unusually high frequency among most groups of subjects. The responses were selected using a criterion that requires the answer to appear at least once in every three protocols. In order to assign the code *P* to an answer it has to be defined exactly like the original popular response, with the same location.

*Distorted form-quality responses (X-%)* - The distorted, arbitrary, unrealistic use of form in creating a response is coded with minus form quality. The answer is imposed on the blot structure with total or almost total disregard for the contours of the area used. Often substantial arbitrary contours will be created where none exist.

*Z score frequency (Zf)* - Responses in which organizational activity, such as reporting a meaningful relationship between two parts of the blot, occurs are assigned a numerical value, called a *Z* score. Individual *Z* scores have little interpretive value. However, the frequency with which they occur provides important information concerning the extent to which the subject has organized the stimulus field.

*Pair responses (2)* - Responses in which the subject is using the symmetry of the blot to specify two differentiated identical objects.

*Egocentricity Index* - This index relates to self-esteem. It represents the proportion of reflection and pair responses in the total record, with each response's reflection determinant weighed as being equal to three pair responses.

*Affective ratio (Afr)* - This is a ratio that compares the number of answers to the last three cards in which there are chromatic colours, with the number of responses given to the first seven cards. It relates to interest in emotional stimulation.

Weiner (1995) states that the variables coded in the Comprehensive System are considered to be reliably scored. The levels of agreement typically found exceed 90% for *Pair responses*, *Popular responses*, and *Z scores*. The reliability is usually somewhat lower for form quality, including unusual (*Xu*) and distorted form-quality (*X-*) responses, used in the present research, and the content categories. The lowest, but still with about 80% levels of agreement, are generally found for determinants, including the animal-movement responses (*FM*), examined in the present research (Exner, 1991, pp.459-460; Exner, 1993, p.138). Acklin and McDowell (1995) have found an overall mean percentage agreement of 87% in a study of Rorschach interrater reliability.

However, the capacity of an instrument to be reliably scored does not guarantee that interrater agreement will in fact characterize a particular study. In order to ensure interrater agreement in the present research, a special procedure of scoring was used. Basically, the scoring, made by senior expert clinicians, employed the specific criteria of Exner's Comprehensive System (Exner, 1993). Following tentative decisions concerning any of the components of the response (location, determinant, content, special score) there were several sessions in which a sample of scored responses from all the protocols were examined, revealing about 90% levels of agreement. An overall

interrater reliability score of greater than 90% is consistent with most reliability data for Rorschach researchers (Exner, 1993). The questionable scores were discussed until agreement was achieved. Furthermore, Cohen's *k* coefficients (Cramer, 1997) for measuring the level of agreement between judges on categorical data were computed for all the determinant categories, revealing about .8 or more level of agreement for each of the determinants. The *k* coefficient can range from -1 to +1, when .7 is usually considered to be an acceptable level of agreement. Moreover, the distribution of scores in the present sample is broadly similar to that of normative data (see below in this chapter) and thus increases confidence that the scoring is plausible. The use of a computer program, RIAP3 (Exner & Tuttle, 1994), is also considered to increase the reliability of the codes in the structural summary as well as the accuracy of scoring. Thus, the entry phase of RIAP3 can serve as scoring instruction for the user by scanning for about 100 possible errors involving the internal logic of the Rorschach score (Zillmer, 1991; Zillmer & Vuz, 1995).

### 2.d.3. Descriptive Comparative Data

Table 4.4.a presents means and standard deviations of the Rorschach-derived measures for the sub-sample, as compared to norms suggested by Exner (1993). It has to be reemphasized that the sub-sample is small ( $N = 26$ ), as it is generally in Rorschach research and thus the interpretations must be cautiously used.

**Table 4.4.a Means and Standard Deviations of Rorschach-derived measures in the sub-sample ( $N=26$ ) as compared to normative population ( $N=700$ )**

<i>Measure</i>	<i>Sub-Sample</i>		<i>Normative Data</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Unusual Responses (Xu%)</i>	.21	.12	.14	.07
<i>Animal-movement (FM)</i>	4.62	3.03	3.71	1.19
<i>Blends</i>	8.12	4.04	5.16	1.93
<i>Popular Responses (P)</i>	4.54	1.45	6.89	1.38
<i>Distorted Responses (X-%)</i>	.08	.07	.07	.05
<i>Organizational Activity (Zf)</i>	12.10	4.70	11.81	2.59
<i>Pair Responses (2)</i>	5.46	3.56	8.68	2.15
<i>Egocentricity Index</i>	.38	.16	.39	.07
<i>Affective Ratio (Afr)</i>	.59	.27	.69	.16

Table 4.4.a shows that in most of the examined Rorschach-derived measures the sub-sample's means are in the range of  $M \pm 1SD$  of the normative population, with the exceptions of *Blends* (responses formed by more than one determinant), *Popular* responses and *Pair* responses. Only these three measures show significant differences (the sub-sample's means are not in the range of  $M \pm 1SD$ ) though several measures seem to have differences which are quite noticeable, within the range of  $M \pm 1SD$ . The differences between the means of these variables in the present research and the normative data might be explained by the selectivity of the sub-sample, students in higher education, as compared to the normative population composed of 700 non-patient adults, stratified for geographic distribution, and partially stratified for socioeconomic level.

Nonetheless, the differences might also be a consequence of cultural discrepancies between the Israeli and the American population. It must be emphasized that both the normative sample and the sub-sample have approximately the same number of mean responses per subject (in the normative sample Mean = 22.67; SD = 4.23 and in the sub-sample Mean = 20.73; SD = 7.45), otherwise, the differences in the various measures might possibly be a reflection of a larger baseline pool of responses. However, this problem of the varied number of responses per subject is one of the main methodological issues that should be considered when using the Rorschach in research (for a discussion referring to this issue and the way it has been solved in the present research see below Chapter Nine).

Generally, The Comprehensive System is based on norms, examining significant deviations in a subject's record, and establishing cutoff scores of interpretive meaning. However, these norms are considered as appropriate for comparison of the individual's

protocol and as a basis for noting extreme deviations in a protocol as compared to the expected values, it is not appropriate to include them as a control group for formal statistical contrasts (Exner, 1993). The interpretation of any difference between a small sample and the norms will be almost meaningless. This is especially true when important differences within the normative group are ignored, and the study simply evaluates means and standard deviations (for a further discussion of this issue see below Chapter Nine).

Table 4.4.b presents the correlation matrix of the Rorschach-derived measures used in the present research.

**Table 4.4.b Correlation matrix of the Rorschach-derived measures (N=26)**

	<i>Xu%</i>	<i>FM</i>	<i>Blends</i>	<i>P</i>	<i>X-%</i>	<i>Zf</i>	<i>Pair</i>	<i>Eg. In.</i>	<i>Afr</i>
<i>Xu%</i>		-.0419	.2130	-.0447	-.2094	.3767*	-.0016	.1267	.0010
<i>FM</i>			.5940**	-.0238	-.3437	.4399*	.5803**	.3318*	-.1377
<i>Blends</i>				-.3457*	-.1409	.7492**	.2353	.3185	-.0319
<i>P</i>					-.1983	-.0769	.3146	.0381	.1289
<i>X-%</i>						-.2079	-.3699*	-.0916	-.0380
<i>Zf</i>							.3328	.2886	-.0319
<i>Pair</i>								.3817*	-.0366
<i>Eg. In.</i>									-.0045
<i>Afr</i>									

\* $p < .05$

\*\* $p < .01$

Referring to the findings presented in Table 4.4.b it seems worth noting that high correlations (above .5000) have been found between the number of *Blends* and *Zf*, both related to the construct of integrative complexity ( $r = .7492$ ;  $p < .01$ ). Furthermore, high correlations have also been found between the number of *Blends* and the number of animal-movement responses, *FM* ( $r = .5940$ ;  $p < .01$ ), and between the number of *Pair* responses and *FM* ( $r = .5803$ ;  $p < .01$ ). Another significant positive correlation that seems to deserve noting, though being a little lower than the above mentioned correlations, is the correlation between *FM* and *Zf* ( $r = .4399$ ;  $p < .05$ ), probably indicating consciousness to one's own drives (*FM*) is related to feeling of competency in organizing the reactivity confronting stimulus (*Zf*). The significant positive, yet relatively not very high, correlation between *Pair* responses and the *Egocentricity Index* ( $r = .3817$ ;  $p < .05$ ) might be interpreted as indicating the obvious relationship between the two measures (the *Egocentricity Index* being composed of the weighted scores of *Pair* and *Reflection* responses) on the one hand, and the different, almost oppositional, aspects to which the two components relate - the narcissistic feature of the personality (*Reflection*) and the interpersonal one (*Pair*).

Two significant negative correlations have been revealed by the table - the correlation between *Pair* and distorted-quality responses, *X-%* ( $r = -.3699$ ;  $p < .05$ ), indicating that problems in reality testing and maladjustment (*X-%*) might be seen in interpersonal relations (*Pair*), and the correlation between *Blends* and *Popular (P)* responses ( $r = -.3457$ ;  $p < .05$ ), indicating the contrast between psychological complexity (*Blends*) and conventionality (*P*).

It should be emphasized that by reporting associations between Rorschach variables, as in any other test, the Rorschach is used to validate itself. Viglione (1995) argues that

the basic error in using the test to validate itself is a confusion between an operational definition and a hypothetical construct. Exner et al. (1984) note that the association between two variables might have more to do with how the test works and how the blots are shaped rather than with a personality trait or with a hypothetical construct, which they are suppose to represent. However, it is beyond the scope of the present research to examine these limitations, and it should be done in a Rorschach research that aims mainly to validate the test.

### 3. The Research Procedure

The first phase of the research dealt with *adaptation, translation and processing the research instruments*. During this phase the PPAI questionnaire, based on previous polls (see above in this chapter) was adapted to the present research, and the items of the General Survey and the Big Five Inventory were translated into Hebrew. The translation process was based on a method of translating and independently back-translating each item. When discrepancies occurred, the translation of the item was reviewed by a research-group referring to the item's meaning and psychological implications. This process of translating and back translating, was repeated until semantic symmetry for all items was achieved. Following this phase a pilot work on 70 students has been conducted, mainly for deciding question wording.

In January 1997 the phase of *administering the questionnaires* to the general sample was conducted, the questionnaires being administered individually, by well-trained students at the different institutions. Each of the students administered about 40 questionnaires. A total number of 217 questionnaires were collected; 20 of them were found to be unsuitable for the research mainly because of technical problems (uncompleted questionnaire or unclear responses). Subjects who completed the questionnaire and accepted to be tested by the Rorschach were asked to note their names, and were included in a pool from which, as noted above, a randomly selected sub-sample of 30 subjects was drawn, and tested. Four protocols were found to be unsuitable for the research according to different validity criteria, mainly because of too lower or too higher number of responses (Zillmer & Vuz, 1995).

The phase of *administering the Rorschach* to the sub-sample, consisted of the two stages, associations and enquiry (see above), and was performed by a group of expert

clinicians. The subjects were tested individually, about one hour each, their responses being fully recorded by the examiner, including all the questions asked by the subject during the test as well as the examiner's response and any comment made by the subject.

*The initial scoring*, based on both the associations and the enquiry stages, was conducted by a senior expert clinician, who usually was not acquainted with the subject (being tested by the other clinicians), nor with the subject's attitudes or self-rating scales as reflected in the questionnaire, administered previously and processed completely independently of the Rorschach. The scoring approach, based on Exner's comprehensive system (Exner, 1993) involved a single reading of the answer, pausing at logical points when tentative decisions concerning any of the components of the score (location, determinant, content, special score) seem feasible. This procedure tends to insure that each bit of critical wording in the associations and in the enquiry is used appropriately. Following the initial phase of scoring, the group of clinicians had several sessions in which a sample of scored responses from all the protocols were examined and questionable scores were discussed.

The final scoring was entered to the computer by the RIAP3 plus version 3.1 (see above), which has produced the *Structural Summary* and a final report on each of the subjects. The Structural Summary represents the composite frequencies plus many ratios, percentages and numerical deviations. They are the data from which the main postulates concerning psychological characteristics and functioning are generated (see Appendix 4). In addition to the Structural Summary and the final report processed by the computer, the Rorschach protocols have been analyzed by a narrative approach, examining some more contextual, sequential and symbolic perspectives.

Each of the subjects was invited to get feedback on the test, in exchange for cooperation. In this meeting the test-based impressions were discussed. The discussion enabled the clinicians to reexamine their impressions, to assess what seems accurate and inaccurate, and critically evaluate the reasoning that led to particular conclusions. This procedure is based on Finn (1996), referring to different authors who argue that clinicians and researchers have difficulties making the kinds of complex judgements that are required in using the Rorschach. This difficulty might be attributed, at least in part, to the lack of feedback about their judgements (Dawes, 1994; Meyer, 1997).

The *data processing* of both the questionnaires and the Rorschach Structural Summary was done using SPSS, referring to two different files - the general sample file composed of data based on the questionnaires, and the sub-sample file composed of the combined data of the questionnaires and the Rorschach.

## CHAPTER FIVE

### Results (A) The Main Measures

The results presented in this chapter deal with statistical analyses of the main research measures (see Chapter Four). The chapter opens with descriptive statistics, factor analysis and reliability analysis of the Pro-Peace Attitudes Index (PPAI). Next, the intercorrelations between the self-rating personality scales - the General Survey (Blumberg et al., 1972; Kritzer et al., 1974) and the Big Five Inventory (John et al., 1991) are presented. The chapter ends with the presentation of the relations between different levels of personality assessment - the self-rating scales and the Rorschach-derived measures.

Tables 5.1 to 5.4 present the general distribution, factor analysis, reliability analysis and the correlation coefficients between the items included in the Pro-Peace attitudes Index, PPAI(1).

***Table 5.1 General distribution of the PPAI items (N=197)***

<i>Item</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>Total</i>
<i>General Support</i>	13.7%	11.7%	23.9%	50.8%	100%
<i>Satisfaction</i>	17.3%	17.3%	47.7%	17.8%	100%
<i>Oslo Agreement</i>	12.7%	16.2%	45.2%	25.9%	100%
<i>Peace for Territories</i>	26.4%	13.2%	29.9%	30.5%	100%
<i>Palestinian State</i>	17.3%	18.3%	40.6%	23.9%	100%
<i>Hebron Agreement</i>	9.1%	15.7%	47.7%	27.4%	100%
<i>Syria</i>	21.8%	19.3%	29.9%	28.9%	100%
<i>Expectations</i>	7.6%	24.4%	45.2%	22.8%	100%

---

1. The higher the score the higher supportive is the attitude toward the Peace Process.

The general distribution of attitudes, as presented in Table 5.1 indicates that while two items of the Pro-Peace Attitudes Index (General Support and Peace for Territories) yield rather extreme responses either supportive (4) or non-supportive (1), other items stimulate more moderate responses (2 or 3).

As noted (see Chapter Four), the data have been derived by *non-probability sampling*, and thus cannot be considered as representing the wider population.

However, a certain indication as to the distribution of the same attitudes in the national level, might be derived from different studies using the items, with minor changes in the response alternatives, in Israeli national polls (for the results of these studies see Appendix 5).

The following tables present the results of factor analysis on the 8 items of the PPAI.

**Table 5.2.a Factor Loadings for the PPAI items (N=197)**

<i>Item</i>	<i>Factor 1</i>
<i>Oslo Agreement</i>	.9104
<i>General Support</i>	.9073
<i>Satisfaction</i>	.8759
<i>Peace for Territories</i>	.8538
<i>Herbron Agreement</i>	.8527
<i>Palestinian State</i>	.8313
<i>Syria</i>	.8037
<i>Expectations</i>	.7328

***Table 5.2.b Factor analysis of the PPAI (N=197)***

<i>Factor</i>	<i>Eigenvalue</i>	<i>Pct of var</i>	<i>Cum Pct</i>
1	6.0205	75.3	75.3
2	.4924	6.2	81.4
3	.4041	5.1	86.5
4	.3046	3.8	90.3
5	.2296	2.9	93.1
6	.2221	2.8	95.9
7	.1712	2.1	98.1
8	.1556	1.9	100.0

Tables 5.2.a and 5.2.b show that the confirmatory factor analysis, used to assess the degree to which items are tapping the same construct, has demonstrated factorial validity of the PPAI items and thus confirmed their use as one index with an underlying pattern of relationships.

Tables 5.3 and 5.4 present the reliability analysis and the correlation coefficients between the PPAI items.

***Table 5.3 Reliability analysis of the PPAI (N=197)***

<i>Item</i>	<i>Mean</i>	<i>SD</i>	<i>Corrected Item-Total Correlation(1)</i>	<i>Alpha when item deleted</i>
<i>General Support</i>	3.1168	1.0793	.8804	.9406
<i>Satisfaction</i>	2.6599	.9642	.8504	.9428
<i>Oslo Agreement</i>	2.8426	.9533	.8823	.9409
<i>Peace for Territories</i>	2.6447	1.1718	.8347	.9444
<i>Palestinian State</i>	2.7107	1.0165	.8085	.9454
<i>Hebron Agreement</i>	2.9340	.8925	.8283	.9446
<i>Syria</i>	2.6599	1.1162	.7863	.9474
<i>Expectations</i>	2.8325	.8674	.7149	.9510

*alpha = .9513*

---

*1. As noted (see Chapter Four), the total is corrected so as to be, in each cases, the total when the respective item is deleted.*

**Table 5.4 Correlation matrix of the PPAI items (N=197)**

	<i>Gen. Sup.</i>	<i>Sat.</i>	<i>Oslo Ag.</i>	<i>Peace for Ter.</i>	<i>Palest. State</i>	<i>Hebron Ag.</i>	<i>Syria</i>	<i>Exp.</i>
<i>Gen. Sup.</i>		.8228*	.8163	.7672	.7564	.7548	.7065	.6968
<i>Sat.</i>			.7963	.7279	.7476	.7267	.6647	.6758
<i>Oslo Ag.</i>				.7444	.7742	.8212	.7262	.6528
<i>Peace for Ter.</i>					.7143	.7043	.7575	.6439
<i>Palest. State</i>						.7268	.6683	.5350
<i>Hebron Ag.</i>							.6841	.6429
<i>Syria</i>								.5890
<i>Exp.</i>								

-----  
 \* For this and all the other correlation coefficients in the table  $p < .0001$

Tables 5.3 and 5.4 show that all the items in the Pro-Peace Attitudes Index, PPAI, contribute to the high alpha coefficient (.9513) of this index, and that all the intercorrelations are significant ( $p < .0001$ ), the highest correlation being that between General Support and Satisfaction (.8228). It can thus be concluded that the attitudes toward the Peace Process in a variety of issues (Peace for Territories; Palestinian State; Hebron Agreement), with different partners (Oslo Agreement; Syria) and at different levels (General Support; Satisfaction; Expectations) compose an entity that can be looked at as one attitudinal system.

Table 5.5 presents the correlation coefficients between the scales of the two self-rating personality measures – the General Survey and the Big Five Inventory.

***Table 5.5 Correlation coefficients between the GS and the BFI factors (N=197)***

	<i>Authoritarian Conformity</i>	<i>Aggressive Mistrust</i>	<i>Anxiety</i>	<i>Extraversion</i>
<i>Agreeableness</i>	.1283*	-.2888***	-.1277*	.1822**
<i>Extraversion</i>	.0350	-.2068**	-.1859**	.4684***
<i>Neuroticism</i>	-.0976	.2444***	.5855***	-.2445***
<i>Conscientiousness</i>	.2156***	-.0405	-.2112***	.1724**
<i>Openness</i>	-.0941	-.0278	-.1334*	.0493

\*  $p < .05$   
 \*\*  $p < .01$   
 \*\*\*  $p < .001$

Table 5.5 shows that authoritarianism, as measured by the GS is related to the BFI scale of conscientiousness ( $r = .2156$ ;  $p < .001$ ). Authoritarianism has also been found as related significantly to the BFI scale of agreeableness, though this correlation is quite lower than with conscientiousness ( $r = .1283$ ;  $p < .05$ ). The GS scale of aggressive mistrust was found to be significantly negatively related to the BFI scales of agreeableness ( $r = -.2888$ ;  $p < .001$ ) and extraversion ( $r = -.2068$ ;  $p < .01$ ), and positively related to neuroticism ( $r = .2444$ ;  $p < .001$ ). The GS anxiety scale has been

found as related significantly to all the BFI scales. As expected, it relates positively mainly to the BFI scale of neuroticism ( $r = .5855$ ;  $p < .001$ ), but also slightly negatively to all the other BFI scales. The GS scale of extraversion was found, as expected, to be positively related to the BFI scale of extraversion ( $r = .4684$ ;  $p < .001$ ) and also to the BFI scales of agreeableness ( $r = .1822$ ;  $p < .01$ ) and conscientiousness ( $r = .1724$ ;  $p < .01$ ). Moreover, the GS scale of extraversion was found to be negatively related to the BFI scale of neuroticism ( $r = -.2445$ ;  $p < .001$ ).

Summarizing the above findings, it might be concluded that the two self-rating measures - the GS and the BFI - probably measure somewhat similar but yet differentiated dimensions of personality traits and it seems that using both of them might give a much broader picture of the personality.

Table 5.6 presents the correlation coefficients between the Rorschach-derived measures and the scales of the General Survey.

**Table 5.6 Correlation coefficients between the Rorschach-derived measures and the GS scales (N=26)**

	<i>Authoritarian Conformity</i>	<i>Aggressive Mistrust</i>	<i>Anxiety</i>	<i>Extraversion</i>
<i>Xu%</i>	.1405	-.0527	-.2969	.2874
<i>FM</i>	-.5176**	.3475*	.0594	-.1014
<i>Blends</i>	-.2035	-.0248	-.3229	-.1115
<i>P</i>	.0311	.0715	.3008	.4675**
<i>X - %</i>	.1804	-.3014	-.1115	.0606
<i>Zf</i>	-.1951	-.0815	-.2332	.1887
<i>Pair</i>	-.1985	.2243	.2421	-.0877
<i>Eg. In.</i>	-.1874	-.1247	-.2045	-.0180
<i>Afr</i>	.2727	.2959	-.0169	-.1161

\* $p < .05$

\*\* $p < .01$

Table 5.6 indicates that authoritarian conformity, which is the main GS scale examined in the present research, is significantly negatively related to the number of animal-movement responses (*FM*) in the Rorschach ( $r = - .5176$ ;  $p < .01$ ). As noted (see Chapter Three), the *FM* indicates some awareness of impulses. It has been shown that absence or extreme lower number of *FM* responses is a sign of suppression and inhibition, a conscious rejection of drive impulses that leads to an avoidance of conceptualizing animals in action, which is an unfavourable factor in terms of adjustment capacity. The significant negative association between authoritarianism and *FM*, thus, reflects the suppression, inhibition and rejection of drives that characterize the authoritarian personality.

Furthermore, it is worth to comment on the association between the GS scale of extraversion and the popular responses (*P*) in the Rorschach ( $r = .4675$ ;  $p < .01$ ), which suggests, plausibly, that selecting a conformist reaction to the Rorschach blot (*P*) is linked with sociable activity.

Table 5.7 presents the correlation coefficients between the Rorschach-derived measures and the factors of the Big Five Inventory.

**Table 5.7 Correlation coefficients between the Rorschach-derived measures and the BFI factors (N=26)**

	<i>Agreeableness</i>	<i>Extraversion</i>	<i>Neuroticism</i>	<i>Conscient.</i>	<i>Openness</i>
<i>Xu%</i>	-.1042	.0307	-.1075	-.2172	-.2772
<i>FM</i>	.0434	.2374	.3558*	.2114	.4285*
<i>Blends</i>	.2064	.0114	-.0455	.5195**	.4385*
<i>P</i>	.1493	.4645**	-.0047	-.0954	-.2984
<i>X-%</i>	-.0658	.1588	-.1386	.1165	-.0994
<i>Zf</i>	.1852	.2067	.0145	.1242	.3068
<i>Pair</i>	.2075	.2834	.4699**	.0511	.1741
<i>Eg. In</i>	.0839	.0745	-.0047	.0893	.1464
<i>Afr</i>	-.2490	-.0008	.1187	.1784	-.1913

-----  
\*  $p < .05$

\*\*  $p < .01$

Table 5.7 indicates that the Rorschach measures mostly related to openness, which is the main BFI scale used in the present research, are the *Blends* ( $r = .4385$ ;  $p < .05$ ), and the *FM* ( $r = .4285$ ;  $p < .05$ ). As noted (see Chapter Three), the *Blends* are responses in which more than one determinant is used to form the precept. A low

number of blends indicate a form of psychological constriction, narrow patterns of processing and less sensitivity to self and environment. It might create difficulties in dealing with complex emotional stimuli. If these difficulties occur, they are most likely to be manifested in the modulation of emotional displays. Thus, as expected, the results reveal that a higher score on openness to experience is associated with psychological complexity (*Blends*) and drive consciousness (*FM*).

Some additional results derived from table 5.7 seem worth to comment. The correlation between extraversion, measured by the BFI, as that measured by the GS (see above), is positively significantly related to popular responses (*P*) in the Rorschach, reflecting the plausible association between sociable activity and reacting conventionally. Also, significant positive correlations were found between the BFI scale of conscientiousness and the *Blends* ( $r = .5195$ ;  $p < .001$ ) and between the BFI neuroticism scale and *Pair* responses ( $r = .4699$ ;  $p < .001$ ). Nevertheless, the analysis of these associations, as well as some of those found between the GS scales and the Rorschach-derived measures, is not related directly to the main hypotheses of the present research. Further study referring to the linkage between self-rating scales and the Rorschach measures may illuminate and clarify the broader significance of both types of variables.

## CHAPTER SIX

### Results (B) Personality Traits Measured by Self-Rating Scales and Attitudes

#### Toward the Peace Process

The results presented in this chapter relate to the first and the second research hypotheses, examining by *t-tests* the differences between higher and lower peace supporters as to personality traits measured by self-rating scales.

The first hypothesis stated that authoritarian conformity, as defined by the General Survey (Couch, 1960; Blumberg et al., 1972; Kritzer et al., 1974), would be negatively associated with supporting attitudes toward the Peace Process in the Middle East. It was hypothesized that there would be significant differences between higher as compared to lower peace supporters, higher peace supporters tending to be less authoritarian conformists than the lower ones.

The second hypothesis stated that openness to experience as defined by the Big Five Inventory (John et al., 1991) would be positively associated with peace supportive attitudes. It was hypothesized that there would be significant differences between higher as compared to lower peace supporters, higher peace supporters tending to be more open-minded than the lower ones.

Table 6.1 presents the *t-test* results as to the differences between the higher and lower PPAI groups in the four General Survey scales.

***Table 6.1 The GS scales in the lower and higher PPAI groups (N=197)***

<i>Scale</i>	<i>Low PPAI</i>		<i>High PPAI</i>		<i>t-value</i>	<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>Authoritarian Conf.</i>	4.13	.94	3.50	.93	4.76	<i>p</i> < .001
<i>Aggressive Mistrust</i>	3.82	1.00	3.69	.96	.88	<i>p</i> > .05
<i>Extraversion</i>	4.48	.75	4.53	.83	-.48	<i>p</i> > .05
<i>Anxiety</i>	3.77	1.17	3.48	1.25	1.69	<i>p</i> < .05

Table 6.1 shows, as expected, that there is a significant difference between the two groups defined by attitudes toward the Peace Process: the lower supportive individuals are more authoritarian ( $M = 4.13$ ;  $SD = .94$ ) than the higher ( $M = 3.50$ ;  $SD = .93$ ). These results confirm the first hypothesis, showing that authoritarian conformity is negatively associated with peace attitudes. Individuals who accept or are attracted to attitudes that are less supportive to the Peace Process in the Middle East are more authoritarian conformists than individuals who support pro-peace attitudes.

It seems worth noting that examination of the correlation coefficients between the General Survey scales and the Pro-Peace Attitudes Index revealed similar results. Authoritarian conformity was found to be significantly negatively correlated with

pro-peace attitudes ( $r = -.36$ ;  $p < .01$ ). The more authoritarian, the more is the individual in opposition to the process.

As noted (see Chapter Three), the authoritarian personality, revealed in one of the criterion populations tested by Adorno et al., (1950, 1982) is mainly conventional, submissive to authoritative figures, and has aggressive feelings toward various targets. The personality structure of the authoritarians represents strong well entrenched defenses against anxiety, mainly the displacement mechanism in which the aggressive feelings are easily directed against outgroup members who are designated as being worthy of contempt by authority. Thus, harsh, punitive, and vindictive background and rigid social codes help to shape the authoritarian syndrome. As indicated by Altemeyer (1988), highly submissive, conventional persons seem to be anxious and fearful, viewing the world as personally threatening. These anxieties and fears, in combination with self-righteousness, can account for the tendency of authoritarians to support conflict resolution through power and aggression. This tendency was also revealed in the primary population to be tested by the General Survey, which was well educated participants in the peace movement in the U.S (Kritzer et al., 1974).

A smaller but yet a significant difference revealed in Table 6.1, is related to anxiety. Those who are low in the Pro-Peace Attitudes Index, score higher in anxiety ( $M = 3.77$ ;  $SD = 1.17$ ) than those who are more supportive to the Peace Process ( $M = 3.48$ ;  $SD = 1.25$ ). This difference was not hypothesized in the conceptual model, and was revealed through an exploratory approach, examining the four personality scales of the General Survey. Nevertheless, it should be emphasized that the neuroticism dimension of the Big Five, which indicates negative affectivity and chronic experience of mental distress such as anxiety, guilt and frustration, has not been found

to differentiate significantly between the groups of higher and lower PPAI. Following this gap between the results derived from the two different self-rating scales, the GS and the BFI, the higher anxiety level, found in the group of lower peace supporters, should be interpreted cautiously. However, the higher level of anxiety characterizing the lower PPAI group has been confirmed by some of the Rorschach measures relating to affective reactivity (see below).

Table 6.2 presents the results of *t*-tests examining the differences in the Big Five factors between the lower and higher peace supporters.

***Table 6.2 The BFI factors in the lower and higher PPAI groups (N=197)***

<i>Factor</i>	<i>Low PPAI (N=99)</i>		<i>High PPAI (N=98)</i>		<i>t-value</i>	<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>Agreeableness (A)</i>	3.07	.42	3.19	.33	- 2.39	<i>p</i> < .01
<i>Openness (O)</i>	2.73	.37	2.79	.40	- 1.22	<i>p</i> > .05
<i>Extraversion (E)</i>	2.63	.49	2.70	.53	- .91	<i>p</i> > .05
<i>Conscientiousness (C)</i>	3.05	.50	3.11	.57	- .69	<i>p</i> > .05
<i>Neuroticism (N)</i>	2.21	.57	2.15	.54	.73	<i>p</i> > .05

The results presented in Table 6.2 do not confirm the second research hypothesis. The BFI factor of experiential openness does not differentiate between the higher and lower peace supporters. Nevertheless, it seems worth noting that examination of the

correlation coefficients between the BFI factors and the Pro-Peace Attitudes Index has shown that experiential openness is significantly positively correlated with the PPAI ( $r = .13$ ;  $p < .05$ ).

As noted (see Chapter Three) openness is the most controversial dimension of the Big Five Factor model of personality (Digman, 1990; Goldberg, 1993; John, 1990; McCrae & John, 1992; Saucier, 1992; Trapnell, 1994). Wiggins and Trapnell (1996) state that the controversiality seems to stem, at least partially, from the different conceptions being attached to the factor. Trapnell (1994) states that the factor reflects two different, although interactive, perspectives: the enterprising and communal. Nevertheless, the enterprising adjectives, included in the BFI openness factor, are given much higher weight as compared to the communal ones (see Appendix 2).

It seems however that testing experiential openness by a self-rating scale presents some methodological problems and that the construct requires another operationalization. It is argued that a self-rating scale examining openness cannot consistently illuminate the full scope of the construct and a projective method is needed. This argument would be examined by the fourth hypothesis relating to the association between experiential openness, defined by Rorschach-derived measures, and peace supportive attitudes (see Chapter Seven).

A significant difference revealed by Table 6.2, is related to agreeableness, the higher peace supporters scoring higher ( $M = 3.19$ ;  $SD = .33$ ) on this factor as compared to the lower supporters ( $M = 3.07$ ;  $SD = .42$ ). This difference was not hypothesized in the conceptual model, and was revealed through an exploratory approach, examining the factors of the BFI. Furthermore, *t-test* comparing the two research groups on the nine traits included in the agreeableness factor, has pointing to significant differences in

three specific traits – kind, cold and cooperative. Thus, individuals that are more peace supportive tend to be, according to the Big Five lexical self-rating traits, more kind, warm and cooperative than the less supportive ones.

Following the strong relationship between religiosity and attitudes toward the Peace Process that is known as consistently characterizing the Jewish Israeli population (see Chapter Two), it seemed required to examine the correlations between religiosity and the personality traits. This investigation seemed especially important because personality traits, such as authoritarianism, which have been hypothesized to relate to the PPAI, might be expected to relate to religiosity as well.

Examination of the correlations between religiosity and the self-rating personality measures shows a significant positive correlation between religiosity and authoritarian conformity ( $r = .2193$ ;  $p < .01$ ), though lower than the significant negative correlation between authoritarian conformity and the PPAI ( $r = -.36$ ;  $p < .01$ ).

No other personality dimension, as measured either by the GS or by the BFI self-rating scales, has been found to be associated significantly with religiosity.

Summing up the results of Tables 6.1 and 6.2, it can be concluded that the association between personality traits, measured by self-rating scales, and peace supportive attitudes points that the higher peace supportive individuals are mainly less authoritarian conformist (more than would have been expected referring to the association between peace attitudes and religiosity), and to a certain extent less anxious and more agreeable (kind, warm and cooperative) in interpersonal relationships, than the lower ones (for discussion and conclusions drawn from these results see Chapter Nine).

## CHAPTER SEVEN

### Results (C) Rorschach-Derived Measures and Attitudes Toward the Peace Process

The results presented in the first part of this chapter relate to the third and the fourth research hypotheses examining by *t-tests* the differences between higher and lower peace supporters as to personality traits measured by the Rorschach. The results presented in the second part relate to the same hypotheses in terms of content analysis of Rorschach responses.

The third hypothesis stated that authoritarian conformity, as indicated by the Rorschach measures of lower number of *unusual responses* (*Xu%*) and lower level of the *Egocentricity Index* would be negatively associated with supportive peace attitudes. It was hypothesized that there would be significant differences between higher as compared to lower peace supporters in terms of these Rorschach-derived measures, examining conventionality and lacking individuality, higher supporters tending to produce more unusual responses and to score higher on the Egocentricity Index.

The fourth hypothesis stated that openness to experience, indicated by the Rorschach-derived measures of animal-movement responses (*FM*), the *Blends*, organizational activity (*Zf*) and *Pair* responses would be positively associated with pro-peace attitudes. There would be significant differences between higher as compared to lower peace supporters with regard to these four Rorschach-derived measures, higher supporters tending to be more open-minded, drive-conscious and integrative-complex in their psychological functioning.

Some more Rorschach-derived measures (*P*, *X-%* and the *Affective Ratio*) were examined as related to pro-peace attitudes without pre-hypothesized direction of these

relations because of the contradictory hypotheses that might be raised as to these three measures.

Table 7.1 presents the *t-test* results as to the differences between the higher and lower PPAI groups in the Rorschach-derived measures. It is worth noting that the comparison of the two PPAI groups on the Rorschach-derived measures, presented in Table 7.1, should consider the problem of the varied number of responses (*R*) in the Rorschach protocol. As noted (see Chapter Four), this is one of the main methodological issues when using the Rorschach in research. Examining the association between the number of responses (*R*) and peace attitudes showed no significant correlation ( $r = .16$ ;  $p > .05$ ), nor were there significant differences between the *R* of the lower and higher PPAI groups, which might have an effect on the results presented in the table. The lower PPAI group mean *R* was 19.75, SD = 8.73 as compared to the mean *R* of 22.30, SD = 4.76 in the higher PPAI group, with *t-value* of  $-.96$  ( $p > .05$ ).

**Table 7.1 Rorschach-derived measures in the lower and higher PPAI groups (N=26)**

<i>Measure</i>	<i>Low PPAI (N=16)</i>		<i>High PPAI (N=10)</i>		<i>t-value</i>	<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>Unusual Resp. (Xu%)</i>	.16	.10	.28	.13	- 2.79	<i>p</i> < .01
<i>Animal-movement (FM)</i>	3.31	2.27	6.70	3.02	- 3.26	<i>P</i> < .01
<i>Blends</i>	6.94	2.84	10.00	5.05	- 1.75	<i>P</i> < .05
<i>Popular Responses (P)</i>	4.63	1.20	4.40	1.84	.34	<i>P</i> > .05
<i>Distorted Resp. (X-%)</i>	.10	.08	.05	.05	1.99	<i>p</i> < .05
<i>Organization. Act. (Zf)</i>	10.69	4.33	14.30	4.60	- 2.02	<i>p</i> < .05
<i>Pair Resp. (2)</i>	4.50	3.76	7.00	2.71	- 1.82	<i>p</i> < .05
<i>Egocentricity Index</i>	.35	.18	.44	.10	- 1.46	<i>P</i> < .05
<i>Affective Ratio (Afr)</i>	.69	.28	.45	.19	2.34	<i>P</i> < .01

Table 7.1 shows that most of the examined Rorschach-derived measures differentiate significantly between the lower and higher PPAI groups. Thus, subjects who score higher in PPAI tend to give more unusual responses (*Xu%*), more animal-movement responses (*FM*), more *Blends* and more *Pair* responses, to use more organizational activity (*Zf*) and to score higher on the *Egocentricity Index*. Subjects who score lower on the PPAI tend to give more distorted form-quality responses (*X-%*), and

to be more reactive to affect-loaded situations (*Afr*). The difference between the two groups as to popular responses (*P*) is insignificant.

Thus, subjects who score higher in supportive attitudes toward the Peace Process are less authoritarian and more individualistic and non-conventional (higher *Xu%* and higher level of *Egocentricity Index*). This conclusion confirms the third hypothesis indicating that the results based on Rorschach-derived measures generally strengthen and emphasize the one derived from the GS authoritarianism self-rating scale as to the association between authoritarian conformity and peace attitudes (see Chapter Six). As noted above, the self-rating scale of authoritarianism did not significantly correlate with the Rorschach-measures of unusual responses (*Xu%*) and the *Egocentricity Index*, both measure non-conventionality and individuality as the main aspects of authoritarianism. Thus, though the measures of the different methods are not interrelated, both are associated with the attitudes toward the Peace Process (for further discussion of these results see Chapter Nine).

Furthermore, it might be shown that the higher peace supporters as compared to the lower ones are more open-minded, characterizing by more psychological complexity (higher *Blends* and *Zf*) and more vitality and awareness to their inner world (higher *FM*) as well as to the external world (higher *Pair*). These results confirm the fourth hypothesis relating to the association between openness to experience, as indicated by Rorschach-derived measures (*FM*, the *Blends*, *Zf* and *Pair* responses) and pro-peace attitudes, higher supporters hypothesized to be more open-minded, drive-conscious and integrative-complex in their psychological functioning than the lower ones.

As noted (see Chapter Six) experiential openness, when measured by the BFI was not found as differentiating between higher and lower peace supporters. The fourth

hypothesis has thus been confirmed by the results, when measuring openness by the Rorschach, but not by the BFI self-rating scale. It might be concluded that Rorschach measures have some advantages for examining experiential openness as compared to a self-rating scale that measures the same construct (for further discussion of these results see Chapter Nine).

The results relating to the integrative complexity aspect of openness (McCrae, 1987), as measured by the *Blends* and the *Zf*, are in accordance with data from inter-nation simulation studies. These studies indicate that individuals low in integrative complexity relied on highly competitive tactics - war and unprovoked arms - much more than highly integrative complex individuals (Tetlock, 1985).

The results presented in table 7.1 reveal also that subjects who are less supportive to the Peace Process tend to give more distorted-quality responses (*X-%*) and to be more intensively reactive to affect-loaded situations (*Afr*). The two groups are not differentiated as to their reality testing (*P*). As noted, these three Rorschach measures have been examined in the research with no specific hypothesized relations with peace supportive attitudes.

Distorted form-quality responses (*X-%*) are responses that disregard the appropriate use of contours of the blot. Exner (1993) states that whenever the *X-%* exceeds 25%, the likelihood of major impairment is substantial. Subjects who have problems in emotional control tend to show minus form-quality specifically in answers that include chromatic colour determinant. The present results indicate that the distorted form-quality responses do not exceed 25% either in the lower or in the higher PPAI group, though there is a significant difference between the two groups, the lower PPAI group tending to produce more distorted-quality responses. This finding might be

related to the significantly higher score of the lower PPAI subjects on the *Affective Ratio*. As noted, the *Affective Ratio* indicates the subjects' interest in emotional situation and provides information about the responsiveness of a person to emotional stimulation, people with higher *Affective Ratio* being intrigued with emotional stimuli. This can become a liability if there are problems with control and modulation because the tendency to seek out emotional stimuli will probably increase the frequency with which such stimuli are required. Although the index does not relate directly to the issue of affective control it can have an indirect relationship. The higher the value of the index, the higher would be the tendency toward overresponsiveness. Following this interpretation it might be concluded that the lower peace supporters tend to overreact to affective stimulus. Moreover, examining the correlation coefficients between the PPAI and the Rorschach measures it was found that the *Affective Ratio* revealed the highest one ( $r = -.59$ ;  $p < .01$ ). The other two measures showing significant correlations with the PPAI were the animal-movement responses ( $r = .54$ ;  $p < .01$ ) and the *Pair* responses ( $r = .36$ ;  $p < .01$ ). Thus, the more are the individuals emotionally overreactive the less are they supporting the Peace Process. This overresponsiveness together with the lower *FM* and *Pair* responses point to some problems associated with affective reactivity and interpersonal relations of the lower peace supporters as compared to the higher ones (for discussion and conclusions drawn from these results see Chapter Nine).

Following the results based on the nomothetic approach to the analysis of Rorschach protocols, the results presented in Tables 7.2.a and 7.2.b are based on the idiographic approach, analyzing the specific content of various responses from a projective point of view. The analysis compares the first response to the same card of four subjects in both

extremes - two with the lowest PPAI and two with the highest PPAI scores. Card II (see Appendix 3), where the subjects first meet the coloured stimuli was chosen to exemplify the content analysis, following the interpretation (see Chapter Three above) that the influence of colours in perceiving the figures might be taken to represent the extent of emotional excitability. Tables 7.2.a and 7.2.b below present the content of the first response to card II of four subjects - the two lowest and the two highest PPAI.

**Table 7.2.a Responses to Card II of the Rorschach: Examples of lower PPAI subjects' protocols**

	<i>Associations</i>	<i>Enquiry</i>
<p><b>Subject A</b> – Male, 23, Religious Studies  PPAI - 1.0000</p>	<p><i>There is nothing definite... It's just that I like more colourfulness. That's why it makes me glad, more than the previous card. I don't see anything definite... It's something symmetric. Nothing. The red spots (inside the black) remind me a ladybird, such a tiny one.</i></p>	<p><i>I refer to the entire black blot, without the red in the upper section of the card. The red spots inside the black might be seen as the main sign of a ladybird.</i></p>
<p><b>Subject B</b> – Male, 22, Religious Studies  PPAI - 1.125</p>	<p><i>It seems to me like a double figure, as if a person is looking at a mirror. It's a little strange figure. The head is a little distorted or angry or crying. This figure is sitting in front of a mirror, linking the hands to the mirror. The feet are just in the same position as the hands.</i></p>	<p><i>First of all, the head and the hands gave that impression. The head seems a little distorted. Here are the eyes, the mouth, the nose. The figure seems crying or a little angry. The colour gave the impression of the mood. The red colour gave the impression that the figure is crying or angry.</i></p>

**Table 7.2.b Responses to Card II of the Rorschach: Examples of higher PPAI subjects' protocols**

	<i>Associations</i>	<i>Enquiry</i>
<p><b>Subject C</b> – Male, 22, Psychology</p> <p>PPAI - 3.875</p>	<p><i>It seems like two people sitting, bending, one against the other.</i></p>	<p><i>Each person, exactly half of the blot. The part that seems like hands is prominent, important. The red blots might be hats or long hair of a traditional Japanese woman. They have no faces.</i></p>
<p><b>Subject D</b> – Female, 22, Interdisciplinary Studies</p> <p>PPAI - 3.875</p>	<p><i>I see here two women bending one against the other, linking hands. They have a kimono with flowers, the coloured spots. It's a pillow on the back.</i></p>	<p><i>It seems like some kind of a ritual, because they are bending with their head and neck, and also because they are sitting on their knees. Here is the hair, in the red, although originally it should have been black. It's a kimono because of the special form of the dress with a pillow on the back. There is a surplus of cloth. It does not seem particularly soft.</i></p>

The following statements of interpretation are derived from the analysis of sequence of associations and verbal material included in the responses, and represent hypotheses concerning various personality features. These hypotheses should be examined by other responses to the same card, by responses to other cards and by the structural summary of the subjects' protocol. The aim of the present analysis based on these hypotheses is to exemplify the wealth of the idiographic approach and to examine the extent to which using it might strengthen the results derived from the structural analysis of the Rorschach protocols.

Subject A seems to be mostly reactive to the red colour in the card. This overreactiveness to the red colour is explained as repression of spontaneous full responsiveness to chromatic colours for unconscious reasons (Rorschach, 1941; Piotrowski, 1974). Moreover, it might be hypothesized that the repressed colour response is nearly always negative, for hate and aggression is much more likely to bring

about anxiety, indicated by the presence of the colour overreactiveness, than is warmth, kindness or agreeableness. The present subject seems to react with some kind of confusion or flooding confronting this affective stimulus, and fails, at first, to form any significant percept saying: "*I don't see anything definite*"... (This phenomenon of initial failing to respond to coloured cards would characterize this subject in the other coloured cards as well). Further, he is able to give a meaningful response, however, with emphasized attractiveness to some of the coloured, even marginal parts of the blot "*The red spots (inside the black) remind me of a ladybird*". Although in most cases this card elicits a *Pair* response of two similar objects, this subject fails to see a pair of objects (some difficulties in interpersonal relationships), but rather notes that there is a symmetry, which he interprets as the two parts of the ladybird. He chooses a tiny animal, although relating to a large part of the blot, probably reflecting a tendency for self-devaluation, and lower self-image. The description of the animal does not include a gesture or a movement, probably indicating a tendency of suppression and inhibition of drives.

Subject B also reacts relatively strongly to the red colour but in a different way. The response was given after an extremely long initial reaction time and thus is also considered as revealing a shock to the red (see above). The red colour gives him the impression of the mood: "*The figure is crying or angry*". The two human figures that he sees in the blot are in fact the same person who is sitting and looking at a mirror (a narcissistic-like feature, indicating some problems in interpersonal relationships). He does not indicate whether the figure is male or female. This might raise a hypothesis concerning difficulties with self-image, which gets reinforcement from some features of

spoiled self-perception that are presented in the verbalization: "*distorted*", "*strange*". The affective experience is generally negative, depressive and aggressive.

Subject C perceives two Japanese women (*Pair* response of human figures) in a cooperative act, indicating agreeableness in interpersonal relations and experiential openness. There is an well-integrated reference to the colour that does not seem flooding, threatening or raising over-reactivity "*The red hats might be hats or long hair of traditional Japanese women*". The special comment that "*they have no faces*" might indicate some kind of concern with self-searching or difficulties in self-perception.

Subject D perceives two Chinese women in some kind of a ritual. The general interpretation of this response is similar to that of Subject C, indicating agreeableness, experiential openness to other people, well-integrated reference to the colour, representing a balanced reaction to affective stimulus. Moreover, the description of the human figure in this response suggests high integrative complexity. It includes many differentiated features (hair, kimono etc.) integrated to a significant percept. The special comment relating to texture "*There is a surplus of cloth. It does not seem particularly soft*" might indicate strong needs for closeness.

To sum up the above responses it seems that all four subjects are highly motivated and make considerable effort in processing the responses, indicating that the same pattern probably exists, in general, when they are involved in processing information activity (Exner, 1993). Certainly, this feature can be an asset provided adequate resources are available. However, it can be a liability if resources are limited or if the quality, efficiency or consistency of the processing is substandard. It is not the aim of the present analysis to assess the available resources of these subjects. Nevertheless,

there seem to be some cues for two main features of the personality picture that might be assessed on the basis of the above responses: patterns of affective reactivity, as reflected by the fact that it is the first coloured stimulus, and experiential openness, as reflected by the fact that this stimulus usually elicits *Pair* responses.

The two lower PPAI subjects seem to overreact to the affective, coloured stimuli. This overreactiveness is in accordance with the results previously discussed on the basis of the structural analysis of the Rorschach protocols, indicating that the lower PPAI group is higher in the Affective Ratio (*Afr*) as compared to the higher PPAI group (see above in this chapter). The sequence analysis of the associations in the responses of the two lower PPAI subjects (see Table 2.a) might show that they are experiencing a significant increase in stimuli demands as a result of situationally related stress, probably related to the affective features of the stimuli. The situational stress might impair their capacity for control and create the potential for impulsive thinking or emotions and the resulting behaviours. Furthermore, both subjects fail to give the near popular *Pair* response to this card, which might be interpreted as indicating lack of openness to other people.

As compared to this personality picture, the two higher PPAI subjects seem to be much less flooded by the affective coloured stimuli (see Table 7.2.b). While they are willing to display feelings openly, they are also inclined to be quite concerned about modulating or controlling those displays. Furthermore, both are giving a *Pair* response relating to people from other countries (Japanese, Chinese). The cooperative activity in these *Pair* responses might indicate that the two subjects tend to expect that positive interactions will routinely exist among people and are interested in such interactions (Exner, 1993). The implication of these personality characteristics to the attitudes

toward the Peace Process is quite obvious. Only when expecting positive interactions to routinely exist among people an individual can develop peace supportive attitudes toward conflict resolution through cooperation rather than through power.

## **CHAPTER EIGHT**

### **Results (D) Discriminant Analysis on Groups Defined by the PPAI**

The results presented in this chapter examine the fifth and the sixth hypotheses.

The fifth hypothesis stated that the differences between the two groups of higher and lower pro-peace individuals would be significant not only in the examination of each of the traits separately, but also in a configurational discriminant function. Thus, there would be a different personality profile that characterizes the higher as compared to the lower peace supporters both in terms of self-rating scales and in terms of Rorschach-derived measures.

Following the conceptual and empirical relations between religiosity and attitudinal variables on the one hand, and between religiosity and personality traits on the other, the sixth hypothesis of the research related to the profile of the pro-peace personality when religiosity is entered to the configurational discriminant functions. It was hypothesized that the pro-peace personality tends to be non-religious, less authoritarian conformist, more agreeable and unconventional, more integrative-complex in psychological functioning, more aware of drives and impulses and more open-minded and creative.

The tables in this chapter present stepwise discriminant analyses on the two groups defined by the Pro-Peace Attitudes Index - PPAI. To distinguish between the groups a collection of discriminating variables that measure characteristics on which the groups are expected to differ was selected. The examined variables in these analyses are: The GS scales (Table 8.1); the BFI factors (Table 8.2); the combination of the two self-rating measures, GS and BFI (Table 8.3); the Rorschach measures that have been found as most related to peace attitudes – *Xu%*, *FM*, *Blends* (Table 8.4). Furthermore,

a combination of the self-rating scales with religiosity (Table 8.5) and with the Rorschach measures (Table 8.6) was examined.

Each of the tables is divided into four parts. The first part presents the Summary Table including the variables that entered into the equation in each step and the computed Wilks' lambda. The Wilks' lambda is an inverse measure of the discriminating power in the original variables, which has not yet been removed by the discriminant functions. Since there are only two groups, one discriminant function is possible. The classification function coefficients are presented in the second part of the tables. The third part of each table presents the canonical discriminant functions and includes the Eigenvalue, a measure of the relative importance of the function, and a chi-square statistic. The chi-square in this case is a measure to which the Wilks' lambda can be transformed for an easy test of statistical significance of this lambda to occur by chance, even if there is no further function in the population. Also, included in this part of the tables the standardized canonical discriminant function coefficients and the canonical discriminant functions evaluated at group means (group centroids). The interpretation of the standardized discriminant function coefficients is similar to the interpretation of beta weights in multiple regression. As in factor analysis, these coefficients can be used to define the function by the dominant characteristic they measure. The average score for the cases within a particular group is the group mean on the respective function. For a single group, the means on all the functions are referred to as the group centroid, which is the most typical location of a case from that group in the discriminant function space. The fourth part of the tables presents the classification results indicating the process of defining the likely group membership of the subjects when the only data known is their values on the discriminant variables.

By classifying the cases used to derive the functions and comparing predicted with actual group membership, one can empirically measure the success in discrimination by observing the proportion of correct classifications (for further discussion on the use of discriminant analysis in the present research see Chapter Nine).

Table 8.1 presents the results of a stepwise discriminant analysis on the two PPAI groups when the examined variables are the General Survey scales.

**Table 8.1 Discriminant analysis of the GS scales on the PPAI groups (N = 197)**

**I Summary Table**

<i>Step</i>	<i>Variable Entered</i>	<i>Wilks' Lambda</i>	<i>Significance</i>
1	<i>Authoritarian Conformity</i>	.8959	.0000
2	<i>Aggressive Mistrust</i>	.8750	.0000

**II Classification Function Coefficients (Fisher Linear Discriminant Functions)**

	<i>Low PPAI (N=99)</i>	<i>High PPAI (N=98)</i>
<i>Authoritarian Conformity</i>	6.3865	5.5595
<i>Aggressive Mistrust</i>	5.6857	5.3393
<i>Constant</i>	- 24.7341	- 20.2790

***III Canonical Discriminant Functions***

<i>Fcn</i>	<i>Eigenvalue</i>	<i>Percentage of Variance</i>	<i>Canonical Correlation</i>	<i>Wilks' Lambda</i>	<i>Chi Square</i>	<i>Df</i>	<i>Sig</i>
				.8750	25.912	2	.0000
1*	.1429	100.0	.3536				

\* *The one canonical discriminant function remaining in the analysis*

***Standardized Canonical Discriminant Function Coefficients******Function 1***

<i>Authoritarian Conformity</i>	1.0259
<i>Aggressive Mistrust</i>	.4497

***Canonical Discriminant Functions Evaluated at Group Means (Group Centroids)***

<i>Group</i>	<i>Function 1</i>
<i>Low PPAI (N=99)</i>	.3742
<i>High PPAI (N=98)</i>	-.3780

*IV Classification Results*

<i>Actual Group</i>	<i>Predicted Group Membership</i>	
	<i>Low PPAI</i>	<i>High PPAI</i>
<i>Low PPAI (N=99)</i>	58 58.6%	41 41.4%
<i>High PPAI (N=98)</i>	35 35.7%	63 64.3%
<i>Percent of "Grouped" cases correctly classified</i>	61.42%	

The stepwise procedure's results that are summarized in Table 8.1. show that two scales of the original four of the General Survey were selected before the addition to the analysis became nonsignificant - the scale of authoritarian conformity (step 1) and the scale of aggressive mistrust (step 2). The degree of separation between low and high PPAI subjects is indicated by the canonical correlation of .3536 for the only discriminant function. The group centroids of .3742 for the lower PPAI and - .3780 for the higher point to the most typical location of a case from that group in the discriminant function space, showing that the lower PPAI subjects are high on this discriminant function of authoritarian conformity and aggressive mistrust, whereas the higher PPAI subjects are low on this function.

The classification results show that 61.42% of the cases, can be "grouped" correctly knowing their score on the authoritarian conformity and the aggressive mistrust scales.

Thus, although aggressive mistrust, as measured by the General Survey was not significantly related to attitudes toward the Peace Process, as an isolated variable, it contributes to the discrimination function when combined with authoritarian conformity. The contribution of aggressive mistrust, as one of the General Survey scales, to the discrimination between lower and higher pro-peace subjects, is in accordance with the finding, based on the Big Five Factors, pointing that agreeableness is the only discriminating factor between the two groups of subjects.

Table 8.2 presents the two research groups defined by the Pro-Peace Attitudes Index - PPAI. The examined variables in this analysis are the Big Five Factors.

**Table 8.2 Discriminant analysis of the BFI factors on the PPAI groups (N=197)**

**I Summary Table**

<i>Step</i>	<i>Variable Entered</i>	<i>Wilks' Lambda</i>	<i>Significance</i>
1	<i>Agreeableness</i>	.9716	.0179

**II Classification Function Coefficients (Fisher Linear Discriminant Functions)**

	<i>Low PPAI (N=99)</i>	<i>High PPAI (N=98)</i>
<i>Agreeableness</i>	21.4157	22.3155
<i>Constant</i>	- 33.5137	- 36.3296

**III Canonical Discriminant Functions**

<i>Fcn</i>	<i>Eigenvalue</i>	<i>Percentage of Variance</i>	<i>Canonical Correlation</i>	<i>Wilks' Lambda</i>	<i>Chi Square</i>	<i>Df</i>	<i>Sig</i>
				.9716	5.610	1	.018
<i>I*</i>	.0293	100.00	.1686				

\* *The one canonical discriminant function remaining in the analysis*

***Standardized Canonical Discriminant Function Coefficients******Function 1***

*Agreeableness*     1.0000

***Canonical Discriminant Functions Evaluated at Group Means (Group Centroids)******Group***                      ***Function 1***

*Low PPAI (N=99)*     - .1693

*High PPAI (N=98)*     .1711

IV Classification Results

<i>Actual Group</i>	<i>Predicted Group Membership</i>	
	<i>Low PPAI</i>	<i>High PPAI</i>
<i>Low PPAI (N=99)</i>	57 57.6%	42 42.4%
<i>High PPAI (N=98)</i>	45 45.9%	53 54.1%
<i>Percent of "Grouped" cases correctly classified</i>		55.84%

The results of the stepwise procedure that are summarized in Table 8.2 show that only one factor - agreeableness (A) - of the original five was selected before the addition to the analysis became nonsignificant. Since there are two groups, only one discriminant function is possible. The degree of separation between low and high PPAI subjects is indicated by the canonical correlation of .1686 for the discriminant function. The group centroids of -.1693 for the lower PPAI and .1711 for the higher point to the most typical location of a case from that group in the discriminant function space, indicating that the lower PPAI subjects tend to score low on the discriminant variable, Agreeableness, while the higher PPAI tend to score high on this variable. The comparison between the group centroids on the function shows how far apart the groups are on that dimension. The classification results show that in 55.84% of the cases, the likely group membership of a subject can be predicted when the only data

known is the Agreeableness score. This proportion of correct classifications gives an empirical measure of the extent of discrimination.

Table 8.3 presents the discriminant analysis of the combined variables of the General Survey scales and the Big Five Factors on the two groups defined by the Pro-Peace Attitudes Index, PPAI.

**Table 8.3 Discriminant analysis of the GS and BFI factors on the PPAI groups (N=197)**

**I Summary Table**

<i>Step</i>	<i>Variable Entered</i>	<i>Wilks' Lambda</i>	<i>Significance</i>
1	<i>Authoritarian Conformity</i>	.8959	.0000
2	<i>Agreeableness</i>	.8510	.0000

**II Classification Function Coefficients (Fisher Linear Discriminant Functions)**

	<i>Low PPAI (N=99)</i>	<i>High PPAI (N=98)</i>
<i>Authoritarian Conformity</i>	3.1650	2.3349
<i>Agreeableness</i>	19.8867	21.1875
<i>Constant</i>	- 37.7083	- 38.6124

***III Canonical Discriminant Functions***

<i>Fcn</i>	<i>Eigenvalue</i>	<i>Percentage of Variance</i>	<i>Canonical Correlation</i>	<i>Wilks' Lambda</i>	<i>Chi Square</i>	<i>Df</i>	<i>Sig</i>
				.8510	31.290	2	.0000
1*	.1750	100.00	.3859				

\* *The one canonical discriminant function remaining in the analysis*

***Standardized Canonical Discriminant Function Coefficients***

	<i>Function 1</i>
<i>Authoritarian Conformity</i>	.9306
<i>Agreeableness</i>	-.5912

***Canonical Discriminant Functions Evaluated at Group Means (Group Centroids)***

<i>Group</i>	<i>Function 1</i>
<i>Low PPAI (N=99)</i>	.4141
<i>High PPAI (N=98)</i>	-.4184

**IV. Classification Results**

<i>Actual Group</i>	<i>Predicted Group Membership</i>	
	<i>Low PPAI</i>	<i>High PPAI</i>
<i>Low PPAI (N=99)</i>	67 67.7%	32 32.3%
<i>High PPAI (N=98)</i>	38 38.8%	60 61.2%
<i>Percent of "Grouped" cases correctly classified</i>		64.47%

Summing up the results of the discriminant analysis by the self-rating measures of personality traits, it can be shown that the lower and higher PPAI groups are mainly discriminated on the basis of authoritarian conformity entered in step 1, and agreeableness entered in step 2. Thus, 64.47% of the subjects can be correctly "grouped" on the basis of these two variables.

Table 8.4 presents the discriminant analysis on the two research groups defined by the Pro-Peace Attitudes Index, PPAI, when the examined variables are three Rorschach-derived measures: unusual responses (*Xu%*), animal-movement responses (*FM*), and the *Blends* (1).

**Table 8.4. Discriminant analysis of Rorschach-derived measures on the PPAI groups (N=26)**

**I Summary Table**

<i>Step</i>	<i>Variable Entered</i>	<i>Wilks' Lambda</i>	<i>Significance</i>
1	<i>Animal Movement Responses (FM)</i>	.6932	.0033
2	<i>Unusual Responses (Xu%)</i>	.4241	.0001

**II Classification Function Coefficients (Fisher Linear Discriminant Functions)**

	<i>Low PPAI (N=16)</i>	<i>High PPAI (N=10)</i>
<i>Animal Movement Responses (FM)</i>	.9175	1.7832
<i>Unusual Responses (Xu%)</i>	.2233	.4130
<i>Constant</i>	- 3.9923	- 12.5319

---

(1) As the small sample size did not permit using more than 3 variables in the equation, the mostly significant variables were chosen for this analysis.

***III Canonical Discriminant Functions***

<i>Fcn</i>	<i>Eigenvalue</i>	<i>Canonical Correlation</i>	<i>Wilks' Lambda</i>	<i>Chi Square</i>	<i>Df</i>	<i>Sig</i>
			.4241	19.731	2	.0001
1*	1.3582	.7589				

\* *The one canonical discriminant function remaining in the analysis*

***Standardized Canonical Discriminant Function Coefficients***

	<i>Function 1</i>
<i>FM</i>	.9698
<i>Xu%</i>	.9128

***Canonical Discriminant Functions Evaluated at Group Means (Group Centroids)***

<i>Group</i>	<i>Function 1</i>
<i>Low PPAI (N=16)</i>	-.8852
<i>High PPAI (N=10)</i>	1.4163

**IV Classification Results**

<i>Actual Group</i>	<i>Predicted Group Membership</i>	
	<i>Low PPAI</i>	<i>High PPAI</i>
<i>Low PPAI (N=16)</i>	14 87.5%	2 12.5%
<i>High PPAI (N=10)</i>	1 10.0%	9 90.0%

*Percent of "Grouped" cases correctly classified 88.46%*

The results of the stepwise discriminant analysis, presented in Table 8.4 show that two of the three examined variables - the animal-movement responses *FM* (step 1) and the unusual responses *Xu%* (step 2) - were selected before the addition to the analysis of the next variable (the *Blends*) became nonsignificant. The degree of separation between low and high PPAI is indicated by the canonical correlation of .7589 for the discriminant function.

The group centroids of -.8852 for the lower PPAI and 1.4163 for the higher point to the most typical location of a case from that group in the discriminant function space, indicating that the lower PPAI subjects tend to score low on the discriminant variables, while the higher PPAI tend to score high on this variable. The comparison between these group centroids shows how far apart the groups are on that dimension. The classification results show that in 88.46% of the cases, the likely group membership of a subject can be predicted when the only data known is the *FM* and the

*Xu%* scores. This proportion of correct classifications gives an empirical measure of the extent of discrimination between the two groups.

Referring to the meaning of the results in terms of personality dynamics, it can be shown that the lower and higher PPAI groups are mainly discriminated by the extent to which they relate to their drives (*FM*) and express unconventionality, creativity and originality (*Xu%*).

The extent to which individuals are related to their drives, and the expression of unconventionality, creativity and originality, as measured by the Rorschach-derived measures might be seen as referring to openness to internal and external experience. These results point to the confirmation of the hypothesis relating to differences between subjects with higher and lower supportive attitudes toward the Peace Process, in the experiential openness.

Following the conceptual and empirical relations between religiosity and attitudinal variables in general, and especially in the Israeli society on the one hand (see Chapter Two), and between religiosity and personality traits on the other (see Chapter Three), discriminant analysis on the two PPAI groups by authoritarian conformity, agreeableness and religiosity has been processed. As noted (see Chapter Four), religiosity has been measured by the subjects' self-definition of their religiosity, ranging from 1 to 6 the lower the score, the more are the subjects defining themselves as religious.

Table 8.5 presents the discriminant analysis of religiosity, the GS scale of authoritarian conformity and the BFI scale of agreeableness on the two groups defined by the Pro-Peace Attitudes Index - PPAI.

**Table 8.5 Discriminant analysis of religiosity, Authoritarian Conformity and Agreeableness on the PPAI groups (N=197)**

**I Summary Table**

<i>Step</i>	<i>Variable Entered</i>	<i>Wilks' Lambda</i>	<i>Significance</i>
1	Religiosity	.6303	.0000
2	Authoritarian Conformity	.5927	.0000
3	Agreeableness	.5692	.0000

**II Classification Function Coefficients (Fisher's Linear Discriminant Functions).**

	<i>Low PPAI (N=99)</i>	<i>High PPAI (N=98)</i>
Religiosity	2.4748	3.7634
Authoritarian Conformity	3.2437	2.4544
Agreeableness	20.1058	21.5207
Constant	- 41.9563	- 48.4358

**III Canonical Discriminant Functions**

<i>Fcn</i>	<i>Eigenvalue</i>	<i>Canonical Correlation</i>	<i>Wilks' Lambda</i>	<i>Chi Square</i>	<i>df</i>	<i>Sig</i>
			.5692	109.034	3	.0000
1*	.7568	.6563				

\*The one canonical discriminant function remaining in the analysis

**Standardized Canonical Discriminant Function Coefficients****Function 1**

<i>Religiosity</i>	.8775
<i>Authoritarian Conformity</i>	-.4255
<i>Agreeableness</i>	.3092

**Canonical Discriminant Functions Evaluated at Group Means (Group Centroids)**

<i>Group</i>	<i>Function 1</i>
<i>Low PPAI (N=99)</i>	-.8611
<i>High PPAI (N=98)</i>	.8699

*IV Classification Results*

<i>Actual Group</i>	<i>Predicted Group Membership</i>	
	<i>Low PPAI</i>	<i>High PPAI</i>
<i>Low PPAI (N=99)</i>	73 73.7%	26 26.3%
<i>High PPAI (N=98)</i>	9 9.2%	89 90.8%

*Percent of "Grouped" cases correctly classified*

The stepwise procedure's results summarized in Table 8.5 show that three of the ten examined variables were entered to the equation significantly. Religiosity, as expected, was entered in the first step with Wilks' Lambda Coefficient of .6303 ( $p < .0001$ ), the GS scale of authoritarian conformity was entered in the second step with Wilks' Lambda of .5927 ( $p < .0001$ ), and the BFI scale of agreeableness in the third with Wilks' Lambda .5692 ( $p < .0001$ ).

The canonical discriminant functions evaluated at group means, group centroids, are -.8611 for the lower PPAI group and .8699 for the higher. The classification results show that 82.23% of "grouped" cases are correctly classified by these variables.

Table 8.6 presents the two research groups defined by the Pro-Peace Attitudes Index - PPAI. The examined variables in this analysis are religiosity, the Rorschach measures of unusual responses ( $Xu\%$ ) and animal-movement responses ( $FM$ ).

**Table 8.6 Discriminant analysis of religiosity, Xu% and FM on the PPAI groups (N=26)**

**I Summary Table**

<i>Step</i>	<i>Variable Entered</i>	<i>Wilks' Lambda</i>	<i>Significance</i>
1	Religiosity	.2671	.0000
2	Xu%	.2173	.0000

**II Classification Function Coefficients (Fisher's Linear Discriminant Functions)**

	<i>Low PPAI (N=16)</i>	<i>High PPAI (N=10)</i>
Religiosity	3.9377	8.3218
Xu%	0.1902	0.3589
Constant	-6.8848	-27.0098

**III Canonical Discriminant Functions**

<i>Fcn</i>	<i>Eigenvalue</i>	<i>Canonical Correlation</i>	<i>Wilks' Lambda</i>	<i>Chi Square</i>	<i>Df</i>	<i>Sig</i>
			.2173	35.111	2	.0000
1*	3.6023					

\* The one canonical discriminant function remaining in the analysis

**Standardized Canonical Discriminant Function Coefficients****Function 1***Religiosity* .9474*Xu%* .4984**Canonical Discriminant Functions Evaluated at Group Means (Group Centroids)****Group**                      **Function 1***Low PPAI (N=16)*              - 1.4416*High PPAI (N=10)*            2.3065**IV Classification Results**

<b>Actual Group</b>	<b>Predicted Group Membership</b>	
	<b>Low PPAI</b>	<b>High PPAI</b>
<i>Low PPAI (N=16)</i>	14 87.5%	2 12.5%
<i>High PPAI (N=10)</i>	0	10 100%

Percent of "Grouped" cases correctly classified 92.31%

The discriminant analysis of the two Rorschach-derived measures *FM* and *Xu%*, and religiosity show that religiosity is entered in the first step with Wilks' Lambda Coefficient of .2671;  $p < .0001$  and *Xu%* in the second step (.2173;  $p < .0001$ ). The *FM* measure was not entered probably because of its relation to religiosity which have already been entered to the equation.

The canonical discriminant functions evaluated at group means, group centroids, are - 1.4416 for the lower PPAI group and 2.3065 for the higher. The classification results show that 92.31% of "grouped" cases are correctly classified by these variables.

The results confirmed the concluded hypothesis of the research, indicating that religiosity, authoritarian conformity, agreeableness, and open-mindedness discriminate between the higher and lower pro-peace personality. The pro-peace individual is non-religious, less authoritarian conformist, and more agreeable, unconventional, creative and open to experience.

## CHAPTER NINE

### Discussion and Conclusions

#### 1. Potential Applications of the Research Results

The aim of this concluding discussion is to present the main results of the study, to examine the central question of whether a “Pro-Peace Personality” does exist, and to investigate the contributions and applications of the work as regards to the following domains: peace research, personality psychology, statistical considerations, and the Peace Process in the Middle East.

## 2. The Personality Perspective of Peace Research

The present research has examined the question of why some people are supporting the peace process in the Middle East while others do not. More especially, it considers the evidence for hypothesizing that there are common psychological traits that relate to individuals' supporting the peace process. From the point of view of peace research, this question might be broader, hypothesizing that there are psychological factors that predispose individuals to support a policy of peacemaking, to whichever the particular country or national group they belong. The main significance of this hypothesis is that despite contrasting circumstances of various conflicts, it is possible that the same psychological factors are motivating individuals in different countries to take a stand for or against conflict resolution through cooperation rather than through strength and manipulation of power.

As has been shown (see Chapter Two above) peace research is a comparatively recent field with no firm boundary, encompassing an interdisciplinary enquiry into the conditions of war and peace, conflict and cooperation at the inter-state and intra-state levels. Many authors suggest that problems of war and peace should be given more recognition in several social science disciplines (Pepper & Jenkins, 1985; Creighton & Shaw, 1987; Banks & Shaw, 1991). Generally, it is accepted that conflict as an area in the social sciences cannot be an isolated, autonomous area. Different authors state that no single discipline or theoretical perspective is likely to generate an adequate theory, and without an integrative perspective that encompasses the different disciplines of the social sciences it seems difficult to offer useful prescriptions for preventing intra-state and inter-state destructive conflicts (Shaw, 1991). Nevertheless, although many

researchers are quite remarkable in their recommendations to cross disciplinary borders, the question of how this integration might be achieved is rarely addressed in the literature on conflict and peace research (Deutsch, 1977; Suedfeld & Tetlock, 1992; Blumberg, 1993; Blumberg, 1997). There have been numerous suggestions about what role psychologists might play in conflict resolution, as researchers, activists, educators and mental health professionals (Wagner, 1988).

The field of international relations as a whole, and that of international conflict in particular, bristles with psychological problems. However, the present research, examining basic personality dispositions, is not intended to suggest an integrative perspective to the analysis of conflict resolution, nor is it intended to give prescription, which spells objectives and values of the subject matter. The aim of the research is rather more descriptive, to enlighten the psychological dynamics that might explain peace supportive or non-supportive attitudes, contributing the personality perspective of the public to the integrative picture. This perspective, almost completely missing in psychological peace research, probably because few psychologists have the necessary dual background of personality psychology and international relations, seems to have special importance to the understanding of the dynamics of conflict resolution.

As has been noted (see Chapter Two), most of the psychological peace studies deal with social-psychological rather than personality factors, although those which do relate to personality traits focus mainly on cognitive factors, such as integrative complexity, which are considered to be obviously related to peace attitudinal systems, neglecting less obvious cognitive factors as well as affective and other personality characteristics. Furthermore, the examined population in the cognitive studies has

usually been the decision-makers, rather than the public, though the impact of public opinion on decision making is well recognized.

The present research, being aimed to fill the gaps in psychological peace enquiry, has examined a wide-range of personality traits, not necessarily obviously related to peace attitudes, in a sample of Israeli students as representing various public attitudes toward the Peace Process in the Middle East. Studying personality traits that are not directly related to the specific examined conflict resolution might reveal some common features in public opinion across time and space though time bound findings are frequently found in the study of international conflict.

A basically similar approach has been used in studies relating to factors predisposing individuals to support nuclear disarmament in various countries (Rigby et al., 1990). The studies, examining community samples in Australia, West Germany, Netherlands and the United States, have showed that in each country, people who supported nuclear disarmament were significantly more likely than others to be relatively world-minded, less favourably disposed to institutional authority and more anxious about nuclear war. The authors conclude that while local conditions might determine the degree of support for nuclear disarmament, predisposing social psychological factors operate with similar effect across national boundaries. People who are more world-minded feel less threatened by nuclear disarmament as well as to accept cooperation with other nations (Rigby et al., 1990). Also, people who are less authoritarian are supposed to reject different authorities who exercise control over others including control of one nation or group over another (Rump et al., 1985; Rigby & Rump, 1982; Rigby et al., 1990; Salomon, 1986).

Another cross-national project suggests that the results of common beliefs that are determining attitudes to nuclear disarmament, are replicated in large scale studies conducted among students in United States, England and Australia (Zweigenhaft et al., 1986).

It seems worth noting that authoritarianism and world-mindedness, which have been found in the cross-national studies (Rigby et al., 1990) to be related to nuclear disarmament attitudes have been found in the present research to be related to attitudes toward the peace process in the Middle East as well. Thus, the present results point out that low authoritarianism and openness to experience, a construct which encompasses, among others, world-mindedness, are related to supportive attitudes toward the peace process.

On the question of whether opposition to nuclear weapons could be, at least partially, seen as an expression of opposition to institutional authorities, Salomon (1986) pointed to the affiliations of peace activists with the political parties of the left which usually express opposition to authoritarianism: the Socialist Party in Denmark, the Social Democrats in Netherlands, the Green Party in Germany and the Labour Party in Britain. As noted (see Chapter Two above), such affiliation is represented by the left-wing parties in Israel as well.

However, both the present research and studies that dealt with nuclear disarmament, show that using authoritarianism as providing a total personality explanation of attitudes toward conflict resolution is much too simplistic. Rigby et al., (1990) have shown that in each of the four countries from which their samples were drawn, there is evidence that the positive quality of world-mindedness operates independently of the judgments people make of institutional authorities. In fact, their studies suggest that

world-mindedness is of at least equal importance in motivating individuals to participate in the Peace Movement.

Following previous studies dealing with psychological factors related to attitudes toward nuclear disarmament, the results of the present research throw some light upon the psychological profile of those who support conflict resolution through cooperation. It does appear that previous studies' interpretation that peace movements provide, to a significant extent, an opportunity for the expression of generalized anti-authority feeling was confirmed. To state it differently, attitudes supporting conflict resolution through strength rather than through cooperation characterize the authoritarian personality, supporting authorities that exercise control over others, including one state or national group over another. Nevertheless, other psychological factors both cognitive and affective have been found to be related to the individual's attitudinal system toward conflict resolution.

An important conclusion that might be drawn from the results refers to the question *of generality in psychological peace research*. It has been found that despite contrasting circumstances of various conflicts, there are general psychological factors predisposing individuals to support a policy of peacemaking and cooperation. Thus, supportive or non-supportive peace attitudes in different countries, in different topics (nuclear disarmament, peace negotiations) and among various groups of population are related to psychological factors.

Moreover, the present results show *that compared to personality factors, demographic variables emerge relatively insignificant*. Thus, the factor of gender was found as insignificant in relation to attitudinal support of the peace process. The personality factors were of considerably greater importance and operated independently

of the gender effect. A similar conclusion has been pointed out in another study that has examined attitudes toward national security problems in Israel (Arian, 1989).

Psychological factors were shown to be much more powerful than demographic variables in explaining the distribution in public opinion. Moreover, studies dealing with similar topics in other countries point to the same conclusion. Rigby et al., (1990), relating to sociopolitical rather than personality factors, state that compared with the sociopolitical factors examined in the study, demographic considerations within countries emerged as relatively unimportant. Thus, the factor of gender accounts for very little of the variance in the peace supporting attitudes.

*The significant relationship between religiosity and peace attitudes* is another important theme evoked by the present research. The rise of fundamentalist movements, specifically in Islamic countries, but elsewhere as well, has generated a wide-ranging response, in both academic and policy fields, relating to the combination of religious and political goals (Halliday, 1995). In claiming that the clash of civilizations will replace the Cold War as the defining quality of future society, Huntington (1993) drew special attention to religious traditions as a central force that motivates people, and states that its common integration with nationalism produces especially fearful consequences. Johansen (1997) notes that the current rise of religious nationalism that foments violence places an added responsibility on social scientists to understand how religious affiliation and motivation influence people's choice of violent or nonviolent means of conflict resolution. Religious identities and religious legitimization of the use of military force often ignite the flames of collective violence. This has been shown in the war initiated by Saddam Hussein while conquering Kuwait in 1990, which was followed by the Gulf War in 1991, as well as in the threat, claimed

in February 1998, that he might deploy biological and chemical weapons against Israel. The contemporary importance of religious traditions in fomenting violence, even among people who are not religious, has recently been shown in Yugoslavia. Various other examples of religious militancy can be found at present, to varying degrees, in every major religious tradition.

The present results seem to confirm this conception of religious identities and affiliations. The split between peace supporters and non-supporters roughly though not exactly, maps on the split between religious and non-religious, each group having a different personality profile. The results showed that while entering religiosity to the discriminant analysis on the two groups of higher and lower Pro-Peace Attitudes Index, PPAI, religiosity was entered in the first step, both when the equation included self-rating personality scales, and when it included Rorschach-derived measures. The pro-peace individual has thus been found as being non-religious, less authoritarian conformist, and more agreeable, unconventional, creative and open to experience. Nevertheless, it must be emphasized that though the relationship between religiosity and peace attitudes is indisputably most significant, personality traits still have a considerable independent contribution to the variance in peace attitudes. It seems worth to comment that review of peace research literature shows that the integration between religious and psychological perspectives is not strongly represented though there are some exceptions (Blumberg, 1997). As has been shown by the present research, such integration brings out the possibility that the social cognitions studied - beliefs about the Peace Process - are group beliefs. There might be characteristics of the groups in question - socialization practices and social structure for example - that account for the personality features that covaried with the beliefs. The data showing that peace

attitudes, religiosity and certain personality traits form one entity might thus be marshalled in discussing the identity issue.

Johansen (1997) states that religion can define the identities of and mobilize more people than any other contemporary force. He claims that the choice for believers is not limited to active religious violence, on the one hand, and inactive religious stagnation on the other. Nor is the choice limited to debates between religious fanaticism and secular liberalism. Religious values, if sensitively understood and implemented, may restrain violence and encourage people to transcend national and even religious boundaries to express solidarity with people of different traditions. He suggests that although few authors relate to the issue of how religious traditions might contribute to international peace (Boulding, 1992), these traditions could play a powerful political role in promoting peace and nonviolent forms of conflict resolution. This role of traditions might be shown even in contexts where violence may seem fully justified, and where extreme hostilities exist between various groups.

Another theme evoked by the results of the present research relates to *the importance of understanding the psychological perspective of public opinion*, assuming there is a significant impact of public opinion on conflict resolution's decision-making. As has been noted the main focus in peace research has usually been on decision-makers, although there has been much interest in public opinion and the nature of its interaction with policy-making. The rise of peace movements in many western countries, with significant echoes in some eastern European states, has been one of the manifestations of wider public concern (Shaw, 1991). This relationship between public opinion and policy-making is certainly complex, but it is agreed that public opinion delimits the option parameters of decision-makers, even if it does not dictate to the decision-makers

what specifically they have to do in every step of the political process. The distribution of public attitudes as well as the different factors affecting it, are thus crucial data for decision-makers, especially in democratic regimes. The examination of psychological factors related to conflict resolution attitudes is important for any political system, but may be especially significant when the political scene is shaped by a multi-party system. Then, the structure of opinion becomes an important political resource, and the understanding of its psychological roots is of special importance, because of the emotions invested in political discourse.

From the point of view of *peace education* the results seem to be encouraging pointing out that personality traits such as experiential openness, unconventionality, creativity and open-mindedness that have emerged as conceptually and empirically related to peace attitudes can be adopted as a basis for inculcating attitudes conducive to peace. Different authors explore ways to shape individual personalities, societies and the relations among them with the ultimate aim of diminishing intergroup conflicts and war (Staub, 1988). Staub relates to socialization practices by parents and schools that promote positive connection to and caring about people and suggests that parent training and family system diagnoses can impart awareness and skills and influence parental attitudes. On a societal level, institutions and culture can be shaped by creating systems of positive reciprocity among groups, by crosscutting relations among members of different groups.

Deutsch (1993) has outlined a program of what schools can do to encourage cooperative learning, describing some central elements in an effective educational program, based on the assumption that principles relevant to education may well be appropriate to peacemaking in general.

In addition to major campaigns through schools, media and public education to communicate the values of each side in the conflict, psychologists also recommend small, frequently scheduled facilitated workshops that bring together various groups from all sides. Such workshops might be based on using imaging experience (Boulding, 1988) or any other psychological tool that might be effective for facilitating the understanding of the differences and the alternatives of intra-state and inter-state conflict resolution. The recommendations are based on the involvement of the psychologist as an impartial third party who organizes and facilitates small group problem solving discussions between members of the conflicting parties. The objectives have ranged from increased awareness and attitude change, through new realizations about the sources and nature of the conflict, to the generation of creative solutions that could be implemented. This approach has been defined as Interactive Conflict Resolution - ICR - in order to emphasize the principle that effective, collaborative, face-to-face interaction among representatives of the parties themselves is required to understand and resolve complex and escalated intergroup and international conflicts (Fisher, 1993). Some of the work in small groups has used a terminology based on the conceptual framework of the System for the Multiple Level Observation of Groups, SYMLOG, relating to three dimensional space in which social interaction takes place, the dimensions being dominant-submissive, positive-negative and instrumental-expressive (Blumberg, 1997). Referring to the present results, such work in small groups, might be much more effective, when based on the understanding of personality traits that relate to peace attitudes.

Nevertheless, the present results might be also frustrating from the point of view of peace education, pointing out that changing attitudes toward conflict resolution do not

simply mean public-oriented work on attitude change. Individual oriented work on some basic personality factors, which might be a part of a relatively rigid personality structure, is required as well. The question of how much psychological work is fruitful in making such a personality structure more flexible is of special importance.

Staub (1988) states that for a negative system of reciprocity to change, for trust to evolve, the parties may often need to begin by initiating positive acts. They can move from diplomatic contact to cultural and academic exchanges, to cooperation in other activities. Sometimes, highly significant positive initiatives do find an immediate response, as in the case of Anwar Sadat's offer to go to Jerusalem.

Yet, as has been shown by the present results these initiatives wouldn't be enough if they were supposed to change the stand of individuals who are characterized by authoritarianism, conventionality, close-mindedness, lacking integrative complexity, creativity and openness to experience. Intensive psychological work, directed at diminishing rigidity and strengthening flexibility, must be done in order to enable positive initiatives to be fruitful.

To sum up, the contribution of the present research from the point of view of peace psychology, might be seen as demonstrating the significance of personality traits in discriminating between higher and lower peace supporters, suggesting that there are important areas of common interests between clinical psychologists and peace researchers that have not fully been explored yet. Psychological work on the individual and small groups level seems important as a basis for resolving practical problems of conflict prevention, conflict resolution, introducing peace initiatives as well as developing post-conflict peace building. It seems that only in integrating these two different types of work on the public and individual level, the process of peace building

might occur and cooperation between rival groups might be achieved. The conclusions of the present research, exploring personality factors that contribute to and block the development of the Peace Process in the Middle East, might certainly be applied to other scenes in contemporary conflicts.

### 3. Using Self-Rating Scales as Personality Measures

The present results point to the usefulness of some self-rating scales as discriminating between higher and lower peace supporters. Nevertheless, it seems that one of the main conclusions derived from the results challenges some of the basic assumptions of the self-rating models in general and the Big Five Factors in particular. Thus, researchers in the field of personality psychology must adopt a skeptical perspective toward the claims of the comprehensiveness of such models.

The aim of the present discussion is not to debate about how many factors there really are, nor the particular factor solutions, in either English or in Hebrew. However, as has been shown in Chapter Four, further statistical analyses are needed to examine whether all the adjectives composing a specific factor really measure the same variable. The main aim of the discussion is to examine the limitations of the self-rating models, as revealed by the results of the present research, without devaluating these models' contribution to the field. Some of the limitations have already been discussed as oppositional views of different authors to the Big Five model (see Chapter Three). The discussion examines those limitations that are especially revealed by the results of this study (for additional limitations see McAdams, 1992; Block, 1995). It is assumed that discussing these limitations might, as McAdams (1992) states, challenge personality psychologists to think critically and creatively about the nature of their field and about what personality psychologists should be studying.

As has been shown (see Chapter Three) the self-rating personality models are based on nomothetic dimensions derived from factor analysis. Although factor analysis is considered to be a sophisticated quantitative tool it has various limitations as regard to its applicability to a model in personality studies. Thus, a common criticism of using

factor analysis in personality studies is that being an arbitrary and *atheoretical model* it is not based on explicit psychological theory (for a detailed discussion on statistical considerations in using factor analysis for personality research see below).

Briggs (1992) points out that the original studies leading to the Big Five Model prompted no a priori predictions as to what factors should emerge or a coherent explanation for the five factors that have emerged. Widiger and Trull (1997) argue that the criticism of the model as revealed by different authors (Millon & Davis, 1994; Block, 1995; Butcher & Rouse, 1996) ignores the main aim of the Big Five model to provide a reasonably comprehensive description of the personality. Nevertheless, it seems that the limitation of being atheoretical might create difficulties particularly in studies, such as the present one, in which the main hypotheses relate to the discriminating power of personality traits as regard to subjects' attitudes.

As has been shown (see Chapter Three) using the term "model" as regard to self-rating measures provides an understanding that the factors are given a picture of the personality structure, which means theoretically based, logically coherent representation or simulation that suggests a generalization for the psychological phenomena. Nevertheless, no theory or model guided the emergence of the factors, and the term "model" might be premature (Block 1995).

Another conceptual difficulty in using self-rating scales, revealed by the present results, might be defined by the old notions - "*The jingle fallacy*" and "*The jangle fallacy*" (Block, 1995). These two notions indicate respectively a situation when different constructs might be labeled as being the same so that one would consider them interchangeable, and a situation in which two different labels express, in fact, the same phenomenon. Do the differently labeled scales of anxiety in the GS and neuroticism in

the BFI measure two different constructs? Do the same labeled scales of extraversion in the GS and the BFI measure exactly the same phenomena? Referring to these self-rating scales, used in the present research, the answers to these questions have raised some major conceptual problems.

Block (1995) poses some other questions about the Big Five Model: What is meant by "major features of personality"? What does the term "global" denote? How does one conclude that a description is reasonably comprehensive? How compelling and indisputable were the procedures by which the five factors were discovered? What is the role of concept and theory in the field of personality psychology? As regard to these questions he points to a number of criteria that would serve for a set of constructs to be scientifically sufficient, stating that the constructs should demonstrate a superior usefulness in prediction or in economy of conceptualization over competing sets of constructs. Examination of the present research results might pose a question as to the superior predictive usefulness of the constructs derived from an atheoretical model such as the Big Five, as compared to those derived from projective methods.

The lexical FFM model is based on the assumption that those individual differences that are of the most significance in the daily transactions of persons with each other will eventually become encoded into their language (Goldberg, 1981). Yet, such a lexical natural-language approach seems insufficient as a basis for scientific enquiry, and although McCrae & Costa (1989) note impressive demonstrations for the similarity between the FFM and different personality theoretical constructs, the self-report scales might be well designed to measure traits, but the basic model does not adequately tap the domain of human motivation nor the unconscious perspectives of human attitudes and behaviour. Following McClelland et al., (1989) who argue that self-report

measures fail to assess unconscious or “implicit” motivational trends, different authors suggest that these trends are better assessed through content analysis of narrative thought and imaginative fantasy as in projective tests (McAdams, 1992).

Certainly, straightforward self-report measures can be immensely useful, but often they are not able to validly present themselves. So, to study certain crucial phenomena in the field of personality, researchers would often need to use more complex methods of studying persons.

Furthermore, the FFM is based on factor analysis relating to *correlations among personality characteristics across, rather than within individuals*. Therefore it represents the overall structure of the attributes as applied to a sample of individuals. Nevertheless, nomothetic dimensions do not constitute a model of personality structure if the term “structure” means the particular configuration, patterns and dynamic organization of the individual's set of characteristics. Idiographic and typological analyses, such as have been studied in the present research, are needed to clarify the patterns and dynamic in which the attributes, measured by each dimension, combine in particular individuals. Such analyses might show whether there exist groups of individuals with a similar configuration of these traits.

Factor analysis is involved with *subjective perspectives* of the researcher's decisions as to the choice of items to be entered into the analysis, the choice of procedures and rotations and what seems most important the labeling of obtained factors. This limitation might raise critiques about the nominal empirical basis of using a number of orthogonal factors as the conceptual structure for description of different personalities (McAdams, 1992; Tellegen & Waller, 1997). It has particular importance when a lexical model, constructed on a basis of a specific natural language is being transferred

to a different cultural system (for further discussion on statistical considerations in using factor analysis see below).

It must be emphasized that the FFM in languages other than English has been usually examined on *translated terms* and not on terms derived from the native languages.

McAdams (1992) states that there is not a full correspondence between terms studied in natural language and those translated. Thus, more research is needed before researchers can assess the extent to which the Five Factor Model provides an adequate taxonomy for personality descriptors in other languages and other cultures.

In the present research, a special translated version of the Big Five Inventory (John et al., 1991) to Hebrew has been used (for the procedure of translation see Chapter Four). Further research, using natural-language terms would enable one to examine whether the Big Five model is applicable to the Hebrew language.

The Big Five model offers an extremely general framework for the classification of traits (Digman, 1997; McCrae & Costa, 1989). Each of the five factors defines a large space in the universe of personality characteristics. Because it operates at such a general level of analysis, the factors might not be useful for *the prediction of specific attitudes and behaviour in specific situations*, though they might be valuable in the prediction of general characteristics across many different situations.

The general level of analysis, using the Big Five, seems to be of special importance in clinical settings and research. Thus, in conducting trait analyses, the psychologist needs to consider the preferred level of abstraction of the trait to be assessed as well as the conceptual relevance of the trait dimensions for the particular study (Hampson et al., 1986).

McAdams (1992) states that for some purposes and some samples, it might be more appropriate to operate at a level of analysis that is less abstract and more specific and selective than that provided by the Big Five. The present results seem to justify this view. Thus, it has been shown (see Chapter Six) that the differences in agreeableness between higher and lower peace supporters are explained mainly in terms of specific traits (kind, cold and cooperative) rather than in terms of the entire factor. However, further research is needed to assess the extent to which a specific level of analysis is more suitable than an abstract one.

It can be concluded, therefore, that the Big Five should be more accurately viewed as five *trait categories*, rather than five basic traits. It seems that narrow traits are more homogenous and better predictors of behaviour in many contexts, and if the aim is to predict a specific behaviour in a specific context, one would do better to employ a specific trait than a more general measure. Broad trait categories are better suitable for predicting behavioural trends in a wide range of situations. Following this approach, it can be argued *that each of the factors is a configurational trait category* on its own, and examining a configurational or structural analysis in terms of the broad trait categories might be a wrong interpretation of the personality studies' tasks.

The Big Five model is currently considered to be the most used tool in the research field of personality psychology. Costa and McCrae (1992) argue that considerable progress has been made "toward a consensus on personality structure" (p. 344), and that "The Five Factor Model developed in studies of normal personality is fully adequate to account for the dimensions of abnormal personality as well" (p. 347). This statement fits their previous one that the five factors are considered as both

necessary and reasonably sufficient for describing at a global level the major features of personality (McCrae & Costa, 1987).

It is usually accepted that at first glance any trait model including the Five Factor Model, might seem to have little to offer clinicians (McCrae, 1991). The model, which appears to account for the major dimensions found in standard personality inventories when they are administered in normal samples of adults, is seldom used in clinical settings. Instead, psychologists tend to prefer instruments designed for clinical use, including projective methods, because they are usually interested in making a specific psychiatric diagnosis, which is not included in most of the self-rating personality inventories. Nevertheless, the basic personality constructs derived from the Five Factor Model might still be of interest to clinicians because it measures emotional, interpersonal and motivational styles that are important to the diagnosis of a wide range of mental disorders. Furthermore, it offers a comprehensive picture of the individual and might be useful for understanding the subjective experience, feelings and needs of the patient. It provides supplementary information that may be useful in selecting treatment methods.

There is now empirical evidence that all five dimensions might be useful in examining personality disorders, and that individual disorders could be understood, although not directly translated, into the terms of these dimensions (Costa & McCrae, 1990). Thus, for example, referring to two subjects who are socially isolated, avoiding interpersonal relations, it might be assumed that both would score low on the extraversion scale. However, they would be differently diagnosed if their scores on the neuroticism scale would be different.

Nevertheless, personality assessment is not used in the clinical setting only for determination of diagnosis. It might be used for assessing the appropriate treatment method or for establishing empathic relationship between the clinician and the patient. McCrae (1991) suggests that the information obtained from self-rating scales would be considered by the clinician as a set of hypotheses about the personality to be confirmed or corrected by other evidence. By considering each of the Five Factors the clinician might notice strengths and weaknesses that would otherwise be overlooked. Because it is a comprehensive taxonomy of the traits coded in natural language and operationalized in the scales, the Five Factor Model might provide a conceptual guide that can be useful for the assessment of any personality.

Langston & Sykes (1997) state that despite the consensus and the often impressive predictive results of trait research, very few studies have been done on the key problem of how traits work at the level of proximal mental processes to casually determine behaviour. They argue that the constructs of the cognitive approach to personality (beliefs, expectations and subjective values) can be used to provide proximal casual explanations. The present results show that individual differences in peace attitudes are related to personality traits, but given the research design used here, as in most personality research, the cause and effect interpretation cannot be established (for further discussion of this issue see below).

Another self-rating method used in the present research is the General Survey, GS (Blumberg et al., 1972), which is based on descriptive propositions. Authoritarian conformity, which is one of the scales included in the General Survey, revealed as the most significant self-rating scale among those that have been examined. It seems worth noting that authoritarianism, more than the other self-rating scales used in the present

research, is derived from a theoretical rather than an empirical approach, and moreover one that is linked with peace and reconciliation.

However, it has been shown that authoritarianism is one of the least defined personality trait and is seen rather as a mixed construct of psychological style and attitudinal system (Eysenck 1954; Billig, 1982; Stone et al., 1993). The “contamination” of authoritarianism as a trait might be considered as justifying the suggestion, discussed above, that instead of analyzing the broad trait categories, personality researchers should look for configurational or structural analysis of the specific items included in each of the factors.

The above critical discussion deals with the position of the self-rating measures within the multifaceted field of personality psychology by highlighting the limitations of the models. Personality psychology can be looked at as having three main aims: to assess individual differences; to investigate the internal springs of human action and human motivation; and to study the whole person (McAdams, 1992). Self-rating measures seem to be mainly designed to capture the differences between individuals, and neglect the two other aims. Thus, adopting the broad perspective of the field of personality psychology eliminates significantly the usefulness of the self-rating measures. McAdams (1992) concludes that the emergence of the Five Factor Model is an important and positive development in the field of personality psychology, but the extent, to which it might be seen as an exceptional advance, depends on the breadth of one’s view of the field. The Five Factor Model is probably an important paradigm for personality studies, but cannot serve as the sole integrative model. As stated above, this

is not to devalue the validity of the self-rating models, but rather to put their significant contribution in the context of the extremely broad and complex field of personality study.

#### 4. Transferring the Rorschach from the Clinical Context to Research

As noted (see Chapter Three), using the Rorschach in research has been a matter of many discussions, though it is accepted that it is fruitful and gives access to results otherwise not being obtained. Because of the special test procedures of administering, scoring and processing, some of the Rorschach data are quite different than those yielded by other psychological tests. Nevertheless, the basic percepts of research design are not different for studies using the Rorschach than for other assessment methods. However, it seems that the research potential of the Rorschach in the field of personality psychology is not fully extracted, especially in a non-clinical context. Thus, whereas there are many Rorschach studies that deal with comparisons between patient and non-patient populations, validating the test as a diagnostic tool (Viglione, 1997), it is almost impossible to find studies that use the Rorschach as a research tool for examining personality traits in a non-clinical context. The aim of the present research in Rorschach terms might be defined as the examination of the test potential in such a context, investigating the configuration of traits that characterize the personality of peace supporters among Israeli students.

The Rorschach presents researchers with a multitude of complex conceptual, methodological and statistical issues. Exner (1995) states that most of the Rorschach studies do not deal directly with many of these issues. Furthermore, those who are interested in pursuing Rorschach research are often insufficiently experienced to form the most appropriate design to address an issue, or select the best data analysis to test the hypotheses. Historically, as psychology has grown and diversified, the gap between those committed to the clinical applications of the Rorschach and those committed to

Rorschach research has grown. As a result, many research ideas devised by those using the test in the clinical setting are not applied.

This has raised a need for integrative studies that would be conducted by researchers who are acquainted both with general research methods in the field of personality psychology and with the clinical applications of the Rorschach. The present research, being pursued by a clinical psychologist, is based on such integrative work.

This discussion is aimed at reviewing different problems with which Rorschach investigators are being confronted and at examining how these problems have been treated in the present research. As noted (see Chapter Three), the problems discussed have been selected from recurring problems encountered by researchers. They do not represent an exhaustive survey of the challenging issues in Rorschach research nor are they fully developed in their whole significance. They are rather used to exemplify some of the issues that arise when a clinical technique is transformed to the research field. Furthermore, the discussion relates to the contribution of the present research in demonstrating the usefulness of the Rorschach in personality studies and the importance of some of its content features that are almost neglected in The Comprehensive System, the scoring system most widely used for the interpretation of the test.

The *sample size* is considered to be one of the main weaknesses in Rorschach studies (see Chapter Three above). There is no magic number that will serve as a benchmark for the ideal sample size. Too many other considerations play into the equation, such as patient variables under consideration, base rates of the variable in clinical and non-clinical settings, heterogeneity of samples being compared and the research design being implemented.

In the present research the Rorschach was administered to a sub-sample of 26 students. As noted, a relatively small sample size seems to be the norm in Rorschach research, probably because the administering and scoring procedure can be extremely time consuming and requires special skills of the examiner (see Chapter Four above). Furthermore, a simple but essential problem in drawing a sample for Rorschach research is subjects' availability. The nature of the clinical setting usually restricts the representativeness of the available sample. Such limitations are, of course, not specific to Rorschach research. Any clinical study is confronted with the problem of subject availability, and should be reviewed for possible confounding factors. However, whereas larger samples are essential in exploratory studies, it is accepted that in a conceptual design such as the one used in the present research, small samples are appropriate as well.

As to the *population* in Rorschach research, Ritzler and Exner (1995) note that a frequently examined population is college students, mainly because of their availability. In Rorschach research, college students have many advantages. They typically are cooperative and even eager to participate, mainly when they can learn something from the test results about themselves. They also tend to be achievement-oriented and express this tendency through their investment in producing creative answers. Nevertheless, these advantages of choosing students as the population for Rorschach research might also be considered to create certain problems of findings generalizability. Thus, they are usually a relatively homogeneous age group, better educated and from higher socioeconomic background. Being also more motivated, achievement-oriented and tending to invest more in creative answers, they might yield a

more homogeneous sample, often resulting in limited distributions on some Rorschach variables, thereby lowering the power of statistical analysis.

However, it seems that this critique is relevant when using the students as a control group, mainly in studies comparing patient and non-patient groups. Nevertheless, in the present research, when the comparisons are being made within the sample of students for evaluating the characteristics of the Pro-Peace Personality, using this available population seems quite appropriate and legitimate.

The choice of a *classification variable* is another issue to which the Rorschach researcher should refer. The classification variable used for dividing the population in the present research has been the Pro-Peace Attitudes Index - PPAI. Exner (1995) states that the main question in selecting classification variables in Rorschach research focuses on the discreteness of the groups in light of the classification.

Certainly, there are many variables that should be a point of concern for the researcher when classification variables are involved. The compared groups must be similar in background variables in order to get significant results relating to the differences in the classification variable.

In order to have some control on the discreteness of the two groups in the present research, differentiated by the PPAI, the groups were compared as to various background variables: age, sex, country of origin and socioeconomic status. No significant differences as to these variables were found either in the general sample nor in the sub-sample which was examined by the Rorschach. As noted (see Chapter Four) subjects that have been included in the sample are all above average in their academic achievements. This selection has been made in order to give some control on the level of intelligence.

An important theme challenging the discreteness of the two groups in the present research might have been the significant relationship between religiosity and peace attitudes which characterizes the Israeli population in general, and the present sample in particular. However, examining the results while entering religiosity together with the personality variables into the discriminant analysis on the two groups of higher and lower PPAI, it has been shown that although religiosity enters into the equation in the first step, the personality variables still have considerable independent contribution to the variance in peace attitudes.

Nevertheless, a question of *rival hypotheses* might have been raised stating that the PPAI is associated with many Rorschach-derived measures, not necessarily those, which were examined in relation to the conceptual framework of the research hypotheses. In order to rule out rival hypotheses, the present research examined various Rorschach-derived measures of similar type and found that the measures defined by the research hypotheses were the most significant in relation to peace attitudes. Thus, in comparison to the research variable of animal-movement responses (*FM*), the research examined also the measures of human-movement responses (*M*) and animate movement responses (*m*), and in comparison to unusual responses (*Xu%*) and distorted form-quality responses (*X-%*) the research has examined ordinary form-quality responses (*Xo%*) as well. The results have shown that the other Rorschach-derived measures were not associated with the classification variable, the PPAI. These results might be considered as establishing discriminant validity of the Rorschach measures used in the research. However, they are in accordance with the suggestion that when establishing specific relations between Rorschach measures and other variables, the data

should also reveal that other Rorschach variables are not related to these variables (Viglione, 1997).

Once the rival hypotheses were ruled out by demonstrating that other variables of the same type are not related to the classification variable, PPAI, the results could confirm the hypotheses that the differences between the higher and lower peace supporters might be attributed to the examined Rorschach-derived measures. Viglione (1997) states that considering rival hypotheses would also help with the problem of using the Rorschach to validate itself by reporting associations between two Rorschach measures (see Chapter Four).

The issues of sample size, research population and classification variables are related to the issue of *norms* which might be used for comparisons in Rorschach research. Exner's Comprehensive System is based on norms, examining significant deviations in a subject's record, and establishing cutoff scores of interpretive meaning. Whereas these norms are considered as appropriate for comparison of the individual's protocol and as a basis for noting extreme deviations in a protocol as compared to the expected values, it is not appropriate to include them as a control group for formal statistical contrasts (Exner, 1993). The interpretation of any difference between a small sample and the norms will be almost meaningless. This is especially true when important differences within the normative group are ignored, and the study simply evaluates means and standard deviations. Researchers indicate that certain changes in the normative data are necessary to indicate important individual differences, such as those relating to different personality styles (Ritzler & Exner, 1995).

Furthermore, one of the main problems of interpreting the Rorschach in the clinical as well as in the research context, relates to the *number of responses in a protocol (R)*.

The potential variations in the number of responses, due to the fact that the subject can produce a varied number to each card, might raise difficulties in interpretation. Exner (1991) appeared to downplay the contamination created in research by the varied  $R$  and stated that in most cases, controlling the  $R$  is not necessary for most or all variables to be included in an analysis.

Most of the norms in Exner's system do not account for the  $R$ , and are given either in raw numbers or in percentages relating to other variables in the protocol. Wagner et al., (1992) argue that this data presentation is problematic, especially when considering validity studies which show, as is often the case, only modest relationships between Rorschach variables and some criterion measure.

If  $R$  is related to the criterion as well as the Rorschach predictor variable, then the relationship could well prove artifactual. Productivity as represented by  $R$  is a pervasive and meaningful construct that is related to many personality traits, and it deserves further explication. In fact,  $R$  can be regarded as a positive feature that sets the Rorschach apart from other personality tests. However, it seems that the interpretation procedure should relate to the number of responses in the protocol. The importance of  $R$  in the interpretation procedure is indicated by Exner (1993) as well, despite his general approach that tends, as noted above, to downplay the significance of this measure. Lipgar (1992) states that the number of responses as a varied measure, rather than a constant, seems to require special attention when using the Rorschach psychometrically and when making clinical evaluations based on normative scores. This statement is based on studies which showed that there were psychologically meaningful differences between two groups when  $R$  was the discriminating variable (Lipgar, 1991; Lipgar & Waehler, 1991).

The problem of the varied  $R$  was considered in the present research by examining whether there are significant differences between the two groups of higher and lower peace supporters as to their number of responses. The results did not yield such differences (in the group of lower supporters the mean  $R$  was 19.75,  $SD = 8.73$ , whereas in the group of higher supporters the mean was 22.30,  $SD = 4.76$   $p > .05$ ). Though statistical significance depends on  $N$ , the effect size is in any case sufficiently moderate that the two means appear to be under 1  $SD$  apart.

This seems to permit the interpretation that the differences in other Rorschach-derived measures are not a reflection of a larger baseline pool of responses.

An additional problem with which the Rorschach researcher is faced relates to the *statistical distributions* for certain Rorschach variables which are not as normal as might be desired. Often the ranges of scores might be too constrained or restricted. Scores for some scales, although seemingly looking like continuous data, are in reality more categorical in their impact on interpretation or their distribution. Most determinant scores have markedly bent distributions and the values for many variables will have ranges as limited as 0 to 1 or 2. Furthermore, even though a variable might be continuous the interpretation is based on dichotomous principle, which means that the presence of one or more is treated interpretively as the same. The same issue is evident for many variables with more extended score ranges, such as the *Egocentricity Index*, used in the present research, presenting the proportion of reflection and pair responses in the total record. Generally, a failure to assess the special nature of many Rorschach scores might set up a misapplication of probability-based statistical decision-making. This has been one of the assumptions that guided the selection of variables in the present research.

As noted (see Chapter Four) the Rorschach-derived measures, used in the present research, have been selected according to two criteria: conceptual and statistical. The conceptual criterion was the extent to which the measure relates to the examined complex of conformity and conventionality, characterizing the authoritarian personality on the one hand, or to integrative complexity and awareness of one's own drives, characterizing individuals who are open to internal and external experience on the other. The statistical criterion was the extent to which the measure is suitable for parametric statistics. Thus, among the variables related to the conceptual framework, nine measures, which were considered as suitable for parametric statistics, were selected and processed.

An additional statistical dilemma in Rorschach research is related also to the use of *factor analysis*. Factor analysis is used in personality psychology to simplify the description of personality by reducing the number of variables to a few common dimensions, traits or constructs (for the various problems related to the use of factor analysis in research see the discussion on statistical considerations below in this chapter). The value of factor analysis with the Rorschach can be easily seen given that the Comprehensive System uses over sixty scores. Factor analytic studies with the Rorschach have consistently shown that a relatively limited set of dimensions summarizes much of the common variance in the interpretive process (Anderson & Dixon, 1993). Meyer (1992) indicates that these dimensions have been evident for many years despite the use of different variables, scoring systems, subject populations and factor analytic methods. The point, however, is not to extol a particular method for empirical integration of Rorschach findings, but rather to encourage investigators to move beyond relatively simple empirically based sign approaches to research. Referring

to the results of the present research, it can be concluded that interpretations of statistically significant effects, as expressed in discrete Rorschach measures, might sometimes yield more meaningful conclusions than examination of constellations of Rorschach variables derived from factor analysis used in an exploratory research design.

The statistical dilemma of using factor analysis in Rorschach research is related to a more conceptual dilemma of handling the data *as discrete variables or rather as defined clusters*. The structural summary of the Comprehensive System includes seven clusters of psychological functions and personality features: information processing, cognitive mediation, ideation, capacity for control and tolerance for stress, self-perception, affect and interpersonal relations. The interpretive process, suggested by Exner (1974) for clinical use is based on these clusters. However, for Rorschach research, the lower level of discrete measures rather than the broader cluster level might be more appropriate. Exner (1995) states that researchers often ignore what is considered as clinically almost obvious - the contextual significance of Rorschach variables. He notes that single variables have little or no meaning, and if studied independently can be very misleading in the interpretive process. Thus, he argues that variables must be reviewed in clusters that relate to various psychological operations or characteristics. Nonetheless, it seems that this suggestion has relevance mainly in the research dealing with clinical syndromes, comparing different patients' groups, but not in a research context, where investigators focus on group differences defined by personality traits relating them to attitudinal or behavioural variables. In these studies the isolated Rorschach-derived measures seem to be more suitable than syndromes or configurations of traits.

Another conceptual dilemma related to Exner's system of scoring is defined by Willock (1992) as the predominantly *cognitive-behavioural* emphasis of the system. The system does not totally disregard the psychoanalytic perspective but looks at it as having secondary importance. Following the statement that there is more in a Rorschach protocol than the formal elements (Lerner, 1996), the present research has exemplified the contribution of specific contents beyond the broad categories expressed in the structural analysis (see Chapter Seven).

At this point of the discussion it seems worth noting that the tendency to apply the structural approach to the formal features of a protocol and the experiential approach to the content of responses is an oversimplification. The approaches are mutual and interrelated. Thus, the experiential approach can be applied to structural data and more objective and systematic methods of analysis are increasingly being applied to what might be regarded as experiential data. Lerner (1996) suggests that each of these interpretive approaches must be given its due and integrated with interpretations drawn from the other. Furthermore, Lerner (1996) relates also to the standards for judging the validity of the psychoanalytic examiner's inferences. Different criteria such as placing the inference in the whole personality structure and specifying how the inference is likely to be expressed in overt behaviour might be useful.

Psychoanalytic Rorschach testing is, however, more than an application of knowledge to test responses for interpretive goals. It includes an attitude and a way of assessing, an essentially clinical one and a way of thinking about people, psychic phenomena and relationships as well (Lerner, 1996).

As noted, the present research aims to recapture the important role of projection and content-related interpretations in Rorschach analysis and to integrate the conceptual

perspective with that of Exner's empirical method. The results have pointed out the importance of various Rorschach-derived measures in relation to the individual's pro-peace attitudes. The following discussion refers to four of these measures that seem to deserve special attention according to the results: the *Blends*, the frequency of organizational activity (*Zf*), the animal-movement responses (*FM*) and the *Pair* responses. These four Rorschach-derived measures were found to capture more validly the different aspects of experiential openness, as compared to the openness factor of the Big Five Inventory.

The *Blends* are responses in which more than one determinant is used to form the precept, e.g. human-movement, colour and shading. When more than one determinant is present in a response, it indicates that the activity occurring in the formation of the response was more complex than might have been required. This complexity will generally involve some kind of affective experience. The *Blends* are the product of activity in which considerable analysis and synthesis of stimulus elements occurs. A low number of *Blends* indicates a form of psychological constriction, narrow patterns of processing and less sensitivity to self and environment. It might create difficulties in dealing with complex emotional stimuli. If these difficulties occur, they are most likely to be manifested in the modulation of emotional displays (Exner, 1993). The number of *Blends* has been found to be positively significantly related to IQ, but the correlation between these two variables tends to drop, though yet found to be significant, when the number of responses (*R*) has been controlled (Wagner et al., 1992).

*Z score frequency (Zf)* relates to organizational activity such as reporting a meaningful relationship between two parts of the blot. This measure provides important information concerning the extent to which the subject has organized the stimulus field,

and has approached the task, using cognitive tactics that typically are more demanding than some other cognitive mediational approaches. Responses that include a Z score usually require more cognitive mediational activity than is required in forming a more simplistic response that avoids any organizational activity. Although the *Zf* provides information about the initiative of the subject to approach the task with more cognitive activity, the quality of the organized product can range across different levels of sophistication (Exner, 1993).

On the basis of the above considerations about the *Blends* and the *Zf*, the present research suggests that these two Rorschach-derived measures which have been found as associated significantly with each other might be seen as an appropriate operational definition for the construct defined as integrative complexity. Integrative complexity is considered to be one of the main elements in experiential openness. As noted (see Chapter Three), this construct was originally developed to explain individual differences in the complexity of the cognitive rules that people use to analyze information and make decisions (Harvey et al., 1961; Schroder et al., 1967). The theory focused on two cognitive stylistic variables: differentiation and integration. Differentiation refers to the number of distinct dimensions of a problem that are taken into account in interpreting events. Tetlock (1988), referring to the integrative complexity of American and Soviet Policy speeches, state that there is a marked difference between a politician who analyzes policy options in an undifferentiated dual way and the one who analyzes options in a highly differentiated way recognizing contradictory possible effects. Integration refers to the development of complex connections among differentiated characteristics. Differentiation is, thus, required for integration. The complexity of integration depends on whether the decision-maker

conceives the differentiated characteristics as operating in isolation and simple interaction, or in multiple contingent patterns.

The first research which dealt with integrative complexity examined the construct by the Paragraph Completion Test (Schroder et al., 1967; Pruitt & Lewis, 1975). Since then the integrative complexity system of coding has been used to analyze a broad range of documents and diplomatic communications. Studies of transcripts of Japanese cabinet meetings prior to the attack on Pearl Harbor, election speeches of American presidents, Senatorial policy statements, interviews with British parliamentarians, Supreme Court opinions and newspaper editorials have shown the importance of this construct in the process of decision-making (Tetlock 1986). In these analyses the examination of integrative complexity and the attitudinal system (supportive or non-supportive toward conflict resolution) were both derived from the same source.

The present research is thus suggesting a new operational definition for integrative complexity based on Rorschach-derived measures. The advantage of these measures, as compared to the previous system of coding, might be seen in the source from which they are derived - the Rorschach - which is completely unrelated to the examined attitudinal system and the decision-making process. Thus, the researcher, using the Rorschach for measuring the integrative complexity in such an examination, can differentiate clearly between the personality and the attitudinal variables (for a detailed discussion on the mutual linkage between traits and attitudes see Chapter Three). Furthermore, using the *Blends* and the *Zf* for measuring integrative complexity might add the affective dimension to this construct, which has usually been considered as to its cognitive dimensions only (Harvey et al., 1961; Schroder et al., 1967; Tetlock, 1986).

The present results point out that the two groups of higher and lower peace supporters are significantly differentiated as to their integrative complexity measured by the *Blends* and the *Zf*. Thus, higher scores on these measures characterize higher peace supporters though both groups are in the normal range in these two variables (see Chapter Four). Following these results, it has been concluded that higher peace supporters as compared to lower ones are more integrative-complex in their psychological functioning.

The *animal-movement response (FM)* has been found as one of the most significant Rorschach-derived measures related to peace attitudes. The importance of this measure, as shown in the present research, might be seen as being in contrast to different authors' approach, devaluating the significance of the *FM*, as compared to other Rorschach variables.

The *FM* is coded for any animal response involving movement whether active or passive. As noted (see Chapter Three above), many authors state that this type of response relates to some awareness of impulses that are striving for gratification (Klopfer & Kelley, 1942; Piotrowski, 1974; Exner, 1974). Klopfer and Kelley (1942) and Piotrowski (1974) have shown that absence or extreme lower number of *FM* responses is a sign of suppression and inhibition, a conscious rejection of drive impulses that leads to an avoidance of conceptualizing animals in action, which is an unfavourable factor in terms of adjustment capacity. As has been noted (see Chapter Three), the specific content of the *FM*, being perceived as projected material, also provides important information concerning self-image. Exner (1997) states that there is no satisfactory conceptualization about why animal-movement responses seem to relate to mental activity prompted by need states.

The present results indicate that the *FM* responses are highly significantly associated to the *Blends*, the *Pair* responses, and the *Zf*, probably indicating that openness to one's own drives and internal experience (*FM*) is related to the ability to capture the multi-dimensionality of the external environment (*Blends* and *Pairs*) and to the feeling of competency in organizing the reactivity confronting stimulus (*Zf*). These associations, together with the finding that the *FM* is one of the main Rorschach variables that discriminate between higher and lower peace supporters, point to the importance of animal-movement responses in understanding the personality picture as derived from the Rorschach protocol. However, further research is needed to understand the broader meaning of the *FM* responses in the personality dynamics.

The *Pair* responses are another measure used in the present research to examine experiential openness. As noted (see Chapter Three), *Pair* responses are responses in which the subject is using the symmetry of the blot to specify two similar objects. This measure might contribute to evaluation of the subject's openness to social interaction and when assigned to human figures it might also point to the subject's perception of similarities among human beings. This was especially emphasized in the content analysis of Rorschach protocols (see Chapter Seven) pointing to the wealth of the idiographic approach in Rorschach interpretation. It has been shown that although in most cases, card II elicits a *Pair* response, subjects in the lower peace supporting group failed to see a pair of similar objects but rather noted symmetry. This symmetry was interpreted as two parts of a ladybird (subject A) or a mirror image of a person who is sitting and looking at himself. These interpretations indicate some difficulties in interpersonal relationships and openness to other human beings. The same card was perceived by subjects of the higher peace supportive group as presenting two Japanese women in a

cooperative act (subject C) or two Chinese women in some kind of a ritual (subject D). The interpretation of these responses (*Pair* response of human figures in a cooperative act) has emphasized the aspects of experiential openness and agreeableness in interpersonal relations. Moreover, the two lower PPAI subjects seem to overreact to the affective, coloured stimuli presented in the card. This overreaction is in accordance with the results, previously discussed, on the basis of the structural analysis of the Rorschach protocols, indicating that the lower PPAI group is higher in the *Affective Ratio (Afr)* as compared to the higher PPAI group. Referring to the significance of this card with regard to interpersonal relations it might be concluded that the overreaction of the lower peace supporters might be elicited in their interaction with other people. Furthermore, it was also concluded that situational stress might impair their capacity to control and creates the potential for impulsive thinking or emotions and the resulting behaviours (see Chapter Seven). To sum up, the lower peace supporters failed to give the near popular *Pair* response to the card and overreact to the stimulus, which might be interpreted as indicating lack of openness and impulsiveness in their relations with other people.

As compared to this personality picture, the two higher PPAI subjects gave a *Pair* response relating to people from other countries (Japanese, Chinese). The cooperative activity in these *Pair* responses might indicate that the two subjects tend to expect that positive interactions will routinely exist among people and are interested in such interactions (Exner, 1993). Furthermore, they seem to be much less flooded by the affective coloured stimuli. While they are willing to display feelings openly, they are also inclined to be quite concerned about modulating or controlling those displays.

The implication of these personality characteristics to the attitudes toward the Peace Process is almost obvious. Only when expecting that positive interactions will routinely exist among people, an individual can develop peace supportive attitudes toward conflict resolution through cooperation rather than through power.

Two Rorschach-derived measures that might be related to the examined attitudinal system - the number of cooperation responses (*COP*) and the number of aggressive responses (*AG*) - have not been included in the empirical analyses because of the need for this interpretation to be studied, processed and developed, much more precisely than has been the case. This need, which is emphasized in the clinical context, is also stated by Exner (1997) who notes that currently all *COP* and *AG* responses are given equal weight and nomothetically equal meaning, but it is quite obvious to the clinician that some *COP* answers are less cooperative and some *AG* answers are less aggressive than other responses of the same kind. The development of new easily applied criteria for a more refined differentiation within each of these scoring categories might raise empirical findings that can reshape the interpretative propositions.

Exner (1997) states that one of the main goals for Rorschach research in the future would be related to the stimulus characteristics of the blots. Following the assumption that the blots form an ambiguous stimulus, the cards are subjected to unlimited number of responses. However, many data have strongly suggested that each of the blots has unique characteristics that reveal certain types of response. In fact, this assumption is the base for some of the Rorschach measures used in the present research - the unusual responses (*Xu%*), the responses with distorted form quality (*X-%*), and the popular response (*P*). Exner (1997) notes that as more data regarding the unique stimulus

features of each blot are collected, more research concerning the issue of thematic analysis of projected material can evolve.

Summarizing the clinical and research status of the Rorschach as revealed by the present results, it might be concluded that when attention is being paid to the application of appropriate scoring, content analysis, methodology and data processing, the Rorschach might be proved as being very useful for personality assessment.

Exner (1997) states that there is considerable enthusiasm about the Rorschach throughout the world, and the main challenges with which Rorschach researchers would have to deal in the future is a more collaborative approach both within and across cultures. Obviously such studies could substantially improve knowledge about the Rorschach. Moreover, they would also represent a basis for a broader scheme of research about personality and individual differences.

### 5. Toward the Integration of Personality Assessment Methods in Research

As noted (see Chapter Three), data from self-rating personality scales and the Rorschach frequently disagree, though each of them has been found to be equally valid and reliable (Parker et al., 1988). In a comprehensive review, Meyer (1997) outlines some of the primary distinctions between the MMPI as a self-assessment tool and the Rorschach as a performance-based personality test. These distinctions relate to the nature of the task and expectations, which are familiar and well defined in self-rating scales and much more ambiguous in the Rorschach, to the range of response options and to the skills required from the examiner. The distinctions are also associated with the extent to which the results depend on conscious awareness and the information that can be obtained from the test - specific experiences and symptoms in the self-rating scales and underlying personality characteristics in the Rorschach. All these differences can produce *method variance*, which might explain a greater proportion of variance in test scores than in the actual traits the tests are designed to measure (Campbell & Fiske, 1959). It is generally impossible to separate method variance from trait variance when conducting nomothetic research (Cronbach, 1995). As the observed scores might be determined more by the systematic error of method variance than by intended construct, personality research obviously represents a compromise when using different assessment methods for operationalization of the examined variables (Meyer, 1997).

Another reason as to why seemingly similar self-rating scales and Rorschach-derived measures do not correlate with each other might be a function of *personality complexity*. The general approach criticizes a failure to demonstrate convergence across methods using Block's (1995) terms of the *jingle fallacy* which indicates the tendency to apply the same term to two very different things, and the *jungle fallacy*

which indicates the tendency to use different terms to describe what is actually the same thing (see above in this chapter). The basic assumption in this criticism is that people who appear to have a certain trait or a certain symptom, revealed by one method, should also appear to have the same trait or symptom using another method. Meyer (1997) states that this assumption is anchored in a one dimensional view of human nature which holds that it is impossible for people to be, for example, depressed and not depressed at the same time. Although this assumption seems quite reasonable, it does not always conform to clinical reality. Affective states, psychiatric symptoms and personality traits are not unitary across levels of personality. Most people who tend, for example, to react to distress through somatization, would not be aware of this distress. They would rarely indicate it on a self-rating scale simply because they protect their self-image and conscious experience from emotional distress, by using defenses such as denial, repression, intellectualization and projection. Therefore, the self-rating scales and the Rorschach might disagree when each test measures what it should. Thus, as has been noted (see Chapter Three), discrepancies between equal measures in two different methods might be considered as having significance that should be interpreted.

Meyer (1997) states that the impact that *response styles* have on the scores obtained from both methods might also explain the lower correlations between the self-rating scales and the Rorschach, as it seems unlikely that response styles will operate consistently across different methods of assessment. The factors that make people report unrealistic ideas about themselves are probably not the same factors that make people constrict themselves in their responses to the Rorschach. Thus, response styles operate independently on each test and tend to obscure the true extent of overlapping

of different constructs measured by methods that are as different as self-rating scales and the Rorschach.

Furthermore, a significant effect of the potential variations in the number of responses in the Rorschach protocol (*R*) on the cross-method correlations has been found, showing that these correlations are much higher when referring to Rorschach protocols with higher rather than with lower number of responses (Meyer, 1997). Accordingly, Rorschach and self-rating scales that appear to point out different results do not necessarily indicate that one or both of the instruments has failed to demonstrate validity. From this perspective different results revealed by the two methods are not contradictory but rather constitute meaningful findings that need to be explained (Weiner, 1997).

Following the above considerations a question is raised as to whether the present results reveal associations or rather discrepancies between self-rating scales and Rorschach measures examining the same construct. The results indicated significant positive correlations between the BFI self-rating scale of openness and two of the four Rorschach measures examining the same construct (the animal-movement responses, *FM*, and the *Blends*). Nevertheless, two other Rorschach measures of experiential openness (*Zf* and *Pair* responses) did not significantly correlate with the similar self-rating construct, nor did the two Rorschach measures of authoritarianism (the unusual responses, *Xu%*, and the *Egocentricity Index*).

Another question has been raised as to whether an integrative approach in which the two methods of personality assessment, the self-rating scales and the Rorschach, are used simultaneously in the same research might broaden the understanding of the relations between personality factors and peace supportive attitudes. The present

results revealed significant differences in authoritarian conformity between higher and lower peace supporters when authoritarianism was measured by the GS self-rating scale and by the Rorschach, the higher peace supporters being less authoritarian conformists than the lower ones. As noted above, the self-rating scale of authoritarianism did not significantly correlate with the Rorschach-measures of unusual responses (*Xu%*) and the *Egocentricity Index*, both measure non-conventionality and individuality as the main aspects of authoritarianism. Thus, though the measures of the different methods are not interrelated, both are associated with the attitudes toward the Peace Process. In this case, each method strengthens the results revealed by the other indicating that authoritarianism might be a trait that affects unitarily at different levels across personality.

A different picture was revealed as to experiential openness. When measured by the BFI scale, openness to experience was not found as differentiating between higher and lower peace supporters. However, when Rorschach measures of openness were used, significant differences were found on all the measures (*FM*, *Blends*, *Zf* and *Pair* responses), higher peace supporters tending to be much more open-minded than the lower ones. These results might raise a question as to the validity of measuring openness by a self-rating scale.

As noted (see Chapter Three) openness is the most controversial dimension of the Big Five Factor model of personality (Digman, 1990; Goldberg, 1993; John, 1990; McCrae & John, 1992; Saucier, 1992; Trapnell, 1994). Wiggins and Trapnell (1996) state that the controversiality seems to stem, at least partially, from the different conceptions being attached to the factor. Trapnell (1994) states that the factor reflects two different, although interactive, perspectives: the enterprising and communal.

Nevertheless, the weight given to the enterprising adjectives included in this factor seems to be much higher (see Appendix 2). This inequality in the weights given to each of the perspectives was confirmed in the present research. Thus, the correlations between the BFI factor of openness and the Rorschach measures of animal-movement responses (*FM*) and *Blends* (both reflecting the enterprising aspects of the construct) were found to be significantly positive. Nevertheless, the correlations between the organizational activity (*Zf*) and the *Pair* responses (both reflecting the communal aspects of openness) were found to be insignificant. It might thus be concluded that the self-rating BFI scale of openness does not really capture the whole scope of the construct. This raises a question as to the validity of operationalization experiential openness by a self-rating scale.

Several conclusions emerge from the present research as to the issue of using an integrative multi-method approach for assessment of personality traits as related to attitudinal system. The results point out that some of the self-rating scales (the GS authoritarianism and anxiety scales and the BFI agreeableness scale) as well as most of the examined Rorschach measures have discriminated between the two groups of higher and lower peace supporters. It might thus be concluded that both methods could provide useful information about personality constructs. However, as to experiential openness, it seems that the self-rating scale cannot consistently illuminate the full scope of the construct and a projective method is needed. Whereas the self-rating scales measure what people understand about themselves and are willing to convey, the Rorschach reveals much more latent characteristics and propensities as they are manifested through the articulation of perceptual qualities. However, the present results have emphasized the conclusion, derived also from other personality studies

(Meyer, 1997), that researchers and clinicians should adjust their conceptualization of the constructs being measured by each of the methods, so that it would be clear that they are distinct entities. Meyer (1997) suggests that to facilitate this process the researcher might develop more differentiated scale terminology. Furthermore, he states that even applying a procedure as simple as attaching the name of the test to the name of the scale so that constructs measured by one method would not be confused with the constructs measured by the other would facilitate this adjustment of conceptualization.

Following the present results, pointing out that self-rating scales and the Rorschach-derived measures are not necessarily interchangeable, it can be concluded that a personality assessment would be incomplete if it relied only on one method of assessment. Thus, clinicians and researchers should use both measures when conducting a broad personality assessment.

Another important implication for clinicians and researchers using a multi-method approach in assessment might be derived from the present research. In contrast to the usual recommendations to imply the greatest interpretive confidence in those findings that emerge on several different measures and the least when confronted with cross-method discrepancies, the present research points out that these suggestions limit the range of potential interpretations as to the complexity of personality structure. Contradictory results might have significance by themselves and thus should be handled and interpreted rather than ignored by clinicians as well as by researchers in the field. Meyer (1997) states that the assessor should be highly skilled and capable of bringing clinical experience, integrative abilities and expertise in psychodiagnosis and assessment methodology to create a reliable profile of the personality.

Moreover, the clinician or the researcher does not necessarily need to decide which scale or method is the most accurate in some ultimate sense. Rather, the goal should be to figure out what conditions in nature are most likely to give rise to the observed pattern of scores across the different methods.

Furthermore, a range of extra structural test information must be considered, especially with the Rorschach, where the *idiographic* approach for analyzing and interpreting the test is not less important than the nomothetic one.

The present results have shown that the Rorschach might be used in research both as a projective technique and as a psychometric test. As has been shown (see Chapter Seven), the integrative use of both the structural and the content approaches for interpretation has pointed to much wider conclusions as to the characteristics of the Pro-Peace Personality than have been obtained by using each of the methods by itself.

Thus, integration of methods should not be conducted in the inter-test level only but rather in the intra-test level as well. The present results have shown that analyzing the content of the subjects' responses to the same card in the Rorschach, (see Chapter Seven), yields important personality stylistic features of the higher peace supporters as compared to the lower ones. These stylistic features are much less emphasized when considering the same responses in terms of the formal structural elements.

The results point out that the Rorschach might be used either to tap the individual idiographic views of the self and the world or to derive scores as one does on a psychometric test. This distinction echoes the distinction in personality assessment noted by Allport (1961), between the nomothetic and the idiographic approaches to personality assessment. Whereas the nomothetic approach aims to discover general laws, the idiographic approach relates to the more unique qualities of the individual.

In addition to this distinction between the nomothetic and idiographic approach to the Rorschach, it is useful to distinguish between the perceptual and the content approach. The perceptual approach emphasizes mainly the aspects of how the subject perceives the blots while the content approach relates mainly to what the subject perceives (Aronow et al., 1995). The content-idiographic approach is consistent with the traditional view of the Rorschach as a projective technique. This is the approach mostly congruent with the strengths of the Rorschach as a projective technique, and the interpretations reached are typically psychodynamic in nature. The ambiguous stimulus is responsible for the access to unconscious contents. It is assumed that the unconscious is usually being easily expressed by visual images, and that this might well account for the richness of the Rorschach.

The Comprehensive system (Exner, 1974) is mainly structural-nomothetic, rather neglecting the projective idiographic aspects of the Rorschach. Exner (1993) states that unlike tests that are designed to force projection such as the TAT, in which the subject is asked to create a story that goes well beyond the stimulus field, the instructions in the Rorschach create a somewhat narrow set of parameters for the subject. With the Rorschach viewed as so weak on projection, the Comprehensive System sought to transform the instrument into as much an objective test as possible.

Nevertheless, the most important criticism of the Comprehensive System relates to its quantitative emphasis and to its tendency to neglect the projective approach. Many authors have argued that this strong psychometric focus has proven to be wrong. The Rorschach, interpreted with a more equal emphasis on both quantitative and qualitative approaches might reveal much more information about the adaptive and defensive strengths and weaknesses of the subject (Willcock, 1992; Aronow et al., 1995).

Although there are content features in the Comprehensive System, they are largely content-nomothetic in nature rather than projective. However, it should also be noted that there is now a development toward including a projective component in the Comprehensive System as well. This move might recapture the major strength of the Rorschach (Aronow et al., 1995). Nevertheless as Willock (1992) notes, the projective interpretation cannot just be a marginal output as compared to the structural psychometric analysis of the Rorschach protocol.

Another criticism of the Comprehensive system relates to the question of whether or not it has really transformed the Rorschach into a psychometric instrument. Factors such as the varying number of responses (*R*), certain rare categories, skewness and interrelations between responses challenge the answer to this question.

To sum up, the present discussion has indicated several potential reasons as to why seemingly similar self-rating scales and Rorschach-derived measures do not correlate: method variance, personality ununitary across levels and the significant effect of response styles as operating independently on each test. It also suggests integrating in Rorschach analysis both the structural and the content approaches. Furthermore, it shows that self-rating scales that appear to point out different results do not necessarily indicate that one or both of the instruments has failed in demonstrating validity. From this perspective, different results revealed by the two methods such as the association between experiential openness and peace attitudes are not contradictory but rather constitute meaningful findings that need to be explained.

## 6. Statistical Considerations

Presentation of inferences drawn from statistical analyses usually involves rhetoric. Pearson (1962) states that subjectivity in statistical presentations is accepted and that he has left in the mathematical model a gap for the exercise of a more intuitive process of personal judgement. Tukey (1969) suggests that the statistical work is a detective one, playful as well as logical and open to various clues in the data. Abelson (1995) compares the claims based on statistical analysis to those presented by a lawyer, the case can be persuasive or flimsy and the style of inference can be loose or tight. He suggests that when you do research, critics may quarrel with the interpretation of the results and anticipation of criticism is fundamental to good research and data analysis. Following this suggestion some statistical considerations seem worth noting as to the present results.

The data of the present research have been derived by *non-probability sampling* and thus cannot be considered as representing the wider population. When testing a principle, the researcher usually wants to know how valid it is of people in general. Nevertheless, because of the difficulty of obtaining a random sample, many studies in the social sciences use non-random or non-probability sampling and thus are not able to state how representative the sample is of the population (Abelson, 1995; Cramer, 1997). However, for within sample comparisons the difference between research based on random samples and convenience samples in terms of their relative representativeness is not always as great as is implied (Goyder, 1988). Furthermore, it is accepted that data analysis should not be pointlessly formal. It should make an interesting claim and it should do so by interpretation of appropriate evidence from empirical measurements. Data collection is but the beginning of certain research

enterprises in which the theoretical and applied payoffs of data analysis are essential. The concept of representativeness, however, is an appealing but misguided idea. It relies on the image of a microcosmic population, a selected sample that replicates exactly a larger universe with proportional representations of different types of individuals (Abelson, 1995).

In fact, *parametric tests*, usually preferred in the social sciences (Abelson, 1995) and used also in the present research, assume that the data are derived from a random sample. Furthermore, these tests assume that the overall distribution of scores from which samples are drawn is known to be the normal distribution and that the variables are measured with an equal-intervals or ratio scale. The point being made by different authors is that these requirements are often not fulfilled and that even when a random sample has been used, factors like non-response might affect its representativeness. Many sets of raw data depart in some respect from the normal distribution or from equal-variance requirements, and some authors suggest that violation of these assumptions generally has little effect on the outcomes. Moreover, it is suggested that parametric tests can also be used with ordinal variables since tests apply to numbers and not to what those numbers refer (Boneau, 1960; Bryman & Cramer, 1990; Cramer, 1997).

However, as to the *t-test*, used in the present research, it has been shown that the *p* values (especially those near the .05 significance level) are fairly insensitive to the actual shape of the distribution. The *t-test* is thus considered to be “robust” against variations in the shape of the distribution (Abelson, 1995; Kirk, 1968; Tukey, 1962).

The *t-test* is used in the present research for *comparison of lower and higher peace supporters*. The idea of comparison seems to be crucial in claims made with statistics.

To make a point that is at all meaningful, statistical presentations must refer to differences between observation and expectation, or differences among observations (Abelson, 1995). Certainly, the question of what is compared with what may have a substantial influence on the question asked and the answers given. Thoughtful attention to comparison standards, usually between two groups, can reduce the occurrence of misleading statistical interpretations.

The present results are based on a *static-group comparison design*, which is simple and inexpensive and enables the researcher to assess information on a large number of potentially relevant factors examined in the natural context in which they occur. The main drawback of this design, however, is being unsuitable for establishing cause and effect relationships (Cramer, 1997). Thus, the results cannot be interpreted as indicating that certain personality traits predispose the individual to accept or be attracted to pro-peace attitudes, but rather as showing that an association between the two sets of variables does exist.

In order to show that there are certain traits that predispose the individual to accept peace supportive attitudes it might be necessary to pursue a panel design that would point out which variable has a greater impact on the other (Cramer, 1988; Oppenheim, 1968; Langston & Sykes, 1997). Such a panel design has been considered as unsuitable for the present topic because of the time-bound type of data referring to a changing social reality.

Another option for demonstrating cause and effect might be to use path analysis (Wright, 1960). Although various studies dealing with attitudes toward the Arab-Israeli conflict (Arian, 1989) have used this procedure as an explanatory model, some questions might be raised as to the adequacy of using path analysis with this type of

data. Being primarily a method of decomposing and interpreting linear relationships among a set of variables, path analysis requires that the distribution of values of one variable would correspond to the distribution of values of the other. Furthermore, it is necessary to demonstrate that the relationship is non-spurious, which means that the variation exhibited by each variable is not affected by a common variable. Another requirement, which constitutes a considerable problem for non-experimental research designs, except for those dealing with hard data such as gender or country of origin, is establishing of the time order of the two related variables (Bryman & Cramer, 1990; Land, 1973; Wright, 1960).

However, as the present research does not aim to give prescription but rather to suggest a descriptive diagnosis of the Pro-Peace Personality, it seems unnecessary to search for a cause and effect relationship. Thus, a static-group comparison design is quite appropriate, though at a conceptual level some basic personality traits might be speculated to be the cause of the attitudinal system (see discussion).

As noted (see above) such a design requires thoughtful attention to comparison standards between the groups. In general, the chief function of an attitude scale might be described as dividing people roughly into a number of broad groups with respect to a particular attitude and to allow the researcher to study the ways in which such an attitude relates to other research variables (Oppenheim, 1992). The present static-group comparison design required a decision about how to categorize people as being lower or higher on the Pro-Peace Attitudes Index, PPAI, computed as the mean score of each subject's responses on the 8 questions included in the index (see Chapter Four). As indicated, the median (3.000) was found as most appropriate, both conceptually and empirically, for dividing the sample into the two PPAI groups. The

operational significance of using this PPAI value to differentiate between the lower and higher peace supporters is that on a range of 1-4 (1 indicating the least and 4 the most supportive attitudes) those who scored higher than 3.000 were included in the higher supportive group. This means that only subjects who chose the most supportive response at least on one of the 8 PPAI items were included in the higher supportive group. However, a question might be raised as to the extent of real differences between subjects having near-median scores who were categorized in two different groups. Analyzing the distribution of subjects with near-median scores shows that 9 subjects with a PPAI score of 3.000 were included in the lower and 10 subjects with a score of 3.130 were included in the higher supportive group.

The choice of the *t-test*, as the main univariate analysis, is related to the decision to use *discriminant analysis* for the descriptive diagnosis of the Pro-Peace Personality, preferring it on multiple regression analysis. Discriminant function is in effect a multivariate *t-test*. Although multiple regression may be viewed not only as an inferential tool but also as a descriptive tool used to find structural multivariate relationships, its basic assumption is the existence of linear dependence of a variable on others and this dependence is summarized and decomposed. The discriminant analysis, which aims to statistically distinguish between two groups of cases, does not use the assumption of dependency, indicating the configuration of characteristics of one group as compared to the other. In order to distinguish between the groups the researcher selects a collection of discriminant variables that measure characteristics on which the groups are expected to differ.

The mathematical objective of discriminant analysis is to weight and linearly combine the discriminating variables in some fashion so that the groups are forced to be as statistically distinct as possible. In other words, the researcher can discriminate between the groups in the sense of being able to find a single function on which subjects of one group are clustered at one pole and the subjects of the other group at the other (Cooley & Lohnes, 1971). The functions are formed in such a way as to maximize the separation of the groups which, in the present research, are defined on the basis of their peace attitudes. Once the discriminant functions have been derived, the researcher is able to pursue both the analysis and the classification aspects of this technique.

As has been shown (see Chapter Eight) the analysis aspects of the technique provide several tools for the interpretation of data such as statistical tests for measuring the success with which the discriminating variables actually differentiate between the groups when combined into the functions. The weighting coefficients indicated by the standardized discriminant function coefficients can be interpreted much as in multiple regression or factor analysis. In this sense, they serve to define the variables, which contribute most to differentiation along the respective function (dimension).

Once a set of variables is found which provides satisfactory discrimination for cases with known group membership, a set of classification functions can be derived which will permit the classification of new cases with unknown membership. As a check of the adequacy of the discriminant functions, the original cases might be classified to see how many are correctly "grouped" by the variables being used (see Chapter Eight).

Thus, except of having analytic use, discriminant analysis is also a powerful classification technique determining the likely group membership of a subject when the only data known is the subject's values on the discriminating variables. The

classification power of the discriminant analysis is considered to have many practical applications. It might determine physical or mental disorder on the basis of several symptoms, assigning individuals to task groups on the basis of skills and personality characteristics and predicting the likely attitudes and behaviour on the basis of social background or personality variables. Following the results of the present research this facet of discriminant analysis might be used as classifying individuals as lower or higher in peace supportive attitudes, on the basis of the examined personality traits.

Another statistical consideration relates to the use of *factor analysis* in the present research. Two approaches to the use of factor analysis can be distinguished - the confirmatory, which compares the solution found against a hypothetical one, and the exploratory in which the relationships between various variables are examined without determining the extent to which the results fit a particular model (Bryman & Cramer, 1990).

The confirmatory factor analysis is aimed to assess the degree to which items are tapping the same construct, for example, the pro-peace attitudes, examined in the present research. Factor analysis has demonstrated factorial validity of the questions which are included in the Pro-Peace Attitudes Index (PPAI), indicating by relatively high loadings that they are measuring the same construct (see Chapter Five).

The exploratory factor analysis is more ambitious in the sense that it is aimed to make sense of the bewildering complexity of social behaviour by reducing it to a more limited number of factors. One of the main examples of this is the use of factor analysis in the description of personality (Cattell, 1943). Both the General Survey and the Big Five Inventory, used in the present research as personality measures, are rooted in the method of exploratory factor analysis. The basic assumption in constructing these two

measures has been that there is a large number of terms or phrases in which individuals might describe their personality, many of them seem to refer to similar aspect. If people describe themselves in these terms or phrases, and the information is processed by factor analysis, it would be found that similar characteristics are grouped together in a smaller number of factors.

As a method of data reduction, exploratory factor analysis can often simplify, and make reportable, masses of data and interrelations, which it might otherwise be difficult to encompass. In this sense the method permits empirically rather than theoretically developed constructs. Nevertheless, because the underlying factors are source variables that have been created out of the observed variables they are typically not observable.

It is necessary to emphasize that although factor analysis can issue significant, previously obscured connections it can also issue mindless results (Block, 1995). In considering the results of exploratory factor analysis one must be mindful of the ways the method may suggest more than is supportable. Thus, the set of variables subjected to factor analysis may have been previously selected so as to contain several quite different subsets of redundant variables. The powerful effects of this prestructuring are often not sufficiently recognized by those using the method, though some of the most important authors who work on the Big Five relate to the problem, indicating that the axes chosen by a varimax rotation will depend on the selection of variables (Costa & McCare 1992; Goldberg, 1993).

Furthermore, there is still not a clear unequivocal basis for deciding on the number of factors to extract in a factor analysis. Thus, for example, since complex, primary similar factors can all emerge simultaneously in a given factor analysis, a question might be raised as to how one recognizes and responds to their different nature and implications.

Block (1995) raises many other questions challenging the legitimization of using exploratory factor analysis, in general, and in constructing personality taxonomy, in particular. Some of these questions seem to encourage a cautious perspective on the results issued by this method: What are the advantages and disadvantages of an “underfactored” as compared to “overfactored” matrix? How should the researcher rotate the factors to achieve psychological meaning? Should a rotational method be used that destroys a general factor (varimax), emphasizes a general factor, or seeks to conform to theoretical expectations? Should the researcher impose mathematical orthogonality on the rotated factors, or is this cognitively economical way of representing factors psychologically inappropriate? Is a given factor a primary factor or a merging of other factors into a complex or combinational factor with broader behavioural significance?

These issues seem to be of special importance because the psychological meaning of the factors obtained might often change fundamentally as the number of factors changes and as rotational criteria are varied. Apparently, a real factor should not change in meaning when another factor is introduced or when rotations are shifted. But in fact, this occurs in factor analysis and creates conceptual difficulties when one imputes psychological meaning to the factors issued by the atheoretical model. There are typically many alternative sets of parameters (factor loadings) which are equally consistent with the data, many of which would raise entirely different conclusions concerning the nature of the latent variables.

Furthermore, because factor analysis processes correlation matrices, all the psychometric problems related to the computed correlation coefficients, such as extent

of linearity, scaling differences, the forms of the score distribution and the heterogeneity of the sample have an effect on the subsequent results. Findings that exemplify this problem might be shown in studies that have found that the Big Five factors are reasonably orthogonal when data are drawn from a homogeneous sample, but not when the sample is more heterogeneous (Costa & McCrae, 1992; Goldberg, 1993).

At a more conceptual level, there is a question of whether a correlation matrix is able to represent appropriately central features of personality functioning, especially those which are situational-related. Block (1995) states that it is unlikely that the logical structure and sequence of operations on which the method of factor analysis is based can reflect the ways individuals evolve, articulate and conditionally use descriptive terms to characterize themselves. To the extent that the method of factor analysis is said to provide sufficient or strong justification for the Five Factor Model, the limitations of the method must be assessed and restrict generalizations. The view that the field of personality psychology can confidently rely on the factor analytic algorithm as an appropriate and sufficient basis for objectively deciding on the theoretical constructs to be used, is somewhat naive and limiting. This conclusion is in accordance to those that have emerged from the discussion dealing with the present research implications related to the use of self-rating scales in the field of personality psychology (see Chapter Three ). Certainly, the results of factor analysis in the field of personality psychology should often be influential and thoughtfully applied, but the results should not be used as a unique basis for personality assessment.

The main conclusion of the above discussion seems applicable not only to the field of personality psychology but rather to the social sciences in general. Factor analysis

might be a highly powerful technique for confirmatory use, but its role for exploratory use should be considered as being much more limited, demanding integration with other sources of data and statistical techniques.

The concluding statistical consideration refers to the idea that a single study never is so influential that it eliminates all arguments. Replication of research results is crucial. After all, if the results are contrary to certain beliefs, the strongest holders of those beliefs will tend to marshal various problems of the study's methodology with alternative interpretations of the results (Abelson, 1995).

### 7. The Pro-Peace Personality In The Middle East Scene

The main aim of the present research was to examine whether there are personality traits that discriminate between people with different attitudes toward the Peace Process in the Middle East. As noted (see Chapter Two), the research has not been intended to suggest a total explanation of the old debate over the ultimate motives underlying the Arab-Israeli conflict, nor a unique resolution to this conflict. It rather aims to test a number of limited and specific hypotheses concerning the role of psychological traits in the public attitudes toward the resolution of the conflict.

Conceptualizing a collective dimension of the individual's affective and general mental experience, the research stands among other studies demonstrating that individuals' mental experience is an important determinant of their political attitudes and evaluations (Marcus, 1988; Sullivan & Masters, 1988; Rahn et al., 1996). The results might be considered as pointing out the theme that the key to the understanding of international relations consists not on facts but rather on ideas (Banks, 1984).

As indicated (see Chapter Two), the term Peace Process began to be widely used to describe the possibility of a negotiated peace between Israel and its Arab neighbours after the Six Day War in 1967. Until then, the conflict had seemed almost frozen without any move toward resolution. The prevailing notion in studying the domestic perspective of the Arab-Israeli conflict had been that the Israeli polity was characterized by overburden due to domestic debates on the disposition of the occupied territories (Horowitz and Lissak, 1989). Thus, it was concluded, Israel was unable to launch bold policy initiatives to solve the blocked conflict with the Arabs.

The Declaration of Principles signed by Israel and the Palestine Liberation Organization (PLO) in September 1993 marked a dramatic step in Israel's traditional policy toward the PLO and the Palestinian issue. The declaration has strengthened the political debate in the Israeli public as to the Peace Process involving security concerns as well as national, historical and religious claims.

Different authors have shown that Israeli public opinion has been characterized by a near-even split between a more militant and a more conciliatory stand on the political and security issues (Shamir, 1986; Arian, 1992). It could be observed that there is a consistent and quite strong relationship in the Israeli Jewish population between religiosity and attitudes toward the Peace Process. People who are more observant of religious tradition are more likely to object to the process and maintain their attitudes or even move to more extreme ones over time. The assassination of Prime Minister Rabin by a fanatic religious Jewish student in November 1995 has emphasized this polarization and raised again the question of whether the Peace Process is feasible.

The combination of religious and political goals is not unique to Israel. Such a combination might recently be seen in the rise of fundamentalist movements especially in the Islamic world, but elsewhere as well. Halliday (1995) states that there are resilient fundamentalist currents in Israel and in the United States; fundamentalists are in power in Iran and Sudan; they threaten to come to power in Algeria and Egypt and they have made significant gains in Turkey.

It seems that within the Israeli public not just religious but also psychological factors are pervasive. Thus, the fear, rage, suspicions and the misperceptions that keep the Arab-Israeli conflict going are all in some sense psychological (White, 1977; Tetlock,

1985). However, the psychodynamic roots of the attitudes toward the Peace Process in the Middle East cannot be ignored.

A number of hypotheses related to the psychological perspective of the Peace Process were empirically examined in the present research, operationalized the attitudes toward the process by the Pro-Peace Attitudes Index, PPAI. The descriptive statistics, factor analysis and reliability analysis of this index have pointed out that the attitudes toward the Peace Process in the Middle East in a variety of issues concerning different partners and at different levels, compose an entity that can be looked at as one attitudinal system.

The first hypothesis stated that authoritarian conformity, as defined by self-rating scales, would be negatively associated with supporting attitudes toward the Peace Process in the Middle East, the higher peace supporters tending to be less authoritarian conformists than the lower ones. The results have confirmed this hypothesis, showing that authoritarianism, as measured by the General Survey (Couch, 1960; Blumberg et al., 1972; Kritzer et al., 1974) is associated with peace attitudes. Individuals who accept or are attracted to attitudes that are less supportive to the Peace Process in the Middle East are more authoritarian conformists than individuals who support pro-peace attitudes.

As noted (see Chapter Three), the authoritarian personality, defined by Adorno et al., (1950, 1982) is mainly conventional, submissive to authoritative figures, and has aggressive feelings toward various targets. In psychoanalytic terms, the authoritarian is a person who is dependent on parental and other authority by virtue of inadequate ego strength and the consequent use of various defense mechanisms to deal with hostile and sexual impulses. Authoritarians develop this personality on the basis of drives, which

they perceive as socially unacceptable, notably sexual and aggressive ones. When the restraints against expression of these impulses are unusually harsh, the individual becomes anxious, insecure, and unusually attuned to external authority sources for behavioural guidance. This personality structure of the authoritarians represents strong well entrenched defenses against anxiety, mainly the displacement mechanism in which the aggressive feelings are easily directed against outgroup members who are designated as being worthy of contempt by authority. Thus, harsh, punitive, and vindictive background and rigid social codes help to shape the authoritarian syndrome.

Fairly reliable findings from different studies have shown that the basic psychological pattern running through all authoritarian personalities includes strong inner conflicts or self contradictions, denial or repression of these conflicts and projection of denied or disliked self concepts (Eckhardt, 1991).

This pattern has been confirmed in the present research by the moderately strong, negative correlation ( $r = -.5176$ ;  $p < .01$ ) between the GS scale of authoritarianism and the animal-movement responses (*FM*), a Rorschach measure which is considered to be related to some awareness of impulses that are striving for gratification. A lower number of *FM* indicates suppression, inhibition and conscious rejection of drives. This might be seen as confirming the psychological dynamics assumed as characterizing the authoritarian syndrome.

Moreover, the present research, developing an understanding of the personality traits associated with authoritarianism and examining how these traits are associated with peace attitudes, might clarify why authoritarian submission, aggressiveness and conventionality are covariates, and why authoritarians tend to be less supportive toward the Peace Process. As indicated by Altemeyer (1988), highly submissive,

conventional people seem to be anxious and fearful, viewing the world as personally threatening. These anxieties and fears, in combination with self-righteousness, can account for the tendency of authoritarians to support conflict resolution through power and aggression.

The cluster of authoritarianism, aggressive mistrust and particular orientation to the ingroup might be clearer using the notion of group narcissism (Fromm 1986). Group narcissism relates to the phenomena based on the assertion that the individual's own country, nation or religion is the best as compared to other countries, nations or religions. As noted above (see Chapter Three) different studies have confirmed empirically this cluster of authoritarianism and particular orientation to the ingroup in various contexts (Altemeyer, 1988; Downing & Monaco, 1986; Duckitt, 1989; Stone et al., 1993; Tajfel, 1981). Arian (1989) has found the same syndrome, defined as "people apart", in the context of the Arab-Israeli conflict. Group narcissism has important functions in strengthening solidarity and cohesion of the group, in giving satisfaction to the members of the group and particularly to those with lower self-esteem, and is considered as one of the most important sources of human aggression. Fromm (1986) states that those whose narcissism refers to their group rather than to themselves as individuals are as sensitive as the narcissist individuals reacting with rage to any threat, real or imaginary, inflicted upon their group. As compared to the self narcissistic individual, the group narcissistic individuals are sure about their group image, since this image is shared by many other group members. In case of a conflict between groups that threaten the collective narcissism, this very challenge might arouse intense hostility.

Thus, the association between authoritarianism and lower peace supportiveness, as shown by the present results, might be explained in terms of group narcissism or the

“people apart” syndrome which is anchored in the authoritarian personality structure. The “people apart” syndrome enables the individuals to achieve cognitive harmony between the belief of the right to the land and feelings of being threatened (Arian, 1989). These results are in accordance with the suggestion noted above (see Chapter Three) that emphasis should be placed on narcissistic problems in the behaviour of authoritarians (Stone, 1993).

Using the GS scale to examine the differences between the lower and higher peace supporters has revealed that the anxiety scale is also discriminating between the two groups. Those who are low in the Pro-Peace Attitudes Index have been found to score higher in anxiety than those who are more supportive to the Peace Process. This difference was not hypothesized in the conceptual model, and was revealed through an exploratory approach, examining the four personality scales of the General Survey. Nevertheless, it should be emphasized that the neuroticism dimension of the Big Five, which indicates negative affectivity and chronic experience of mental distress such as anxiety, guilt and frustration, has not been found to differentiate significantly between the groups of higher and lower PPAI. Following this gap between the results derived from the two different self-rating scales, the GS and the BFI, the higher anxiety level, found in the group of lower peace supporters should be interpreted cautiously. However, the higher level of anxiety characterizing the lower PPAI group has been confirmed by some of the Rorschach measures relating to affective reactivity (see below).

The second hypothesis of the present research stated that experiential openness, as defined by self-rating scales would be positively associated with peace supportive attitudes, the higher peace supporters tending to be more open-minded than the lower

ones. The results did not confirm this hypothesis, probably because of methodological problems relating to the measurement of openness by self-rating scales (see Chapter Six). However, it was concluded that the controversiality that has characterized this factor is, at least partially, a consequence of measurement problems. Openness to experience is probably a much more valid and reliable measure when examined by the Rorschach than by self-rating scales (see Chapter Seven).

The use of the Big Five Inventory for examining the second hypothesis, revealed that agreeableness, another dimension of the Big Five, differentiates significantly between higher and lower peace supporters, the higher peace supporters being more agreeable than the lower ones. Although a hypothesis relating to this association was not included in the conceptual framework of the research, it seems worth referring to its meaning. Moreover, the BFI agreeableness scale was found to be a significant variable not only in the *t-test* but also in further statistical analyses (see Chapter Eight).

Agreeableness is a dimension that contrasts trust and cooperation with callousness and antagonism (McCrae, 1991). Agreeableness might be an indicator for some aspects of mental health, based on the tradition that psychiatric disorders are essentially interpersonal in origin (Wiggins, 1982). This meaning of agreeableness was confirmed in the present research by the significant positive correlation between the BFI dimension of agreeableness and the Rorschach *Pair* responses. These responses relate to the double image of the blot indicating openness as well as trustful interpersonal relationships (see the content analysis in Chapter Seven).

The third hypothesis stated that authoritarian conformity as indicated by the Rorschach measures of lower number of *unusual responses* (*Xu%*) and lower level of the *Egocentricity Index* would be negatively associated with supportive peace attitudes.

It has been hypothesized that higher supporters would tend to produce more unusual responses and to score higher, but still in the normal range, on the *Egocentricity Index*, emphasizing their non-conventionality and individuality. This hypothesis was confirmed strengthening the results found as to the association between the GS scale of authoritarian conformity and peace attitudes.

The fourth hypothesis stated that openness to experience, indicated by the Rorschach-derived measures of animal-movement responses (*FM*), the *Blends*, organizational activity (*Zf*) and *Pair* responses would be positively associated with pro-peace attitudes, higher supporters tending to be more open-minded, drive-conscious and integrative-complex in their psychological functioning. This hypothesis was confirmed by the results indicating the advantages of Rorschach measures for examining experiential openness as compared to the self-rating BFI factor that measures the same construct.

The results relating to the integrative complexity aspect of openness, as measured by the *Blends* and the *Zf*, are in accordance with data from inter-nation simulation studies. These studies indicate that individuals low in integrative complexity relied on highly competitive tactics - war and unprovoked arms - much more than highly integrative complex individuals (Tetlock, 1985). Furthermore, it has been found that violence as a response to frustration was much more likely among subjects who lack integrative complexity (Schroder et al., 1967), and that integrative complexity and divergent thinking relate significantly to experiential openness as well (McCrae, 1987). Low integrative complexity predisposes policy-makers to adopt competitive initiatives in which little consideration is given to the perspective of the other side, whereas high integrative complexity encourages policy-makers to seek compromise agreements that

refer to the interests of both parties (Pruitt & Lewis, 1975; Tetlock, 1985). The present results show that this relationship between integrative complexity, as defined by Rorschach-derived measures, and seeking compromise agreements in conflict resolution is not limited to the level of the decision-makers but also characterizes public opinion.

Some Rorschach measures (distorted form-quality responses, *X-%*, *Popular responses*, *P*, and the *Affective Ratio*) have been examined in the research with no specific hypothesized relations to peace supportive attitudes. The contradictory hypotheses that might be raised as to the association between these three measures and pro-peace attitudes dictated the application of an explorative design as to this issue (for the theoretical discussion of the measures, see Chapter Three). However, the results have shown that the distorted form-quality responses (*X-%*) and the *Affective Ratio* are significantly higher in the lower PPAI individuals as compared to the higher ones. The difference between the two groups as to the number of *popular responses* has been found as insignificant, indicating that the groups do not differ as to reality testing.

Distorted form-quality responses (*X-%*) are responses that disregard the appropriate use of the contours of the blot. These are answers in which the objects specified are very difficult or rather impossible to be seen, indicating distorted perceptual-mediation. In effect, they are violating reality. Minus responses are not uncommon, but usually occur in low frequencies. Exner (1993) states that whenever the *X-%* exceeds 25%, the likelihood of major impairment is substantial. Subjects who have problems in emotional control tend to show minus form-quality specifically in answers that include chromatic colour determinant. The present results indicate that the distorted form-quality responses do not exceed 25% either in the lower or in the higher PPAI group, though

there is a significant difference between the two groups, the lower PPAI group tending to produce more distorted-quality responses.

The above finding might be related to another one, indicating that the lower PPAI subjects score higher on the *Affective Ratio*. As noted, the *Affective Ratio* compares the number of answers to the chromatic coloured cards to the number of answers to other cards, indicating the subjects' interest in emotional situation and provides information about the responsiveness of a person to emotional stimulation. As noted (see Chapter Three), people with higher *Affective Ratio* are intrigued by emotional stimuli. This can become a liability if there are problems with control and modulation because the tendency to seek out emotional stimuli will probably increase the frequency with which such stimuli are required. Although the index does not relate directly to the issue of affective control it can have an indirect relationship - the higher the value of the index, the higher is the tendency toward overresponsiveness. In records where the influence of colour is increased in relation to form, there is an increase in moodiness and affective instability of the subject.

At this point of the discussion it seems most appropriate to refer to an analogy indicated by different authors between projective techniques, especially the Rorschach, and international politics (Tetlock & Mcguire, 1986). Foreign policy-makers work in ambiguous conditions without adequate knowledge of all the features that play a role in the present picture or future developments (Kissinger, 1979). This structural ambiguity might propose an analogy between the international scene and a projective test, both evoking different psychologically important response themes.

The higher level of anxiety, the lower level of agreeableness, the lower level of *Pair* responses, the higher *X-%* and the higher *Affective Ratio* characterizing the lower

peace supporters point to some problems related to the affective reactivity and the interpersonal relations of this group. These results might be interesting from the point of view of investigating the Israeli right-wing movement's culture which, as noted (see Chapter Two), is generally considered to include lower peace supporters. Following the question posed by Klandermans (1992) about what makes people define their situation in such a way that participation in a specific social movement seems appropriate for them, the present research has looked for the answer in terms of personality characteristics. The basic assumption might be that such personality characteristics are drawn upon, transformed and used by social and political movements to guide their activities and to articulate their aims and values. To state it differently, the question is whether movements' ideology can be based, at least partially, on specific psychological structure of the members. In its extremist significance, the answer to this question might show that a movement culture could be distorted due to its members' mental problems. The answer to this question might be of special importance when the movement's culture deals with issues relating to national dilemma.

Following the above results, it was hypothesized that the differences between the two groups of higher and lower pro-peace individuals would be significant not only in the examination of each of the traits separately, but also in a configurational discriminant function. Thus, there would be a different personality profile that characterizes the higher as compared to the lower peace supporters.

The results confirm this hypothesis referring both to the self-rating scales and to the Rorschach-derived measures. Summing up the results of the discriminant analysis on the two PPAI groups, when the examined variables are the self-rating scales ( $N = 197$ ), it has been shown that the lower and higher PPAI groups are mainly discriminated on

the basis of authoritarian conformity entered in step 1, and agreeableness entered in step 2. Thus, 64.47% of the subjects have been correctly “grouped” on the basis of these two variables, indicating that the combination of authoritarianism and agreeableness characterizes the Pro-Peace Personality in most of the cases, the higher peace supporters tending to be less authoritarian and more agreeable than the lower supporters (compared with a 50% baseline of correct assignment, the effect is modest but significant).

The results of the stepwise discriminant analysis when the examined variables are the Rorschach-derived measures, have been even more impressive than those of the self-rating scales, though it should be reemphasized that the Rorschach results are based on a very small sample ( $N = 26$ ), as compared to the general sample from which the self-rating results were derived ( $N = 197$ ). However, the discriminant analysis examining the Rorschach measures showed that 88.46% of the subjects were correctly “grouped” on the basis of the animal-movement responses *FM* (step 1) and the unusual responses *Xu%* (step 2). The combination of these two variables as characterizing the profile of the Pro-Peace Personality points out that the higher peace supporters might mainly be seen as suppressing and inhibiting their drives less while stressing their individuality more than the lower peace supporters.

Following the conceptual and empirical relations between religiosity and attitudinal variables on the one hand, and between religiosity and personality traits on the other, the concluded hypothesis of the research relates to the profile of the pro-peace personality when religiosity is entered to the configurational discriminant functions. It was hypothesized that the pro-peace personality would be found as non-religious, less authoritarian conformist, more agreeable and unconventional, more

integrative-complex in psychological functioning, more aware of drives and impulses and more open-minded and creative.

The results confirmed this hypothesis showing that religiosity, as expected, was entered to the discriminant analysis on the two PPAI groups by the self-rating traits in the first step, with Wilks' Lambda Coefficient of .6303 ( $p < .0001$ ) authoritarian conformity in the second step (.5927;  $p < .0001$ ) and agreeableness in the third (.5692;  $p < .0001$ ). The classification results showed that 82.23% of "grouped" cases were correctly classified by these variables.

The discriminant analysis on the two PPAI groups by the Rorschach-derived measures, *FM* and *Xu%*, and religiosity showed that religiosity was entered in the first step with Wilks' Lambda Coefficient of .2671;  $p < .0001$  and *Xu%* in the second step (.2173;  $p < .0001$ ). The *FM* measure was not entered probably because of its relation to religiosity, which has already been entered to the equation. The classification results have shown that 92.31% of "grouped" cases are correctly classified by these variables.

Summarizing the results, it is concluded that religiosity, authoritarian conformity, disagreeableness, conventionality, lack of integrative complexity, stronger reactivity to affective stimulus, suppression of drives and close-mindedness discriminate between those who are less supportive as compared to those who are more supportive toward the Peace Process in The Middle East.

*The Pro-Peace Personality tends to be non-religious, less authoritarian conformist, more agreeable and unconventional, more complex and integrative in psychological functioning, to express more awareness to drives and impulses, to react less intensively to affective stimulus, and to demonstrate more open-mindedness and creativity.*

As noted (see above) The present results are based on a *static-group comparison design* and are apparently unsuitable for establishing cause and effect relationships (Cramer, 1997). In order to show that there are certain traits that predispose the individual to accept peace supportive attitudes it might be necessary to pursue a panel design (Cramer, 1988; Oppenheim, 1968; Langston & Sykes, 1997) or to use path analysis (Wright, 1960). Both the panel design and the path analysis have been considered as unsuitable for the present topic (see above).

Nevertheless, although the present research, being basically aimed to suggest a descriptive diagnosis of the Pro-Peace Personality, did not search for cause and effect relationships statistically confirmed, some inferences might be conceptually speculated about probable effect that basic personality traits have on the attitudinal system.

The results point to the conclusion that attitudinal systems toward international relations in general, and toward conflict resolution in particular, emerge as plausible self-expressive responses to the situations. From this standpoint, it seems essential to study the personality background or context out of which such belief systems evolve. Tetlock & McGuire (1986) have stated that the challenge for future research would be to resolve the tension between isolated cognitive analyses of foreign policy, which grant "functional autonomy" and motivational analyses, which view belief systems as subservient to other psychological variables and systems.

While the present research has provided considerable support for the conceptual framework, panel data are necessary for addressing such questions as the consistency of the relations between personality traits and peace attitudes in response to current events and developments (Tetlock & McGuire, 1986).

Evidence on relations between personality and foreign policy preferences comes from a full range of methodological sources, including laboratory experiments, surveys, content analyses of documents, expert ratings of policy-makers and case studies (Tetlock, 1981). Tetlock & McGuire (1986) state that the similarity in results across methodologies is impressive. These lines emphasize that foreign policy belief systems do not exist in isolation from broader dimensions of individual differences in interpersonal style, cognitive style and basic affective and motivational variables. Foreign policy beliefs may sometimes serve as rationalizations for psychological needs and tendencies that have been displaced onto the international scene. This suggestion refers not only to the psychological needs of policy-makers but also to those of the members of social and political movements.

As noted, the research deals with the domestic aspect of the Arab-Israeli conflict, which has been rather neglected in some of the studies of the contemporary Middle East, perhaps under the influence of American realist theories of international relations (Halliday, 1994). To the extent that the domestic aspect has been examined in previous studies, this was mainly at the level of the political and technical elites, maybe because procedural matters have dominated the talks, but much of the progress made in the Peace Process itself could not be translated into any immediate impact on the daily life of the people in the region (Peters, 1996).

The Israeli domestic scene, which the present research has analyzed in personality terms, might have considerable impact on the future of the Peace Process. It seems that any mediator in the conflict would have to consider the domestic scene, and its psychological roots. This is not to say that a mediator cannot, in certain conditions,

affect the domestic scene, but rather that the psychological dynamics of the public and not only that of the elites should be considered in each step of the Peace Process.

However, referring to the polarization in Israeli public opinion it seems that for the opinion-makers, to proceed with the Peace Process neither direct negotiations and more flexible procedures nor discussions of a broader range of issues had proved to be sufficient. The basic differences within public opinion have already previously indicated that the long term process of the conflict resolution must include the involvement of the entire society (Staub, 1988).

It is accepted that the actors central to the Peace Process, the Israelis and the Palestinians, are caught in a paradoxical situation. When the Peace Process proceeds successfully, the opponents of compromise on both sides seek to destroy it by violent provocation. When the Peace Process does not proceed, then the Palestinians inevitably resort to a civil uprising, where weapons are not confined to stones and civil disobedience. Thus, various scenarios of future confrontation between Israel and its neighbours should be examined bearing in mind the internal political pressures (Cordesman, 1996).

Certainly, such future confrontation should also be considered as to its impact on the international scene. There are disagreements among social scientists about the extent to which the role of the Middle Eastern regional factors in provoking greater power conflict has to be emphasized. Some authors argue that the events such as the Korean and Vietnam Wars and the crisis over Cuba did as much as any Middle Eastern war for that role. Nevertheless, it is accepted that the events in the Middle East do have considerable effect on the period of the Second Cold War. This period, which has developed since 1979, has been characterized by east-west hostility and international

focus upon this conflict that was comparable, in its essentials, to the First Cold War characterizing the Soviet-US relations in 1945-1953. Certainly, special importance has been given to the Second Cold War because of the role played within it by unconventional arms (Halliday, 1983).

An interesting question raised by the present results is whether they can be replicated on other groups of the Jewish Israeli population, on the Israeli Arab population, on the Arabs in the neighbouring countries, as well as other nations involved in political conflicts, such as those within Canada, South Africa and Northern Ireland.

However, the research might be seen as bridging the gap between the micro and macro levels of analysis in social sciences by examining a problem anchored in the field of international relations with concepts and tools of clinical psychology. Apparently, it is quite an impossible mission, because clinical psychologists, who are used to working with individuals or small groups, are not expected to extend their concerns to world affairs and conflict between nations without a shift of the basic paradigms of the field. Nevertheless, the research has shown that using personality assessment concepts and methods for explaining behaviours in the field of international relations is possible and fruitful.

**Bibliography**

- Abelson, R. P. (1995). *Statistics as Principle Argument*. Hillsdale, N.J: Lawrence Erlbaum Associates, Inc.
- Acklin, M. W., & McDowell, C. (1995). Statistical power in Rorschach research. In: J. E. Exner (Ed.) *Issues and Methods in Rorschach Research* (pp.181-193). N.J: Lawrence Erlbaum Associates, Inc.
- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The Authoritarian Personality*. The American Jewish Committee.
- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1982). *The Authoritarian Personality - Abridged Edition*. W. W. Norton & Company, Inc.
- Allport, G. W. (1961). *Patterns and Growth in Personality*. New York.
- Allport, G. W. (1988). *The Nature of Prejudice*. Reading, Mass: Addison-Weseley.
- Allport, G.W., & Odbert, H. S. (1936). Trait names. A psycho-lexical study. *Psychological Monographs*. 47,1, No. 211.
- Altemeyer, B. (1981). *Right-Wing Authoritarianism*. Winnipeg: University of Manitoba Press.
- Altemeyer, B. (1988). *Enemies of Freedom: Understanding Right-Wing Authoritarianism*. San Francisco: Jossey-Bass.
- Anderson, T., & Dixon, W. E. (1993). The factor structure of the Rorschach for adolescent inpatients. *Journal of Personality Assessment*, 60, 319 - 332.

- Archer, R. P. (1996). MMPI and Rorschach interrelationships; Proposed criteria for evaluating explanatory models. *Journal of Personality Assessment*, 67, 3, 504-515.
- Archer, R., & Krishnamurthy, R. A. (1993). Review of MMPI and Rorschach interrelationships in adult samples. *Journal of Personality Assessment*, 61, 277-293.
- Arian, A. (1989). A people apart: Coping with national security problems in Israel. *Journal of Conflict Resolution*, 33, 605-631.
- Arian, A. (1992). Security and political attitudes in Israel: 1986-1991. *Public Opinion Quarterly*, 56, 116-128.
- Arian, A., & Shamir, M. (1983). The preliminary political function of the left-right continuum. *Comparative Politics*, 15, 139-158.
- Arian, A., Shamir M., & Ventura, R. (1992). Public opinion and political change: Israel and the Intifada. *Comparative Politics*, 24, 317-334.
- Arnou, D., & Cooper, S. (1988). Toward a Rorschach psychology of the self. In: H. Lerner (Ed.) *Primitive Mental States and The Rorschach* (pp. 53-68). Madison: International Universities Press.
- Aronow, E., Rezinkoff, M., & Moreland, K. L. (1995). The Rorschach: projective technique or psychometric test? *Journal of Personality Assessment*, 64, 2, 213-228.
- Astorino, A. (1995). The cognitive structure of decision making and the course of Arab-Israeli relations. *Journal of Conflict Resolution*, 39, 3, 419-438.
- Atkinson, L., Quarrington, B., Alp, I. E., & Cyr, J. J. (1986). Rorschach validity: An empirical approach to the literature. *Journal of Clinical Psychology*, 42, 360-362.

- Bales, R. F. (1970). *Personality and Interpersonal Behavior*. New York: Holt, Reinhart & Winston.
- Banks, M. (1984). *Conflict in World Society: A New Perspective on International Relations*. The Harvester Press Publishing Group.
- Banks, M., & Shaw, M. (1991). *State and Society in International Relations*. St. Martin's Press, Inc. New York.
- Barron, F., & Harrington, D. M. (1981). Creativity, intelligence, and personality, *Annual Review of Psychology*, 32, 439-476.
- Baumeister, R. F., & Tice, D. M. (1996). Rethinking and reclaiming the role of personality psychology. *Journal of Research in Personality*, 30, 3, 363-373.
- Benet, V., & Waller, N. G. (1995). The Big Seven factor model of personality description: Evidence for its cross-cultural generality in Spanish sample. *Journal of Personality and Social Psychology*, 69, 701-718.
- Billig, M. (1982). *Ideology and Social Psychology*. Basil Blackwell Publisher Limited, Oxford, England
- Block, J. (1995). A contrarian view of the Five Factor approach to personality description. *Psychological Bulletin*, 117, 2, 187-215.
- Blumberg, H. H. (1973). The specificity of acquiescence. *Journal of Personality Assessment*, 37, 479-485.
- Blumberg, H. H. (1990). Attitude formation and international conflict. In: F. Korzenny & S. Ting-Toomy (Eds.) *Communicating for Peace: Diplomacy and Negotiation* (pp. 56-74). Newbury Park: Sage.

- Blumberg, H. H. (1993). Peace psychology: Overview and taxonomy.  
In: V. K. Kool (Ed.) *Nonviolence - Social and Psychological Issues* (pp. 67-182).  
Lanham: University Press of America.
- Blumberg, H. H. (1997). *Peace Psychology after The Cold War: A Selective Review*.  
University of London, London, England.
- Blumberg, H. H., & French, C. C. (1992). *Peace: Abstracts of the Psychological Literature*. Washington, D.C. U.S: American Psychological Association.
- Blumberg, H. H., Hare, A. P., Fuller, C., Walker, C., & Kritzer, H. M. (1972).  
Evaluation of some training programs for nonviolent direct action. *Paper presented at the Fourth International Congress of Social Psychiatry*. Jerusalem, Israel.
- Boneau, C. A. (1960). The effects of violations of assumptions underlying the *t*-test, *Psychological Bulletin*, 57, 49-64.
- Borgatta, E. F., & Crosini, R. S. (1960). The Quick Word Test, QWT, and the WAIS. *Personality Reports*, 6, 201.
- Boulding, E. (1988). Image and action in peace building. *Journal of Social Issues*, 44, 2, 17-37.
- Boulding, E. (1992). The concept of peace culture. In E. Asbjon (Ed.) *Peace and Conflict Issues after the Cold War* (pp. 107-133).
- Briggs, S. R. (1992). Assessing the Five Factor Model of personality description. *Journal of Personality*, 60, 253-293.
- Bryman, A., & Cramer, D. (1990). *Quantitative Data Analysis for Social Scientists*. London, Routledge.

- Burke, P. (1988). *The Nuclear Weapons World*. London: Pinter.
- Burke, W. F., Friedman, G., & Gorlitz, P. (1988). The psychoanalytic Rorschach profile: An integration of drive, ego, and object relations perspectives. *Psychoanalytic Psychology*, 5, 193-212.
- Buss, D. M., & Craik, K. H. (1983). The act frequency approach to personality. *Psychological Review*, 90, 105-113.
- Butcher, J. N., & Rouse, S. V. (1996). Personality, individual differences and clinical assessment. *Annual Review of Psychology*, 47, 87-111.
- Byrne, D. (1965). Parental antecedents of authoritarianism. *Journal of Personality and Social Psychology*, 1, 369-373.
- Byrne, D. (1974). *An Introduction to Personality*. Englewood Cliffs, NJ: Prentice Hall.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait multimethod matrix. *Psychological Bulletin*, 56, 86-105.
- Carver, C. S. (1996). Emergent integration in personality psychology. *Journal of Research in Personality*, 30, 3, 319-334.
- Cattell, R. B. (1943). The description of personality: Basic traits resolved into clusters. *Journal of Abnormal & Social Psychology*, 38, 476-506.
- Cattell, R. B. (1945). The description of personality: Principles and findings in a factor analysis. *American Journal of Psychology*, 58, 69-90.
- Christie, R. (1984). Review of right-wing authoritarianism. *Contemporary Sociology*, 13, 518-519

- Christie, R. (1991) Authoritarianism and related constructs. In: J. P. Robinson et al., (Eds.), *Measures of Social Psychological Attitudes* (pp. 501-509). NY: Academic Press.
- Clancy, S. M., & Dollinger, S. J. (1993). Identity, self, and personality. *Journal of Research on Adolescence*, 3, 227-245.
- Coan, R. W. (1972). Measurement components of openness to experience. *Journal of Consulting and Clinical Psychology*, 39, 2, 346-347.
- Cooley, W. W., & Lohnes, P. R. (1971). *Multivariate Data Analysis*. New York: Wiley.
- Cordesman, A. H. (1996). *The Peace Process and the Arab-Israeli Military Balance*. Boulder, Co. Oxford: Westview.
- Costa, P.T., & McCrae, R. R. (1988). Personality in adulthood. *Journal of Personality & Social Psychology*, 54, 853-863.
- Costa, P. T., & McCrae, R. R. (1990). Personality disorders and the Five Factor model. *Journal of Personality Disorders*, 4, 362-371.
- Costa, P.T., & McCrae, R. R. (1992) *The NEO PI-R Professional Manual*. FL: Psychological Assessment Resources.
- Costa, P.T., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the revised NEO Personality Inventory. *Journal of Personality Assessment*, 64, 21-50.
- Couch, A. S. (1960). Psychological determinants of interpersonal behavior. Unpublished Ph.D Dissertation, Harvard University, Cambridge, Mass.

- Craik, K. H. (1986). Personality research methods: An historical perspective. *Journal of Personality*, 54, 18-50.
- Cramer, D. (1988). Self-esteem and facilitative close relationships: A cross-lagged panel correlation analysis. *British Journal of Social Psychology*, 27, 115-126.
- Cramer, D. (1997). *Basic Statistics for Social Research*. London, Routledge.
- Creighton, C., & Shaw, M. (1987). *The Sociology of War and Peace*. London, Macmillan.
- Cronbach, L. J. (1949). Statistical methods applied to Rorschach scores: A review. *Psychological Bulletin*, 46, 393-429.
- Cronbach, L. J. (1995). Giving method variance its due. In: P.E. ShROUT & S. T. Fiske (Eds.) *Personality Research, Methods and Theory* (pp.145-157). Hillshade, N.J: Lawrence Erlbaum Associates, Inc.
- Crowley, S.L., Worchel, F. F., & Ash, M. J. (1992). Self-report, peer-report, and teacher report measures of childhood depression: An analysis by item. *Journal of Personality Assessment*, 59, 189-203.
- Dana, R. H., & Bolton, B. (1982). Interrelationships between Rorschach and MMPI scores for female college students. *Psychological Reports*, 51, 1281-1282.
- Dawes, R. M. (1994). *House of Cards: Psychology and Psychotherapy Built On Myth*. New York: Free Press.
- De Rivera, J., & Laird, J. (1988). Peace fair or warfare: Educating the community. *Journal of Social Issues*, 44, 2, 59 - 80.

- Deutsch, M. (1961). Some considerations relevant to national policy. *Journal of Social Issues*, 17, 3, 57-68.
- Deutsch, M. (1977). Recurrent themes in the study of social conflict. *Journal of Social Issues*, 33, 1, 222-225.
- Deutsch, M. (1986). The spiral process of hostile interaction. In: R. K. White (Ed.) *Psychology and The Prevention of Nuclear War* (pp. 131-154).  
New York: New York University Press.
- Deutsch, M. (1993). Educating for peace. *American Psychologist*, 48, 510-517.
- Diener, E. (1996). Traits can be powerful, but are not enough. *Journal of Research in Personality*, 30, 389-399.
- Digman, J. M. (1990). Personality structure: Emergence of the Five Factor model, *Annual Review of Psychology*, 41, 417- 440.
- Digman, J. M. (1997). Higher order factors of the Big Five. *Journal of Personality and Social Psychology*, 73, 1246-1256.
- Dollinger, S. J., Leong, F.T., & Ulicni, S. K., (1996). On traits and values with special reference to openness to experience, *Journal of Research in Personality*, 30, 23-41.
- Downing, L. L., & Monaco, N. R. (1986). Ingroup and outgroup bias as a function of differential contact and authoritarian personality, *Journal of Social Psychology*, 126, 445-452.
- Duckitt, J. (1989). Authoritarianism and group identification: A new view of an old construct, *Political Psychology*, 10, 63-84.

- Eckhardt, W. (1991). Authoritarianism. *Political Psychology*, 12, 97-124.
- Epstein, S. (1994). Integration of the cognitive and the psychodynamic unconscious. *American Psychologist*, 49, 709-724.
- Exner, J. E. (1974) *The Rorschach: A Comprehensive System*, 1, NY: Wiley.
- Exner, J. E. (1991). *The Rorschach: A Comprehensive System - Interpretation*, 2, NY: Wiley.
- Exner, J. E. (1993) *The Rorschach. A Comprehensive System*, NY: Wiley.
- Exner, J. E. (1995). Introduction. *Issues and Methods in Rorschach Research* (pp. 1-24). NJ: Lawrence Erlbaum Associates.
- Exner, J.E. (1997). The future of Rorschach in personality assessment. *Journal of Personality Assessment*, 68, 1, 37-46.
- Exner, J. E., & Tuttle, K. (1994). *Rorschach Interpretation Assistance Program, Version 3*, (Computer program). Tampa, FL: Psychological Assessment Resources.
- Exner, J. E., Viglione, D. J., & Gillespie, R. (1984). Relationships between Rorschach variables as relevant to the interpretation of structural data. *Journal of Personality Assessment*, 48, 65-70.
- Eysenck, H. J. (1954). *The Psychology of Politics*. London: Routledge & Kegan Paul.
- Eysenck, H. J. (1970). *The Structure of Personality*, London: Methuen.
- Eysenck, H. J. (1982). Review of right-wing authoritarianism. *Personality and Individual Differences*, 3, 352-353.

- Finn, S. E. (1996). Assessment feedback integrating MMPI and the Rorschach findings. *Journal of Personality Assessment*, 67, 543-557.
- Fisher, R. F. (1993). Developing the field of interactive conflict resolution: Issues in training, funding and institutionalization. *Political Psychology*, 14, 1, 123-138.
- Frances, A.E., Pincus, H. A., Widiger, T. A., Davis, W. W., & First, M. B. (1990). Work in Progress: DSM IV. *American Journal of Psychiatry*, 147, 1439-1448.
- Frank, J. D. (1960). Psychological challenging of nuclear age. *Psychiatry*, 23, 245-268.
- Fromm, E. (1986). Group Narcissism. In: R. K. White (Ed.) *Psychology and The Prevention of Nuclear War* (pp. 227-235). New York: New York University Press.
- Furnham, A. Personality and values. (1984). *Personality and Individual Differences*, 5, 483-485.
- Gancono, C. B. (1990). An empirical study of object relations and defensive operations in antisocial personality disorder. *Journal of Personality Assessment*, 54, 749-760.
- Ganellen, R. J. (1996). Integrating the Rorschach and the MMPI 2, *Journal of Personality Assessment*, 67, 3, 501-503.
- Glisky, M. L., Tataryn, D. J., Tobias, B.A., Kihlstrom, J. F., & McConkey, K. M. (1991). Absorption, openness to experience, and hypnotizability. *Journal of Personality and Social Psychology*, 60, 263-272.
- Goldberg, L. R. (1981). Language and individual differences. In: L. Wheeler (Ed.) *Review of Personality and Social Psychology*, Vol. 2 (pp.141-165). Beverly Hills, CA: Sage.

- Goldberg, L. R. (1993). The structure of phenotypic traits. *American Psychologists*, 48, 26-34.
- Gough, H. G., & Heiblum, A. B. (1983). *The Adjective Checklist Manual, Revised*. Palo Alto, CA: Consulting Psychologists Press.
- Goyder, J. (1988). *The Silent Minority: Non-Respondents on Social Survey*, Oxford: Polity Press.
- Greenstein, F. I. (1986). *Personality and Politics*. Princeton New Jersey: Princeton University Press.
- Halliday, F. (1983). *The Making of the Second Cold War*. The Thetford Press. Thetford, Norfolk.
- Halliday, F. (1994). Book Review. *International Affairs*, 70, 1, 162-163.
- Halliday, F. (1995). Review article: The politics of Islam, *British Journal of Political Science*, 25, 3, 399-417.
- Hampson, S. E., John, O. P., & Goldberg, L. R. (1986). Category breadth and hierarchical structure in personality: Studies of asymmetries in judgements of trait implications. *Journal of Personality and Social Psychology*, 51, 37-54.
- Hamwee, J., Miall, H., and Elworthy, S. (1990). The assumptions of British nuclear weapons decision-makers. *Journal of Peace Research*, 27, 4, 359-372.
- Hart, S. (1996). The cultural dimension of social movements: a theoretical reassessment and literature review. *Sociology of Religion*, 57, 1, 87-100.
- Harvey, O. J., Hunt, D. E., & Schroder, H. M. (1961). *Conceptual systems and personality organization*. New York: Wiley.

- Harwell, M. R. (1988). Choosing between parametric and non-parametric tests. *Journal of Counseling and Development*, 67, 35-38.
- Higgins, E. T. (1990). Personality, social psychology, and person-situation relations: Standards and knowledge activation as a common language. In: L.A. Pervin, (Ed.) *Handbook of Personality. Theory and Research*. New York: Guilford Press, 301-334.
- Holland, J. L. (1985). *Making vocational choices: A theory of vocational and work environment*. Englewood Cliffs, NJ: Prentice Hall.
- Horowitz, D., & Lissak, M. (1978). *Origins of the Israel Polity: Palestine under the Mandate*. Chicago: University of Chicago Press.
- Horowitz, D., & Lissak, M. (1989). *Trouble in Utopia: The Overburden Polity of Israel*. Albany: State University of New York Press.
- Hozik, J., & Wright, J. W. (1996). A cross-cultural investigation of personality traits among Arab and American business students. *Social Behavior & Personality*, 24, 3, 221-230.
- Huntington, S.P. (1993). If not civilization, what? *Foreign Affairs*. 72,5, 186-194.
- Jakobi, J.M. (1992). Social psychology in the student movement in France, *Canadian Psychology*, 33, 629-633 (French).
- Jervis, R. (1976). *Perception and misperception in international relations*. NJ: Princeton University Press.
- Johansen, R. C. (1997). Radical Islam and nonviolence: A case study of religious empowerment and constraint. *Journal of Peace Research*, 34, 1, 53-71.

- John, O. P. (1990). The Big Five Factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In: L. A. Pervin (Ed.) *Handbook of Personality, Theory and Research* (pp. 65-100). New York: Guilford.
- John, O. P., Angleither, A., & Ostendorf, F. (1988). The lexical approach to personality: A historical review of trait taxonomic research. *European Journal of Personality*, 2, 171-203.
- John, O. P., Donakue, E. M., & Kentle, R. L. (1991). The Big Five Inventory. Technical Report. IPAR, University of California, Berkeley.
- Kelman, H. C. (1986). An interactional approach to conflict resolution. In: R. K. White (Ed.) *Psychology and The Prevention of Nuclear War* (pp. 171-193). New York: New York University Press.
- King, L. A., Walker, L.W., and Broyles, S. J. (1996). Creativity and the Five Factor Model. *Journal of Research in Personality*. 30, 189-203.
- Kirk, R. (1968). *Experimental Design: Procedures for the Behavioral Science*, Belmont, CA: Brookes.
- Kissinger, H. (1979). *For The Record, Selected Statements*. London.
- Klandermans, B. (1992). The social construction of protest and multi-organizational fields. In: A. D. Morris & C. M. Mueller (Eds.) *Frontiers in Social Movement Theory* (pp. 77-103). New Haven: Yale University Press.
- Klopfer, B. & Kelley, D. M. (1942). *The Rorschach Technique*. Yonkers on Hudson, New York: World Book Co.
- Kool, V. K. (1993). *Nonviolence: Social and Psychological Issues*. University Press of America.

- Kramer, B. M., & Moyer, R. S. (1991). *Nuclear Psychology Bibliography*. Ann Arbor, MI: Society for Psychological Study of Social Issues.
- Kritzer, H. M., Hare, P. A., & Blumberg, H. H. (1974). The General Survey: A short measure of five personality dimensions. *The Journal of Psychology*, 86, 165-172.
- Land, K. C. (1973). Parameter estimation and hypothesis testing in sociological models. In: A. S. Goldberger & O. D. Duncan (Eds.) *Structural Equation Models in the Social Sciences*. New York: Seminar Press.
- Langston, C. A. & Sykes, W. E. (1997). Beliefs and the Big Five: Cognitive bases of broad individual differences in personality. *Journal of Research in Personality*, 31, 2, 141-165.
- Lazarus, R. (1982). The Psychology of stress and coping. In: D. Spielberger et al., (Eds.) *Stress and Anxiety, Vol. 8* (pp. 23-26).
- Leichtman, M. (1996). *The Rorschach: A Developmental Perspective*. Hillsdale, NJ: The Analytic Press.
- Lerner, P. M. (1991). *Psychoanalytic theory and the Rorschach*. Hillsdale, NJ: The Analytic Press.
- Lerner, P.M. (1992). Toward an experiential psychoanalytic approach to the Rorschach. *Bulletin of Meninger Clinic*, 56, 451- 464.
- Lerner, P.M. (1996). Current perspectives on psychoanalytic Rorschach assessment. *Journal of Personality Assessment*, 67, 3, 450- 461.
- Levi, A., & Tetlock, P. E. (1980). A cognitive analysis of Japan's decision for war. *Journal of Conflict Resolution*, 24, 195-211.

- Linton, R. (1945). *The Cultural Background of Personality*. New York.
- Lipgar, R. M. (1992). The problem of *R* in the Rorschach: A critical appraisal. *Journal of Personality*, 60,2, 353-361.
- Lipgar, R. M. & Waehler, C. A. (1991). A Rorschach understanding of mothers of behaviorally disturbed infants. *Journal of Personality Assessment*. 56, 106-117.
- Little, B. R., Lecci, L., and Watkinson, B. (1992). Personality and personal projects: Linking Big Five and PAC units of analysis. *Journal of Personality*, 60, 501-525.
- Luce, R. D. (1995). Four tensions concerning mathematical modeling in psychology. *Annual Review of Psychology*, 46, 1-26.
- Mann, L. (1993). Protest movements as a source of social change, *Australian Psychologist*, 28, 69-73.
- Maoz, Z. & Astorino, A. (1992). The cognitive structure of peacemaking: Egypt and Israel. *Political Psychology*, 13, 4, 647-662.
- Marcus, G. E. (1988). The structure of emotional response. *American Political Science Review*, 82, 735 - 761.
- McAdams, P. (1992). The Five Factor Model in personality: A critical appraisal. *Journal of Personality*, 60, 329-361.
- McAdams, P. (1996). Alternative future for the study of human individuality. *Journal of Research in Personality*, 130, 3, 389-399.
- McClelland, D.C. (1989). Motivational factors in health and illness. *American Psychologist*. 44, 675-683.

- McClelland, D.C., Kestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ? *Psychological Review*, 96, 690-702.
- McCrae, R. R. (1987). Creativity, divergent thinking and openness to experience. *Journal of Personality and Social Psychology*, 52, 1258 - 1265.
- McCrae, R. R. (1990). Traits and trait names: How well is openness represented in natural languages? *European Journal of Personality*, 4, 119-129.
- McCrae, R. R. (1991). The Five Factor Model and its assessment in clinical settings. *Journal of Personality Assessment*, 57, 3, 399-414.
- McCrae, R. R. (1993). Openness to experience as a basic dimension of personality. *Imagination, Cognition and Personality*, 13, 39-55.
- McCrae, R. R. (1994). Openness to experience: Expanding the boundaries of Factor V. *European Journal of Personality*, 8, 251-272.
- McCrae, R. R. (1996). Social consequences of experiential openness. *Psychology Bulletin*, 110, 3, 323-337.
- McCrae, R. R., & Costa, P.T. (1980) Openness to experience and ego level: Dispositional contributions to developmental models of personality. *Journal of Personality and Social Psychology*, 39, 1179-1190.
- McCrae, R. R. & Costa, P. T. (1985). Openness to experience. In: R. Hogan & W. H. Jones (Eds.) *Perspectives in Personality, Vol. 1* (pp. 145-172). Greenwich: JAI Press.
- McCrae, R. R. & Costa, P. T. (1987). Validation of the Five Factor model across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.

- McCrae, R. R. & Costa, P. T. (1989). Rotation to maximize the construct validity of factors in the NEO Personality Inventory. *Multivariate Behavioral Research*, 24, 107-124.
- McCrae, R. R. & John, O. P. (1992). An introduction to Five Factor model and its applications. *Journal of Personality*, 61, 1-26.
- McCrae, R. R., Costa, P. T., & Piedmont, R. L. (1993). Folk concepts, natural language, and psychological constructs: The California Psychological Inventory and the Five Factor Model. *Journal of Personality*, 61, 1-26.
- McLean, S. (1986). *How Nuclear Weapons Decisions are Made*. London: Macmillan.
- Meloen, J. D. (1990). The authoritarian concepts. *Paper presented at the meeting of the International Society of Political Psychology*, Washington, D.C.
- Meloen, J. D., Hagendoorn, L., Raaijmakers, Q., & Vissaer, L. (1988). Authoritarianism and the revival of political racism: Reassessments in the Netherlands of the reliability and validity of the concept of authoritarianism. *Political Psychology*, 9, 413-429.
- Merviedle, I., Buyst, V., & Defruyt, F. (1995). The validity of the Big Five as a model for teachers' ratings of individual differences among children. *Personality and Individual Differences*, 18, 525-534.
- Meyer, G. J. (1992). The Rorschach factor structure: A contemporary investigation and historical review. *Journal of Personality Assessment*, 59, 1, 117-136.
- Meyer, G. J. (1996). The Rorschach and MMPI: Toward a more scientifically differentiated understanding of cross-method assessment. *Journal of Personality Assessment*, 67, 3, 558-578.

- Meyer, G. J. (1997) On the integration of personality assessments: The Rorschach and MMPI. *Journal of Personality Assessment*, 68, 297-330.
- Miall, H. (1987). *Nuclear Weapons - Who's in Charge?* London: Macmillan.
- Millon, T., & Davis, R.D. (1994). Evolutionary model of normal and abnormal personality: Theory and measures. In: S. Stark & M. Lorr (Eds.), *Differentiating normal and abnormal personality* (pp. 79-113). New York: Springer.
- Moyer, R. S. (1985). The enemy within - psychological threats to real security. *Psychological Today*, 19, 1, 30 - 37.
- Nichols, D. S. (1996). Remarks on method for MMPI-Rorschach studies. *Journal of Personality Assessment*, 67, 3, 516-528.
- Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *Journal of Abnormal and Social Psychology*, 65, 574-583.
- Oppenheim, A. N. (1968). *Questionnaire Design and Attitudes Measurement*. New York: Basic Books, Inc. Publishers.
- Oppenheim, A. N. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*. New York: Pinter Publishers.
- Parker, K.C. (1983). Reliability and validity of the Rorschach. *Journal of Personality Assessment*, 42, 227-231.
- Parker, K.C., Hanson, R. K., & Hunsley, J. (1988). MMPI, Rorschach and WAIS. Reliability, stability and validity. *Psychological Bulletin*, 103, 367-373.

- Peabody, D., & Goldberg, L. R. (1989). Some determinants of factor structures from personality trait descriptions. *Journal of Personality and Social Psychology*, 57, 552-567.
- Pearson, E. S. (1962). Some thoughts on statistical inference. *Annals of Mathematical Statistics*, 33, 394-403.
- Pepper, D. & Jenkins, A. (1985). *The Geography of War and Peace*, Oxford: Blackwell.
- Pervin, L. A. (1993). Pattern and organization: Current trends and prospects for the future. In: K. Craik et al., (Eds.) *Perspectives in Personality* (pp. 69-84). Greenwich, CT: JAI Press.
- Pervin, L. A. (1996). Personality: A view of the future based on the look at the past. *Journal of Research in Personality*, 30, 3, 309-318.
- Peters, J. (1996). *Pathways to Peace: The Multilateral Arab-Israeli Peace Talks*. London: The Royal Institute of International Affairs.
- Piotrowski, Z. A. (1974). *Perceptanalysis* (Third Edition), Philadelphia, PA.
- Pruitt, D.G., & Lewis, S.A. (1975). Development of integrative solutions in bilateral negotiation. *Journal of Personality and Social Psychology*, 31, 621-633.
- Quandt, W. B. (1993). *Peace Process*. The Brookings Institution, Washington, D.C. and University of California Press, Berkeley, CA.
- Rahn, W. M., Kroeger, B., & Kite, C. M. (1996). A framework for the study of public mood. *Political Psychology*, 17, 1, 29-58.

- Rapaport, D., Gill, M. & Schafer, R. (1968). *Diagnostic Psychological Testing* (Revised Edition). New York: International Universities Press.
- Raphael, T. (1982). Integrative complexity theory and forecasting international crises. *Journal of Conflict Resolution*, 26, 436-450.
- Rigby, K., Metzger, J., & Dietz, D. (1990). Factors predisposing individuals to support nuclear disarmament: An International Perspective, *Journal of Peace Research*, 27, 3, 321-329.
- Rigby, K., & Rump, E. E (1982). Attitudes toward authority and authoritarian Personality characteristics, *Journal of Social Psychology*, 122, 171-180.
- Ritzler, B. A., & Exner, J. E. (1995). Special issues in subject selection and design. In: J. E. Exner, (Ed.) *Issues and Methods in Rorschach Research*. New Jersey: Lawrence Erlbaum Associates, Publishers.
- Rokeach, M. (1956). Political and religious dogmatism: An alternative to the authoritarian personality. *Psychological Monographs*, 70, 18.
- Rokeach, C. R. (1960). *The Open and Closed Mind*. NY: Basic Books.
- Rokeach, M. (1973). *The Nature of Human Values*. New York: The Free Press.
- Rokeach, M. (1979). *Understanding human values*. New York: The Free Press.
- Rorschach, H. (1941). *Psychodiagnostics*. H. H. Verlag, Trans. (Original work published in 1921). Bern: Bircher.
- Rorschach, H. (1975). *Psychodiagnostics*. P. Lemkau & N. B. Kronenberg, Trans. (Original work published in 1921). New York: Grun & Stratton.

- Rouhana, N. N., & Fiske, S. T. (1995). Perception of power, threat and conflict intensity in asymmetric intergroup conflict. *Journal of Conflict Resolution*, 39, 49-81.
- Rubin, B. (1996). The Arab-Israeli conflict. *Israel Studies Bulletin*, 3-9.
- Rubinstein, A. (1991). *The Constitutional Law of the State of Israel*, Jerusalem, (Hebrew).
- Rump, E. E., Rigby, K., & Waters, L. K. (1985). The generality of attitudes to authority: Cross-cultural comparisons. *Journal of Social Psychology*, 52, 307-312.
- Salomon, K. (1986). The peace movement: An anti-establishment movement. *Journal of Peace Research*, 23, 2, 115-127.
- Samelson, F. (1986). Authoritarianism from Berlin to Berkeley: On social psychology and history. *Journal of Social Issues*, 42, 1, 191-208.
- Sanford, N. (1973). Authoritarian personality in contemporary perspective. In: J. N. Knutson (Ed.) *Handbook of political psychology* (pp. 139-170). San Francisco: Jossey-Bass.
- Sarason, I. G. (1996). The future of personality. Introduction. *Journal of Research in Personality*, 30, 307-308.
- Saucier, G. (1992). Openness and intellect: Much about nothing. *European Journal of Personality*, 6, 381-386.
- Sayer, N. A., Sakheim, H. A., Moeller, J. R., Prudic, J., Devandan D. P., Coleman, E. A., & Kiersky, J. E. (1995). The relations between observer-rating and self-report of depressive symptomatology. *Psychological Assessment*, 5, 350-360.

- Schroder, H. M., Driver, M. J., & Steruert, S. (1967). *Human Information Processing*. NY: Holt, Rinehart and Winston.
- Shamir, M. (1986). Realignment in the Israeli party system. In: A. Arian & M. Shamir *The elections in Israel* (pp. 267-296). New Brunswick, NJ.
- Shamir, J. & Shamir, M. (1993). *The Dynamics of Israeli Public Opinion on Peace and Territories*. Research Report no.1. The Steinmetz Center for Peace Research, Tel-Aviv University.
- Shaw, M. (1991). Total war and social theory: Implications for war and peace. In: M. Banks & M. Shaw (Eds.) *State and Society in International Relations* (pp. 169-189). St. Martin's Press, Inc. New York.
- Shedler, J., Mayman, M., & Manis, M. (1993). The illusion of mental health. *American Psychologist*, 48, 1117-1131.
- Shils, E. A. (1954). Authoritarianism: Right and left. In: R. Christie and M. Jahoda, (Eds.) *Studies in the Scope and Method of The Authoritarian Personality*. Glencoe, IL: The Free Press.
- Shouda, Y., & Mischel, W. (1996). Toward a unified intra individual dynamic conception of personality. *Journal of Research in Personality*, 30, 3, 414-428.
- Siegel, S. E. & Castellan, N. J. (1988). *Nonparametric Statistics for the Behavioral Sciences*. New York: McCraw Hill.
- Spangler, W. D. (1992). Validity of questionnaire and TAT measures of need for achievement. *Psychological Bulletin*, 112, 140-154.
- Staub, E. (1978). *Positive Social Behavior and Morality*, vol. 1, New York: Academic Press.

- Staub, E. (1988). The evolution of caring and nonaggressive persons and societies. *Journal of Social Issues*, 81-100.
- Stone, W. F. (1980). The myth of left-wing authoritarianism. *Political Psychology*, 2, 3-19.
- Stone, W. F., Lederer, G., & Christie, R. (1993) Strength and Weakness. In: W. F. Stone, G. Lederer, & R. Christie (Eds.) *Strength and Weakness. The Authoritarian Personality Today*. (pp. 3-21). NY: Springer-Verlag Inc.
- Stone, W. F., & Smith, L. D. (1993). Authoritarianism: Left and Right In: W. F. Stone., G. Lederer, & R. Christie (Eds.) *Strength and Weakness. The Authoritarian Personality Today*. (pp.144-158). NY: Springer-Verlag Inc.
- Suedfeld, P., & Tetlock, P. E. (1977). Integrative complexity of communication in international crises. *Journal of Conflict Resolution*, 21, 169-184.
- Suedfeld, P., & Tetlock, P. E. (1992). *Psychology and Social Policy*. New York: Hemisphere, Taylor and Francis.
- Suedfeld, P., & Rank, A.D. (1976). Revolutionary leaders: Long term success as a function of conceptual complexity. *Journal of Personality and Social Psychology*, 34, 169-178.
- Sullivan, D. & Masters, R. 1988, Leaders displays, viewers' emotions, and political support. *American Journal of Political Science* 32, 345 - 368.
- Tajfel, H. (1981). *Human Groups and Social Categories*. New York: Cambridge University Press.
- Tellegen, A., & Atkinson, G. (1974). Openness to absorbing and self-altering experiences. *Journal of Abnormal Psychology*, 83, 268-277.

- Tellegen, A., & Waller, N. G. (1997). Exploring personality through test construction: Development of the Multidimensional Personality Questionnaire. In: S. R. Briggs & J. M. Cheek (Eds.), *Personality Measures: Development and Evaluation*. Greenwich, CT: JAI Press.
- Tetlock, P. E. (1981). Pre and Post election shifts in presidential rhetoric: Impression management or cognitive adjustment? *Journal of Personality and Social Psychology*, 41, 207-212.
- Tetlock, P.E. (1984). Cognitive style and political belief systems in the British House of Commons. *Journal of Personality and Social Psychology*, 46, 365-375.
- Tetlock, P.E. (1985). Integrative Complexity of American and Soviet Foreign Policy Rhetoric. *Journal of Personality and Social Psychology*. 49, 6, 1565-1585.
- Tetlock, P. E (1986). A value pluralism model of ideological reasoning. *Journal of Personality and Social Psychology* 50, 819-827.
- Tetlock, P. E. (1988). Monitoring the Integrative Complexity of American and Soviet policy rhetoric: What can be learned? *Journal of Social Issues*, 44, 2, 101-131.
- Tetlock, P. E. (1992) Good judgement in international politics: psychological perspectives. *Political Psychology*, 13, 3, 517 – 539.
- Tetlock, P. E. & McGuire, C. B. (1986). Cognitive perspectives on foreign policy. In: R. K. White (Ed.) *Psychology and The Prevention of Nuclear War* (pp. 255- 273). New York: New York University Press.
- Tetlock, P.E., McGuire, C., & Mitchell, P. (1991). Psychological perspectives on nuclear reference. *Annual Review of Psychology*. Palo Alto, CA: Annual Review Press.

- Tomkins, S. S. (1991) *Affect, Imagery, Consciousness*. Vol 3, NY: Springer.
- Trapnell, P. D. (1994) Openness and intellect. A lexical approach. *European Journal of Personality*, 8, 273-290.
- Trapnell, P. D., & Wiggins, J.S. (1990). Extension of the Interpersonal Adjective Scales to include the Big Five dimensions of personality. *Journal of Personality and Social Psychology*, 59, 781-790.
- Tukey, J. W. (1962). The future of data analysis. *Annals of Mathematical Statistics* 33, 1-67.
- Tukey, J. W. (1969) Analysing data as detective work. *American Psychologist*, 24, 83-91.
- Viglione, D. J. (1995). Basic considerations regarding data analysis.  
In: J. E. Exner (Ed.) *Issues and Methods in Rorschach Research* (pp. 195-226).  
Lawrence Erlbaum Associates, Inc.
- Viglione, D. J. (1996). Data and issues to consider in reconciling self-report and the Rorschach. *Journal of Personality Assessment*, 67, 3, 579-587.
- Viglione, D. J. & Exner, J. E. (1995). Formulating issues in Rorschach research.  
In: J. E. Exner (Ed.) *Issues and Methods in Rorschach Research* (pp. 53-72).  
Lawrence Erlbaum Associates, Inc.
- Voss, J.F. & Dorsey, E. (1992) Perception and international relations: An overview. In:  
E. Singer & V. Hudson (Eds.) *Political Psychology and Foreign Policy*  
(pp.1- 30).
- Wagner, R. V. (1988). Distinguishment between positive and negative approaches to peace. *Journal of Social Issues*. 44, 2, 1-17.

- Wagner, E. E. Young, G. R. & Carl, F. (1992). Rorschach Blends, IQ, and the effect of R. *Journal of Personality Assessment*, 59, 1, 185-188.
- Walker, S., & Watson, G. (1994). Integrative complexity and British decisions during the Munich and Polish crises. *Journal of Conflict Resolution*. 38, 3-23.
- Ward, D. (1982) Review of right-wing authoritarianism. *American Political Science Review*, 76, 737-738
- Watkins, M. (1988). Imagination and peace: On the inner dynamics of promoting peace activism. *Journal of Social Issues*, 44, 2, 39-57.
- Weiner, I. B. (1993), Clinical considerations in the conjoint use of the Rorschach and the MMPI, *Journal of Personality Assessment*, 60, 148-162.
- Weiner, I. B. (1994). The Rorschach inkblot method is not a test: Implications for theory and practice. *Journal of Personality Assessment*, 1994, 62, 498-504.
- Weiner, I. B. (1995). Variable selection in Rorschach research. In: J. E. Exner (Ed.) *Issues and Methods in Rorschach Research* (pp. 73-98). Lawrence Erlbaum Associates, Inc.
- Weiner, I. B. (1997). Current status of the Rorschach Inkblot Method. *Journal of Personality Assessment*, 68, 1, 5-19.
- Westen, D. (1991). Social cognition and object relations. *Psychological Bulletin*, 109, 429-455.
- Westen, D. (1996). An alternative to the Five Factor Model? *Journal of Research in Personality*, 30, 3, 400- 413.

- White, R. K. (1977). Misperception in the Arab-Israeli conflict. *Journal of Social Issues*, 33,1, 190-219.
- White, R. K. (1984). *Fearful Warriors: A Psychological Profile of U.S. – Soviet Relations*. New York: Free Press.
- White, R. K. (1986). Nonviolent paths to security. In: R. K. White (Ed.) *Psychology and The Prevention of Nuclear War* (pp. 157-161). New York: New York University Press.
- White, R. K. (1988). Specifics in a positive approach to peace, *Journal of Social Issues*, 44, 2, 191-202.
- Widiger, T. A. & Trull, T. J. (1997). Assessment of the Five Factor Model of personality. *Journal of Personality Assessment*, 68, 2, 228-250.
- Wiggins, J. S. (1982). Models of interpersonal behavior in clinical psychology. In: P. C. Kendall & J. N. Butcher (Eds.) *Handbook of research methods in clinical psychology*. New York: Wiley. 183-221.
- Wiggins, J. S. (1995). *Interpersonal Adjective Scales*. FL: Psychological Assessment Resources.
- Wiggins, J. S. & Trapnell, P. D. (1996) Personality structure. The return of the Big Five. In: R. Hogan, J. A. Johnson & S. R. Briggs (Eds.) *Handbook of Personality Psychology*. Orlando, FL: Academic Press.
- Willock, B. (1992). Projection, transitional phenomena and the Rorschach. *Journal of Personality Assessment*, 59, 1, 99-116.
- Wilson, T. D. (1994) The proper protocol: Validity and completeness of verbal reports. *Psychological Science*, 5, 249-252.

- Wollman, N. (1985). *Working for Peace: A Handbook of Practical Psychology and Other Tools*. San Luis Obispo, CA, US: Impact.
- Wright, S. (1960). Path coefficients and path regressions: Alternative or complementary concepts? *Biometrics*, 16, 189-202.
- Yaar, E. Herman, T. & Nadler, A. (1997). *The Peace Index - Research Report*. (Hebrew). The Steinmetz Center for Peace Research, Tel-Aviv University.
- Zillmer, E. A. (1991). Review of the Rorschach Interpretation Assistance Program, Version 2. *Journal of Personality Assessment*, 57, 2, 381-383.
- Zillmer, E. A. & Vuz, J. K. (1995). Factor Analysis with Rorschach data. In: J. E. Exner (Ed.) *Issues and Methods in Rorschach Research* (pp. 251-306). NJ: Lawrence Erlbaum Associates.
- Zuckerman, M., Kuhlman, D.M., Joireman, J., Teta, P., & Kraft, M. (1993). A comparison of three structural models for personality: The Big Three, The Big Five, and the alternative Five. *Journal of Personality and Social Psychology*, 65, 757-768.
- Zweigenhaft, R. L., Jennings, P., Rubinstein, S. C., and Van Hoorn, J. (1986) Nuclear knowledge and nuclear anxiety: A cross-cultural investigation. *Journal of Social Psychology*, 126, 4, 473 - 484.

***APPENDICES***

## Appendix 1: The Hebrew Version of The Measures

### a. The PPAI

להלן מספר שאלות המתייחסות לעמדתך לגבי תהליך השלום במזרח התיכון. ציין לגבי כל משפט באיזו מידה הוא מבטא את עמדתך, ע"י סימול עיגול סביב הספרה המתאימה.

1. האם בתקופת ממשלת רבין היית מגדיר את עצמך כמי שתומך או מתנגד לתהליך השלום במזרח התיכון?

1. מתנגד מאד
2. די מתנגד
3. די תומך
4. תומך מאד

2. האם בתקופת ממשלת רבין היית מגדיר את עצמך כמי שמאמין או לא מאמין שבשנים הקרובות יהיה שלום בין ישראל לערבים?

1. בטוח שיהיה שלום
2. חושב שיהיה שלום
3. חושב שלא יהיה שלום
4. בטוח שלא יהיה שלום

3. האם בתקופת ממשלת רבין היית מרוצה או מאוכזב מתהליך השלום?

1. מרוצה ביותר
2. מרוצה
3. מאוכזב
4. מאוכזב ביותר

4. מהי עמדתך לגבי הסכמי אוסלו בין ישראל לאש"ף?

1. תומך מאד
2. די תומך
3. די מתנגד
4. מתנגד מאד

5. אם יסתבר, שכדי להגיע להסכם שלום כולל עם הפלסטינים יהיה צריך לפנות את רוב היישובים היהודים מהשטחים ביהודה ושומרון, האם אתה בעד או נגד חתימה על ההסכם?

1. מאד בעד
2. די בעד
3. די נגד
4. מאד נגד

6. האם לדעתך יכולה ישראל להרשות לעצמה להסכים לכינון מדינה פלסטינאית עצמאית במסגרת הסכם שלום עם הערבים?

1. בטוח שיכולה
2. חושב שיכולה
3. חושב שלא יכולה
4. בטוח שלא יכולה

7. מהי עמדתך לגבי הסכם חברון?

1. תומך מאד
2. תומך
3. מתנגד
4. מתנגד מאד

8. אם הסכם השלום שייחתם בין ישראל לסוריה יהיה בנוי משלבים: בשלב ראשון תבצע ישראל נסיגה חלקית וסוריה מצידה תצהיר על הכרתה במדינת ישראל ותבצע בפועל את סידורי הבטחון בערבות ארה"ב. בשלב שני אם סוריה תוכיח את דביקותה בהסכם, תבצע ישראל נסיגה מלאה מהגולן תמורת שלום מלא הכולל גבולות פתוחים, שגרירויות, יחסים כלכליים וכו'. האם אתה תומך או מתנגד להסכם כזה בשלבים?

1. תומך מאד
2. די תומך
3. די מתנגד
4. מתנגד מאד



מתנגד בהחלט	מתנגד	מתנגד במקצת	אין דעה ברורה	מסכים במקצת	מסכים	מסכים בהחלט	
							15.אם תאמין שאנשים יקיימו הבטחתם, הם אכן יקיימו אותה.
							16.כמעט שלא ניתן למצוא משהו שהוא מבוה יותר מאשר אדם שאינו חש הכרת תודה, אהבה והערכה להוריו.
							17.איני נמנע ממקומות בהם יש קהל רב.
							18.ילד מחונך הוא ילד שאין צורך להגיד לו פעמיים לעשות משהו.
							19.רק לעיתים נדירות, אם בכלל, נתקלים באדם רמאי ולא ישר.
							20.הייתי רוצה לשמש כחבר בוועדה המבצעת איזשהו פרויקט או פעילות.
							21.אני מודאג די הרבה מכל מיני צרות אפשריות.
							22.אני מעדיף להתארח עם עוד אדם אחד יותר מאשר עם עוד חבורת אנשים.
							23.פטריוטיזם ונאמנות הינן המחויבויות הראשונות והחשובות ביותר של אזרח טוב.
							24.אני מעדיף להישאר בבית מאשר להשתתף בארועים חברתיים.
							25.רוב הזמן אני מרגיש חרדה לגבי מישהו או משהו.
							26.מה שנחוץ ביותר לבני הנוער הרי הם משמעת נוקשה, נחישות ורצון לעבוד ולהילחם למען המשפחה והמולדת.
							27.אני עובד טוב יותר כאשר לא מסתכלים עלי.
							28.צייתנות וכבוד לסמכות הם כללי ההתנהגות החשובים ביותר שילדים צריכים ללמוד.
							29.אני מרגיש לפעמים מוצף בחרדה.
							30.אני מופנם, רציני, ביישן ובעל יכולת התבוננות פנימית.

**c. The Big Five Inventory - BFI**

להלן תכונות או תווי אישיות שונים. כיצד היית מתאר את טיפוס האישיות שלך: ציין לגבי כל תכונה באיזו מידה היא מתארת את טיפוס האישיות שלך, כפי שאתה, בדרך כלל, רואה את עצמך. (סמן X בטור המתאים בטבלה)

מתאים מאד	לא כל כך מתאים	די מתאים	מתאים מאד	
				ביישן
				שקט
				אדיב
				מלא התלהבות
				נותן אמון
				מאופק
				בעל יכולת תכנון
				דאגן
				קר
				נוטה לעזור
				עצבני
				יעיל
				נוטה למצבי רוח
				מרבח לדבר
				אנרגטי
				נוטה לשיתוף פעולה
				דכאוני
				לא מאורגן
				בעל יכולת אומנותית
				נוטה לריב
				סלחן
				ביקורתי
				בוטה
				בעל דמיון

מתאים מאד	די מתאים	לא כל כך מתאים	מאד לא מתאים	
				תמים
				אמין
				בעל כושר המצאה
				יציב
				סקרן
				מקורי
				מתוח
				חברותי
				תקיף
				שלו
				יסודי
				מתמיד
				רגוע
				מתוחכם
				לא מרוכז
				שקול
				אדיש
				חסר כשרון אמנותי
				מבריק

**Appendix 2: Factor Loadings for the Self-Rating Scales – The Original English**

**Version (1)**

**a. The General Survey (2)**

**Authoritarian Conformity**

<b><i>Item no.</i></b>	<b><i>Item</i></b>	<b><i>Factor Loading</i></b>
3	<i>Our modern industrial and scientific achievements are signs of a greater degree of success than that attained by any previous society.</i>	.492
8	<i>The most important function for education is preparation for practical achievement and financial award.</i>	.661
14	<i>Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.</i>	.667
16	<i>There is hardly anything lower than a person who does not feel a great love, gratitude and respect for his parents.</i>	.644
18	<i>A well-raised child is one who doesn't have to be told twice to do something.</i>	.649
23	<i>Patriotism and loyalty are the first and the most important requirements of a good citizen.</i>	.682
26	<i>What youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.</i>	.686
28	<i>Obedience and respect for authority are the most important virtues children should learn.</i>	.817

1. The scoring direction of each item in the scales, was determined according to the sign of factor loading.

2. Source: Kritzer et al., (1974).

Aggressive Mistrust

<i>Item no.</i>	<i>Item</i>	<i>Factor Loading</i>
2	<i>Most people that you meet are friendly and obliging, more disposed to aid you than to refuse aid.</i>	- .431
6	<i>People will be honest with you as long as you are honest with them.</i>	- .740
7	<i>Trust others to the limit, and they will trust you to the limit.</i>	- .653
9	<i>If you have faith in your friends, they will seldom disappoint you.</i>	- .594
13	<i>Most people are generous in their judgments of your actions and are inclined to give you the benefit of doubt.</i>	- .448
15	<i>Believe that a man will keep his promise, and he will keep it.</i>	- .651
19	<i>Only once in a great while, if at all, does one run into a id's honest and deceitful person.</i>	- .588

Anxiety

<i>Item no.</i>	<i>Item</i>	<i>Factor Loading</i>
4	<i>I brood a great deal.</i>	.673
10	<i>I wish I could be as happy as others seem to me</i>	.480
11	<i>I very seldom have spells of the blues.</i>	-.541
12	<i>At times I think I am no good at all.</i>	.443
21	<i>I worry quite a bit over possible misfortunes</i>	.560
25	<i>I feel anxiety about something or someone almost all the time</i>	.544
29	<i>I sometimes feel overwhelmed with anxiety.</i>	.613

**Extraversion**

<b><i>Item no.</i></b>	<b><i>Item</i></b>	<b><i>Factor Loading</i></b>
1	<i>I enjoy being in a crowd just to be with people.</i>	.491
5	<i>If I encounter a group of people whom I have met previously, I begin a conversation with them.</i>	.269
17	<i>I do not avoid large gathering of people.</i>	.550
20	<i>I like to serve as a member of a committee in carrying out some activity or project.</i>	.273
22	<i>I prefer to visit with one person rather than with a group of people.</i>	-.434
24	<i>I prefer to stay at home rather than attend social affairs.</i>	-.465
27	<i>I work better when I am not being observed by others.</i>	-.188
30	<i>I am introverted, serious, shy, introspective.</i>	-.306

**b. The Big Five Inventory (1)****Agreeableness**

<b>Item no.</b>	<b>Item</b>	<b>Factor Loading</b>
3	Kind	.68
5	Trusting	.35
9	Cold	-.51
10	Helpful	.37
16	Cooperative	.56
20	Quarrelsome	-.40
21	Forgiving	.45
22	Fault-finding	-.43
23	Rude	-.58

**Extraversion**

<b>Item no.</b>	<b>Item</b>	<b>Factor Loading</b>
1	Shy	-.67
2	Quiet	-.79
4	Enthusiastic	.53
6	Reserved	-.69
14	Talkative	.65
15	Energetic	.40
32	Sociable	.70
33	Assertive	.59

**Neuroticism**

<b>Item no.</b>	<b>Item</b>	<b>Factor Loading</b>
8	Worrying	.67
11	Nervous	.65
13	Moody	.35
17	Depressed	.37
28	Stable	-.59
31	Tense	.63
34	Calm	-.59
37	Relaxed	-.75

---

1. Source: Benet & Waller (1995).

Conscientiousness

<i>Item no.</i>	<i>Item</i>	<i>Factor Loading</i>
7	<i>Planful</i>	.41
12	<i>Efficient</i>	.53
18	<i>Disorganized</i>	-.61
35	<i>Thorough</i>	.58
36	<i>Persevering</i>	.49
39	<i>Distractible</i>	-.43
41	<i>Careless</i>	-.44

Openness

<i>Item no.</i>	<i>Item</i>	<i>Factor Loading</i>
19	<i>Artistic</i>	.50
24	<i>Imaginative</i>	.48
25	<i>Simple</i>	-.37
26	<i>Reliable</i>	-.39
27	<i>Inventive</i>	.54
29	<i>Curious</i>	.36
30	<i>Original</i>	.56
38	<i>Sophisticated</i>	.51
40	<i>Reflective</i>	.46
42	<i>not artistic</i>	-.60
43	<i>Ingenious</i>	.40

Appendix 3: Card II of the Rorschach



Appendix 4: Rorschach ReportInterpretive hypotheses for the Rorschach protocol  
utilizing the Comprehensive System

The following computer-based interpretation is derived primarily from the interpretive rules described in "The Rorschach: A Comprehensive System, Volume 2: Interpretation (Second Edition)." The rules are developed mainly from the structural data of the protocol and include only modest consideration of the sequence of scores and the verbal material. The following statements represent hypotheses concerning various personality features and psychological functions. These hypotheses should be used as a guide for the interpreter to facilitate a more comprehensive interpretation of the record.

This record appears to be interpretively useful.

## CONSTELLATIONS

SCZI = 0	DEPI = 2	CDI = 4*	S-CON = 1	HVI = No	OBS = No
----------	----------	----------	-----------	----------	----------

## INTERPRETIVE SEARCH STRATEGY

Positive Key Variable(s)	Interpretive Search Sequence
1. CDI > 3	Controls -> Affect -> Self Perception -> Interpersonal Perception -> Processing -> Mediation -> Ideation

## CAPACITY FOR CONTROL AND TOLERANCE FOR STRESS

EB = 6: 1.0	EA = 7.0	D = +1
eb = 2: 0	es = 2	Adj es = 2
FM = 2	C' = 0	T = 0
m = 0	V = 0	Y = 0
		CDI = 4*

1. This person has a sturdier tolerance for stress than most people and she is unlikely to experience problems with control. This is not because of any unusual psychological sophistication but rather because she seems to be less influenced by the internal experience of needs and feelings than most people. This does not indicate better adjustment. It simply suggests that she has found ways to improve her capacity for control and tolerance for stress.

2. Although this person may have sufficient resource to maintain control and/or deal with everyday stress, she does not have very good social skills. This often may lead to situations in which problems arise in the interpersonal environment that are addressed in ways considered to be less than appropriate for the situation. These events may appear to indicate a loss of control, but they are not. They simply reflect the social ineptness of the subject.

## AFFECT

		Blends	
DEPI = 2		EBPer = 6.0	FM.Fr
EB = 6: 1.0		FC:CF+C = 2: 0	FM.FC
eb = 2: 0		Pure C = 0	M.FD
		SumC':WSumC = 0:1.0	
C' = 0	T = 0	Afr = 0.56	
V = 0	Y = 0	S = 0	
		Blends/R = 3: 14	
		CP = 0	

3. She usually prefers to keep feelings at a more peripheral level during problem solving and decision making. People such as this avoid trial and error behaviors when possible and rely more on internal evaluation rather than external feedback in formulating judgments. While they are willing to display feelings openly, they also are inclined to be quite concerned about modulating or controlling those displays. She is not very flexible about the use of this coping style and persists in setting emotions aside during decision making activity, even in situations where a more intuitive, trial and error approach could be much more effective.

4. She appears to be as willing as most people to process emotional stimuli.

5. She controls or modulates the discharge of her emotions about as much as most adults.

6. Her level of psychological complexity is not unlike that of others of this age who have a similar approach to decision making.

## SELF PERCEPTION

$3r+(2)/R = 0.43$	FD = 1	MOR = 0	Hx = 0	An+Xy = 0
Fr+rF = 1	Sum V = 0	H:(H)+Hd+(Hd) = 6: 1		Sx = 0
Responses to be read				
MOR Responses	FQ- Responses	M Responses	FM Responses	m Responses
		2, 3, 5, 7,	9,10	
		12,14		

7. A basic element in her self image is a narcissistic-like feature that promotes a marked tendency to overvalue personal worth. This inflated sense of personal worth tends to dominate perceptions of the world. It can impair the development of a mature balance between a healthy concern for one's own integrity and the integrity of others. It has a great influence on decisions and behaviors because of the need for frequent reaffirmation of the exaggerated sense of personal pride. It often contributes significantly to the development of motives for status, and, if that recognition is achieved, this exquisite self-centeredness is less likely to promote maladjustment. On the other hand, failures to obtain reaffirmation of the high self value usually lead to frustration and negativism, and elaborate systems of defense are developed to protect the integrity of the belief concerning personal worth. Rationalization, denial, and externalization typically form the core of these defenses, whose excessive use creates a predisposition to maladjustment. Adults with this feature often find it difficult to establish and maintain deep and meaningful interpersonal relationships. An environment especially lacking in reinforcement allows asocial and/or antisocial sets to evolve rather easily.

8. She appears to have a reasonable balance between focus on the self and concern for others. This is an unusual finding because of the previously noted tendency to overestimate her own worth, which usually fosters an excessive preoccupation with the self. This suggests that an awareness that the inflated sense of personal worth may be faulty, and occasional self-doubt and reexamination of personal worth are likely. This may be a favorable finding and could relate to a social maturation. Conversely, this awareness may indicate more of a conflict about personal worth. If so, it can lead to increased use of defenses that have been reinforcing in the past. This, in turn, can lead to a less effective level of psychological functioning that may include significant mood fluctuations.

9. She appears to engage in self-inspection somewhat routinely. This process can be quite beneficial as it tends to promote reevaluation of the self image.

10. Her self image and self value are probably based more on experience than imagination. This finding is generally positive but it should not be interpreted to mean that self image and/or self value are necessarily accurate or realistic. Rather, it indicates that social interactions have contributed significantly to her sense of self.

11. The movement responses often contain very important projected self representations. Responses containing M include 2, 3, 5, 7, 12, and 14; those containing FM are 9 and 10; and those with m are 0.

## INTERPERSONAL PERCEPTION AND RELATIONS

CDI = 4*	a:p = 1: 7	T = 0	Human Cont = 7	Pure H = 6
HVI = Neg	Food = 0	PER = 0	COP = 1	AG = 0
Isolate/R = 0.29				
Responses to be read				
Human Movement with Pair			Human Contents	
2, 3,10			2, 3, 5, 7,11,12,14	

12. She apparently is less socially mature than might be expected. She is the type of person who is prone to experience frequent difficulties interacting with the environment, and these difficulties often extend into the interpersonal sphere. As a result, her relationships tend to be more superficial and less easily sustained. She is likely to back away from social intercourse and settle for a routine of limited, superficial relationships. When this does not happen her ineptness makes her quite vulnerable to rejection by others. People such as this are often regarded by others as being more distant, guarded, inept, or helpless in dealing with others. They tend to be less sensitive to the needs and interests of others and they often have histories marked by social chaos and interpersonal dissatisfaction.

13. She generally prefers to assume a more passive, though not necessarily submissive, role in interpersonal relations. She usually prefers to avoid responsibility for decision making and is less likely to search for new solutions to problems or initiate new patterns of behavior.

14. Her interests in, and expectations concerning needs for closeness are dissimilar to those of most people. This does not mean that she fails to have such needs. However, she tends to be more conservative than might be expected in close interpersonal situations, especially those involving tactile exchange. People such as this are overly concerned with personal space and much more cautious about building or maintaining close emotional ties with others.

15. She appears to be as interested in others as much as most people.

16. She tends to expect that positive interactions will routinely exist among people and is interested in participating in such interactions.

17. She tends to be less involved in social interaction. This does not necessarily reflect social maladjustment or conflict.

18. The movement responses that are scored for a pair, (2), often contain very important projected representations that can be useful in expanding information concerning interpersonal perception. Responses containing M that contain a pair include 2 and 3; those containing FM that include a pair are 10; and those with m that also have a pair are 0.

19. The nouns and adjectives that have been used to describe the human or human-like figures often convey some impression about how the subject perceives others. Responses containing human content are 2, 3, 5, 7, 11, 12, and 14.

#### INFORMATION PROCESSING

L = 0.56	W:D:Dd = 9: 5: 0	Zd = +0.0	DQ+ = 6
Zf = 11	W:M = 9: 6	PSV = 0	DQv/+ = 0
HVI = No	OBS = No		DQv = 0
Location Sequencing			
I : W	VI : D		
II : W	VII : W		
III : D.D	VIII : W		
IV : W	IX : D.W		
V : W.W	X : W.D		

20. She seems to be as willing to process the complexities of a new stimulus field about as much as is expected at this age. This indicates a positive motivation to deal with new information effectively.

21. The quality of her processing appears to be similar to that of most others.

22. Her processing habits appear to be regular and predictable.

#### COGNITIVE MEDIATION

Lambda = 0.56	OBS = Neg	Minus Responses
P = 4	X+% = 0.86	
FQx+ = 0	F+% = 1.00	No Responses with Minuses
FQxo = 12	Xu% = 0.14	
FQxu = 2	X-% = 0.00	
FQx- = 0	S-% = 0.00	
FQxnone = 0	CONFAB = 0	

23. She tends to translate most inputs in a conventional manner without sacrificing her individuality. Thus, it is likely that the majority of her behaviors will be formulated with regard to issues of social expectation or acceptability.

## IDEATION

		Critical Special Scores	
EB = 6: 1.0	EBPer = 6.0	DV = 0	DV2 = 0
eb = 2: 0	MOR = 0	INC = 0	INC2 = 0
FM= 2 m= 0	2AB+Art+Ay= 1	DR = 0	DR2 = 0
a:p = 1: 7	MQual- = 0	FAB = 0	FAB2 = 0
Ma:Mp= 1: 5	MQualNone = 0	ALOG = 0	
Responses with Special Scores		CON = 0	Raw Sum6 = 0
No Responses with critical Spec. Scores.		SCZI = 0	Wgtd Sum6 = 0

24. She usually prefers to delay forming decisions or initiating behaviors until all apparent alternative possibilities have been considered. People such as this usually like to keep feelings at a more peripheral level during problem solving and/or decision making and tend to rely heavily on internal evaluations in making judgments. They prefer precise and uncomplicated systems of logic. They also tend to avoid engaging in trial and error explorations during problem solving and are less tolerant of themselves when they make problem solving errors. She is not very flexible in the use of this coping style. In other words, she persists in using a markedly ideational approach even when a greater concern for feelings and/or an active trial and error approach could be much more efficient in facilitating decisions or solving problems.

25. Apparently, she does not react very much to subtle ideational stimuli, that is, those not in the focus of attention, as is common in people.

26. The way in which she thinks about issues and values is well set and quite inflexible. People such as this find it very difficult to alter attitudes or opinions, or to view issues from a perspective different from their own. If treatment is required, it is important to consider this element of rigidity or inflexibility when selecting the mode of intervention to be employed.

27. She has a marked style in which a flight into fantasy has become a routine defensive tactic for dealing with unpleasant situations. People such as this prefer to avoid responsibility and decision making. They use fantasy with an abusive excess to deny reality, and the results are often counter productive to many of their own needs. This mode of coping involves the creation of a self imposed helplessness because it requires a dependency on others. Unfortunately, it also makes them vulnerable to the manipulations of others. The pervasiveness of this defensive coping style is particularly detrimental in this case because her basic ideational coping orientation becomes subservient to the avoidant-dependent orientation in complex or potentially stressful situations.

## GENERAL SUMMARY

She uses a basic ideational approach to problem solving and decision making in which she prefers to think things through before initiating any behavior. She seems to control her emotions reasonably well. She is very self-centered and tends to overestimate her worth. This feature usually dominates her perceptions of the world and often leads to an excessive use of rationalization and denial when challenges to her integrity occur. She is the type of person who is prone to experience frequent difficulties when interacting with the environment and these difficulties often extend into the interpersonal sphere. As a result, her relationships tend to be more superficial and less easily sustained. She is cautious about interpersonal relations and does not usually anticipate being close to others. She seems to be reasonably interested in people. She usually likes to avoid responsibility for decisions and takes a more passive role when interacting with others.

**Appendix 5: Distributions of Attitudes Toward the Peace Process in Israeli**

**National Polls**

The following reported data are based on representative samples of the adult Jewish population in Israel. Data presented in the first section refer to March, 1991 (Arian, 1992) and those presented in the second section refer to January, 1997 (Yaar et al., 1997).

**a. Peace Attitudes 1991 (N=1131)**

*Do you think that peace is possible between Israel and Arab states in the near future?*

<i>Definitely</i>	19%
<i>I think so</i>	58%
<i>I think not</i>	17%
<i>Definitely not</i>	6%

*Do you think that Israel should agree or not agree to the establishment of a Palestinian state in Judea, Samaria, and in Gaza Strip as part of a peace agreement?*

<i>Definitely agree</i>	10%
<i>Probably agree</i>	24%
<i>Probably disagree</i>	21%
<i>Definitely not agree</i>	46%

***b. Peace Attitudes 1997 (N=504)***

*Would you define yourself as believing there would be peace between Israel and the Arabs in the near future?*

<i>Definitely</i>	10.5%
<i>I think so</i>	39.1%
<i>Uncertain</i>	16.5%
<i>I think not</i>	18.8%
<i>Definitely not</i>	12.4%
<i>Do not know</i>	2.7%

*Would you generally define yourself as being supporting or opposing the Peace Process between Israel and the Arabs?*

<i>Extremely opposing</i>	3.5%
<i>Opposing</i>	5.2%
<i>Neither supporting nor opposing</i>	15.1%
<i>Supporting</i>	38.1%
<i>Extremely supporting</i>	36.3%
<i>Do not know</i>	1.8%

*What is your attitude toward the Oslo agreement between Israel and the PLO?*

<i>Extremely supporting</i>	18.8%
<i>Supporting</i>	26.0%
<i>Neither supporting nor opposing</i>	29.7%
<i>Opposing</i>	10.3%
<i>Extremely opposing</i>	8.3%
<i>Do not know</i>	7.0%

*What is your attitude toward the Hebron agreement?*

<i>Extremely supporting</i>	22.0%
<i>Supporting</i>	44.7%
<i>Neither supporting nor opposing</i>	17.7%
<i>Opposing</i>	9.1%
<i>Extremely opposing</i>	6.5%
<i>Do not know</i>	

Appendix 6: A Map of the Region

