

## ISRAELI MORALE DURING THE GULF WAR

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### ABSTRACT

This paper reports findings of a study on the influence of the Gulf War on the morale level of Israeli men and women. Having at our disposal panel data from the pre-war period, we were able to measure the changes in morale over time at the individual level by means of a standardized questionnaire. On the basis of previous theory and research, we expected that individual morale would be affected by proximity to risk areas and by gender. The results indicate that, taking the panel as a whole, the missile attacks had only a small adverse effect on individual morale. Contrary to our expectations, we found that people living in high-risk areas did not experience greater decline in morale than residents of the low-risk communities. However, there has been a salient difference in the effect of the war on the basis of gender: whereas the morale of women did not change, we found an appreciable decline in the morale level of Israel's men. These results are discussed in terms of the unique features of the Gulf War with regard to the civilian population: while females were preoccupied with various activities related to the needs of the family, Israel's men became demoralized because they were unable to perform their traditional roles as soldiers and protectors.

On the night of January 17, 1991, a day after the outbreak of the Gulf War, Israel was hit by a barrage of Scud Missiles launched from Iraq. This episode set the pattern for a series of missile attacks which continued intermittently throughout the war, with the last bombardment striking on February 25, 1991. Altogether, the small country of Israel (approximately the size of New Jersey in the USA) absorbed about 40 hits, most of which were directed at densely inhabited areas.

The outside world, witnessing those attacks through the vigilant eyes of the TV cameras, was provided with some spectacular scenes, especially those generated by the explosions of the Scuds and the Patriot missiles

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The authors appreciate Professor Spillerman's illuminating comments. J. Alkaly advised us on computation issues.

which were sent to intercept them. Scenery aside, the intended targets of the attacks, namely, the bulk of Israel's civilian population, were watching the war of the missiles with great concern. As the frightening sounds of the sirens went on, people rushed to seek refuge in the nearest shelter while wondering if they might not be the next victims of the forthcoming missile barrage. As might be expected, the rhythm of economic, social and cultural activities was severely interrupted during the daytime and came to a complete stand-still at sundown, once it became evident that the missiles were most likely to be fired during the night hours.

The widespread feeling of alarm was augmented by the common belief that Iraq might resort to non-conventional weapons, such as chemical or biological warheads. For the general public, the reality of this threat and its immediacy was demonstrated by the government's decision to distribute gas masks to the entire population, including special outfits for the protection of infants who could not wear the regular masks. The constant fear of chemical warheads required everyone to carry his or her personal gas masks whenever venturing out during the day. Furthermore, the public was advised to avoid the use of deep-seated shelters intended to provide protection against conventional bombs. Instead, the authorities encouraged people to find shelter in 'sealed rooms' at home, under the assumption that such covers were more likely to reduce the risk of penetration and exposure to gases.

Ultimately, as is well known, Iraq did not employ either chemical or biological means of destruction during the Gulf War. Nevertheless, the constant apprehension about such lethal weapons, coupled with the daily exposure to explosions of the large Scuds in the heart of residential areas, sufficed to create an atmosphere of a real and imminent danger. In fact, several of the deaths which occurred during the war were attributed to heart failure associated with high tension as well as to suffocation from improper use of gas masks, particularly among the elderly.

Because few Israelis had responsibilities that were directly tied to the war—the vast majority being bystanders (and potential casualties)—this was perhaps the most 'talked about' conflict in Israel's short, but war-ridden history. Talk centered on the psychological and political dimensions of this unprecedented situation. The public was conscious—and to a certain extent proud—of its predicament, one that inverted Israel's traditional aggressive posture. The center of attention now was not the young and vigorous men who stood at their posts to repel the enemy. Rather, this was a war of the weak: those who could not reach shelter fast enough or who were afraid to leave their sealed rooms even after the 'all-clear' siren was sounded.

## THE EFFECTS OF WAR ON MORALE: PAST RESEARCH AND PRESENT QUESTIONS

As might be expected, the Gulf War stimulated a considerable amount of research by Israeli social and behavioral scientists. This research has been largely concerned with the effects of the war on different aspects of the psychological reaction of the civilian population, including children and adults (Ben-David and Lavee 1992, Lavee and Ben David 1993, Even-Hen and Yagil 1994, Gal forthcoming). However, with one exception, all of the studies conducted within this framework did not involve representative samples of the Israeli Jewish population. Accordingly, they do not allow generalizations beyond the specific groups of subjects that were investigated.

The only research which pertained to representative samples of this kind was conducted by S. Levy (1994) of the Guttman Institute. This research is particularly relevant for our purpose since it was concerned with the influence of the Gulf War on the morale of the (adult) Jewish population. A detailed comparison of Levy's findings with ours will be presented below.

The authors, who shared the predicaments of the war with the rest of the Israeli population, could not avoid seeing the scientific opportunities embedded in the situation. Critical to our decision to undertake the endeavor was the fact that just six weeks before the outbreak of the war we conducted a nation-wide survey on the political attitudes and democratic values of the Israeli public. Our objective, therefore, was to replicate that study, both in terms of the original respondents and the questionnaire items. Such a replication would have made it possible to assess the potential influence of the war on subjective welfare and attitudes by comparing the results of 'before' and 'within-war' surveys.

In this paper we concentrate on one aspect of such questions: what impact did the Scuds have on the morale of the Israeli civilian population? At a first glance, such a question may appear trivial. After all, given the circumstances of a war, in which the civilian population was aware that it had been deliberately selected as the prime target of the missile attacks, and in view of the blatant implementation of this threat, is it not obvious that the spirit of the intended victims would have been depressed? Yet, as reasonable as such an hypothesis may appear to be, taking its validity for granted seems unwarranted on several grounds. In the next section we suggest two possible reasons why it might be expected that the influence of the war on the morale of the Israeli population was neither uniform in degree nor in direction.

The first reason has to do with the differential vulnerability of the population to the danger of the missiles on the basis of geographic location. In order to understand the significance of this factor, the reader should be aware that following the first series of attacks, it became evident that the Scuds were aimed

at certain populated areas, particularly the metropolitan centers of Tel-Aviv and Haifa. Consequently, the Defense Authorities divided the country into 'high risk' and 'low risk' zones, and issued 'missiles forecasts' and related guidance in accordance with the risk levels of the various zones. It should be noted that when missiles were approaching, the air sirens went on in all parts of the country. However, people living in the 'high-risk' areas soon learned to take this warning signal more seriously, quickly putting on the gas masks and rushing to the sealed rooms. Furthermore, these residents usually had to wait longer hours before the all-clear signal was aired, so that they could remove the gas masks and exit the sealed rooms. Thus, while the entire country was within the range of the Scuds with hardly any community completely safe, the residents of the high risk zones suffered most, both in terms of the actual bombardments and the anticipation of their coming.

In view of these circumstances, one of our research goals was to examine whether the difference between the high- and low-risk zones was reflected in the morale of their inhabitants. To the best of our knowledge, systematic empirical evidence concerning the effects of air attacks on the morale of civilian populations is available only from social-psychological studies conducted during and shortly after World War II (see, for example, Janis 1951, for an extensive review of this literature). One of the major findings of that research, which involved the civilian populations of Great Britain, Germany, and Japan, concerned the relationship between proximity to air bombardments and the fear, or morale levels, of those populations (MacCurdy 1943, Gillespie 1942, USSBS Report 1945). Accordingly, the incidence of demoralization was more severe and frequent among those who underwent near-miss experiences, i.e. direct, or almost direct, exposure to the physical impact of the air raids. Furthermore, in contrast to the powerful reinforcement of fear reactions among the former, the level of fear diminished more quickly among those who did not experience a narrow escape or were not exposed to nearby attacks (Gillespie 1942, Glover 1942, Titmus 1950). Drawing from these consistent findings of World War II to the case of the Gulf War in 1991, the first hypothesis tested was that 'the incidence of demoralization was more severe and frequent' in the high-risk than the low-risk communities.

The second factor that we have addressed concerns the potential difference in the influence of the war on the morale of Israeli men and women. To begin with, one may ask whether there is an *a priori* reason to expect gender differences in emotional reactions to the missile attacks. Drawing upon the literature on the psychology of sex differences, it appears that one of the core attributes which differentiates males and females is the propensity for aggression. Specifically, there has been considerable agreement among students in this field that men are typically more aggressive human beings than women, and that this

trait difference apparently derives from biological as well as social-psychological factors (Maccoby and Jacklin 1974, Lips and Colwill 1978, Zillmann 1984, Archer 1988). To be sure, the relative importance of these factors and the specific processes underlying the formation of the sex aggression connection, are still largely debated. Nevertheless, the existence of such a connection, as succinctly put in the following statement, is a view widely shared: 'throughout the animal kingdom, males of a species are typically more aggressive than females, and humans seem to be no exception to this general rule' (Johnson 1972).

Granted that wars constitute aggressive situations par excellence, and given men's predisposition to aggression, it seems reasonable to expect that the adverse effects of such situations on personal morale would be more pronounced among women than men (Bar-Yosef and Padan-Eisenstark 1977). Furthermore, this expectation seems particularly pertinent in the case of Israeli society. The latter has been frequently engaged in minor or major wars since the formation of the State of Israel in 1948, so that most of its adult male population has been involved, directly or indirectly, in combat situations. It is important to realize, in this context, that the bulk of Israel's defense capacity depends on its reserves' system, since its regular army is quite small. Thus, civilian men are called regularly for military duties on an annual basis, for a period of about four to six weeks, and under conditions of emergency, they may be drafted for a much longer service. Hence, to the extent that 'males of the human species' are predisposed to adjust to aggressive conditions better than females, we would expect this rule to be particularly applicable in the Israeli situation.

However, the unique circumstances of the Gulf War, at least in so far as the Israeli experience is concerned, might have produced a different pattern of sex differences in terms of individual morale. As noted earlier, Israel's role in this war was entirely passive, with both civilians and soldiers taking cover whenever the alarm signals for the approaching Scud missiles were given. This continuous (and enforced) passivity was especially frustrating to the male reservists who, instead of being called for active military duties, found themselves waiting in sealed rooms together with their families, having little to do except complain about their ill-fate as unused fighters. This sense of humiliation was probably reinforced by the observation that the main active duties during those times were typically performed by the women rather than the men of the family. Women were engaged in preparing the sealed rooms and in equipping them with food, water and other necessities, such as transistor radios, in order to make the long hours of waiting in those rooms more tolerable. Thus, for the first time in their war laden history, Israel's incapacitated men were watching their wives undertaking most of the responsibilities for protecting the safety and welfare of the family.

An intriguing question which follows from these observations is whether the situational reversal in sex roles affected the morale levels of men and women, and how: did the sounds of the exploding missiles and the overall war atmosphere suffice to trigger the macho in Israeli men, or were they subdued and humbled? Before providing some empirical findings related to this and the former question, a brief description of the research procedure is in order.

## PROCEDURE

The original survey that we intended to replicate during the war was conducted in early December, 1990, and consisted of 1,240 adult respondents (18+ years of age) who constituted a representative sample of the Israeli Jewish population. A stratified area sampling procedure was applied. The strata were designed to represent cities, towns and settlements according to their population size and the time of their founding prior or after the mass immigration in the 1950s. Each of the major cities (Jerusalem, Tel-Aviv, and Haifa) was included in the sample as a specific stratum. From amongst the other strata (smaller cities, townships, and villages) clusters were selected at random. Interview quotas were determined in each town or settlement according to the town's percentage position in the stratum and the stratum's percentage position in the overall (Jewish) adult population of Israel.

Within each surveyed settlement, 25 percent of the 'statistical areas' were randomly selected. A statistical area includes a residential population of about 2,000. Within each statistical area two streets were selected, one person in every third apartment was interviewed. The actual representativeness of the sample was assessed by comparison of the distributions of various background variables in the sample and in the 'statistical abstract' 1992. (The statistical abstract is published yearly by the Central Bureau of Statistics, Jerusalem.) The comparisons indicate some gaps between sample and target population in education (e.g. 36 percent academic education in sample as against 28 percent in population). This discrepancy may reflect a slight sampling bias or a tendency to over report one's schooling. By and large, however, the sample and the population present the same socio-economic profile.<sup>1</sup>

After three weeks of war, we decided to return to the original sample; however the conditions created by the missile attack made it practically impossible to reinterview the entire list of original respondents. Of the various problems we encountered, two were of particular significance: First, we had to finish the interviews as soon as possible in order to avoid major developments that could have occurred during the time of the survey. Such developments (for example,

<sup>1</sup> For the sake of brevity the detailed distributions have been omitted.

the use by Iraq of chemical or biological warheads or the termination of the war), could have 'contaminated' the survey, thus preventing us from treating the respondents as having been exposed to the same conditions.

Second, while the interviews of the original survey were conducted face-to-face at the homes of the respondents, we now had to do them by telephone. This constraint was intimately related to the pattern of daily life during the war: since the Scud attacks usually occurred during night time (Iraq preferred to send its missiles during darkness in order to minimize the risk of exposing the sites from which they were launched), Israelis were already at home before sundown. While this daily routine facilitated the possibility of locating the intended respondents, it should be kept in mind that their interviewers also had to be at home. Indeed quite a few interviews were interrupted, with both parties rushing to their sealed rooms upon hearing the sirens.

In light of these problems, we decided to limit the survey both in terms of duration and sample size. Specifically, we conducted the interviews within the limit of a few days with the aim of reaching half of the original sample ( $1200/2 = 600$ ). In fact, however, we reached only 418 preinterviewed respondents. The response rate of the second wave of interviews was thus:  $418/600 = 70$  percent. Two main reasons may account for the discrepancy: (a) Some people left their homes during the war and resided in alternative locations which were thought to be safer. (b) Some interviews could not be satisfactorily completed. In some cases, missile attacks interfered with the interview, in others, respondents were frightened or impatient for no specific reason.

The fact that the planned quota of interviews was not completed, raises the issue of selection effect. Could the findings of this study be explained (or rather 'explained away') by selection from sample to panel? We shall discuss this issue in detail after presenting the findings.

## RESULTS

To begin with, we present in Table 1 the morale scores of the panel, as measured about 6 weeks before the war ( $T_1$ ) and 3 weeks after its outbreak ( $T_2$ ).

The assessment of individual morale was based on the following question: 'How would you describe your mood these days?' Answer categories: 1 very good; 2 good; 3 so-so; 4 bad; 5 very bad. This questionnaire item has been used extensively as a measure of the affective aspect of morale by L. Guttman and his colleagues at the Israeli Institute of Applied Social Research (Guttman and Levy 1983). It has been shown to be highly sensitive to situational changes at the national level as well as consistently correlated with cognitive and instrumental measures of morale (Levy 1989).

The figures presented in Table 1 indicate that there has been, on average,



TABLE 1 Moral scores of the panel before ( $T_1$ ) and during ( $T_2$ ) the war*Question: 'How would you describe your mood these days?'*

	<i>Before the war</i>	<i>During the war</i>
	<i>Percentage</i>	
1. Very good	20.8	21.9
2. Good	40.0	33.7
3. So-so	28.9	27.0
4. Bad	6.5	9.9
5. Very bad	3.8	7.5
Total	100.0	100.0
Mean	2.32	2.47

 $N=418$ ,  $t=2.22$ ;  $p<.03$ 

only a slight change of mood between the two occasions when the morale of the panel was measured, as if the strikes of the Scuds and the havoc they caused left little impressions on their potential victims. Although statistically significant and in the expected direction, the change which may be detected (with mean scores of 2.32 and 2.47 for  $T_1$  and  $T_2$ , respectively), is very small indeed.

However this result should not be regarded as surprising as it may appear. The research on the behavior of civilians during World War II, to which we have already alluded, suggests that reactions of demoralization, which are caused by severe bombing, tend to subside within a relatively short time—from a few days up to several weeks. Keeping in mind that our survey was conducted following the first three weeks of the war, it is possible that the majority of the panel had already recovered from the adverse psychological effects of the air attacks by the time that they were reinterviewed.

Notwithstanding this explanation, it is also possible that the Israeli public, with its history of intermittent wars and almost constant exposure to external danger and violence, has become to some extent psychologically immunized against the dangers associated with a war situation, including the severity of imminent missile attacks. Note that this interpretation does not repudiate the former one. Indeed both phenomena—recovery from initial psychological impairment caused by air raids and development of a higher psychological threshold against such threat—had been observed in World War II, especially in Great Britain (Gillespie 1942, Titmus 1950).

#### THE EFFECT OF GENDER AND RESIDENCE

Yet granted the relevance of these observations to the findings reported in Table 1, it should be noticed that the slight change in morale, as reflected in these



TABLE 2 Morale scores before ( $T_1$ ) and during ( $T_2$ ) the Gulf War, by residence and gender

Morale level	Residence in high risk zone		Residence in low-risk zone	
	Percentage		Percentage	
	$T_1$	$T_2$	$T_1$	$T_2$
1. Very good	18.8	18.9	24.6	27.9
2. Good	42.0	34.9	35.9	31.4
3. So-so	27.5	27.6	31.7	25.7
4. Bad	7.2	9.5	4.9	10.7
5. Very bad	4.3	9.1	2.8	4.3
Total	100.0	100.0	100.0	100.0
Mean	2.36	2.55	2.24	2.32
	$N = 274; t = -2.20; p = .03$		$N = 142; t = -.70, p = .48$	

  

	Women		Men	
	Percentage		Percentage	
	$T_1$	$T_2$	$T_1$	$T_2$
1. Very good	23.7	28.6	18.9	17.4
2. Good	36.7	41.1	42.2	28.7
3. So-so	30.8	22.6	27.7	30.0
4. Bad	4.1	5.4	8.0	13.0
5. Very bad	4.7	2.4	3.2	10.9
Total	100.0	100.0	100.0	100.0
Mean	2.30	2.12	2.34	2.72
	$N = 176; t = 1.73 p = 0.09$		$N = 242; t = -4.32 p = 0.0001$	

findings, is based on a highly aggregated comparison. The point is that aggregated data which indicate little or no change over time, as revealed by the morale levels of the panel between  $T_1$  and  $T_2$ , may conceal substantial changes which could have actually occurred among sub-groups and individuals. To the extent that such processes went in opposite directions and were roughly of the same magnitude, they would have cancelled each other out and generated a seemingly static pattern at the level of aggregate analysis.

In view of these considerations, and following our discussion of the potential impact on morale of situational (e.g. risk levels) and predispositional (e.g. sex differences) factors, we next turn to an empirical examination of the actual effects of these factors, as shown in Table 2.

The figures shown in columns 2 and 4 in the upper part of Table 2 indicate that the morale level of the residents of the high-risk zone was significantly lower during the war than that of those living in the low-risk areas, with mean

scores of 2.55 and 2.32, respectively ( $t=1.93$ ;  $p=0.05$ ). However, the main question under consideration is whether the morale level of the two groups had undergone similar or different changes since the pre-war period. In order to assess these changes, we have to measure for each group the difference between its morale levels at  $T_1$  and  $T_2$  and test the significance of the gap between the two differences. As can be seen from Table 2, the difference for the high-risk zone was  $-.19$  ( $t=-2.20$ ;  $p=0.03$ ) and for the low-risk zone  $-.08$  ( $t=-0.70$ ;  $p=0.48$ ). However, the gap between these changes was found to be statistically insignificant, with a  $t$ -value of  $-.75$  and  $p>0.54$ . Thus, the hypothesis that demoralization was greater in the high-risk than the low-risk zones was not confirmed by the data. This finding will be re-examined later in our discussion.

The findings reported in Table 2 also reveal that the male members of the panel experienced a greater change in morale than women, and in the opposite direction: whereas the morale level of the former went down by  $-.38$  ( $t=-4.32$ ;  $p=0.0001$ ), that of the latter went up by  $.18$  ( $t=1.73$ ;  $p=0.09$ ). Thus, while there was practically no difference between the two genders before the war, by the end of its third week their morale levels diverged, with a resulting gap of  $-0.60$  ( $t=-4.10$  and  $p=0.0001$ ). Notice also that the gap between the genders derived mostly from the change in the morale level of the male rather than the female members of the panel. This finding supports the hypothesis that the unique situation of the Gulf War, in which Israel's men were prevented from fulfilling their traditional roles as defenders of national security and family welfare, had negative influence on the morale of men but not on the morale of women. Obviously the present research design could not contain a comparison between the impacts of two war situations on the morale of men and women, namely that of a 'conventional' war fought by both camps as against the one-sided attacks on the Israeli civilian population. Consequently, the credibility of our interpretation should be examined in the light of additional findings.

As a further step in the validation of the argument behind this hypothesis, we divided the male members of the panel into two age groups. The younger group—up to 50 years of age—consisted of those who still belonged to the reserve system while the older group had already been relieved of this duty. This age distinction is relevant since the logic of our hypothesis suggests that the decrease in morale had been more pronounced among the former. Notice that this rationale does not apply to women since only men belong to the reserve system of the Israeli army. Following these considerations, we tested the significance of the difference in the change of morale from  $T_1$  and  $T_2$  between the two age groups, separately for men and women. The results of this analysis indicate that the change was indeed significantly greater among the younger than the older men ( $t=3.96$ ;  $p=0.05$ ) but not among the younger women ( $t=1.71$ ;  $p=0.19$ ).

TABLE 3 Predictors of morale during the war  
Regression Analysis

<i>Independent variables</i>	<i>B</i>	<i>β</i>	<i>p</i> ≤
1. Morale before the war	.20	.18	.006
2. Zone	.23	.09	.069
3. Gender (1 = F; 2 = M)	.66	.28	.001
4. Education	.07	.06	.24
5. Income	.00	.00	.98
6. Age	.02	.04	.43
7. Religiosity	.00	.00	.99
8. Constant	1.13	—	.001
<i>R</i> <sup>2</sup>	.12	—	.001

$N = 418$ ;  $df = 417$ .

#### PREDICTORS OF MORALE DURING THE WAR

The results presented so far have not taken into account the possibility that background characteristics of the respondents might have affected the observed differences in morale changes according to zone and gender. In order to detect such potential influences we have applied multiple regression analysis in which the following characteristics were incorporated as control variables: age, education, religiosity, and income. The selection of these variables was dictated by the results of previous research in Israel and elsewhere showing their relevance in the formation of attitudes and behavior. In order to control for individual predispositions, morale scores at  $T_1$  have also been incorporated into the regression (see Table 3).

The coefficients shown in Table 3 reaffirm that of the two expected influences, only gender exerted a significant effect on the morale of the panel during the war. In fact, gender appears to have the strongest influence relative to all the variables included in the question. Notice that since individual morale at  $T_1$  was included among the control variables, we may interpret the coefficients of gender in terms of change. Thus, keeping in mind the findings shown in Table 2, it appears that the phenomenon of decrease in morale was characteristic of Israeli men rather than women.

Considering the control variables, the most relevant for this discussion is the measure of morale at  $T_1$ . The significant coefficient obtained for this measure indicates that individual morale before the war to some extent conditioned its direction of change during the war: persons with prior lower morale were apparently more vulnerable to the missile attacks so that their morale went further down relative to the other members of the panel.

## ALTERNATIVE EXPLANATIONS

After presenting the main findings, let us examine their validity by considering some alternative explanations. The first 'threat' to any explanation which links the observed change in the morale of the panel to the independent variables is selection effect. Specifically, it is possible that there were compositional changes from the survey to the panel which might have affected the observed changes in the latter's morale. As a first step in examining such a possibility, we compared the composition of the panel to the larger sample in terms of all the demographic variables.

The data revealed no differences between the composition of the panel and the larger sample, with the notable exception of gender. Specifically, the proportion of women in the panel was clearly lower than that of men. Could it be, therefore, that men and women have undergone different selection processes from the larger sample to the panel?

If so, one should expect significant gender gaps in the level of morale between members of the panel and other respondents already at  $T_1$ . However, no significant differences were found between the men and women selected to the panel and those not selected. Nevertheless a three-way interaction effect between war, selection and gender cannot be completely ruled out. The actual meaning of such an interaction effect, in terms of our findings, is that men included in the panel have been predisposed to experience decrease in morale as a result of the missile attacks, while the women belonging to the panel had no such tendency. It must be further assumed that this discrepancy between the genders derives from the selection process. It should be recalled that the panel was drawn systematically from a larger sample of the original survey and that the actual interviews with the panel were conducted by phone, excluding those who were not at home or refused to cooperate. Hence, in order to support the selection hypothesis, one has to assume that relatively cheerful women but gloomy men were more likely to cooperate with the interviewers than their average peers.

While this 'interactive' selection effect is logically possible, it seems more plausible that respondents refrained from participation in the telephone interviews because they were preoccupied with practical assignments—taking care of their own and of their family's welfare. As noted above, women were typically more involved in such tasks than men. This observation explains why women are underrepresented in the panel. It also suggests that there is no solid reason to believe that the women who 'selected themselves' out of the panel had lower morale than those who survived in it. On the contrary, it stands to reason that such women, who kept themselves busy, could better cope with the situational stress. This reasoning is consistent with our main conclusion: that men's morale

was adversely affected by the Gulf War because of the passive and 'unmasculine' role they had to play under the unique circumstances of that war.

## DISCUSSION AND CONCLUSIONS

In this study we have been concerned with the influence of the Gulf War on the morale of the Jewish Israeli public. We were able to address this issue on the basis of panel data which included measures of morale both before and during the war. Granted the existence of certain methodological problems that were associated with doing the research in the midst of falling Scuds, the study suggests the following conclusions and points of discussion.

Taking the panel as a whole, the Gulf War had apparently a negligible adverse influence at the aggregate level of individual morale. However, keeping in mind that the within-war survey was conducted three weeks after its beginning, it is possible that negative effects of greater magnitude prevailed immediately after the first series of missile attacks, similarly to the reaction of the civilian population to the air-raids in Great Britain during World War II.

Contrary to our expectation, we found that people living in high-risk communities did not significantly differ from the residents of low-risk places with respect to the decline in morale during the missile attacks. It might be recalled that studies conducted during World War II reported that people who had 'near miss' experiences were psychologically most vulnerable to air bombings. Our own findings may reflect the fact that the geographic partition of the country into 'low risk' and 'high risk' zones was quite crude, allowing for substantial differences between residential areas within the high-risk zones in terms of proximity to the actual places which were hit by the Scuds.

This interpretation is consistent with the conclusions of a recent review of the Gulf War studies (Milgram 1993), as follows: 'Nine studies evaluated the impact of proximity to the danger zones, and obtained contradictory findings. A careful examination of the data has shown that the strength of the impact is a function of the rigor of the operationalization. Studies which defined proximity in exact terms obtained appreciable impacts'.

The most salient effect of the war on individual morale was related to gender. Whereas the morale of women remained practically intact, there has been an appreciable decrease in the morale level of Israel's men. This finding is not necessarily inconsistent with the argument that men are more prone to aggression than women. On the contrary, we suggest that the decline in their morale may have to do with the fact that, under the unique circumstance of the Gulf War, Israel's men became demoralized precisely because they could not have performed the role expected of men in aggressive situations like wars.

This explanation was supported by the significantly greater decline of morale during the first phase of the war among *younger* men who still served in the reserves as compared to *older* ones (above 50). Among women no such age-related difference was noted.

At this point we juxtapose our findings against earlier research which obtained apparently contradictory results. S. Levy of the Guttman Institute for Applied Social Research conducted a series of surveys starting on January 21, 1991 (i.e. four days *after* the first missile attack!) and concluding on February 24 (several days after the termination of hostilities). The major difference between Levy's surveys and the data reported in the present study is that while we aspire to examine the influence of the war on morale by comparing data obtained about six weeks before the outbreak of hostilities, with data collected three weeks *after* the first attack, all Levy's data pertain to the war period. Levy actually explains that it was impossible to compare before–after data since 'no survey was conducted immediately prior to the war' (Levy 1994, p. 33).

A second difference refers to the operationalization of morale. Levy, following Guttman, attempted three different measures of morale: emotional (= 'mood'), adaptive ('To what extent are you able to adjust to the situation'), and cognitive (assessment of Israel's situation). Obviously the third ('cognitive') item is not on equal footing with the other two as it refers to perceptions about the state (of Israel), while the first two refer to the individual. In fact, the time series included in Levy's article show that the cognitive dimension of morale varied almost independently from the two others. It stands to reason (and Levy makes the point!) that the praise Israel obtained in the West for not interfering in the war in spite of being attacked, contributed to the 'cognitive dimension' while the instrumental and emotional dimensions remained 'unimpressed' by that factor.

It is also worthwhile to note that according to the results reported by Levy (1994, p. 30, graph 1 and p. 34, graph 1a), the other two measures of morale reveal different trends: the 'mood' item, unlike the 'adaptive' measure, shows that morale went up following the first missile attack, then went down and later again went up gradually. This result is not consistent with the bulk of research on reactions of civilian populations to air attacks. The typical finding, as noted above, is that morale goes down immediately after the first series of bombardments and then recovers.

However, notwithstanding these observations, we still have the burden of attempting to explain our own 'atypical' finding, namely, that during the Gulf War Israeli men, rather than women, experienced lower morale. To understand this finding, it is important to distinguish between the significance of fear and low morale as possible reactions of men and women to crisis situations. Men are socially expected, by the masculine code, to overcome their fear, but they

are permitted to express frustration and anger. As noted by Lerner and Karabennic (1974), the masculine stereotype involves, among other things, aggressiveness, courage, leadership, and control. The feminine stereotype consists of characteristics such as devotion, insecurity, weakness, and timidity. Ailon and Lahad (1991) made the observation that the masculine stereotypes are particularly pertinent to Israeli men because of their military service and image as heroes and defenders. Drawing upon these stereotypical differences, Diamant (1994) hypothesized that due to the unique circumstances of the Gulf War, and especially the passive stay in the sealed rooms without being able to fight back, the masculine image of Israeli men was severely threatened and consequently they felt more helpless than women. The latter were expected to cope better with the crisis without being prohibited from expressing fear and anxiety. These hypotheses were supported by Diamant's empirical findings: women performed better than men while showing higher levels of fear. Men, on the other hand, have shown higher levels of 'regressive reactions' such as confusion, disobedience, conflict, and aggression (Diamant 1994, 87).

We believe that the syndrome of regressive reactions found among Israeli men is related to our own findings about the decrease of morale among these men. In fact, this syndrome could be the source of the decline in their morale.

Put in a more constructive perspective, this study points to the importance of role allocation in the determination of morale during crisis situations. Individuals who are assigned social roles which are relevant to the management of the crisis and which are consistent with their training and socialization tend to cope with the crisis and maintain a high level of morale. In contrast, those who cannot perform the roles expected of them in such situations are likely to experience morale decline and malaise. The Gulf War was unique, from this perspective, because it reinforced the instrumentality of traditional feminine tasks and neutralized the role expected of males in war situations.

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