ABSTRACT    War's influence on emotional health includes potential psychological gains as well as losses. In a sample of 149 veterans from longitudinal samples at the Institute of Human Development, University of California, Berkeley, this study explores two questions on the legacy of combat in World War II and the Korean conflict. The first concerns the subjective experience or meanings of combat that veterans hold in later life, with particular attention to how such accounts are linked to the severity of combat and postwar adaptations. The second question links these accounts to the psychosocial functioning of veterans before the war and in later life using reports from veterans and their spouses and Q-sort ratings in adolescence and at age 40. Findings center on veterans of heavy combat. Compared to the noncombatants and light combat veterans, these men were at greater risk of emotional and behavioral problems in the postwar years. In mid-life, they hold mixed memories of painful losses and...
life benefits associated with military experience. Clinical ratings show that heavy combat veterans became more resilient and less helpless over time when compared to other men. As in the case of life events generally, short- and long-term effects may impair and enhance personal growth.

**INTRODUCTION**

Years after the official end of hostilities between nations, the human consequences of war still reverberate in mourning for the war dead, in the lives of war widows and fatherless children, and in the tormented minds and emotions of veterans. All such legacies lose a measure of legitimacy as war recedes in time. Combat veterans in postwar America (1940s, 1950s) who sought an understanding listener for their wartime burden were likely to have encountered an unreceptive family and community. The war is over, why think about it now? Concerning still troubled veterans of World War II, Archibald, Long, Miller, and Tuddenham (1962, p. 321) observe “Of course the man in the street says ‘Let go—the war was over 17 years ago’ and therapists have said the same, forgetting that Freud taught us that the unconscious is timeless.”

This study investigates the psychological health of older veterans who served during World War II and the Korean conflict. Health refers to evidence of well-being, developmental growth, and resilience over the adult years, as well as to an absence of the commonly explored stress symptoms (depressed feelings, irritability, intrusive memories, nightmares, etc.) and impairment. Using longitudinal and contemporary accounts, we view adult health in terms of both subjective and objective reports. Our point of departure is the view held by veterans concerning military and war influences. This is followed by quantitative measures of actual psychosocial functioning, using reports from the veterans and their spouses and Q-sort ratings in adolescence and at age 40.

**War Experience and the Life Course**

The life-course perspective (Elder, 1985) of this study assumes that the long-term effects of heavy combat include potential psychological gains as well as losses, and that the particular configuration depends in part on the life histories men bring to the service. The legacy of posttraumatic stress disorder is documented by the literature (Wilson, Harel, & Ka-
hana, 1988), but war’s influence on emotional health may also reflect any of three societal and psychological perspectives.

From the vantage point of society and the generalized other, the first account denies any important legacy, pathogenic or otherwise. The end of hostilities marks the beginning of normalcy and the reestablishment of civilian pursuits. The forward-looking nature of the times undermines the legitimacy of continuing preoccupation with stress symptoms. A second account stresses the pathogenic legacy, especially in relation to heavy combat veterans. From this vantage point, one is sensitive to the link between combat experience and the risk of breakdown or posttraumatic stress disorder. Short-term symptoms of stress may be expressed in a delayed or lagged form, or in an enduring trajectory across the life span. A third perspective highlights the potential benefits of war mobilization for society and the individual. Consider, for example, the early mobilization of men for service in World War II, a timing which increased their educational prospects through the G I Bill (Elder, 1987). Each account has empirical support and the evidence lends support to Breznitz’s (1983, p 273) conclusion, “that stressful life events (even those of combat) may have positive as well as negative effects.”

No legacy The war is over Societal denial of war’s impact is especially apparent among defeated countries that wish to put the past behind them. We see this most clearly in the national homecoming for soldiers. Robert Whalen (1984) speaks of the bitter homecoming experiences of German soldiers following World War I, their lack of acceptance, and negligible pension support.

Among Americans World War II ranked well above the Korean War on public support, but even the Korean War seems popular when compared to the public’s disdain for the Vietnam conflict, especially during its last stage. A military survey in 1985 based on the sample in this study shows that 70% of the World War II sample claim they felt appreciated by Americans upon their return to this country and to civilian life. By comparison, only a third of the Korean veterans recall being similarly received. The percentage falls to less than a quarter for the Vietnam veterans (Wilson, 1978) whose feelings of rejection and indifference are well documented elsewhere (Egendorf, Kadushin, Laufer, Rothbart, & Sloan, 1981).

Given the differences in homecoming experiences across various wars, veterans of World War II would seem at lower risk of social stress.
reactions (i.e., feelings of isolation, alienation) when compared to the veterans of subsequent wars. Evidence to date, however, points to a different conclusion. The homecoming impact may be more political than psychological. In three wars with three unique homecoming scenarios, empirical evidence documents the same relationship between combat and psychosocial outcomes during the postwar years (Laufer, 1985). War trauma rather than the type of homecoming may well be the decisive factor.

The end of any major war with heavy casualties sets in motion a collective need to honor the dead as well as perhaps the wish to look to the future. An example is the insistence of the British people to pay homage to the casualties of World War I through memorials, the ritual of Armistice Day, and scheduled moments of collective silence. Cannadine (1982, p. 222) notes the extraordinary success of the latter by observing that "it made public and corporate those unassuageable feelings of grief and sorrow which otherwise must remain private and individual."

At the individual level, denial may indicate a pattern of postwar adjustment described as "stress evaporation" (Figley, 1978, p. 59). This perspective holds that combat veterans do harbor psychological problems associated with military involvement, but symptoms disappear shortly after the homecoming. Consistent with this account, Frey-Wouters and Laufer (1986, p. 24) recently found that 14% of a large national sample of veterans who witnessed the death and dying of Americans in Vietnam denied they had any feelings about these deaths. Repression may lead some people to view stress-related emotional symptoms as temporary, not reflective of long-term maladjustment. Indeed, most studies of World War II veterans that report this evaporation pattern were conducted during or shortly after a healing homecoming and before any lasting effects of combat could be detected.

The pathogenic legacy. Adverse effects of combat experience through World War II and into the 1950s were measured according to such global terms as combat fatigue, shell shock, and a general stress reaction. The symptoms appear in contemporary terms under a syndrome known as posttraumatic stress disorder in the post-Vietnam era. Using the model of posttraumatic stress disorder outlined by the American Psychiatric Association (1987) in the third edition of its diagnostic manual, DSM-III-R defines the disorder as a syndrome with five sets of criteria: "(1) the person has experienced an event that is outside the range of usual
human experience, (2) the traumatic event is persistently reexperienced in at least one of the following ways: recurrent recollections, distressing dreams, sudden acting or feeling as if the event were recurring, intense psychological distress at exposure to events that resemble the traumatic event, (3) avoidance of stimuli associated with the trauma or numbing as indicated by at least three of the following efforts to avoid thoughts associated with the trauma, inability to recall an important aspect of the trauma, diminished interest in significant activities, feeling of detachment from others, restricted range of affect, sense of foreshortened future, (4) increased arousal as indicated by at least two of the following: difficulty falling asleep, anger outbursts, difficulty concentrating, hypervigilance, exaggerated startle response, physiologic reactivity upon exposure to events that symbolize the traumatic event, and (5) duration of the disturbance for at least one month" (pp 250–251) The definition assumes that a traumatic experience such as combat will lead to a high risk of numbing, behavioral changes, and reexperiencing.

At the end of World War II, stress disorders from combat were typically viewed as transient, a view which supported the notion that the psychological realities of war actually ended with armistice. Psychiatric interest in such disorders declined accordingly across this period, though a report dated 1965 cites accumulating evidence "which demonstrates that many veterans have retained their original combat symptoms of startle reaction, recurrent nightmares, and irritability largely unchanged" (Archibald & Tuddenham, 1965, p 475). Indeed, even after some 40 years, disturbing nightmares of war trauma have been documented in the lives of World War II veterans (van der Kolk & Ducey, 1984). Similar long-term effects, especially involving depressed affect, have also been found among American prisoners of war (Tennant, Goulston, & Dent, 1986). A review of work into the 1980s on Vietnam War veterans (Boman, 1982, p 124) claims that "the melancholy legacy of this doleful period seems to be increasing almost year by year." Other surveys (Green, Wilson, & Lindy, 1985, Kaylor, King, & King, 1987) provide more recent evidence of this pathogenic legacy.

Studies of the prolonged effects of combat stress on veterans' emotional health have led to two different perspectives on the postwar pattern of psychosocial adjustment. A "stress intensification perspective" depicts a gradual increase in combat-related symptoms through the adult and later years, making life-course adaptation difficult. We see this outcome when social support is replaced by social rejection as servicemen
return to civilian life and by a continuation of an alienation response through veteran withdrawal and anger, as seen in the lives of Vietnam combat veterans (Green et al., 1985). Other evidence consistent with the formulation of chronic or persistent stress comes from the work of Archibald and Tuddenham (1965), Strueng and Solberg (1972), and Card (1983).

An example of this behavior involves stress symptoms that persist through a life-course dynamic in which initial symptomatology is sustained over time by the progressive accumulation of its interpersonal or social consequences (also see Caspi & Elder, 1988). In this manner, the psychic numbing of a veteran, his irritability, and his explosiveness may undermine stable marital relations, parenthood, and friendships (Laufer & Gallops, 1985). These unstable relationships reinforce emotional withdrawal, distrust, and a shell of indifference, thereby producing long-term consequences for family relations and support. However, most studies supporting this perspective fail to consider prewar characteristics, leaving uncertain whether negative outcomes stem from military experience or from problems existing before the war.

A second perspective on psychosocial adjustment focuses on the resurfacing of stress, unresolved conflicts related to war experience may lie dormant for years and resurface at some future time, in circumstances similar to the originating situation. This perspective rests in part on two assumptions: (a) that the strength of stress effects is directly related to the proximity of the original stressor to the current situation (Elder, 1974, chap. 9), and (b) that the current situation resembles that of the original combat trauma.

This proximity thesis is consistent with most of the evidence on early influences (e.g., historical events) across the life span, influences which consistently decline across the adult years (Brim & Kagan, 1980). The key feature of situational correspondence includes "loss of personal control," along with other features of combat, such as loud noises and the danger of darkness. Referring to his prolonged state of hypervigilance in combat, an Army veteran recalls "almost strangling my wife when she touched me to wake up, about six months after I got out."

Situational correspondence has been described by Futterman and Pumpian-Midlin (1951), who observed stress symptoms years after the war as adaptations to a situation that has much in common with the original stressor. One example involves an aging veteran and his life situation. Aging entails some loss of personal control as vigor and stamina
decline, and this occurs in a situation marked by increasing losses (e.g., death of loved ones, chronic personal illness, retirement). The frequency with which aged veterans reexperience their combat experience after years of symptom-free living may have something to do with connections between feelings of helplessness in combat and one’s vulnerability in later life.

The developmental legacy. A central thesis in relating combat experience to late life adaptations assumes that successful coping with challenging situations builds confidence and resources for dealing with demanding circumstances along the life course, especially in relation to loss experiences. Combat exposed men to conditions that stretched survival skills to the limit, as in the control of emotions during excruciating pain or fear. Managerial skills were learned through the demands of leadership and combat emergencies. Among men who survived war’s traumatic experiences, this past and present can be tapped as a resource whenever life becomes exceedingly difficult.

Mere survival could become a resource for coping with hardships in later life (Leinbaugh & Campbell, 1985, p. 89). A veteran of intense shelling during the Battle of the Bulge recalled his severe shaking spells and moments of despair when he thought he would break, noting “In the down times of my life, the rough moments, of which I’ve had a few, that bottom line I’ve always come up with is ‘Christ, this isn’t so bad you could be back under a tree burst’.” A veteran of four landings in the South Pacific made similar observations on skills acquired in combat. Combat taught him the confidence to overcome adversity, to persevere “All one needs is the will to survive, and the skill to cooperate with others, to be dependable and self-disciplined.” Other men with less adaptive resources at time of recruitment probably experienced adjustment problems, feelings of helplessness, and impairment. Instead of coming to the later years with a reservoir of coping skills, optimism, and a sense of gratitude, they suffered periodic bouts of depression and self-pity or regret.

During World War II, Henry Murray and his assessment staff of the Office of Strategic Services (Office of Strategic Services, 1948) found that traumatic experiences in combat were not always linked to impairment outcomes. Indeed some of the strongest, most resilient men had a good many traumatic events in their younger lives. The big challenge, as they put it, is to identify what “determinants must be taken into account.
in predicting whether this or that hurtful occurrence will impede or en-
courage the development of an effective personality (p 1968) " Ten years
after World War II, Brill and Beebe (1955) reported that men with more
stable personalities before the service broke down more often only after
prolonged combat When they did break, their illness was less severe
than that of veterans with some degree of preservice impairment They
also found that preservice stability predicted more accelerated recovery
rates Apart from such individual differences, all servicemen have a
breaking point at some level The “constant and severe pounding went
beyond the ‘nervous threshold’ of a number of veterans who had previ-
ously been thought immune to nervous exhaustion This led us to be-
lieve that any man could become a nervous exhaustion case if he were
exposed to long and severe combat” (cited in Weinberg, 1946, p 475)

Much of the thinking on the determinants of pathogenic and develop-
mental consequences of combat experience has followed an either/or for-
mula Consistent with the belief that negative experiences produce neg-
ative outcomes or that traumatic situations lead to stress symptoms, most
studies have focused on factors that could intensify, weaken, or markedly
alter the relationship (see Breznitz, 1983) For example, Brill and Beebe
(1955) show how initial stability moderates the adverse effect of combat
experience and hastens recovery They did not explore whether and how
this initial state increased the development of inner resilience and coping
ability But as always, there are individual differences which enable
some people to adapt successfully and others to flounder or shatter (Col-
enck [Clipp], 1985, Elder & Liker, 1982) These differences bring up the
generally accepted notion that traumatic events can produce both pathol-
ogy and health or resilience, even within the same individual Especially
in relation to Israeli studies of wartime stresses, Yarom (1983, p 6) asks
“why can’t a person who fights a war grow and develop, and not only
break down?”

Likewise, studies of social support focus on how supports moderate
or buffer the effects of particular stressors (Cohen & Syme, 1985) They
seldom investigate how social support might increase the development of
inner strength by encouraging adaptations to stressful circumstances
(see Elder, 1974) The neglect of developmental outcomes from traum-
atic war experience is coupled with failure to determine whether men
with symptoms of posttraumatic stress disorder may also possess adap-
tive qualities that issue from the same experience Conditions of war may
hold negative and positive consequences for the same person
We begin the analysis with what aging veterans think they experienced and gained through the service. The men were asked to characterize their military experience from a list of salient adverse features (combat anxiety, etc.) and more positive or developmental experiences. From these subjective accounts of combat in the life course, we turn to self-reports of more objective symptoms of posttraumatic stress and clinical ratings of psychological health from adolescence to the middle years. This approach enables us to assess the legacies of stress symptoms and resilient coping. As background, we turn first to a description of the sample and measures and consider the relation between combat experience and pre-war life histories.

**METHOD**

**Sample and Measures**

Data for this study are drawn from the archives of the Institute of Human Development, University of California, Berkeley, and involve subjects from three major longitudinal studies of persons born in the 1920s: the Berkeley Guidance and Growth Studies and the Oakland Growth Study (Eichorn, Clausen, Haan, Honzik, & Mussen, 1981). Information on study members was collected annually from 1928–29 through the 1930s, and at four points during their adulthood—1960, 1970, 1982, and 1985.

The California Q-Sort, developed by Jack Block (1971), was applied to adolescent data in each of the three archives and also represents the primary common measure for the adult years (ratings include goal orientation, self-inadequacy, submissiveness, consideration for others, social competence, helplessness, ego resilience). Each Q-sort item ranges in value from 1 (most uncharacteristic) to 9 (most characteristic). Judges sort subjects into a forced normal distribution on the set of items. Item clusters bearing on the ratings emerged from correlational and factor analyses at adolescence and age 40. An index score for each cluster was obtained by dividing the sum of all item values by the number of component items. The indexes form a loosely structured portrait of competence, with correlation coefficients ranging from .35 to .74. In addition to these measures, we constructed indexes of more general patterns of ego resilience and helplessness. Block and Block (1980) define ego resilience as resourceful adaptation to changing circumstances and environmental contingencies. The opposite end of the ego-resiliency continuum (ego-brittleness) implies little adaptive flexibility, an inability to respond to the dynamic requirements of the situation, a tendency to be perseverate or to
become disorganized when encountering changed circumstances or when under stress, and a difficulty in recouping after traumatic experience (p 48)

Using the 9-point Q-ratings for adolescence and age 40, the quality of ego resilience is measured by an average of the following items “warm, dependable, insightful, productive, socially perceptive, other directed, values independence, straightforward, comfortable with past decisions, values intellectual matters, calm, sympathetic, wide interests, plus the following reflected items, brittle, feels victimized, repressive, lacks personal meaning, self-defeating, fearful, aloof, concerned with appearance, deceitful, negativistic, basic hostility, projective, and emotionally bland.” Helplessness is measured by a component of five items feels victimized, lacks personal meaning, reluctant to act, withdraws when frustrated, and assertive (reflected). The two measures include some common items, and also extend across the territory of the other indexes. These other indexes (see Elder, 1979, for more detail) are as follows:

- **Goal-oriented** High aspirations, productive, gets things done, self-defeating in relation to goals, and lacks personal meaning. Scores on the latter two items are reflected.
- **Self-inadequacy** Satisfied with self (reflected), thin-skinned, feels victimized, brittle, and fearful.
- **Submissive** Submissive, withdraws from adversity, assertive (reflected), and reluctant to commit self.
- **Consideration of others** Giving, sympathetic, warm, negativistic (reflected), and distrustful (reflected).
- **Social competence** Aroused liking and acceptance, gregarious, social poise, socially perspective, and aloof (reflected).

All seven scales, adolescent and adult, have satisfactory reliabilities. The average α is 81.

Self-report data on symptoms of posttraumatic stress were collected in a 1985 survey. All veterans were asked whether they had the following emotional problems after demobilization: sleep disturbances, depressed feelings, irritability, anxiousness, difficulty concentrating, intrusive memories, intense anger, and hyperalertness. One symptom or more served as an index of emotional problems. At the same time, the veterans were asked about behavioral difficulties, defined as one or more of the following: problem drinking, feeling lost, health problems, marital difficulties, and problems getting a job. The 1985 survey also asked questions pertaining to the nature of combat, recollections of wartime experience, and current stress symptoms. Also in the adult years, data from the 1972 follow-up provide Q-sort ratings and veteran/spouse assessments of mood and interpersonal style (i.e., cheerful,
Combat Experience and Emotional Health

**Table 1**
Study Variables by Life Period and Age

<table>
<thead>
<tr>
<th>Life period</th>
<th>Approximate age</th>
<th>Variable group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prewar (1939-40)</td>
<td>Adolescence</td>
<td>California Q-Sort (personality ratings, e.g., ego resiliency, helplessness, see Table 6)</td>
</tr>
<tr>
<td>Service exit (1945)</td>
<td>20s</td>
<td>Behavioral and emotional problems (e.g., depression, anxiety, problem drinking, see Table 4)</td>
</tr>
<tr>
<td>Mid-life (1970)</td>
<td>40s</td>
<td>California Q-Sort (personality ratings), veteran and spouse ratings of mood and interpersonal style (e.g., seldom angry, affectionate, see Table 5)</td>
</tr>
<tr>
<td>Later life (1985)</td>
<td>60s</td>
<td>Military follow-up (combat severity, negative and positive recollections of war experience, current stress symptoms, see Tables 2 and 3)</td>
</tr>
</tbody>
</table>

A summary of the measures by life period is provided in Table 1. Veterans in the 1985 follow-up were born mainly in the 1920s and grew up in the San Francisco area. Over 60% come from middle-class families, have completed 4 years of college, and are retired from managerial or professional careers. A total of 149 of the men who served in World War II and the Korean War make up our sample. They are either male subjects or the husbands of subjects in the Berkeley Guidance/Growth Studies and the Oakland Growth Study (Elder, 1974, 1981). These two groups of men have similar educational backgrounds. Only eight study women served in the military during wartime.

Slightly more than a third of the men were drafted, though a number of the enlistees reported that they entered in order to avoid the draft. The remaining veterans either joined through membership in the Reserve Officers’ Training Corps on college campuses or enlisted. Nearly half of the World War II veterans had entered the war by the end of 1942. They served mainly in the Pacific (58%) with a fifth in Europe and Africa. Two-thirds of Korean War veterans entered after 1950, the year the war began, two out of five were assigned to only U.S. posts. Overall, the Army was the most common branch of service (44%), followed at a distance by the Navy (27%), and the Marines/Air Force (23%). Actual participation in combat was higher for the World War II veterans than for the Korean War veterans (60% vs. 20%). Psychiatric admission rates in both wars were highest for combat divisions.
(Appel, 1966), but they were generally lower for Korean War veterans owing to their shorter maximum time (about 9 months) in combat (Glass, 1957).

By using reports from the end of the life span, we lose information on men who left the sample through death or other circumstances. Previous analyses (Elder, 1974, 1979) have shown that the Oakland men and the Berkeley Guidance men at mid-life closely resemble the total sample of males in the adolescent years on family background. But how do they compare with men who did not enter the service? A recent comparison of veterans and nonveterans (Elder, 1986) shows no class difference. The primary difference involves psychological health. According to adolescent measures, boys who entered the service ranked below other men on adolescent goal-orientation, self-adequacy, assertiveness, and social competence.

**Toward a Measurement of Combat**

The traumatic stress of combat reflects the varied nature of this experience, from the identifiable front line which characterized most of the ground war in Europe during World War II and in Korea to the island warfare of the Pacific with its closer resemblance to the ambiguity and threat of Vietnam combat. Though studies of combat in World War II usually relied upon a single self-report item or used medal counts (e.g., Purple Heart, Bronze Star) as an indirect measure (see Stouffer, Suchman, DeVinney, Star, & Williams, Vol. 2, 1949), the preference now is for multidimensional characterization (Wilson & Krauss, 1985). For example, Laufer, Gallops, and Frey-Wouters (1984) have measured combat exposure using an additive scale of 10 discrete events that the veteran may have experienced such as the encounter of mines, exposure to fire, ambush experiences, and killing. Reflecting such thinking, we use a three-dimensional model of combat—exposure to killing and death either by action or by observation, exposure to incoming and outgoing fire, and duration of combat exposure.

Our approach borrows from the Vietnam studies and takes into account the limits of time and space in our 1985 follow-up of the Oakland and Berkeley men, women, and spouses (see Elder & Clipp, 1988). We assume that the trauma of combat is associated with major war stressors, in particular exposure to the dying, wounded, and dead, exposure to gunfire, and the duration of combat experience. As one Oakland veteran put it, "combat is the terror of being forced, against one’s free will, to kill or be killed." Twenty-two percent of the men claimed to have killed someone in battle, whereas about one-third were exposed to dead and wounded Americans on the battlefield. A fourth of the veterans reported such exposure to enemy casualties. We summed all responses to these items to produce a 3-point scale. The full details of this measure are presented in Elder and Clipp (1988).
The second dimension of combat is exposure to gunfire, either by firing a weapon or being fired upon. The last dimension is duration—how long a person served in combat. The men who reported being under fire were also likely to have fired their weapon \( r = 75 \). Sixty percent of the men reported at least one of the two conditions. We summed responses to the two items to produce a single index (scores 0–2). For the duration of combat, we relied upon a single question to form three groups: over 6 months’ exposure (score of 2), 1 week to 6 months’ exposure (score of 1), and less than 1 week’s exposure (score of 0).

The three dimensions of combat experience are highly intercorrelated \( (r \text{ values about } 70) \). We view combat severity on a continuum, though we chose to identify three groups of veterans (noncombatant, light, and heavy combat) based on a sum of their scores on three combat dimensions (i.e., kill, fire, and duration). Our rationale for this approach stems in part from the literature’s emphasis on heavy combat, and in part from our desire to follow both noncombatants and heavy combat veterans across the life course. Forty percent of the men were noncombatants, 30% were classified as light combat (scores 1–4), and another 30% (with scores of 5–7) experienced heavy combat.

In view of the higher rate of combat among World War II veterans, we carried out the above procedures only for veterans of this war and made comparisons to the total sample. The intercorrelation matrices of combat items in the two groups are very similar. Also, World War II analyses indicate that the effects of combat on psychological health are comparable to those reported in this study for veterans of both wars. Indeed, we found no major differences between the groups. For all of these reasons and the value of a larger sample, we chose to combine veterans from the two eras.

The model of combat experience is based upon retrospective accounts of combat. To what extent do we have a picture of the way combat was experienced some 40 years ago? This question is not answerable with the evidence at hand, though we were careful to use uncomplicated questions that focused on behavior rather than ones capable of stirring defensive or mnemonic distortions of fantasy (Masson, 1984). Is there a connection between men’s reports on combat experience and their later-life accounts of wartime influences, both negative and developmental?

**RESULTS AND DISCUSSION**

**Later-Life Accounts of War Influences**

What do veterans say about their service experience and its influence on their life? The 1985 survey noted that “life experiences often have some
mixture of the good and undesirable." From the literature and intensive interviews, we constructed a list of 13 positive outcomes and 14 negative influences of military experience. All veterans were asked to select the 3 most and 3 least desirable aspects of their experience. On the positive side, between 60% and 70% of the men selected "learned to cope with adversity," "self-discipline," "greater independence," and "a broader perspective." Half of the men also cited the benefits of "learned cooperation," followed by a third or less who selected "education benefits," "valuing life more," "positive feelings about self," "life-long friends," and "job skills," at the very bottom. Undesirable outcomes were less often selected by the veterans, but 3 stand out—the experience of a "disrupted life," the pain of "separation from loved ones," and a "delayed career" (between 40% and 50%). Less than 20% cited "combat anxieties" and the "loss of friends.

Adverse changes in life-style have little to do with the experience of combat, at least according to the recollections of these middle-aged veterans. The strain of being separated from loved ones during the war, a disrupted life, and career delays are evenly distributed in the life experience of men across the three categories. A noncombatant recalls how "wartime produced problems in my marriage because it was hard for my wife to be alone for a year with a two year old child." Similarly, a veteran of Korea recalled how separation from loved ones was the primary way that wartime influenced his life "It was very difficult. It made time together even more valuable." Not surprisingly, late mobilization for military service, defined by age, generally increased complaints about family stresses and career setbacks (Elder, 1987), regardless of combat experience.

By comparison, the deprivations and stresses of war are concentrated among the heavy combat veterans. Over half of these men recall combat anxieties, feeling miserable, and witnessing death, destruction, and the loss of friends. The trauma in these remembrances frequently involves the loss of human life. Even after four decades, memories of loss persist. "Today I have nightmares. Something will remind me of the men I killed and this will bring me to the point of tears" (Oakland veteran of World War II). Another veteran who took part in four amphibious landings in the South Pacific said "I still dream about walking ashore. It scares me and I wake up with the shakes. I can still smell it, the guys floating by me all bloated and the smell of cordite (smokeless explosive powder). In fact, I can close my eyes and feel that water up to my arm pits."
Table 2
Negative Recollections of Military Service by Combat Experience, in Percentages

<table>
<thead>
<tr>
<th>Negative effects of military service</th>
<th>Combat experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Family and career costs</td>
<td></td>
</tr>
<tr>
<td>Lonely for wife</td>
<td>16</td>
</tr>
<tr>
<td>Separation from loved ones</td>
<td>39</td>
</tr>
<tr>
<td>Disrupted life</td>
<td>43</td>
</tr>
<tr>
<td>Delayed career</td>
<td>39</td>
</tr>
<tr>
<td>Deprivations and stresses of combat</td>
<td></td>
</tr>
<tr>
<td>Combat anxieties</td>
<td>1</td>
</tr>
<tr>
<td>Waste of time</td>
<td>30</td>
</tr>
<tr>
<td>Misery</td>
<td>13</td>
</tr>
<tr>
<td>Bad memories</td>
<td>2</td>
</tr>
<tr>
<td>Death or destruction</td>
<td>1</td>
</tr>
<tr>
<td>Loss of friends</td>
<td>8</td>
</tr>
<tr>
<td>Drinking</td>
<td>4</td>
</tr>
</tbody>
</table>

Chi square: ns, 46 7*, ns, 33 3*, 13 7*, 57 2*, 23 8*, ns

*p < .01

There is another side of the legacy picture, a positive side involving the perceived advantages of military service. Keeping in mind that combat is a fairly restricted mode of experience, the veterans believe that it enhanced their coping skills, self-discipline, and appreciation for life's value. Heavy combat veterans emerged from war with the belief that they had learned to cope with adversity, a skill that would support them in life whenever faced with hard times. "I was on the front line, rescuing the badly injured and the dying, working long hours under the constant risk of being killed. I managed to show a good deal of courage and good judgment. For the first time in my life I knew I could handle extreme situations." (Berkeley veteran of World War II and Korea) These veterans also reported more often than others that the challenge of their situation instilled self-discipline, the ability to remain in control when others were "freaking out.

Self-discipline was especially beneficial to men on the front lines. In the words of an Oakland veteran, "when combat is intense you can only hope that all previous training has been absorbed by all men of the platoon—more lives are lost by men 'freaking out' than by enemy marksmanship." Another veteran of World War II, Korea, and Vietnam ob-
Table 3
Positive Influence of Military Service as Identified at Mid-Life by Combat Experience, in Percentages

<table>
<thead>
<tr>
<th>Valued legacies of military service</th>
<th>Combat experience</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None (N = 79)</td>
<td>Light (N = 31)</td>
<td>Heavy (N = 29)</td>
</tr>
<tr>
<td>Developmental benefits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broader perspective</td>
<td>63</td>
<td>74</td>
<td>71</td>
</tr>
<tr>
<td>Learned cooperation</td>
<td>53</td>
<td>52</td>
<td>54</td>
</tr>
<tr>
<td>Made lifelong friends</td>
<td>22</td>
<td>29</td>
<td>36</td>
</tr>
<tr>
<td>Learned to cope with adversity</td>
<td>43</td>
<td>68</td>
<td>86</td>
</tr>
<tr>
<td>Self-discipline</td>
<td>54</td>
<td>77</td>
<td>79</td>
</tr>
<tr>
<td>Independence</td>
<td>66</td>
<td>74</td>
<td>54</td>
</tr>
<tr>
<td>Attitudes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value life more</td>
<td>18</td>
<td>29</td>
<td>54</td>
</tr>
<tr>
<td>Positive feelings about self</td>
<td>39</td>
<td>45</td>
<td>25</td>
</tr>
<tr>
<td>Clearer sense of direction</td>
<td>20</td>
<td>45</td>
<td>32</td>
</tr>
<tr>
<td>Proud to be an American</td>
<td>30</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td>Positive memories</td>
<td>43</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>Options and skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job skills</td>
<td>27</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Education options</td>
<td>40</td>
<td>36</td>
<td>21</td>
</tr>
</tbody>
</table>

*p < .05
**p < .01

It served that "the military taught me discipline—to control my emotions and to think clearly despite the constant loss of replacements, to be able to stand any pressure."

Last, the men who fought in heavy combat are more likely to value human life than others less exposed to wars' atrocities (see Gal, 1986) "I developed a new sense of empathy after seeing the suffering of so many throughout the Pacific area" (Oakland veteran of World War II) Acknowledging a deeper appreciation for life, a Berkeley veteran thought it "comes about through experiencing deep friendship, trauma and death." Enduring ties to fighting mates who survive the war are especially common among veterans who suffered personal losses on the battlefield (Elder & Clipp, 1988) Overall, veterans in later life attribute both negative and positive influences to combat experience. Are these influences reflected in their current functioning?
The Enduring Effect of Combat

Heavy combat during World War II and the Korean War is coupled with a high risk of emotional and behavioral problems in the postwar life histories of veterans. Potential emotional problems include sleep disturbance, depressive symptomatology, irritability, anxiousness, difficulty concentrating, and anger. Potential problem behavior refers to problem drinking, feeling lost in the world, health problems, marital difficulties, and problems getting or holding a job. These risks diminish over time, though they continue into the middle years. Symptoms in later life include nightmares, flashbacks, depressed feelings, irritability, anxiousness, and hypersensitive startle reflex.

As in the subjective accounts, problems after the war are concentrated among the heavy combat veterans (Table 4). A fourth of these men report one or more current symptoms of posttraumatic stress, including intrusive memories. Only three other veterans made such a report. A retired Marine Lt. Colonel describes his problem today as "nightmares, at least once a month—they are so frustrating—also have depressed feelings was hospitalized in 1968 and 70 believe this came from military service." A Berkeley veteran of World War II admitted that "the military service totally screwed up my life I had a nervous breakdown that took me 20 years to get over—I became withdrawn, distrustful of others and a recluse It wrecked me emotionally."

Bad memories and combat anxiety emerge as the strongest negative effects for many veterans. This complaint applies to a third of the men with light combat experience and the three quarters of the heavy combat veterans. It is also the heavy combat veterans who, at age 55, are most likely to describe their battlefield experience as too painful to think about. Overall, the heavy combat veterans experienced a much higher risk of emotional problems after the service than their comrades with minimal or no fighting experience. Their postwar period is marked with some degree of anger, anxiety, irritability, sleep disturbance, and depression. In later life (age 55 or so), the legacy of stress symptoms and painful memories is still pronounced. Almost half of the heavy combat veterans have entered psychotherapy, possibly for war-related problems. Less than one third of all other veterans sought treatment of this kind, though this difference does not reach conventional levels of statistical significance.

These trends strengthen the conviction that combat experience increases the likelihood of emotional and behavioral problems that persist.
Table 4
Influence of Combat Experience on Psychosocial Functioning,
in Percentages

<table>
<thead>
<tr>
<th>Antecedents</th>
<th>Combat experience</th>
<th></th>
<th></th>
<th>Chi square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None (N = 79)</td>
<td>Light (N = 31)</td>
<td>Heavy (N = 28)</td>
<td></td>
</tr>
<tr>
<td>Problems at service exit&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional</td>
<td>15</td>
<td>19</td>
<td>54</td>
<td>17 7**</td>
</tr>
<tr>
<td>Behavioral</td>
<td>19</td>
<td>19</td>
<td>36</td>
<td>ns</td>
</tr>
<tr>
<td>Later life after age 55&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress symptoms still present</td>
<td>7</td>
<td>3</td>
<td>21</td>
<td>7 3*</td>
</tr>
<tr>
<td>Military experience too painful to</td>
<td></td>
<td></td>
<td></td>
<td>21 4**</td>
</tr>
<tr>
<td>think about</td>
<td>6</td>
<td>13</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> The percentage with reported emotional problems includes all respondents who cited one or more of the following symptoms: sleep disturbances, depressed feelings, being irritable/anxious, difficulty concentrating, and being angry. The category of behavioral problems includes problem drinking, feeling lost, health problems, marital difficulties, and problems getting a job.

<sup>b</sup> Includes one or more of the following symptoms: nightmares, flashbacks, depressed feelings, being irritable/anxious, startled easily. Acquired adaptive skills (two of three qualities at least) learned to cope with adversity, learned cooperation, greater self-discipline.

*p < 0.10
**p < 0.01

in later life. Do exit problems, so prevalent among heavy combat veterans, increase the risk of war trauma memories in later life? In other words, are memories of combat experience, especially those of war trauma, explained partly by a troubled exit? To answer this question we drew upon the 1985 survey to determine whether problems at exit correlate with subsequent memories. We regressed a positive account of war ("learned to cope") and a negative memory ("war trauma") separately on postwar adjustment problems with combat experience, age at service entry, and educational level defined as exogenous factors. "Learned to cope" is a single item from the 1985 survey also shown in Table 3. The "war trauma" index is a sum of four items in the 1985 survey (coded yes, no) pertaining to negative outcomes of war, as seen in later life. The items include combat anxieties, nightmares, misery, death, and destruction (see Table 2).

The results indicate that war memories of this kind have little to do with the nature of postwar adjustment. Exit problems influence trauma
memories more than memories of learning to cope (betas = .21 and .07), but neither effect is statistically significant. Exit problems offer minimal help in explaining accounts of war in later life. Moreover, these memories, both positive and negative, do not reflect stress symptoms at the 1985 follow-up. "Learned to cope" and "war trauma" are not reliably linked to current stress symptoms, such as disturbed sleep, intrusive memories, and irritability.

Another view of the veteran in middle age comes from their wives. Is this picture much the same for wives’ accounts? As part of the 1970 follow-up, veterans and their wives were asked to complete questionnaires that focused, in part, on mood and interpersonal style. Veterans rated themselves and wives rated their husbands using a checklist of personal descriptors (e.g., seldom angry, affectionate). Table 5 comparisons show both similarity and uniqueness in spouse ratings. Though most group differences are not statistically significant, the trends sketch an emotional profile of the heavy combat veteran.

Nearly three quarters view themselves as "warm" individuals. This adjective is used by less than half of the men in other combat groups. Similarly, the majority of heavy combat veterans’ wives describe their husbands as “affectionate.” These wives also describe their spouses as...
“seldom angry” yet “unaccepting of others.” Overall, patterns in the 1970 comparisons suggest that heavy combat veterans are relatively warm yet overly controlled. Block and Block (1980) describe the overly controlled personality as having excessive boundary impermeability, resulting in containment of impulses, feelings, and desires. As described by their wives, veterans in this sample show minimal expression of emotions such as anger. They were once in combat and know what it means to face threats to personal control.

All of the analyses up to this point are limited to self-report data in the adult years, and thus fail to take into account potential individual differences prior to wartime. Our best chance for bringing such differences into the study hinges on the use of clinical ratings from the California Q-sort (Block, 1971). Q-sort items for adolescence and age 40 on the male subjects, members of the Oakland and Berkeley Guidance Studies, are used to characterize seven dimensions of self-competency (Coan, 1974, Smith, 1968): goal orientation, feelings of self-adequacy, submissiveness, consideration for others, social competence, ego resilience, and helplessness. The first five measures are too loosely correlated to be included in a multivariate test. Instead, we use a repeated measures analysis of variance in which each veteran’s psychological functioning is traced from before the war as adolescents to postwar adulthood. The remaining indexes include a much larger number of items, including some from the other scales. What are the effects of time and combat?

The first question concerns initial differences prior to military service. Did combat roles perhaps through their male appeal attract the least or most competent adolescents? There are some differences in the direction of incompetence, especially on ego resilience, but they are too small to be statistically significant. Our most important finding by far centers on changes over time among the heavy combat veterans (Table 6). They show marked changes between adolescence and mid-life, and they do so relative to the other groups. Consider goal orientation. Veterans of heavy combat became more goal-oriented up to mid-life than other men, a finding that generally corresponds with the self-report data in Table 3. A third of the veterans refer to “a clearer sense of direction” as one of the values gained from their service experience. Consistent with this outlook is their unusually pronounced gain in assertiveness after adolescence.

Men who served in heavy combat became far more assertive and resilient up to mid-life, when compared to veterans with light or no combat. The degree of change is striking. Ranked at the very bottom of these
Table 6
Clinical Ratings of Psychological Functioning in Adolescence and Age 40 by Combat Experience Among Veterans of World War II and the Korean War Repeated Measures Analysis of Variance

<table>
<thead>
<tr>
<th>Q-Sort measure, all ranges 1–9</th>
<th>Combat experience</th>
<th>Statistical components</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( M_{\text{NONE}} )</td>
<td>( M_{\text{LIGHT}} )</td>
</tr>
<tr>
<td>Goal-oriented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>5.6</td>
<td>5.0</td>
</tr>
<tr>
<td>(age 40)</td>
<td>6.1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-inadequacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>4.9</td>
<td>4.7</td>
</tr>
<tr>
<td>(age 40)</td>
<td>4.7</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submissiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>5.4</td>
<td>4.8</td>
</tr>
<tr>
<td>(age 40)</td>
<td>4.2</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consideration for others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>5.0</td>
<td>4.7</td>
</tr>
<tr>
<td>(age 40)</td>
<td>5.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Social competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>4.8</td>
<td>5.0</td>
</tr>
<tr>
<td>(age 40)</td>
<td>5.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Helplessness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>5.0</td>
<td>4.9</td>
</tr>
<tr>
<td>(age 40)</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Ego resiliency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>5.2</td>
<td>5.0</td>
</tr>
<tr>
<td>(age 40)</td>
<td>5.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Minimum number of cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescence)</td>
<td>36</td>
<td>14</td>
</tr>
<tr>
<td>(age 40)</td>
<td>35</td>
<td>14</td>
</tr>
</tbody>
</table>

\( a \quad C = \) combat, \( T = \) time

\( *p < 0.05, **p < 0.01 \)
qualities prior to entry into the service, their mid-life rank is higher than
the other two groups. The subjective data (Table 3) provide clues to this
dramatic change. When looking back over their life and war experience,
the men who survived heavy combat claimed more often than others that
they had learned to cope with adversity, a legacy which continued to em-
power them in difficult situations. Serious problems often seemed insig-
nificant when compared to the trauma of intense and constant shelling.
To return "whole or not at all" proved sufficient reason for gratitude to-
ward life itself, however difficult.

Are the resourceful men with a history of heavy combat least likely to
report symptoms of posttraumatic stress? From all angles, we find no
reliable difference on ego resilience between veterans who vary on re-
ported symptoms of combat stress (none vs one or more). The symptom
group includes all heavy combat veterans who reported any current
symptoms of combat stress (anxiety, sleep disturbance, intrusive mem-
ories, etc.) and painful memories of military experience. We compared
this group with a symptom-free group and found no difference at all be-
tween mean scores on ego resilience and helplessness by mid-life.
Clearly, veterans who are still suffering from war stress are not neces-
sarily less resilient than the symptom-free.

A good many veterans of World War II and the Korean conflict in this
study tend to view combat from this dual perspective. Combat is remem-
bered for its destructiveness and trauma, and also for the comradeship,
exhilaration, and lessons for living. Likewise, Israeli veterans of the
Yom Kippur War (1973) reported both positive and negative effects of
the fighting. Gal (1986, p. 225) notes that the main positive effect in-
volved "reevaluation of one's personal values and priorities in life which
frequently resulted in a greater maturity as evidenced by a greater appre-
ciation of life."

Up to this point, we have assessed the effects of combat experience
apart from other plausible influences. For example, men who entered the
service at a relatively young age may have been especially vulnerable to
combat trauma and to fundamental change in the course of their lives.
By contrast, later entrants in World War II are apt to view the service as
more disruptive than beneficial in their lives (Elder, 1987). Another fac-
tor which tells something about competence and perhaps resilience as
well is education. Does combat experience have an effect when other rel-
evant factors are included in a regression model?

Using the simultaneous regression model in Table 7, we find that ex-
posure to heavy combat increased the likelihood of ego-resilient behavior
Table 7
Psychological Functioning at Age 40

<table>
<thead>
<tr>
<th>Factors</th>
<th>Ego resilience (N = 53)</th>
<th>Helplessness (N = 53)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>b</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 = college grad,</td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td>0 = not college grad)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat experience</td>
<td>20</td>
<td>29**</td>
</tr>
<tr>
<td>(heavy = scores 5-7,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not heavy = scores 1-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at entry</td>
<td>-35</td>
<td>-20</td>
</tr>
<tr>
<td>Adolescence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helplessness</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>(1 = low, 9 = high)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$R^2 = 27$  
$R^2 = 16$

*p < 0.10
**p < 0.05

at mid-life after the influence of all other factors are statistically controlled (beta = 29). Age at entry made less difference in men's psychological resilience. The explained variance is 27. Similar results were obtained from an analysis of a sense of helplessness in adulthood. Combat diminished the sense of helplessness among veterans at mid-life when the effect of the other variables specified in the analysis were statistically controlled.

Veterans in this study did not come to their war experiences with similar histories or dispositions. Some were more resilient and goal-oriented than others before combat. Differences of this sort often determine the particular meanings or representations men place on their wartime experiences. Posttraumatic stress disorder can develop in any person, given a stressor of substantial strength and duration, but men of different experience and background respond uniquely to adversity. Indeed, Hendin and Haas (1984) conclude from their studies of Vietnam veterans that "who the veteran was before combat is highly significant, and sometimes decisive, in shaping the way in which posttraumatic stress disorder develops" (p. 37).

Heavy combat is the critical stressor of relevance in our analysis and so we divided these veterans at the median on ego resilience in adolescence. We compared the two groups of heavy combat veterans on emo-
ional and behavioral problems after the war—low and high resilience. Current symptoms of combat-related stress were too rare to permit analysis. With due caution for the small number of heavy combat veterans in this study, the comparison underscores the adaptive relevance of ego resilience in stressful circumstances. The least resilient men (classified before combat) were more likely to have experienced both emotional and behavioral problems after the war, when compared to the men who scored high on precombat resilience (83% vs 17%). Adolescent males who were judged to be "at risk" (i.e., clinical ratings of low resilience) were also less able to survive combat without impairment. The higher-risk group in adolescence remains markedly less resourceful into the middle years ($t = 3.36, df = 7, p = .05$) when compared to the low-risk group. Unfortunately, the sample is too small to actually model this interaction.

Another view of individual differences comes from educational achievement, both before and after combat. Earlier work (Elder, 1974, Elder & Rockwell, 1979) shows that education stands out above other transitions as a critical line of demarcation between achievement and continuing disadvantage. Men who entered military service at an early age in World War II or the Korean War were generally less well educated than the men who were mobilized at a later age (Elder, 1986, 1987). No such differences appear in relation to combat experience. We find that about the same percentage of men from each combat group had some college training prior to entering the service. Likewise, combat experience is not linked to father's education. However, the educational picture changes after the service. Data trends suggest that the greater the combat, the greater the educational disadvantage, other factors being equal. Half of the heavy combat veterans completed a college education, in comparison to slightly more than 70% of all other veterans.

With access to higher education available to all younger veterans through the G.I. Bill, completion of college in the postwar era signifies an effective adaptation to the realities of civilian life. This accomplishment can be appreciated when we compare the life experience of heavy combat veterans on level of education. The college-educated were less apt than other men to have emotional and behavioral problems, but the difference is too small to be statistically significant. Comparing the groups over time, we find that the college graduates tended to gain more on ego resilience, a difference between means of 1.65 versus 0.59 (not statistically significant, $N$ is too small). In this heavy combat group, the college-educated also became far less oriented toward helplessness than
men with less education. In the aftermath of combat, then, college graduation tells us much about health and well-being. A good many of these men were also judged resourceful adolescents.

**CONCLUSION**

Traumatic experience in early life may produce enduring behavioral consequences across the life course. Some may become more pronounced over time or resurface in the midst of the personal losses of retirement and old age. Such legacies from the past represent one of the most compelling reasons why military and war experience should be examined in the life histories of aging veterans. These histories are becoming increasingly more common in the aged population of American males. The older veteran population will triple in size by the year 2000. A substantial number of these men "saw action" in which massive destruction, personal injury, and the death of comrades and friends were commonplace.

Studies have traced the influence of such experiences into the immediate postwar era, but little is known about their long-term effect. As in the case of life events generally, short- and long-term effects may impair or actually enhance personal growth. The same event can produce both types of consequences over the life course. But why do some veterans develop problems from their war experience whereas others with similar experience seem more resilient? To investigate such questions we turned to the combat histories and emotional health of a small cohort of American veterans ($N = 149$, birth years in the 1920s) who served between 1940 and the mid-1950s.

A study based on archival data inevitably faces a disparity between ideal models and actual possibilities. Options in terms of design, measurement, and sample size are constrained by past decisions made in different intellectual cycles. These limitations are balanced, however, by the true longitudinal nature of the data, relatively careful measurement at each time point, and relatively little attrition. Small sample size precluded definite tests of hypotheses in several analyses. We still place priority, however, on the patterning of relationships and offer the necessary caveats regarding generalizability. In other analyses, statistically significant findings suggest sizable effects.

Two major questions receive attention in this research. The first concerns the subjective experience or meanings of combat that veterans hold in later life, with particular attention to how such accounts are linked to
the severity of combat and postwar adaptations. The second question links the actual psychological functioning of veterans, including ego resilience before the war and in later life to these subjective accounts and to combat experience. We are able to provide only limited exploration of individual differences, given the available data, yet the findings outline important considerations for studies of combat experience in lives.

Considering the nature of combat, we had good reason to expect negative assessments of military service and combat in life reviews. Indeed, most events are viewed as stress-related changes in the life-event literature. Following the early work of Hans Selye (e.g., 1956), investigators generally link stressful experiences with pathogenic effects. Breznitz and Eshel (1983, p. 236) vigorously take issue with this simplistic perspective by noting that "learning theory broadly defined as well as common sense maintain that past experience, painful as it may be, is a necessary condition for better adjustment in the future, and for improved coping with the stress of life." As in the work of Gal (1986) and others, our data show that both pathogenic and developmental outcomes are associated with the experience of combat in World War II and the Korean conflict. The different outcomes and their trajectories have much to do with what men brought to military service and war, especially the quality of resilience.

We find that men in later life believe that both good and bad came from their military experience. Aspects of developmental maturity emerge as the main reward of service involvement, whereas life disruptions ranked highest on costs. Heavy combat veterans, the target group, believe their experience engendered valuable coping skills, self-discipline, and an increased appreciation of life. The down side of this legacy involves searing memories of personal loss and immobilizing fear. Combat anxieties and nightmares often extend into the later years. Interestingly, we find no connection between veteran accounts of wartime (positive or negative) and exit problems or stress symptoms in later life.

Why are memories of combat experience independent of adjustment patterns? Consider the difference between combat memories and "reliving the experience." Men in the 1985 follow-up were asked to provide subjective accounts of their war experience. Recollections were negative and positive, reflecting the capacity to experience pain and growth from the same event."Reliving the experience," on the other hand, is not usually voluntary—it is suddenly acting or feeling as if traumatic combat events were reoccurring in civilian life (Hendin et al., 1984), a symptom
listed in DSM III-R because of its significance in posttraumatic stress disorder. Most memories described by veterans in this study were not pathological and, on average, were much less distressing than a reliving episode.

Dramatic long-term effects of war do emerge in comparisons of pre- and postwar psychological functioning, including measures of ego resilience and helplessness. Compared to other men in the sample, heavy combat veterans become significantly less helpless and more resilient between adolescence and mid-life, possibly reflecting the adaptive potential of the more resilient recruits and requirements of survival under combat stress. But the more resilient veterans at mid-life are not necessarily symptom-free in terms of emotional distress and impairment. Indeed, we find no difference between the mid-life resilience of veterans who report and do not report symptoms in the 1985 survey. The men's prewar life histories enable us to identify levels of vulnerability to symptoms of post-traumatic stress among those who served in combat. Emotional problems were more prevalent among men who ranked below average on ego resilience in adolescence. These patterns suggest that ego resilience is an important psychological resource which can be developed by successfully meeting adverse conditions such as combat.

Assignment to combat experience is not a purely random operation. For example, all measures in Table 6 suggest that men who subsequently experienced heavy combat may have been less resourceful (e.g., more submissive, less socially competent) than men with minimal or no combat. Though not statistically significant, this trend opens the possibility that more maladjusted adolescents were likely to assume military positions of greater risk on the front lines. If so, we cannot merely attribute postwar maladjustment to the experience of combat. Rather, it appears that men bring a range of psychological resources to the service, some accentuate the deleterious effects of combat while others (e.g., ego resilience) protect and enhance postwar healing. It is an open question as to whether initial maladjustment self-selects individuals into dangerous roles. Sample limitations prevent our full consideration of the interplay between men's life histories and their combat experience.

Psychologists now recognize that interactional models of this kind are needed to describe the adaptational process in studies of posttraumatic adaptive behavior (Figley, 1985, Green et al., 1985, Horowitz, 1986, Lazarus, DeLongis, Folkman, & Green, 1985). Ideally, this model includes characteristics of the veteran (e.g., prerecruit personality, aspects
of life history, coping strategies), some measure of the trauma (e.g., severity and duration of combat), and social/historical variables (e.g., context of war, homecoming experience) as potential influences on postwar behavior. Such models show how the effects of combat can be moderated or accentuated by personal and contextual influences and should enable us to better explain why some veterans develop enduring stress symptoms from their war experience whereas others with similar experience are more resilient. Michael Rutter (1985) observes that

the quality of resilience resides in how people deal with life changes and what they do about their situations. That quality is influenced by early life experiences, by happenings during later childhood and adolescence, and by circumstances in adult life. None of these is in itself determinative of later outcomes but in combination they may serve to create a chain of indirect linkages that foster escape from adversity (p. 608).

A thorough study of combat experience in the lives of veterans must specify the events, social roles, status changes, and psychological patterns that link combat in young adulthood to adaptation in later life, a time span that extends across four decades or more. The proximal effects of combat may be expressed in social relationships and task experiences that have consequences of their own. Among returning veterans, a tense, irritable, and moody interpersonal style may undermine attractive options for stable family and work roles, thereby establishing a high-risk environment for effective emotional health. With suggestive indications of both pathological and developmental effects of combat, we must turn our attention to the complex linking process through which they persist across the life span. A genuine life-course study of combat experience represents the major challenge in this field of personal continuity and change.

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