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Author Manuscript

*Res Hum Dev.* Author manuscript; available in PMC 2013 July 01.

Published in final edited form as:

*Res Hum Dev.* 2012 July 1; 9(3): 248–271. doi:10.1080/15427609.2012.705558.

## Men's Appraisals of Their Military Experiences in World War II: A 40-Year Perspective

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### Abstract

Using data on veterans from the longitudinal Harvard Study of Adult Development (N=241), we focused on subjective aspects of military service. We examined how veterans of World War II appraised specific dimensions of military service directly after the war and over 40 years later, as well as the role of military service in their life course. In addition to examining change in appraisals, we examined how postwar appraisals of service mediated the effects of objective aspects of service, and how postwar psychological adjustment and health mediated the effects of postwar appraisals, on later-life appraisals. Men's appraisals at both time points were generally, but not highly, positive, and revealed remarkable consistency over four decades. Postwar appraisals strongly predicted later-life appraisals and mediated the effects of objective service variables. The effects of postwar appraisals were not carried forward through psychological adjustment or midlife health. Better adjustment, however, was negatively related to later-life appraisals. Results reinforce the idea that how men perceive their military experiences may be more important in predicting outcomes than the experiences themselves. Results are discussed in light of the sample characteristics, the historical context of World War II, and the complexities of appraisal and retrospection.

### Keywords

lifespan; aging; history; meaning-making; coping

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This paper examined how a group of male veterans of World War II appraised military service immediately after the war and again, 40 years later, as well as how they evaluated the role of wartime service in their life course. Much research has focused on tracing the effects of wartime service on the objective outcomes of veterans and their families. Our hope is to instead turn much-needed attention to understanding subjective aspects of military

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service and their possible connections to aging and life-course outcomes. Emerging evidence suggests that how men perceive their military experiences may be more important than the experiences themselves in predicting the health and wellbeing outcomes of service. Coming to terms with wartime service—whether one was exposed to danger or participated in combat, or had more general roles and responsibilities in human warfare—is a developmental issue in its own right.

Military service during wartime marked the lives of many Americans in the twentieth century (MacLean & Elder, 2007; Settersten, 2006). Indeed, the centennial of the onset of World War I is nearly upon us. But it was after World War II that a strong tradition of research began in the psychological, social, and medical sciences. The needs of the military prompted major methodological advances in assessment and diagnosis, and the experiences of self and society prompted major theoretical advances in understanding change, adaptation, stress and coping.

The earliest longitudinal studies of human development that began in the early decades of the twentieth century became natural laboratories for studying the effects of war and other rapid social change on human lives. Research on aging, in particular, would have to confront the claims of history, as understanding how individuals and cohorts moved through old age would require accounting for a long lived past. This requirement posed a general challenge for developmental science: the need to probe what C. Wright Mills (1959, p. 7) called the intersection between biography and history—that “neither the history of the person nor the history of the society can be understood without understanding both.” Wars are a significant part of those histories.

Since World War II, the U.S. has been engaged in other major conflicts, including the Korean War, Vietnam, the Gulf War, and Operations Iraqi Freedom (OIF) and Enduring Freedom (OEF). Where wartime has been under study in the field of aging, attention has naturally focused on World War II and, to some degree, the Korean War. This is because much science on late life stems from cohorts born early in the last century, cohorts called in large proportions to serve in these wars. In fact, 60% of veterans of World War II were born between 1918 and 1927 (they are now between the ages of 85 and 94), and within this bracket, fully three out of four men served (Settersten, 2006). To date, there has been remarkably little attention to wartime and military service as “hidden variables” (Spiro, Schnurr, & Aldwin, 1997) that may exert profound effects on men’s aging.

The study on which this article is based is a good example. The 71-year-long Harvard Study of Adult Development has tracked the entire adult lives of men from the Harvard classes of 1940 through 1944. Virtually all of these men (90%) served in World War II. Many groundbreaking ideas related to mental health, adaptation, ego development, and healthy aging have come from this study, and yet little explicit attention has been paid to how its findings might carry the imprint of wartime experiences, whether objective or subjective (for a recent exception, see Ardelt, Landes, & Vaillant [2010]).

## Appraisals of Wartime Military Service

As suggested above, how veterans frame and evaluate wartime service determines the meaning and importance of their experiences in their lives. To paraphrase W. I. Thomas’s (1928, pp. 571) famous dictum of the definition of the situation: if veterans define situations as real, they are real in their consequences. For Thomas, this meant that behaviors are guided by individuals’ perceptions of situations and not by objective circumstances, if those are even known.

Appraisal processes have long been central components of models of stress, adaptation, and coping (e.g., Aldwin, 2007; Lazarus, 1991; Lazarus & Folkman, 1984; Pearlin & Schooler, 1978). For example, the severity of environmental demands, and the availability of resources to cope with those demands, influences whether and how an individual deems a situation to be stressful (Aldwin, 2007). Similarly, whether and how an adverse situation results in adverse outcomes depends on the effectiveness of an individual's strategies for coping with that stress (Pearlin & Schooler, 1978). Appraisals and coping are also influenced by the context of the stressor (Aldwin, 2007). For example, a substantial number of those in the armed forces are trained to experience combat, and they have formal and informal resources, including services and support networks; these may minimize negative appraisals and facilitate coping.

In the case of veterans, appraisals of military service have important implications for how men adapt to life after service. It is unusual, however, for studies to investigate the subjective aspects of military service. (Indeed, many major secondary data sets do not even have data on objective aspects of service beyond veteran status, if that.) Nonetheless, recent research findings regarding appraisals of military service and coping strategies are consistent with the idea that it may not be military experiences themselves that matter as much as how men assess their experiences (see also Jennings, Aldwin, Levenson, Spiro, & Mroczek, 2006). For example, an empirical analysis of studies on meaning-making related to war experiences found that most veterans report more positive than negative outcomes, which is associated with better psychological adjustment (Schok, Klebar, Elands, & Weerts, 2008). Similarly, among veterans from the Berkeley Guidance and Growth Studies and the Oakland Growth Study, those who experienced heavy combat in World War II were most likely to report being more resilient and had better emotional health outcomes later in life—if they also had more positive appraisals of their combat experiences (e.g., if they viewed combat as a growth experience that made them stronger; Elder & Clipp, 1989). As another example, veterans of the Vietnam War who appraised their military experiences positively displayed fewer PTSD symptoms than those who gave negative evaluations (e.g., Dohrenwend, Turner, Turse, Adam, Koenen, & Marshall, 2007; Dohrenwend, Neria, Turner, Turse, Marshall, Lewis-Fernandez, & Koenen, 2004; Feder, Southwick, Goetz, Wang, Alonso, et al., 2008), a trend also found among veterans of World War II and the Korean War (Aldwin, Levenson, & Spiro, 1994).

While research on recent conflicts such as OEF and OIF cannot yet address long-term consequences of military service, here too the effects of appraisal can already be seen. For example, consistent with literature from earlier wars, appraisals of combat have been found to be better predictors of PTSD than combat itself, and appraisals of combat can mediate the relationship between serving in combat and psychological distress (McCuaig Edge & Ivey, 2012), both during and shortly after service (Bush, Skopp, McCann, & Luxton, 2011).

How veterans appraise their wartime service therefore shapes how it is integrated into the existing life course and the potential legacies it might bring with time, but much remains to be learned. The database from the Harvard Study of Adult Development offers the opportunity to examine both specific and general appraisals of military service in World War II that are unparalleled in breadth and depth relative to other data sources.

## Research Questions

1. How did veterans of World War II evaluate specific aspects of their service (e.g., adjustment to military life, pride in their unit) immediately at the close of the war, when they were in their mid-to-late 20s? How did they reevaluate specific aspects of service 40 years later, in their mid-to-late 60s?

2. Do objective aspects of military service predict both postwar and later-life appraisals of service? Are the effects of objective aspects of military service on late-life appraisals also mediated through postwar appraisal?
3. Are the effects of early appraisals on later-life appraisals mediated through postwar psychological adjustment and health?
4. From the vantage point of later life, how did men assess the role of wartime service within the life course (e.g., where service ranked with respect to best period of life, whether it was a turning point in life, or whether they maintained meaningful service-based friendships)? And again, is there evidence for the dynamics related to mediation noted above?

## Methods

The sample for this study was drawn from the college cohort of Harvard Study of Adult Development (or “Grant Study”), a group of 268 undergraduates chosen from the Harvard College classes of 1940 to 1944 (Vaillant, 1977, 2002) for their mental and physical fitness based on their deans’ evaluations (Heath, 1945). These men were born between 1915 and 1924 (71% were born between 1920 and 1922) and graduated from Harvard between 1939 and 1944 (20%, 29%, 25%, and 21% graduated in 1941, 20%, 29%, 25%, and 21% graduated in 1942, 20%, 29%, 25%, and 21% graduated in 1943, and 1944 respectively). In 1946, they ranged in age from 22 to 31, and were an average age of 26 (71% were between 24 and 26).

Members of the study were examined during their sophomore years by an interdisciplinary team of internists, psychiatrists, psychologists, and anthropologists. In 1946, after World War II had ended, an extensive questionnaire was sent to all 224 surviving men who served in the military. Shortly thereafter, an in-depth interview was also conducted, and major interviews followed when the men were about 30, 50, and 85 years old. Men in the study were contacted every other year, and medical records were obtained on all men every 5 years from age 45 on. The analyses in this paper are based on data drawn from the initial 1946 questionnaire as well as a comprehensive follow-up questionnaire with retrospective accounts of military experiences in 1988, when most (71%) of the men were between the ages of 66 and 68. For information on health and psychological adjustment, data were drawn from the larger archives, not restricted to the two questionnaires discussed above.

The World War II military experiences of the Grant men are illustrated in Figure 1. Our analyses are based on reports from 241 veterans, from a total sample of 267 that included 26 non-veterans. Of the 241 veterans, 159 served overseas and 73 served on the home front. Of the 159 who were stationed abroad, 109 reported being overseas with danger and 48 reported no danger (levels of danger will be described below). Of the 109 who saw danger, 62 were in the Pacific and 38 in Europe (nine were in unknown locations). Of the 48 men who saw no danger, 27 served in the Pacific and 17 in Europe (five were in unknown locations).

Although the men served in all branches of the military, most were enlisted in the Army and Navy. Specifically, 88 were enlisted in the Army, 100 in the Navy, 28 in the Air Force, 4 in the Marine Corps, and 3 in the Coast Guard. The participants also typically served in high-ranking positions, with 94% serving in positions of sergeant or higher. All but one man served between 1 and 6 years, with an average of 3.2 years, with one additional participant serving for 14 years.

## Dependent Variables

**Appraisal of specific aspects of military service: 1946, 1988**—Two summary measures of appraisal of service are central to our analyses: one from 1946, immediately after the war; and one from 1988, over forty years later. Using eight items from the 1946 questionnaire, we conducted a factor analysis for a variety of evaluations of specific aspects of military service. Of these items, three of particular interest—eagerness to join the service, adjustment to service, and pride in their outfit (unit)—strongly loaded onto a single factor. Two—*adjustment to military service* and *pride in military unit*—were among the three items from this set that were also included in the 1988 questionnaire. We therefore focus most of our attention on these two items, and a summary measure that combines them, because we could examine them across 40 years. One other item, *relationships with service mates*, was asked in both 1946 and 1988. Because it did not load with the other 1946 items, it was not included in the summary measure for either time point. It will, however, be used in our descriptive portrait, along with *eagerness to join the military*, *reaction to danger*, *(lack of) boredom in military service*, *desire for work*, and *fit with assigned duties*, which will be described below.

The 1946 items were all on scales from 1 to 7, ranging from the most negative to the most positive evaluations. For adjustment to military service, the response categories ranged from “never adjusted” to “took to military life like a duck to water”; and for pride, from “complete dislike and contempt” to “overwhelming pride” in the unit. In 1988, however, one of the items (pride in military unit) was on a scale from 1 to 6. The value labels were the same; the two bottom categories had simply been collapsed. We therefore adjusted the other items so that they were identical in 1946 and 1988. This operation permitted explicit analyses of change and ensured their equal contribution to a summary index. For pride in military unit, 1946, we collapsed the bottom two categories (“complete dislike and contempt for outfit,” which had only two respondents, with the next category, “generally disliked and had no respect” which had only six respondents). Similarly, we collapsed the bottom two categories of adjustment to military service (“never adjusted, in constant conflict with military life; did everything possible to get out,” which in 1946 and 1988 had only 1 respondent, with the next category, “poor adjustment; disliked military life,” which in 1946 had only 5 respondents and in 1988 had none).

We then created two summary measures of *appraisal of military service: 1946 and 1988*, which have a theoretical range of 2 to 12. For ease of interpretation, we rescaled these variables to range from 0 to 10.

We also created three variables to explicitly measure how men’s evaluations changed over time: *change in evaluation of adjustment to military service*, *change in pride in military unit*, and *change in appraisal summary scores* from 1946 to 1988. Because the items are identical, we subtracted the 1946 scores from the 1988 scores. For adjustment to military service, change scores range from –3 to 2; for pride of military unit, from –3 to 3; and for the summary appraisal measure, from –4 to 5.

**Evaluation of military service within the life course**—Three evaluations about how the Grant men perceive military service in terms of its place in the life course were included in the 1988 questionnaire. They are: (1) how men ranked *military service in relation to the best periods of their lives* (“Considering the very best periods of your life, where would you place military service? Responses range from 0, “one of the worst” to 10, “the best”); (2) whether men thought of *military service as a turning point* in their lives, a time when “life events can change the direction and quality of our lives” (responses categories were “yes, to some extent,” “yes, definitely,” or “no,” and we collapsed the two “yes” categories and created a dichotomous variable [1, “yes”; 0, “no”]); and (3) the *maintenance of relationships*

*with other veterans*, a measure that asked whether men kept in touch with very close or casual friends from their service days (we combined “yes” responses for “casual” and “close” friendships and created a dichotomous variable [1, “yes”; 0, “no”]).

## Independent Variables

**Objective aspects of military service**—We use three objective measures of military service: highest *level of danger* (high, low, or none), *service length*, and *service location*. It is difficult to find consistent measures of combat across various branches of the military. To build more adequate measures of danger for comparisons across branches, Monks (1957, p. 96) used data on these men to develop a hierarchy of “danger level,” which combined levels of danger with the length of time spent at those levels. Monks found this a stronger and more sensitive measure reflective of the range of danger that occurred in the different branches. This sliding scale ranged from a high of 7, which “represented danger at the height of action with the enemy,” down to a rating of 1, which “represented complete absence of war-caused danger.”

We used the three uppermost values, which tap more direct danger, to establish dummy variables to indicate the presence of *high level of direct danger* (levels 6 to 7) or *low level of direct danger* (level 5), with the reference category reflecting *negligible or no direct danger*. Men who served stateside were coded as not experiencing danger. To illustrate the continuum of danger, consider the case of infantrymen. For them, “high” direct danger involved being in “sustained or heavy enemy action by land, sea, or air forces which are on the offensive or defensive/being shelled heavily/very hazardous patrols” (level 7) and being in “light or sporadic enemy action/pursuit of warfare with light opposition patrols/bomb disposal personnel at work under noncombat positions” (level 6). In contrast, “low” direct danger involved being “not in action but contact with enemy opposition imminent/in pursuit of warfare without opposition/period just before hazardous mission” (level 5).

The final objective measure included in all models, *service length*, was calibrated in years. Dummy variables based on service location—*Pacific*, *Europe*, and a reference category of *stateside*—were also used in some models.

**Postwar psychological adjustment** is based on physician ratings (by Clark Heath, M.D.) of clinical material on the study participants in the 5-year period after the war, from 1946 to 1951, when most of the men were in their late 20s or early 30s. It included 5 categories: 1, “Exceedingly stable, well integrated and feels secure within himself; usually very adaptable; may have many achievements and satisfactions”; 2, “Sound and well integrated, with only occasional inconsequential conflict or weakness in his makeup”; 3, “Overall well integrated, but life somewhat hampered by minor conflicts or feelings of insecurity or instability”; 4, “Lack of good personality integration; either erratic, mildly neurotic, rigid, or unstable enough to curtail productiveness and happiness in life”; and 5, “Poorly integrated personality; either erratic, unstable, rigid, or quite definitely neurotic; activities greatly hampered by these characteristics; may have many failures in his life; possible mental illness.”

Because the distributions were again somewhat skewed, we collapse the two most positive categories into 1, “occasional inconsequential conflict or weakness through exceedingly stable,” and the remainder into 0, “minor conflicts or feelings of insecurity or instability through possible mental illness.”

**Midlife health**—To account for health after military service, but before the onset of normative declines associated with aging, we use *health at age 55*. This provided a midpoint window into health well after the war but a little more than a decade before our later life

outcomes. Estimates of physical health were made using blind ratings determined by an internist with no information about the study member except for physical health data from the 5 years prior to assessment. Participants were assigned a 1 if they were in “good health” (minor episodic illness); 2, if they had “minor health problems” (minor chronic illnesses with minor symptoms without functional impairment and well-controlled risk factors for cardiovascular disease); 3, if they had “chronic illness without disability”; and 4, if they were “chronically ill with disability and/or restricted activity.” Because the distributions were so positively skewed, we created a dichotomous variable with “good health” (category 1 above) being 1 and the remainder collapsed into 0.

Table 1 contains descriptive information on the core dependent and independent variables, and the Appendix contains the bivariate correlations among the dependent variables and between the dependent and independent variables.

### Analytic Strategy

The full model we tested, with mediations, is depicted in Figure 2. Consistent with Baron and Kenny’s (1986) recommended strategies for defining mediated models, we followed an iterative process. Baseline models were first run to test for potential direct relationships between all independent variables, mediators, and outcomes. These were then followed by a series of regression models that phase in subsequent variables based on their temporal location in the model.

In the case of our model, we first separately investigated the direct relationships between later-life appraisals and (1) objective aspects of service, (2) postwar appraisals, (3) postwar psychological adjustment, and (4) midlife health. From there, we built the model iteratively, first adding postwar appraisal of service, then adding postwar psychological adjustment, and finally adding midlife health.

We ran these iterations to investigate two important possibilities suggested in the literature: first, that the effects of objective aspects of service on later-life appraisals of service might be mediated through postwar appraisals of service; and second, that the effects of postwar appraisals of service on later-life appraisals of service might be mediated through men’s subsequent psychological and physical states. We only present the results of the final model in our tables, but we report mediation effects where appropriate in the text. All analyses were conducted using STATA IC 12.

## Results

### Forty-Year Portrait of Appraisal of Military Service

Figures 3 and 4 provide a descriptive portrait of men’s appraisals of aspects of service, as well as the summary measures, one immediately after World War II in 1946 and the other over 40 years later in 1988. In the stacked histograms, the bottom bar shows the percentage of men who provided very positive responses (top two categories), and the top bar adds generally positive responses (top three categories) on each 7-point measure (for the summary measures, which are on 10-point scales, very positive responses are between 8 and 10, and generally positive responses are between 6 and 10).<sup>1</sup> That is, the bottom bar is a subset of the top bar. We present the percentages in this way because the story changes dramatically when one slightly enlarges the definition of a “positive” evaluation.

<sup>1</sup>Only pride in outfit, 1988, was on a 6-point scale, because the bottom category from the 1946 measure (“complete dislike and contempt for outfit”) was not included as a response category in the 1988 measure. Yet even the bottom category of the 1988 measure (“generally disliked and had no respect”) had only two individuals, so it is unlikely that a substantial number of participants would have chosen the eliminated category had it been included. We therefore still include the percentages for the top three responses.

The three top positive response categories for the items included in our models are as follows: For *adjustment to military service*—1, “took to military life. Considered making it a career;” 2, “easily adjusted to military life. Enjoyed it while war was on;” 3, “adjusted fairly easy. Satisfied with military life while war was on.” For *pride in military unit*—1, “overwhelming pride in belonging to what subject considered the ‘best outfit’ or ‘best ship’ in the service;” 2, “great pride in good outfit or ship;” 3, “moderate pride.”

The top three categories for variables included as part of our descriptive portrait are as follows: For *relationship with peers*—1, “got on superbly with outfit. Became center of group;” (2) “excellent relationships with everyone in own group. No friction with anyone;” 3, “good relationship with own group, minimum friction with difficult person.” For *eagerness to join*—1, “volunteered before Pearl Harbor;” 2, “volunteered immediately after Pearl Harbor;” 3, “volunteered early realizing that selective service would get me anyway;” For *reaction to danger*—1, “almost welcoming danger and glorying in feeling of increased bodily efficiency;” 2, “calmly without symptoms except alert tensions;” 3, “only minor feelings of anxiety or bodily symptoms;” For *(lack of) boredom in military service*—1, “never bored. Always lively interest in something;” 2, “rare boredom. Easily interested in wide variety of matters;” 3, “occasional boredom, but on whole interested;” For *desire for work*—1, “constantly sought more work, to the extent of overwork;” 2, “worked hard. Accepted additional work cheerfully;” 3, “desire to do good day’s work, then stop. Accepted additional work without grumbling.” For *fit with assigned duties*—1, “perfectly fitted for duties by personality and training. Liked duty;” 2, “well suited for duty by either personality, training, experience, liking, or all;” 3, “suited by personality and trained or experienced. Liked duty.”

For 1946, the bottom bars reveal that men’s evaluations were not overly positive. Indeed, only three of these items—fit with assigned duties, desire for work, and (lack of) boredom—hover around or exceed 50%. The remaining items show that only between one-quarter to one-third of men had very positive responses. However, the percentages increase dramatically in the top bar, which includes the next positive category. All but three items exceed 80% and several hover near or above 90%. The three lowest items in 1946—eagerness to join, pride in unit, and adjustment—hover around or above 30% for the top two positive responses, and just above 60% when the next positive category is included. A theme of generally but not extremely positive appraisals of service at the close of the war is also reflected in the means of the summary measure ( $M = 5.68$ ,  $SD = 2.0$  on an 11-point scale), and the items that compose it (adjustment,  $M = 2.83$ ,  $SD = 1.1$ , and pride,  $M = 2.84$ ,  $SD = 1.3$ , on 6-point scales).

For 1988, 40 years later, we see similarly low percentages of men who provided very positive responses, especially for the two repeated measures that are included in the summary measure: adjustment and pride, where only about 30% of men have very positive responses. When the next category is included, we see that 58% and 67% of men, respectively, have generally positive responses. (In contrast, in 1988, men provided much more positive appraisals of a third item, relationship with service mates, with 43% being very positive and 94% being generally positive. These figures increased from 1946, where 32% were very positive and 89% were positive.) The theme of generally but not terribly positive appraisals of service continues 40 years later, which is also reflected in the means of the summary measure ( $M = 5.73$ ,  $SD = 1.7$ , on an 11-point scale) and the items that compose it (adjustment,  $M = 2.83$ ,  $SD = 1.0$ , and pride,  $M = 2.96$ ,  $SD = 1.1$ , on 6-point scales).

Despite the four decades between measures, the correlations suggest substantial consistency over time. The correlation between adjustment to military service in 1946 and 1988 was .63.



For pride in unit  $r = .42$ , and for the two summary appraisal measures  $r = .58$ . This consistency is born out when we examine measures of change. For adjustment to military service, 26% of the responses became less positive, 27% more positive, and 48% remained the same. For pride of military unit, 30% of the responses became less positive, 32% more positive, and 38% remained the same. For the summary appraisal, 38% of the responses became less positive, 40% more positive, and 22% remained the same. In each case, the percentage of men who increased or decreased were close to equal, and when they did change, they generally did not move far simply up and down a point or two. There was not a uniform trend toward rosier evaluations with the passage of time.

### **Predicting Appraisal of Service: How Objective Aspects of Service Matter**

To what extent are men's appraisals of service related to objective measures of service—level of danger, service length, and location of service? Table 2 shows these effects for the 1946 and 1988 measures. In 1946, levels of danger moved in a positive direction in their effects on appraisal, relative to those who saw negligible or no danger. Longer service was also associated with more positive appraisals, though longer service only reached significance for the 1988 measure. These few variables explained 18% and 17% of the variance of appraisals in 1946 and 1988, respectively.

Because Pacific service location was only moderately correlated with high level of danger (.27), and service location did not significantly predict appraisal of military service at either time point, we did not include it in subsequent models in order to strengthen power.

How well does appraisal in 1946 predict appraisal in 1988, and do its relationships with danger and duration of service hold up when postwar psychological adjustment and midlife health are included? Table 3 displays these results. Although the effects of danger and duration from Table 2 significantly predicted appraisals in 1988, these effects vanished when postwar appraisal, which was highly and positively predictive of appraisal 40 years later, was included in the model. Similarly, length of service significantly and positively predicted appraisal in 1988, though the effect weakened when appraisal in 1946 was added to the model. In the final model, which also included indicators for postwar psychological adjustment and midlife health, only appraisal in 1946 reached significance. This model accounted for 35% of the variance in the appraisal of service in 1988.

The shift in effects from Tables 2 to 3 suggests that the relationship between objective measures of service and later-life appraisal of service was partially mediated through postwar appraisal, which was confirmed in formal tests. However, the effects of objective measures of service on later-life appraisals of service were not mediated through subsequent adjustment and health.

### **Looking Back: Evaluations of the Place of Service in the Life Course**

Over 40 years later, how do men sort out military service and its meanings within the life course? Table 4 displays men's evaluations of where service fits with respect to the best periods of their lives, whether men see military service as a turning point in their lives, and whether they have maintained friendships from wartime—all of which are symbolic markers of the significance of service.

The 10-point scale of where military service ranks relative to the best periods of life had a mean of 6.11 ( $SD = 2.2$ ). Two-thirds of men (66%) described military service as a turning point, and 54% kept in touch with friends from their service days. We again found that appraisal in 1946 was a significant and positive predictor of evaluations, this time for military service as a best period of life and for the maintenance of wartime friendships, but not for viewing service as a turning point in life. Low levels of danger positively predicted

men viewing serving as a turning point, though the effect was no longer significant when appraisal in 1946 was introduced into the model. However, appraisal in 1946 also did not reach significance, and we are therefore unable to claim mediation. There were no effects for high level of danger or service length across the three models. Postwar adjustment had a significant *negative* effect on where men place service with respect to the best periods of life, but not on whether men viewed service as a turning point or maintain friendships with service mates. Midlife health did not significantly predict any of the outcomes. Furthermore, neither postwar psychological adjustment nor midlife health mediated the effects of early appraisal on these outcomes. These models explained 17%, 8%, and 10% of the variance respectively.

Using additional items in the 1988 questionnaire, we were able to gain further insights into how military service fit into their lives, especially whether service brought disruption or hardship. These offer important context for why the Grant men appraised their service the way they did. For example, nearly all men (92%) said that the *timing* of military service was just right, as opposed to being too early or too late. For *college completion*, most said that service had either no detectable influence (41%) or that it *accelerated* their progress (43%), rather than forced them to postpone college (10%) or drop out (6%). For *entry into full-time work*, most said they started work at a later age (55%), rather than at an earlier age (19%), or that it had no detectable influence (23%). Two-thirds (66%) said that *training experiences* in the military were helpful in their subsequent work careers, and 61% indicated that they had earned subsequent degrees with GI benefits. Over two-thirds (68%) went on to receive graduate degrees, with most being MD, PhD, or JD degrees.

Regarding personal relationships, many men (44%) said they were already *living independently* (away from parents) before they served. Only 3% said they were already *married* when they entered service, and over half (52%) were not even *dating* anyone at the start of service. Among those who married after entry into service (3% never married), 57% said that the war had no detectable influence on when they married, 33% said that they ended up marrying at the earliest possible time, and only 10% reported having to delay marriage as a result of service.

When it came to *readjusting to civilian life* after service, too, a great majority (83%) indicated that the process was not as difficult as most people imagine. Virtually all men (96%) said that military service has never been something they wanted to “block out” of their minds, and very few had any physical or mental health conditions or spells of hospitalization that they attributed to their service.

## Discussion

We first asked how veterans of World War II evaluated aspects of their service at the close of the war, and how they evaluated service again, 40 years later. While their service experiences were generally positive, they were not overwhelmingly so. This was especially true of the three most telling items—their eagerness to join the military, their adjustment to it once there, and the pride they took in their unit. These were not only the most variable items, but they were the most discriminating and arguably the truest reflections of men’s experiences in the military. They tap directly into the three distinct points of service—genuine assessments of motivation to enter, adjustment once in, and ultimate pride in what was accomplished while there. But the pattern of generally but not highly positive evaluations was also exhibited in their relationships with service mates, their comfort with danger, and their fit, interest, and engagement in assigned duties.

Over 40 years later, the subset of items shared across the two times revealed remarkable consistency, both in correlations and actual change scores. Although some men shifted upward or downward by one point on these items, their evaluations remained for the most part consistent over four decades. To our knowledge, this is the first study to compare appraisals made over a time span this large, let alone to show such consistency. It suggests that methodological liabilities of measures of appraisal, especially long-term retrospective ones, may not be as troublesome as critics have imagined. It is commonly assumed that appraisals become tainted with the passage of time and, in particular, that there is a tendency to look back more positively on an experience the greater the distance one has from it, especially in later life.

This also assumes, of course, that appraisals are somehow “purer” when they occur close to an experience, which is also questionable. In the case of military service in World War II, for example, men’s initial appraisals might have been elevated by victory and the positive postwar climate and homecoming. And yet these data seem to suggest a relatively balanced, rather than idealized, view from the start. In addition, we are struck by the sizable proportions that remain either perfectly stable or decrease over time. We did not find a uniform trend toward rosier evaluations and, indeed, shifts downward might reflect a tendency over time to see in more realistic terms what was a highly popular war that involved the massive participation of American men from these cohorts. The combination of measurement occasions—one immediately at the end service and the other 40 years later—make the consistency found here all the more remarkable.

We then asked how postwar and later-life appraisals of military service were predicted by objective measures of service. We found that successively higher levels of danger were associated with more positive appraisals, as was service length. Service location was not. While these relationships were slightly stronger for the postwar than the later-life measure, they are nonetheless very similar at the two time points. The strong positive effect of danger on appraisals is consistent with ideas about posttraumatic or stress-related growth. That is, exposure to danger, especially extreme danger, may leave veterans with a newfound sense of achievement in having overcome obstacles and pushed their personal limits, thereby prompting more positive appraisals. Longer service, too, might leave individuals inclined to rate more positively an experience that consumed a bigger space of life and that occurred at a critical time in their lives—while they were making the transition to adulthood.

It was not surprising to find that postwar appraisal of military service is highly predictive of later-life appraisal. Once we added postwar appraisal, the earlier effects of danger and service length disappeared. That is, the effects of objective service on later-life appraisals were mediated through postwar appraisal—what men experienced shaped how they saw it, and thereafter, what matters is how they saw it. The power was in the early appraisal, which was always carried forward in its own right to later-life appraisals. We found no evidence that early appraisals of service were carried forward through postwar psychological adjustment or midlife health.

Given our focus on later-life appraisal outcomes, it is perhaps not surprising that the predictive power of postwar appraisals carried so much of the story. The situation might have been different if we had instead focused on outcomes explicitly related to adjustment and health. It is also possible that the roles of postwar psychological adjustment and midlife health as mediators could not be adequately detected because of restricted variability (both were positively skewed) or limitations in measurement (both rely on clinician ratings for which the specific assessment metrics are not clearly documented). We did find, however, that better postwar psychological adjustment was significantly but negatively related to later-life appraisal, which we discuss below.

We then asked how men evaluated the role of wartime service in their lives as a whole. Once again, the power was found in early appraisals of service, but this time appraisals did not mediate the influence of objective measures of service, as they never reached significance. Men with higher early appraisals of service gave higher rankings of service as one of the best periods of their lives and were more likely to maintain relationships with their service mates.

Interestingly, we again found that better postwar psychological adjustment was negatively related both to evaluations of military service as a best period of life and to the maintenance of friendships. This suggests that higher postwar adjustment is associated with lowering the presence or value of military service in one's life. For the Grant men, this may be because later rewarding experiences overshadowed military service—in contrast to their less privileged age peers from other studies, such as the Oakland Growth Study, whose lives were transformed by service and who may therefore hold the experience even closer or value it even more. Indeed, research has repeatedly shown that, for disadvantaged American men, World War II was a pivotal event that provided a “remedial boost” in the face of limited economic opportunities or allowed them to “knife off” troubled pasts, especially on the heels of the Great Depression (Modell, 1995, p. 141).

Notably, the Grant men did not rank service near the top of their best life periods, and yet two-thirds nonetheless considered it a turning point and half maintained war-based friendships. Service clearly has meaning to these men. But it also did not bring major perceived disruption to their lives. Most of these men were not yet married or even in relationships, and the war accelerated completion of college and, afterward, advanced degrees. They had a portfolio of skills and resources that facilitated their transition to civilian life and subsequent integration into educational, work, and family roles. They saw their service as happening at the right time. Of course, some amount of disruption was normative and not detrimental to perceptions and goals. For the Grant men, service was an experience set within otherwise rich lives with deeper sources of meaning and preoccupation.

For this reason, it is important to keep in mind the characteristics of the Grant sample. These men stayed healthier and lived longer than members of their cohort (Vaillant, 2002). They held relatively high-rank military positions, even though they did not build careers in the military, and most had little PTSD or depressive symptomatology and did not need hospitalization or treatment for service-related problems. They had significant “capital” for building strong lives in the decades after the war, including high levels of education, occupational status, and income, as well as stable marriages.

## Conclusion

We hope to turn needed attention to subjective aspects of military service and their possible connections to aging and life course outcomes, for it may not be military experience itself that matters as much as how men assess it. In this way, coming to terms with wartime service—whether one was exposed to danger, in combat, or had other roles and responsibilities in human warfare—is a developmental issue in its own right, one that potentially brings protections and risks, depending on how it is understood. There is a rising need to conduct research that makes appraisals of wartime service the focal point of investigation, examining it in relation to a range of psychological and physical outcomes in later life, and investigating its role as a likely mediator of the effects of objective aspects of service on those same outcomes. It is also imperative to understand how appraisal processes, and the consequences with which they come, differ across different wars. WWII was considered a “good” war—one backed by the majority of the U.S. population and reinforced

by both a strong infrastructure of veteran benefits and advantageous social and economic climates upon return to civilian life. This surely heightened men's appraisals and their potential positive impact relative to later wars that do not share these characteristics. While these aims bring many theoretical and empirical challenges, they are fertile grounds for advancing developmental and health science.

## Acknowledgments

This research has been supported as part of the NIH-funded research network on the "Life Span Outcomes of Military Service" (R24-AG039343, Avron Spiro and Carolyn Aldwin, Co-Principal Investigators). Settersten is a co-investigator, and Professors Elder and Waldinger are members of the network. Additional support was provided by a grant from the National Institute on Aging (R01AG034554, Robert Waldinger, Principal Investigator).

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## Appendix

### A1

Bivariate correlations among dependent variables

	Adjustment to service 1946	Pride in military unit 1946	Summary appraisal of service 1946	Adjustment to service 1988	Pride in military unit 1988	Summary appraisal of service 1988	Service as best life period 1988	Service as turning point 1988
Pride in military unit 1946	.39 ***							
Summary appraisal of service 1946	.81 ***	.86 ***						
Adjustment to service 1988	.63 ***	.30 ***	.54 ***					
Pride in military unit 1988	.34 ***	.41 ***	.48 ***	.39 ***				
Summary appraisal of service 1988	.56 ***	.41 ***	.58 ***	.83 ***	.84 ***			
Service as best life period 1988	.35 ***	.18	.32 ***	.54 ***	.45 ***	.59 ***		
Service as turning point 1988	.14	.23 *	.26 **	.22 **	.35 ***	.35 ***	.31 ***	
Maintenance of service friendships 1988	.15	.20 *	.21 *	.18 *	.14	.18 *	.30 ***	.07

Note.

\*  $p < .05$

\*\*  $p < .01$

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

A2

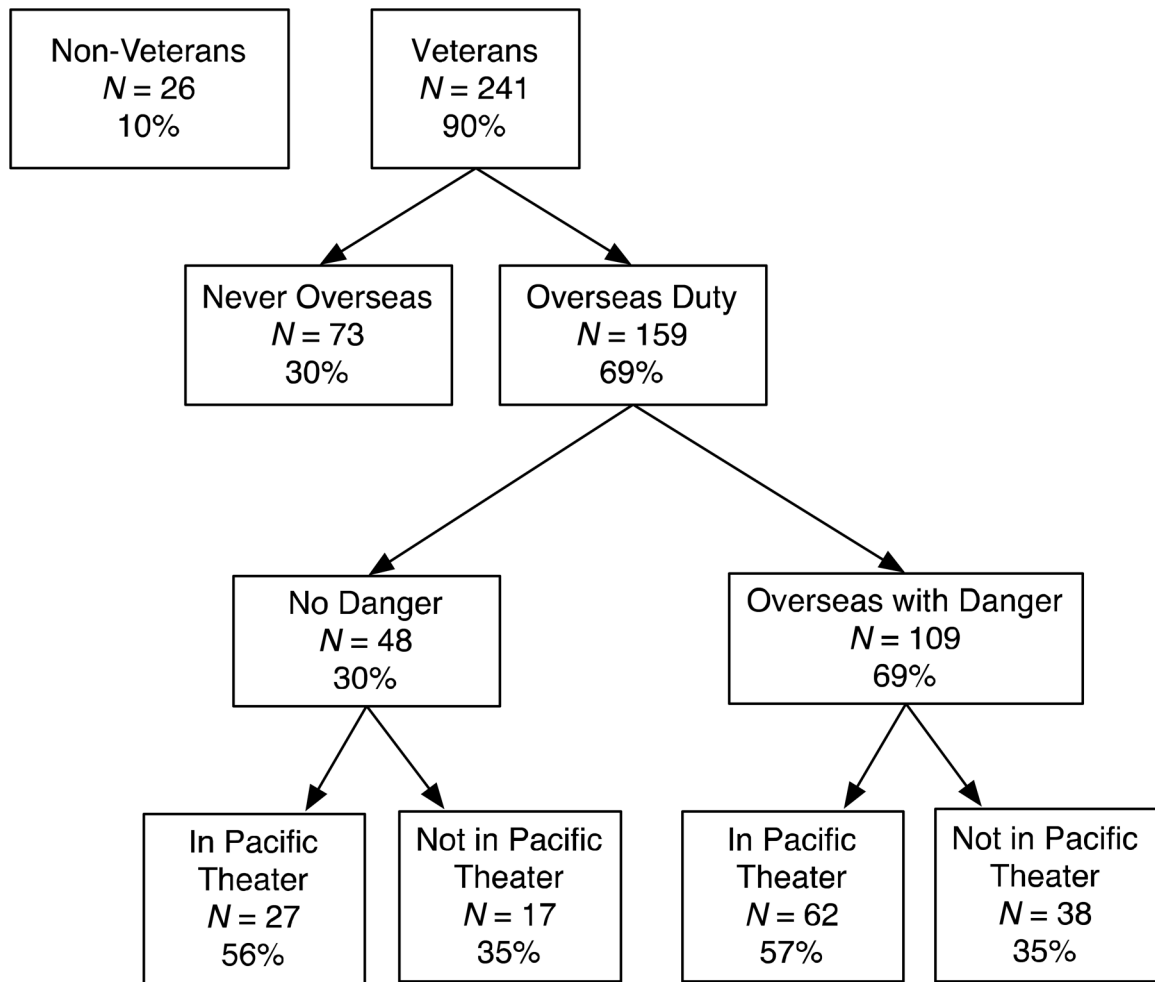
Bivariate correlations between independent and dependent variables

	Adjustment to service 1946	Pride in military unit 1946	Summary appraisal of service 1946	Adjustment to service 1988	Pride in military unit 1988	Summary appraisal of service 1988	Service as best life period 1988	Service as turning point 1988	Maintenance of service friendships 1988
High level of danger	.09	.30 ***	.23 **	.09	.28 ***	.23 **	.05	.07	.14
Low level of danger	.19 **	.13	.21 **	.19 **	.05	.10	.10	.23 **	.02
Years of service	.17 *	.13	.18 *	.17 *	.30 ***	.30 ***	.17	-.01	.07
Served in Pacific	.11	.18	.18 *	.11	.17 *	.14	.05	.14	.02
Served in Europe	-.02	.16 *	.09	-.02	-.02	-.02	-.03	.06	.04
Postwar psychological adjustment	.03	.05	.06	.03	.05	-.06	-.23 **	-.01	-.05
Good midlife health	.18 *	-.01	.09	.18 *	-.06	-.04	-.06	-.02	.11

\*  $p < .05$

\*\*  $p < .01$

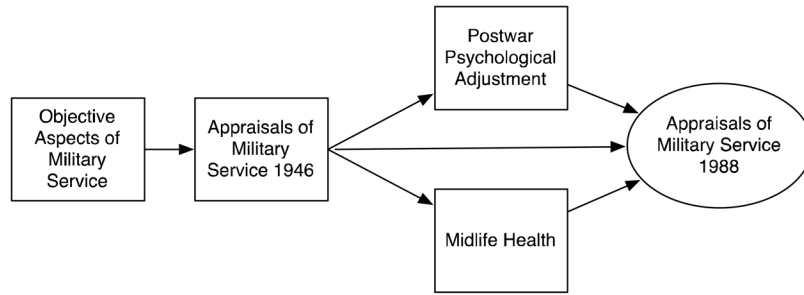
\*\*\*  $p < .001$



**Figure 1. World War II military experience in the lives of the Grant men**

*Note.* The percentages at each level have as their denominator the valid N of the variable one level up. The percentages at or across levels may not sum to 100% because of missing data or instances where subcategories were excluded from the flow chart.



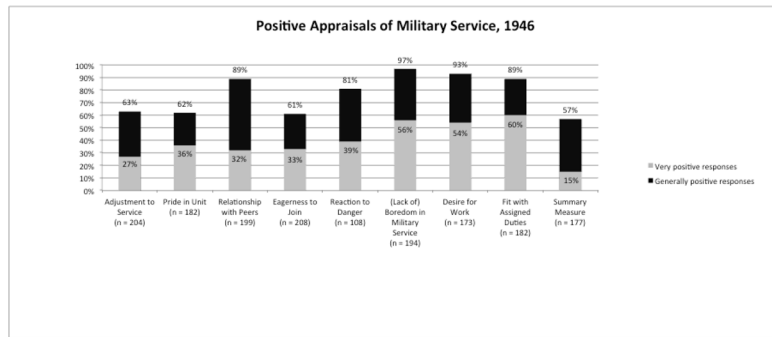


**Figure 2.**  
Depiction of full model, with mediators.

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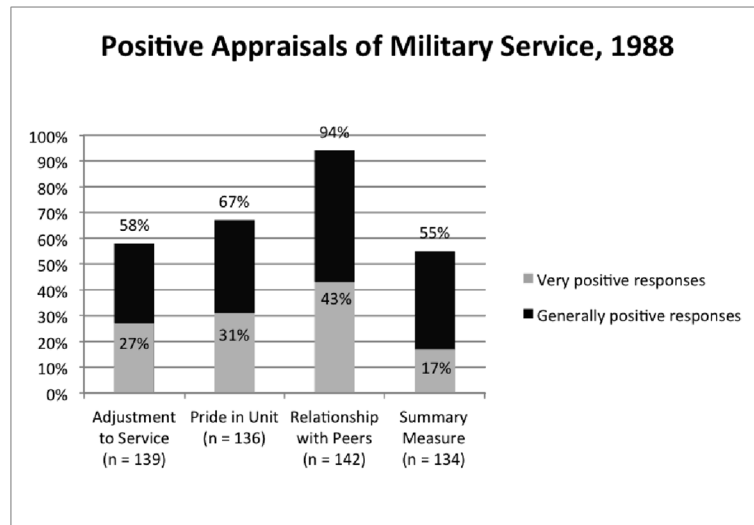


**Figure 3.** Percentages of very positive and generally positive appraisals of military service in 1946

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**Figure 4.** Percentages of very positive and generally positive appraisals of military service in 1946

**Table 1**

Descriptive statistics on key measures.

	Observed Range	Mean (SD)	% Yes	N
<i>Appraisals of military service 1946</i>				
Adjustment to military service	0—5	2.83 (1.1)	--	204
Pride in military unit	0—5	2.84 (1.3)	--	182
Summary measure	0—10	5.68 (2.0)	--	177
<i>Appraisals of military service 1988</i>				
Adjustment to military service	0—5	2.83 (1.0)	--	139
Pride in military unit	0—5	2.96 (1.1)	--	136
Summary measure	1—10	5.75 (1.7)	--	134
<i>Change in appraisals of military service 1946 to 1988</i>				
Change in adjustment to military service	-3—2	.01 (.9)	--	131
Change in pride in military unit	-3—3	.11 (1.2)	--	117
Change in summary measure	-4—5	.14 (1.7)	--	114
<i>Place of military service in the life course</i>				
Service as best period of life	1—10	6.11 (2.2)	--	141
Military service as turning point	0—1	--	66	140
Maintenance of service friendships	0—1	--	54	143
<i>Objective aspects of military service</i>				
High level of danger	0—1	--	30	217
Low level of danger	0—1	--	22	217
Years of service	1—6	3.18 (1.0)	--	219
Served in Pacific	0—1	--	44	225
Served in Europe	0—1	--	25	225
<i>Health and adjustment</i>				
Good midlife health	0—1	--	39	206
Postwar psychological adjustment	0—1	--	40	194

**Table 2**

Summary appraisal of military service in 1946 and 1988: Ordinary least squares model regressing summary appraisal on objective military service variables (1946, n = 167; 1988, n = 127)

Objective Aspects of Service	Appraisal of Military Service, 1946 <sup>c</sup>		Appraisal of Military Service, 1988	
	B	SE B	$\beta$	SE B
High level of danger	1.30**	.41	.31	1.16**
Low level of danger	1.39***	.42	.29	1.03*
Service length	.26	.14	.14	.47**
Pacific	.35	.41	.09	-.24
Europe	.20	.46	.04	-.39
$R^2$	.18, $F(5, 161) = 6.90, p < .001$		.17, $F(5, 121) = 4.91, p < .001$	

Note.

\*  $p < .05$

\*\*  $p < .01$

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

**Table 3**

Summary appraisal of military service, 1988: Ordinary least squares model regressing summary appraisal on objective military service variables, appraisal of service in 1946, postwar psychological adjustment, and midlife health (n = 101).

<b>Appraisal of Military Service, 1988</b>			
	<i>B</i>	<i>SE B</i>	$\beta$
<i>Objective Aspects of Service</i>			
High level of danger	.57	.35	.16
Low level of danger	.16	.38	.04
Service length	.25	.16	.13
<i>Appraisal of Service</i>			
Appraisal of military service in 1946	.45***	.08	.50
<i>Postwar Measures</i>			
Postwar psychological adjustment	-.50	.29	-.15
Good midlife health	-.23	.29	-.07

$R^2 = .35, F(6, 94) = 8.35, p < .001$

Note.

\*  $p < .05$

\*\*  $p < .01$

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

**Table 4**

The place of military service in the life course: Ordinary least squares model regressing military service as a best period of life (n = 105), and logistic models regressing military service as a turning point (n = 104) and the maintenance of friendships with service mates (n = 106), on objective military service variables, appraisal of service in 1946, postwar psychological adjustment, and midlife health.

	Military Service as Best Period of Life		Military Service as Turning Point		Maintenance of Friendships		
	B	SE B	$\beta$	Odds Ratio	SE B	Odds Ratio	SE B
<i>Objective Aspects of Service</i>							
High level of danger	.18	.45	.04	1.86	1.01	1.87	.98
Low level of danger	.33	.47	.07	3.20	2.12	1.32	.72
Service length	.16	.19	.08	.70	.17	1.21	.28
<i>Appraisal of Service</i>							
Appraisal of military service 1946	.29**	.11	.27	1.18	.15	1.33*	.17
<i>Postwar Measures</i>							
Postwar psychological adjustment	-1.12**	.36	-.29	1.18	.55	.66	.29
Good midlife health	-.15	.37	-.04	.70	.32	2.01	.88
$R^2$	.17, $F(6, 98) = 3.24, p = .006$			--		--	--
Pseudo $R^2$	--			.08, $LR \chi^2(6) = 10.67, p = .099$		.10, $LR \chi^2(6) = 14.13, p = .028$	

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