Smallest Space Analysis (SSA) of Feelings of Majority and Minority Population Groups in Israel

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Abstract
Since the establishment of the State of Israel in 1948 Israeli society has been characterized by tensions deriving from the Jewish-Arab conflict in general and from the more specific Jewish-Bedouin Arab tensions in particular. The present study was designed to examine the psychological and emotional characteristics that typify tensions between the Jewish and Bedouin Arab sectors in Israeli society and the resulting relationship between Israeli and Bedouin Arab high school students. In the study particular emphasis was placed on the examination of the underlying dimensionality of a Feelings Checklist which was compiled in order to ascertain psychological and emotional feelings of Israeli and Bedouin high school students toward each other. The Feelings Checklist contains items that load on psychological and emotional feelings such as 'anger', 'shame' and 'warmth'.

The 21-item Feelings Checklist was administered to a group of 89 Israeli Jewish and Bedouin Arab high school students and their responses were analyzed through the Smallest Space Analysis (SSA) procedure. Results of the study indicate inherent differences in the relationship between Israel Jewish and Bedouin Arab students with Jewish students more hostile to their Bedouin Arab counterparts and Bedouin Arab students more accommodating of the Jewish students. These results confirm the different attitudinal perceptions held by students in the two ethnic and national groups. Results indicate the advantage inherent of SSA analysis for the conceptualization and understanding of psychological and emotional feelings of different ethnic and national groups characterized by tensions toward one another.

Keywords: Jewish Arab conflict; psychological and emotional feelings; Smallest Space Analysis (SSA)
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Introduction

The Israeli population is divided into a number of national, ethnic, socio-economic and religious sectors and groups with significant historical, cultural and social differences existing between the groups that make up the complex mosaic of Israeli society. Because of the heterogeneity of Israeli society, the agendas of the different sectors often clash, resulting in the emergence of conflict and tension between some or all of the groups. One of the major conflicts within Israeli society exists between Israeli Jews and Israeli Arabs, two groups that conduct a relationship that is permeated by latent hostility, directly related to the Israeli-Arab conflict. As time has passed the gap between the two populations has grown wider and the two sectors have become increasingly more polarized (Mossawa Center, 2006). The Jewish-Arab conflict in Israeli society has become a dominant feature of concern as recently stated by about 85% of Israeli citizens (Arian et al 2008).

Characteristics of Majority and Minority Groups

Phinney, Jacoby & Silva (2007) indicated that in any given country with a population that includes majority and minority groups, the ethnic and nationalistic feelings of a minority group may be more developed and evident than those of the majority group. Apparently the minority group focuses on its particular ethnic, religious or national identity so as to maintain its culture and traditions, issues that seem to be more important for the minority group than for the majority group. Lum (2008) noted that in certain countries with heterogeneous populations constituted from both majority and minority population groups, such as Malaysia, the minority groups do little to emphasize their specific ethnic, cultural or religious traditions as their members wish to be perceived as fully integrated into the general population of the country. On the other hand Johnson et al (2012) pointed out that in countries where the minority group harbors feelings of frustration against the majority group, minority group members emphasize ethnicity, cultural tradition and religion in order to actively enhance feelings of self-worth when comparing themselves to members of the majority group. Majority group members who because of their powerful social positions in society have natural feelings of self-esteem and self-confidence by virtue of the fact that they are members of the ruling social group and, as such, their national, cultural, religious or ethnic feelings are not something about which they are particularly sensitive.

Characteristics of the Jewish Majority and Bedouin Arab Minority Groups in Israel

According to Abu Asba (2207) and Abu Bakr & Rabinowitz (2002) the frustrations of the Arab minority population in Israel resulting from the deadlock in Israeli-Palestinian conflict, has led over the years to a sharp increase in ethnicity, nationalism and religiosity felt by members of this
minority. On the other hand a significant segment in the Arab minority is sincerely interested in promoting a higher standard of living, increased integration into Israeli society as well as the national economy and feels that increased ethnicity, nationalism and religiosity will serve as a barrier against integration and the ability to play a significant role in Israeli society. Thus members of the Arab minority are torn between emphasizing their ethnic, nationalist and religious uniqueness and their need to play down these issues in order to better integrate into Israeli society.

A critical sub-conflict associated with the tension between Jewish majority and Arab minority in Israeli society focuses on the specific Jewish-Bedouin Arab axis. Israeli Jews and Bedouin Arabs are wary of each other and much tension and animosity as well as a lack of cohesion, suspicion, anxiety and even hostility characterize the atmosphere between the two societal groups (Glaubman & Katz, 1998). Over the passage of time just as tensions between Jews and Arabs in general have grown, the specific gap between Jews and Bedouin Arabs has widened and tension between the two sectors has steadily increased (Tessler & Grant, 1998).

The Bedouin Arab Population in Israel

The Bedouin Arab population is largely nomadic in its tradition of moving about the Negev Desert areas in search of grazing fields for cattle, sheep and goats, fertile land for wheat and barley, as well as for temporary shelter from the elements. The nomadic tradition is deeply ingrained in the Bedouin Arab way of life and is perhaps the most vital characteristic in Bedouin Arab culture (Abu-Saad, 1997). However, since the establishment of the State of Israel in 1948 the Bedouin Arab population in Israel has undergone radical change and has been transformed from a traditionally nomadic population to one, which is now largely urbanized (Ben-David, 1988). The successive governments of Israel since 1948 and up until the present time embarked on a policy of urbanization of the Bedouin Arab population for two main reasons: a) to provide the Bedouin Arabs with efficient governmental services such as education, health, welfare, in towns and villages; and b) to use the large tracts of land traditionally used by the nomadic Bedouin Arabs for the establishment of cities, towns, and villages for the ever-increasing Israeli population. The process of urbanization of the Bedouin Arabs continues to the present day and latest figures indicate that of the Bedouin Arab population of 200,000 resident in the southern Negev region, approximately two thirds are now resident in urban cities, towns, and villages, with one third resident in temporary nomadic tent settlements (Ben David, 2012).

The Bedouin Arab population has been loathe to accept the process of urbanization and as time passes the Bedouin Arabs are increasingly more active in their rejection of government attempts to settle them in cities, towns, and villages (Glaubman and Katz, 1998). The urbanization policies of the successive Israeli governments are perceived by the Bedouin Arab population
to be discriminatory and designed to move them from their tribal lands without consideration of their traditional, cultural, social, and economic needs (Abu-Rabia, 1986). In addition to the problem of urbanization the Bedouin Arab population has other acute problems such as a lower standard of living with the per capita annual income in the Bedouin sector only one quarter of that earned in the Jewish sector. The unemployment rate in the Bedouin Arab sector is between 15% and 20% which is considerably higher than the national average of 7% (Knesset, 2004). All these problems contribute to a feeling on alienation and desperation on the part of the Bedouin Arabs as well as a feeling of frustration towards the Jewish authorities and population at large.

**Bedouin Arab Education in Israel**

The Bedouin Arab educational system is administered by the Department of Bedouin Arab Education within the framework of the Israeli Ministry of Education. Since the establishment of the State of Israel the number of Bedouin Arab children in the school system has grown remarkably and illiteracy has been cut from the rate of 95% in 1948 to 15% in 2010 (Abu Badr & Gardos, 2010). However, despite this progress, the Israeli educational authorities have not been able to close the vast quality gap that exists between the Bedouin Arab educational system and the educational system that caters for Jews. A survey conducted by the Central Bureau for Statistics (2007) indicated that the Bedouin Arab educational system is characterized by a number of serious limitations, which mitigate against educational achievements and success. Bedouin Arab schools are typified by a significant lack of physical facilities, such as classrooms, libraries, laboratories; a significant lack of qualified teachers; a significantly high student drop-out rate; a remarkably low rate of success in the Israeli matriculation examinations which serve as a major criterion for entry into education at the tertiary level; an almost total lack of extra-curricular activities offered to students by school authorities; and an almost total lack of parental interest in their children’s educational future.

According to Katz (1998) these limitations are perceived by the Bedouin Arab population to be part of a planned governmental policy of neglect and are viewed as an extension of grievances held against the Israeli government. Thus the Bedouin Arab community feels grossly discriminated against on all fronts and most especially in the educational domain because of the inferiority of the Bedouin Arab school system in comparison to schools attended by Jewish students in Israel. All this has compounded the Bedouin Arabs’ feelings of frustration, anger and even hostility against the majority Jewish population and against the successive Israeli governments (which represent the Jewish majority) that have consistently failed to contribute to an improvement of their educational system as well to their social and economic status. The feelings of inequality and bitterness have given rise to the fomentation of anti-Israeli Islamic fundamentalism and a general wariness of the Israeli authorities and Jewish population (Bar-Tal, 2007; Ben-David, 1993).
The Jewish Population in Israel

The State of Israel gained its independence in 1948 after the United Nations resolution (passed on 29th November 1947) called for the establishment of two states (one Jewish and one Bedouin Arab) in the territory of Palestine which was ruled from the end of World War I by the British government according to a League of Nations mandate. Israel was established as a Jewish and democratic state with equal rights granted to the different minority groups residing in Israel (Talmi & Talmi, 1977). The Jewish population of Israel in 1948 was 600,000 and since then, as a result of mass immigration throughout the state’s existence, the Jewish sector of the Israeli population now stands at 6,500,000. Israel has become a modern western oriented country with a well established economic, social and educational infrastructure. The per capita annual income in the Jewish sector approaches $24,000 per annum, the rate of unemployment is approximately 7% and the standard of living of Israeli Jews is similar to the standard of living in many of the OECD member states.

Jewish Education in Israel

The Jewish educational system in Israel is highly developed and enjoys a large budget which allows for dynamic development of facilities, school-based technology, advanced teaching and learning methodologies, and varied extra-curricular programs for students at all levels in the school system (Gaziel, 1999). The level of teachers is good with almost all teachers in the educational system in possession of a college degree and a teaching diploma. School facilities, such as classrooms, libraries, laboratories, computer rooms, and sports facilities are well developed; achievement of Jewish students in matriculation examinations is on a par with achievement in the average Western country; the drop-out rate of students is fairly low and, in general, Jewish parents are involved in their children’s education.

In marked contrast to the Bedouin Arab population, the Jewish population in Israel can be described as generally satisfied with the educational outputs of the schools which caters for Jewish students. Jewish parents cooperate with their children’s schools and provide assistance and support when necessary, and are at ease with the generally successful Jewish educational system (Gaziel, 1999).

The aim of this research was to examine the majority Israeli Jewish high school students' feelings and emotions toward their minority Israeli Bedouin Arab counterparts in light of the marked differences between the Jewish and Bedouin Arab sectors in the Israeli population as noted above.

Method

Sample:

The research sample consisted of 44 Israeli Jewish (14 boys and 30 girls) and 45 Israeli Bedouin Arab (16 boys and 29 girls) 17-year old 11th grade high school students who responded to the research questionnaire.
**Instrument:**

A 21 item Feeling Checklist, based on a valid and reliable established checklist (Stephan, Ybarra and Bachman, 1999), translated and suited to the needs of the Israeli population by Tur-Kaspa-Shimoni (2001) served as the research instrument in the present study. The checklist includes 21 emotions such as ‘anger’, ‘warmth’ and ‘shame’, and the respondent is requested to indicate on a five point Lickert scale the degree of each emotion towards people who belongs to the other group. Face validity as judged by four experts was set as the validity criterion for the 21 items. The Hebrew version of the questionnaire was translated into Arabic by a professional translator, proficient in social science research. The Cronbach α reliability coefficient was measured at the .94 level.

**Procedure:**

The Feeling Checklist was administered to the 91 subjects in their school classrooms by a research assistant who explained the aims of the research project and questionnaire. In accordance with ethical research practice anonymity of the respondents to the questionnaire was ensured.

In view of the need for further delineation of the concepts upon which the Feeling Checklist is based, as well as the lack of clarity about the factor loadings of some of the items, one purpose of the present study was to explore the underlying dimensionality of the Feeling Checklist with a multidimensional approach of Smallest Space Analysis (SSA; Guttman, 1966; 1968; Levy, 1999). This technique represents variables as points in Euclidian space with distances corresponding to the proximities of variables as provided by their intercorrelations. Thus, a geometric representation of the relationships among the variables is achieved. A unique feature of these analyses is the parsimony of the number of dimensions. Furthermore, this approach emphasizes direct observation of the correlation matrix, rather than looking at factor loadings. Because of the parsimony and the more direct and simple link between data and representation spaces in SSA, relative to factor analysis, it may be anticipated that the use of this procedure in the study of the underlying dimensionality of the Feeling Checklist will lead to new insights about the nature of the scale. Thus, we employed the responses of the sample’s respondents on the Feeling Checklist as a source for the SSA analysis.

**Results**

The first two dimensions emerging from a three dimensional solution of the data obtained from the Feelings Checklist yielded a .13 coefficient of alienation (Figure 1). The overall configuration of the map suggests a radex model. The modulating facet relates to the feelings orientation with ‘shame’ and ‘embarrassment’ at the origin - indicating incoming emotions with the remainder of the emotions indicating outgoing valences. In addition mention should be made that more extreme emotions appear at the circumflex of the
circle while more moderate emotions like 'envy', 'worry', 'understanding', 'curiosity', 'belittling' and 'pity' appear in the middle circle. Another interesting point is that the Feelings Checklist includes mostly outgoing emotions with the majority categorized as extreme emotions. The polarizing facet relates to the valance of the emotion so that negative emotions such as 'hate' and 'fear' appear on the right side of the figure, while positive emotions such as 'love' and 'warmth' appear on the left side. The polarization of the valance is somewhat trivial and should be expected. The circumplex nature of the solution is apparent in the relationship between the items at the circumference of the figure. Thus moving clockwise we have 'admiration' then 'love', 'closeness', 'warmth', 'pity', 'belittling', 'indifferent', 'disgust' 'hate', 'alienation' and 'fear' while 'worry' closes the circle.

Figure 1. SSA solution for the Feelings Checklist computed following results Discriminant Function Analysis
In the next stage of the study we performed a discriminant function analysis in order to compare between the Israeli Jewish and the Israeli Bedouin Arab students on the 21 item Feelings Checklist. The stepwise discriminant function analysis yielded a canonical correlation of .71 for two variables, 'curiosity' and 'love', and using a jackknife approach, correctly identified 80% of the Jewish and Bedouin Arab students. The means, standard deviations and t-test values of the 21 emotions are presented in Table 1.

Table 1. Means, Standard deviations and t-test values of the 21 emotions

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Israeli Bedouin Arab Students</th>
<th>Israeli Jewish Students</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>Admiration</td>
<td>2.88</td>
<td>1.05</td>
<td>4.29</td>
</tr>
<tr>
<td>Agitation</td>
<td>4.25</td>
<td>0.85</td>
<td>3.92</td>
</tr>
<tr>
<td>Alienate</td>
<td>3.40</td>
<td>1.11</td>
<td>2.60</td>
</tr>
<tr>
<td>Anger</td>
<td>4.14</td>
<td>0.91</td>
<td>3.68</td>
</tr>
<tr>
<td>Belittling</td>
<td>4.34</td>
<td>0.68</td>
<td>4.21</td>
</tr>
<tr>
<td>Closeness</td>
<td>2.77</td>
<td>1.16</td>
<td>4.02</td>
</tr>
<tr>
<td>Curiosity</td>
<td>2.02</td>
<td>0.89</td>
<td>3.07</td>
</tr>
<tr>
<td>Disgust</td>
<td>4.45</td>
<td>0.74</td>
<td>3.68</td>
</tr>
<tr>
<td>Embarrassment</td>
<td>4.11</td>
<td>0.90</td>
<td>3.92</td>
</tr>
<tr>
<td>Envy</td>
<td>4.05</td>
<td>1.23</td>
<td>4.85</td>
</tr>
<tr>
<td>Fear</td>
<td>4.31</td>
<td>1.05</td>
<td>3.58</td>
</tr>
<tr>
<td>Hate</td>
<td>4.37</td>
<td>0.73</td>
<td>4.04</td>
</tr>
<tr>
<td>Indifferent</td>
<td>4.00</td>
<td>0.90</td>
<td>3.34</td>
</tr>
<tr>
<td>Love</td>
<td>2.62</td>
<td>0.97</td>
<td>4.17</td>
</tr>
<tr>
<td>Pity</td>
<td>4.14</td>
<td>0.97</td>
<td>4.14</td>
</tr>
<tr>
<td>Rejection</td>
<td>4.17</td>
<td>0.89</td>
<td>4.21</td>
</tr>
<tr>
<td>Shame</td>
<td>4.14</td>
<td>1.11</td>
<td>4.31</td>
</tr>
<tr>
<td>Stress</td>
<td>4.02</td>
<td>0.95</td>
<td>3.34</td>
</tr>
<tr>
<td>Understanding</td>
<td>2.65</td>
<td>1.18</td>
<td>3.39</td>
</tr>
<tr>
<td>Warmth</td>
<td>3.05</td>
<td>1.23</td>
<td>4.29</td>
</tr>
<tr>
<td>Worry</td>
<td>3.94</td>
<td>1.08</td>
<td>4.14</td>
</tr>
</tbody>
</table>

The findings in Table 1 were incorporated into the SSA solution so that the emotions on which the Jewish students where higher appear in squares while the emotions on which the Bedouin Arab students were higher are marked by circles. Thus we can see that the Jewish students report feelings such as 'indifferent', 'disgust', 'stress', 'alienate' and 'fear' towards their Bedouin Arab counterparts, while the Bedouin Arab students report 'warmth', 'closeness', 'understanding', 'love', 'admiration', 'envy' and 'curiosity' towards the Jewish students (see Figure 1). When viewing Figure 1 from this new perspective it may be noted that the Jewish students expressed mainly negative emotions towards the Bedouin Arab students while the Bedouin Arab students reported mainly positive emotions towards their Jewish counterparts. It is of interest that
'hatred' is located among the negative emotions that the Jewish students reported towards the Bedouin Arab students although this feeling did not differ significantly from the other negative feelings. Nevertheless, it should be stressed that the manner in which the Bedouin Arab students responded may indicate social desirability rather than genuine feelings. In addition, it should be noted that the psychological emotions that differentiated between the groups were on the circumference of the map and there were no differences between the groups on the incoming emotions or the more moderate ones.

**Discussion**

>From the statistical procedures conducted on the data collected in the present study two definite trends emerged. The first trend relates to the structure of the Feelings Checklist. The categorization of the feelings as positive and negative is rather trivial. The passage from the most negative emotion to the most positive through the less defined emotions such as 'pity' and 'worry' is also an expected outcome. On the other-hand, the arrangement of the emotions from in coming in the center to out going is more interesting. It is of interest to note that the Feelings Checklist, an inventory that is used for measuring psychological and emotional feelings between groups, includes very few incoming and moderate feelings, and focuses mainly on extreme feelings. We argue that focusing on incoming feelings with regard to the other contributes to awareness and self exploration. This kind of attitude stimulates questions such as 'what do I feel about myself when I think about this group?' In addition, the present SSA analysis reveals that the Feelings Checklist does not include positive incoming feelings such as 'pride', 'softness', 'mercy' etc. Furthermore, the scarcity of moderate feelings in the checklist may cause a bias in research findings, and may prevent the identification of minor changes in group attitudes. The scarcity of moderate feelings may indicate an 'all or nothing' attitude that is not useful in the examination of emotional changes. Thus, one recommendation for research in measuring feelings is to include significantly more moderate feelings in the checklist.

The circular relationship suggests the possibility of a dynamic exchange of emotional feelings between conflict groups. Many studies have examined conflict resolution educational programs designed to reduce animosity and stress between social groups. Typical studies of this nature (for example: Cohen, 2002; Duffy, Shaw, & Stark, 2000; Hubbard, 1999; Yablon & Katz, 2009) have indicated that positive attitudinal or behavioral change may take place as a result of an educational intervention without referring to the possibility of emotional change. In the present study, the findings suggest that a gradual emotional change from negative to positive feelings can be channeled through changes in more moderate feelings, compassion and self awareness. Thus those initiating education programs designed to resolve conflict and stress between different social or ethnic groups can more efficiently achieve their goal by designing an intervention that leads to the development of empathy and compassion between the groups and strives to bring about gradual changes.
Another conclusion from the findings of this study is that measures used to evaluate feelings should be sensitive to moderate and incoming positive and negative emotions as a configuration which serves as a catalyst that can bring about an emotional change in the desired direction. Thus such measures should include an increased number of moderate items as well as incoming emotions in addition to the items holding clearly positive or clearly negative valences.

Regarding the second trend emerging from the findings of the present study, it is apparent that the majority group, comprising Israeli Jewish high school students, was negative towards their minority Israeli Bedouin Arab counterparts although the latter were positive towards the majority group. Thus it appears that membership in a majority population group leads to a somewhat natural feeling of alienation towards members of a minority population group who are perceived as marginal and socially unimportant. On the other hand, minority group members are inclined to feel positive towards members of the majority group, possibly as a way of ingratiating themselves and finding favor in the eyes of the majority (following Lum, 2008). Nevertheless, this study included only two groups and was conducted only once. Repeated measures at several intervals would better and more precisely indicate whether these finding are stable over time and in other groups as well.

In conclusion, in a conflict situation where tension exists between majority and minority population groups, the need for change should be focused on members of the majority group so as to increase their emotional sensitivity towards members of the minority group through an emphasis on the development of compassion. Furthermore, we suggest that similar future studies include a measure of social desirability so as to tap the genuine and attitudes and emotions of the participants. W also suggest that future measures of feelings should include a greater number of moderate and incoming feelings with either positive or negative valences so as to enhance the ability of the researchers to recognize smaller changes in participants' emotions.

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