The long term psychological consequences of war experiences

by

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To the memory of Kenty

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ABSTRACT

The present study was carried out to examine long-term psychological difficulties associated with war experience. 731 World War Two and Korean War veterans completed a questionnaire supplying biographical details, war-related experience, and present day psychological health. A significant proportion had war-related psychological difficulties, these problems correlating more strongly with war-related intrusive thoughts and avoidance than with actual combat experiences. A subgroup of 25 veterans were selected for depth interview. The results of these interviews supported the finding that many veterans have war-related problems, and that they related more to intrusion and avoidance than to actual experiences. For some veterans these problems have been present since the war, but for many they only started after retirement, when they have had more time to think about their past experiences. The problems include nightmares, intrusive thoughts, depression and anxiety. Coping is expressed by these veterans in terms of a) developing a narrative about their experiences which allows them to consciously control their traumatic recollections, or b) avoidance, where veterans avoid potential stimulus material, eg war films. Other forms of coping such as social support are secondary.

Even after 50 years, veterans still experience traumatic recollections, memories which, to them at least, are accurate and detailed pictures of the events that occurred. The findings are explained in terms of a theoretical model which examines the role of traumatic recollections as conditioned responses that are out of conscious control, and likely to emerge into consciousness when the veteran is reminded of the war through some stimulus, eg the anniversary of a battle. Implications for post-traumatic stress disorder, ageing, and treatment models are considered.

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CHAPTER ONE

THE LONG TERM EFFECTS OF WAR

"Not always, but all too often [the returning veteran] is a problem because of his misfortunes and his needs, because he is maimed, crippled, demented, destitute, cold, and enhungered; these things he is, these wants he has, from no fault and no desire of his own but solely because of what we have done to him; only because we have used him as an instrument of national policy; because we have used him up, sacrificed him, wasted him. No man could have a better moral claim to the consideration of his fellows. And no man could have a better right to bitterness."

Waller, 1944, quoted in Van Putten & Yager, 1984

1.1 History of psychological problems in war

While we in the late 20th Century may wish to consider warfare an aberration, this is a relatively new concept. In the past, most societies have considered warfare to be part of male identity (Laufer, 1988), and it should be acknowledged that this was still at least partly true in World War Two, and any consideration or examination of the psychological problems World War Two veterans experience should be seen in the light of that. In 1945 soldiers rarely expressed emotion at the loss of friends or the sight of dismembered bodies, nor did they expect counselling or any form of psychotherapy to "work through" their wartime memories. Postwar nightmares and intrusive recollections were part of normal life and one did not complain. World War Two veterans' belief systems or schemata differ from that of a) younger generations of veterans, who may to some degree expect psychological problems to arise from their combat experiences, and b) for non-veterans, on whom models of the cognitive and emotional responses to trauma are often based.

The experience of combat can lead to psychological problems, either during combat itself (terms for which have included, among others, shellshock, battle fatigue, battle shock, and combat

exhaustion) or afterwards, either in the immediate aftermath of battle or in the longer term. It is only in recent years that researchers have recognised that psychological disorders associated with combat can continue to have an effect on the veteran many years after the event, perhaps for life (eg Eberly & Engdahl, 1991).

The psychological effects of battle have been evident, at least in literature, for thousands of years. Homer's description of Achilles after the death of Patroclus has been likened to the modern concept of post-traumatic stress disorder (PTSD; see Shay, 1987; 1994). Herodotus provides a description of an Athenian soldier's traumatic response to battle experience during the battle of Marathon against the Persians. Nightblindness as a psychological consequence of battle was recognised at the time of the Crusades (Miller et al, 1940). Until fairly recently these effects have not been fully recognised, or have been recognised only as cowardice, which has usually had severe consequences for the soldier (see Babbington, 1983 on the execution of British soldiers for "cowardice" and "desertion"). The first acknowledgement of a psychological response to battle experience by medical personnel was during the American Civil War, where it was labelled "nostalgia", and thought to be a result of homesickness, of missing loved ones. In the Spanish American War of 1898-1903 the label changed to "tropical aesthenia", and was thought to be caused by a tropical infection - although the symptoms were often psychological.

Combat psychiatry really began in the early part of this century. Russian psychiatrists during the Russo-Japanese War (1904) recognised the need to treat psychiatric casualties near the front in order to avoid chronic disability (see Belenky & Jones, 1987), but were unable to deal with the sheer volume of such casualties. In World War One, there were numerous psychiatric casualties, partly due to the static nature of trench warfare, where troops were subjected to relentless and unceasing bombardment and attack, with few opportunities for fighting back and taking control of the situation, though Wittkower & Spillane (1940) describe how soldiers in the trenches fought back and felt "moments of ecstasy" as they went over the top (p 5). It was in World War One that

the Allies discovered the basic 'PIE' treatment principles (Kentismith, 1986), that an individual should be treated close to the front (Proximity), as soon as possible after collapse (Immediacy), and he should expect to be sent back to his front line unit (Expectancy). The 1922 Shellshock Committee reiterated these principles of treatment. The term shellshock was coined to describe these casualties, deriving from a late 19th Century idea that the wind of the passage of a cannon ball caused commotional disturbances in the brain, leading to a variety of symptoms (See Myers, 1940). It was thought that shellshock was the result of concussive blast injury, but many sufferers had not been near shells. The symptoms were the result of the psychological impact of battle, establishing it as a functional rather than organic disorder (see Belenky & Jones, 1987). Other labels used during World War One include trench neuroses and gas hysteria. The British preferred not to use such labels; instead lucky sufferers were "not yet diagnosed (nervous)" (Kentismith, 1986). The unlucky ones were charged with cowardice or desertion in the face of the enemy, and over 300 were shot (Babbington, 1983). Many traumatised individuals did receive various forms of psychological treatment, including the poets Wilfred Owen and Siegfried Sassoon, both of whom were treated at the Craiglockhart hospital in 1917 by W Rivers (Hibberd, 1992). The first psychiatric hospital specifically for war neuroses was set up as early as December 1914. In the early days of the war "shellshock" cases were sent back to the UK (Hargreaves et al, 1940). NCOs and privates were sent to hospital, officers were sent home!

During World War One Freud carried out work on traumatised soldiers in Austria, and concluded that there is a conflict between the superego and the id, and that war neurosis is a response to the horrors of combat. There is a change in ego-state from peacetime to wartime, and the ego is threatened with annihilation. He notes that repression is the main defence mechanism against anxiety (Wilson, 1994; Bowers & Farvolden, 1996). There is a link here with modern ideas about schemata. The individual has a set of beliefs about the world (eg that people are benevolent, that the world is good, etc), and when they experience a trauma, there is conflicting information from the schema and from the evidence. In order to resolve the problem the individual must reconcile

the conflict (eg Horowitz & Kaltreider, 1995). Freud also recognised that war neuroses were functional rather than organic, which is in contrast to the Allied World War One work which had led to the notion of shellshock as a physiological response to combat experience.

By World War Two, the findings regarding shell shock had largely been forgotten. Initially during the war there was a tendency to think of psychiatric casualties as having "low moral fibre". The 'PIE' principles were rediscovered as a result of the Americans' first experience of large scale combat in North Africa in 1942 where 31% of all casualties were psychiatric patients, and via a psychiatrist, Frederick Hanson, who accompanied the troops on the Dieppe raid and observed close quarter combat (Kentismith, 1986). Treatment was then established on a divisional basis (Hanson, 1949; see Belenky & Jones, 1987; Kentismith, 1986).

Attitudes in Germany towards war neuroses were rather different, though in World War One the Germans were the first to establish psychiatric hospitals near the front (Wittkower & Spillane, 1940). After World War One German psychiatrists had generally accepted the view that war neuroses were not caused by combat but by secondary psychological mechanisms such as the desire to escape from danger and eventually to receive compensation (Kalinowsky, 1950; Wittkower & Spillane, 1940). These views remained virtually unchanged throughout World War Two. War neurosis was not recognised as a legitimate psychological problem. This is not to say it didn't exist. Interpretations of what is meant by "psychological disorder" depend on labels and methods of analysis as has been seen earlier in the case of wars prior to World War One (even the label "frostbite" had been applied to psychological cases early in the war). Nevertheless, evidence suggests that postwar delayed breakdown in German troops did not occur, certainly not in the first years after the war (Kalinowsky, 1950). Apart from labelling differences, the explanation for this may also lie in coping and support mechanisms, which may have been stronger given the external pressures. According to Kalinowsky, the only German group which appeared to show postwar psychological difficulties were ex-POWs.

After the war, a number of studies - mainly American - dispelled the "low moral fibre" arguments by demonstrating that anyone, irrespective of personality or other traits, if exposed to combat, could become a psychiatric casualty (eg Swank, 1949; Brill, 1946; Gramlich, 1949; Glass, 1953; Wolf & Ripley, 1947; Futterman & Pumpian-Mindlin, 1951). Grinker & Spiegal (1945) suggested a move away from the term war *neuroses*, as this implied some intrinsic aetiology. As an alternative they suggested the use of the term combat exhaustion, resulting from the normal response of an individual exposed to abnormal stress. There was intense interest in the psychological effects of war experience in the years immediately following the Second World War. Lewis & Engle (1954) reviewed 1166 articles (see Archibald & Tuddenham, 1965).

Futterman & Pumpian-Mindlin (1951) in a five year follow-up of 200 combat veterans found that there were still fresh psychiatric cases arising. This was the first indication that a distinction perhaps needed to be drawn between those who succumb to psychological symptomatology during battle itself, and those who survive battle, only to find that war-related psychological symptoms arise at some point in the future, perhaps after years of apparently normal functioning.

After the early 1950s, apart from some notable exceptions (eg Archibald & Tuddenham, 1965; Nardini, 1962), interest in the psychological effects of combat generally diminished until the Vietnam War (Peterson et al, 1991), though there was important work in the early 1960s into the longer term effects of the Holocaust (Chodoff, 1963; Strom, 1961; Eitinger, 1964).

Archibald & Tuddenham (1965) noted that there had been a decline in interest in "gross stress syndrome" (p475), but also that the passage of time since World War Two had served to differentiate the chronic syndrome from transient stress reactions. They quote a personal communication from Chodoff (1963) who noted a striking similarity between the survivors of the concentration camps and veterans with the combat stress syndrome outlined earlier by the authors

(Archibald et al, 1962). Archibald & Tuddenham (1965) found that veterans could not blot out their painful memories. They are the first to mention the possibility that age-related changes might exacerbate the problems and reduce the ability of veterans to cope. They also note the similarity to studies of animals which have shown that the sequelae of sufficiently intense stress is permanent and irreversible (eg DeDous et al, 1989). They were aware of the methodological problems associated with attempting to understand these problems experimentally. Archibald & Tuddenham dismissed the idea that these veterans were presenting with symptoms for compensation.

American involvement in the Vietnam War (1965-1975) brought a resurgence of interest in combat stress. Though the number of psychiatric casualties during combat was relatively light compared with other wars (Bourne, 1970; Figley, 1976), it has been estimated that up to 500,000 veterans experienced or experience longer term psychological difficulties (Walker & Cavenar, 1982). Though combat stress reaction cases during the war itself were low, research into the effects of longer term war trauma relating to Vietnam veterans was largely responsible for the introduction of post-traumatic stress disorder into DSM-III (American Psychiatric Association, 1980). This led in turn to an increasing number of studies on World War Two veterans

Since Vietnam, research into the effects of combat, both long and short term, has grown substantially. Apart from large research teams in the USA, there is a lot of work carried out by Solomon and her colleagues (see Solomon, 1993 for a review) into the effects of the various wars the Israelis have been involved in over the years (eg War of independence, 1949; Sinai war, 1956, Six Day War, 1967, Yom Kippur, 1973, Lebanon, 1982). The regularity of the Israeli wars has enabled Solomon and her colleagues to establish a very large scale research programme, with soldiers often serving through more than one war, or at least with the constant threat of having to serve in further wars. The difference with the Israeli work compared to that on Vietnam or World

War Two veterans is that the whole country has been in a permanent state of virtual war, with the state surrounded by enemies or potential enemies, and experiencing a high level of internal unrest.

1.2 Very long term effects of war

In the last two decades, there has been increased interest in the longer term effects of war, with researchers studying veterans of World War Two and the Korean War (eg Beebe, 1975; Laufer, 1988), sometimes including psychophysiological measures (Orr et al, 1993) or comparing the effects of different wars such as World War Two and Vietnam (eg Davidson et al, 1990; Blake et al, 1990). This has led to an increasing recognition that there can be delayed effects of war (McNally, 1992). Research relating to torture survivors has demonstrated similar findings (eg Baker, 1992)

Davidson et al (1990) compared World War Two and Vietnam War veterans, all with PTSD. The Vietnam veterans exhibited more symptoms, higher depression scores, and higher scores on hostility and psychoticism. They also scored higher on avoidance, detachment from others, survivor guilt, startle response, impairment of work and interests, and suicidal tendencies. The veterans recalled different kinds of incidents. World War Two veterans recalled more incidents about physical injuries and captivity, while the Vietnam veterans recalled brutality, mutilated bodies, the death of children, and the loss of friends. Davidson et al suggest that part of the reason for the difference might be that age has a moderating effect on memories. There are two further factors to be considered. One is the cultural differences between the groups. The World War Two veterans belong to a group that doesn't discuss psychological difficulties as easily as later generations. Second, the kinds of memories recalled may affect the appraisal of the war.

Lipton & Schaffer (1986) started a successful group therapy programme for combat veterans and ex-prisoners of war (POWs) when they recognised that symptoms of PTSD were appearing in World War Two and Korean War veterans attending their clinic. Hamilton & Canteen (1987), in

a study of World War Two naval veterans, found that 5 out of 32 (16%) fulfilled PTSD criteria. This figure should be viewed with caution because of the limited numbers involved, and because all the veterans were from the same ship, and so may not be representative of the general veteran population. This problem, obtaining a representative sample, applies to the research reported here and will be discussed in detail in Chapter Two. Nevertheless, the consensus is that there are still many World War Two veterans who experience some kind of war-related psychological dysfunction.

Much of the work carried out on the very long term effects of war experience has focused on special groups such as the captivity experiences of ex-POWs (Gill & Bell, 1982; Kluznik et al, 1986; Goldstein et al, 1987; Speed et al 1989, Keehn, 1980). Hunter (1988) describes the traumatic experiences of being a POW, indicating that approximately 11% of all British and American POWs died in captivity. Most died from malnutrition and neglect with the vast majority of the deaths occurred in the Far East among POWs held by the Japanese.

Eberly & Engdahl (1991) found that POWs had elevated lifetime prevalence rates of depressive disorders and greatly elevated levels of PTSD. Those who had lost more than 35% of their bodyweight during imprisonment experienced higher levels of anxiety, depression, PTSD, and schizophrenia. Eberly et al (1991) tested World War Two POWs. Those with severe captivity scores (derived from an analysis of POW experience variables) were more likely to experience lifetime and current diagnoses of PTSD, anxiety, and depression. They proposed a model of PTSD symptoms which has positive evolutionary adaptational value in traumatic environments, and the persistence of these symptoms may result from biological changes in the organism. Symptoms such as social withdrawal and substance abuse are conceptualised as subsequent coping with the primary trauma response. Engdahl et al (1991) considered the prevalence of comorbidity of psychiatric disorders and personality profiles of World War Two POWs, and

found PTSD was associated with anxiety and depression, and those with such problems had personality styles of suppression and denial.

Speed et al (1989) conducted structured psychiatric interviews of 62 former World War Two POWs. Retrospectively, half would have satisfied the criteria for PTSD in the year following repatriation. Eighteen continued to meet the criteria 40 years later. They found that the strongest predictors of psychological problems were proportion of body weight lost and the experience of torture during captivity. Speed et al found no relationship with familial risk factors and preexisting psychopathology. Sutker et al (1990), studying a sample of World War Two and Korean War veterans, also found that weight loss and psychological and biological hardship were the best predictors of PTSD, along with less socioeconomic advantage and lower military rank. Crocq and his colleagues (Crocq et al, 1991; 1992) studied a group of 817 Alsations who were drafted into the Wehrmacht and were subsequently detained as POWs in the Soviet Union. They found that long term PTSD was associated with length of internment and higher scores on a severity of POW experience index, though the latter may be a function of having PTSD. Buydens-Branchey et al (1990), studying Vietnam veterans, also found a direct relationship between duration of combat exposure and PTSD.

Fairbank et al (1991) looked at appraisal and coping in former World War Two POWs, compared with other combat veteran groups. They found that the ex-POWs reported poorer psychological functioning. They had less control over their memories of the war, and made more frequent use of self-isolation, wishful thinking, self-blame, and social support in an effort to cope with their memories.

Sutker et al (1995) looked at cognitive deficits in POW survivors (both European and Far East World War Two theatres, and the Korean War), concluding that those who experienced greater weight loss were more likely to have cognitive deficits in memory and attention. Unfortunately

this study has design limitations. There was no control group of non-POWs that could have indicated whether the problems related to weight loss or to ageing effects. The regression coefficient produced was very low (.29) indicating that the variables contributed relatively little to explaining the variation in the dependent measures.

The above studies (apart from those by Crocq and his colleagues) don't differentiate between POWs held in Europe and those held in the Far East. Nefzger (1970) reported a series of follow-up studies of World War Two and Korean War POWs, showing that mortality among Pacific POWs was greater than for European POWs. As Eberly & Engdahl (1991) point out, those held by the Japanese suffered far more than British and Americans held by the Germans and Italians. Those with problems who survived the war years may have died young because of their war-related problems, whether psychological or physical. This creates sampling problems when any study tries to make a comparison between the long term effects on European and Far Eastern POWs - the surviving Far Eastern POW survivors may be the strongest, both physically and psychologically. Work on Korean War ex-POWs (Sutker et al, 1990) shows that many still experience severe long term effects. The treatment of POWs in Korea was similar to that meted out to Allied POWs held by the Japanese. Studies carried out by Tennant and his colleagues (Tennant et al, 1986a,b), comparing ex-POWs held by the Japanese with non-POWs, showed that the POW group had significantly more anxiety and depressive neuroses than the control group. Dent et al (1987) carried out a regression analysis on the same population and found that particular variables were predictive of present-day depression: low education and socioeconomic status, unemployment, retirement, being unmarried, and having documented anxiety or depression during World War Two. The difference between the treatment of POWs by the Germans and by the Japanese is perhaps best illustrated by the death rates. 1% of Americans held by the Germans died in captivity, whereas 37% held by the Japanese died (Miller et al, 1989; Miller, 1992).

Macleod (1994) in a study of World War Two veterans found that many had experienced a recent reactivation of PTSD. The most important factor predicting this was ill health, though also retirement, loneliness, comorbid psychiatric illness, anniversaries, service reunions, and alcohol were predicting factors. Macleod noted that the masking of intrusive symptoms in midlife is usual. He also suggested that the memory of fear is indelible, which has implications for prognosis. On a practical note Macleod states that war-related psychiatric disorder in elderly males is easily missed, because many are reticent about retelling their trauma stories.

Apart from combat veterans and POWs research is also still continuing on Holocaust survivors (eg Kuch & Cox, 1992; Danielli, 1988). Mazor et al (1990) have looked at the ways in which Holocaust survivors cope with their memories. They suggested that for most the reactivation of memories led to the need to document their past. This is similar to writers such as Primo Levi. In the preface to "The Truce" (1987) Levi writes: "The need to tell our story to 'the rest'; to make 'the rest' participate in it, had taken on for us, before our liberation and after, the character of an immediate and violent impulse, to the point of competing with our other elementary needs. [The Truce] has been written to satisfy this need: first and foremost, therefore, as an interior liberation." (p15). The writing, bearing witness, brings some relief, it discloses ways for survivors to comprehend their traumatic past. As will be shown, many veterans are still trying to comprehend their own pasts.

Solkoff (1992) studied Holocaust survivors and found higher rates of premature senility, a preoccupation with the past, and a greater vulnerability to subsequent stressors than in other groups. He found that many had experienced symptom-free years when they were building new lives after the war. They would only experience psychological difficulties when some stimulus reminded them of the war. Solkoff noted that the German government had used this symptom-free period as evidence that there was no causal relationship between concentration camp experience and later psychological difficulties - therefore no compensation would be awarded. A

cautionary tale. Solkoff was also interested in the inter-generational impact of the Holocaust. He studied the children of the survivors to see if they had problems. Trossman (1968) had suggested that children of Holocaust survivors would act out the unexpressed rage of their parents. Solomon et al (1988) found a higher rate of PTSD in the children of Holocaust survivors who had fought in the 1982 Lebanon War than in a control group. In contrast, Solkoff found no difference between children of survivors and a control group.

1.3 Post-traumatic stress disorder

The basic theoretical concepts underlying PTSD go back at least to the early writings of Sigmund Freud. Freud's original view of neurosis was a post-traumatic paradigm known as seduction theory (eg Aetiology of Neuroses, 1896, cited in Brett, 1993). Here, Freud noted that traumatic events threatened the ego and led to anxiety. Typically, the victim used repression as an ego-defence to remove the unpleasant memories and emotions of the traumatic event (Wilson, 1994). Dollard & Miller (1950) used combat as an example of learned repression. They proposed that there are several stages of learning to repress memories: 1) during combat there are many external and internal cues, 2) the traumatic conditions attach strong fears to *all* these cues, 3) afterwards when the soldier thinks about combat these thoughts are the cues that evoke fear, 4) when he stops thinking, the fear diminishes, 5) the decrease in fear reinforces stopping thinking so the veteran does not think about the war.

Present research considers whether traumatic memories are real or not (eg British Psychological Society, 1995), but Freud was forced to address this issue in the early part of the century (Freud, 1917). There was an outcry from the public, who refused to accept that memories of childhood abuse were real. Freud moved to a position of accepting that these memories may be "phantasies", and that whether or not the traumatic event actually happened was less important than the intrusive consequences for the individual. Freud was aware of the difference between ordinary neurosis and traumatic neurosis (Freud, 1917), and that for the latter there seems to be a

fixation to a particular point in time. "It is as though these patients had not yet finished with the traumatic situation." (Freud, 1966, p275) This is similar to the modern notion of cognitive processing (Horowitz, 1986), where the individual must 'deal with' the traumatic memory and integrate it into their belief system, in other words, develop a narrative about the traumatic event (van der Kolk & Fisler, 1995). Freud was also aware that combat can lead to war neuroses (Freud, 1918). He carried out work on World War One veterans in Austria, and suggested that there is a conflict between the superego and the id, and that war neurosis is a response to the horrors of combat. There is a change in ego-state from peacetime to wartime, with the ego being threatened with annihilation. As discussed earlier, Freud (1918) also recognised that war neuroses were functional rather than organic, which is in contrast to the Allied World War One work which had led to the notion of shellshock as a physiological response to combat experience.

The construct now termed PTSD has existed for many years under a variety of formulations and names, mainly relating to battle experience (battle fatigue, combat neurosis, etc). These terms all refer to a specific set of symptoms that are the result of a traumatic experience. In the Twentieth Century, interest in the subject has tended to increase around wartime and decrease during peace. DSM-I, published shortly after World War Two, recognised traumatic neurosis (American Psychiatric Association, APA, 1952). DSM-II, which was published more than 20 years after World War Two, but before Vietnam, considered trauma-related problems as an adjustment disorder, or just one example of the situational disturbances of life (equating it with the resentment shown over an unwanted pregnancy; APA, 1968).

The term post-traumatic stress disorder was introduced into DSM-III (1980) by the American Psychiatric Association. It was revised for DSM-III-R (APA, 1987) and again for DSM-IV (APA, 1994). Its inclusion was largely the result of research work carried out into the effects of the Vietnam War. Since 1980 the construct has acted as a catalyst for research into the effects of traumas not related to war, eg rape, natural and manmade disasters. PTSD owes much to the early

work of Freud discussed above (Wilson, 1994), and to that of Horowitz (1976, 1986), among others. It is concerned with the development of characteristic symptoms following exposure to an extreme traumatic stressor (not just combat, but also natural or manmade disasters). The diagnostic criteria (from DSM-IV) are:

A: The person has been exposed to a traumatic event in which both of the following were present:

1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death of serious injury, or a threat to the physical integrity of self or others.

2) the person's response involved intense fear, helplessness, or horror.

B: The traumatic event is persistently re-experienced on one (or more) of the following ways:

1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.

2) recurrent distressing dreams of the event.

3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes).

4) intense psychological distress at exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event.

5) physiological reactivity on exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event.

C: Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness, as indicated by three (or more) of the following:

1) efforts to avoid thoughts, feelings, or conversations associated with the trauma

2) efforts to avoid activities, places, or people that arouse recollections of the trauma

3) inability to recall an important aspect of the trauma

4) markedly decreased interest or participation in significant activities

5) feeling of detachment or estrangement from others

6) restricted range of affect

7) sense of a foreshortened future.

D: Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

1) difficulty falling or staying asleep

2) irritability or outbursts of anger

3) difficulty concentrating

4) hypervigilance

5) exaggerated startle response.

E: Duration of the disturbance is more than one month.

F: The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

It must also be specified whether the duration is of less than three months, in which case it is classified as acute, or three months or more, in which case it is chronic. It is classified as delayed onset if the onset of symptoms occurs at least six months after the event (this is a new addition to DSM-IV).

There has been much debate as to the status of PTSD and to the value of the diagnostic criteria. Many of the criteria describe how an individual might respond "normally" to a traumatic situation, so it could be argued that it should not be included in a psychiatric classification system at all. At the very least we need to distinguish between post-traumatic stress *response* and post-

traumatic stress *disorder*. DSM-IV is not successful at doing this. The introduction of acute vs chronic PTSD does not seem to address the question, apart from pathologising a normal response. There is no indication of how long one would expect to experience a post-traumatic response before it becomes "abnormal". Criterion F doesn't help, as someone with a "normal" response is likely to experience significant impairment in their day to day functioning.

1.3.1 The Stressor Criterion

Breslau & Davis (1987), considering the DSM-III criteria (and their arguments are still largely applicable to the DSM-IV version) conclude that most of the criterial symptoms, such as impaired cognitive function, avoidance, and diminished interest in significant events are shared by other diagnoses. What made PTSD distinct was the apparently unique class of stressors. The debate centred around whether the PTSD stressor was really different from the kinds of stressful events that precede the onset of other disorders. The other problem concerns intrusive re-experiencing. It has been argued that this is distinctive to PTSD (see Breslau, 1990). Breslau & Davis (1987) argued that intrusion is only specific to PTSD if the content of intrusive experiences are specific to a distinctive PTSD stressor. From this they conclude that the stressor is the single distinctive criterion for PTSD.

The problem with the stressor criterion at the time of DSM-III-R was that it was unclear which stressors would actually count as criteria. What type of event? Was the decision quantitative or qualitative? DSM-IV improves on the situation by specifying that there must be a traumatic event in which the individual or someone close to them was involved, *and* that the person's response involved re-experiencing, avoidance, and increased arousal. The problem still remains, though, that the decision as to whether a particular event should be classified as traumatic or not. For the present purposes this is not of great importance. The argument is included because the reader should be aware that a diagnosis of PTSD is not always clearcut. There may be problems with the

stressor criterion, and with the status of the other diagnostic criteria (in terms of comorbidity or potential alternative diagnoses).

Much research has demonstrated a direct relationship between the severity of the stressor and later distress (eg Selye, 1956; Figley, 1976; Penk et al, 1981). Later authors have also found such a relationship, though other factors play an important part (Foy et al, 1984; Green et al, 1990). It has been suggested that the aetiological role of the stressor decreases over time (Solomon et al, 1991). The problem is that not all individuals exposed to a severe stressor later go on to develop psychological symptomatology. It is clear that other factors need to be considered, such as constitutional and environmental factors (Feinstein & Dolan, 1991; Escobar, 1987; Breslau & Davis, 1987), intrinsic mediating variables such as intrusion and avoidance (Creamer et al, 1992), and methods of coping. The focus of the present research is largely on these issues.

Creamer and his colleagues (Creamer et al, 1992; Creamer, 1995) show that the stressor/ psychological distress relationship is not clear-cut. They found that the main predictor of trauma-related symptomatology is not the event itself, but the person's cognitive interpretation or appraisal of the event. Intrusive thoughts are a possible mediating variable between the event and subsequent psychological problems. Davidson & Baum (1993), studying Vietnam veterans, also found intrusion to be a better predictor of chronic stress than combat exposure. McFarlane (1995) criticises such processing models suggesting that there is little work carried out on the temporal element, that the meaning of the trauma is derived not just from the event but from factors which precede and follow the trauma. Cognitive processing models typically fail to consider these factors.

McFarlane (1995) has discussed problems with retrospective assessment of the severity of the stressor, suggesting that such studies inevitably bias the findings to demonstrate the role of the stressor. Janney et al (1977) measured populations who had and who hadn't experienced a

disaster and found that those who had tended to rate the severity of major losses as less than those who hadn't.

1.3.2 Types of PTSD

Others have suggested that PTSD should be split into several categories according to the nature of the stressor. Examples include childhood PTSD (Pynoos & Nader, 1993; Terr, 1991), and PTSD following torture, terrorism and degradation (Ochberg, 1993).

O'Donahue & Elliott (1992) discuss the current status of PTSD as a diagnostic category, and consider whether it should be classified as a mental disorder or an anxiety disorder. After considering the possibility that PTSD should be regarded as a normal response to an abnormal situation they suggest that if it is to be retained it should be removed from the subclassification of anxiety disorders, as this would facilitate a recognition of the full range of behavioural and affective responses which occur in response to a traumatic event. But this seems to be ignoring the central problem of comorbidity. Most (or all?) individuals with PTSD have other classifiable disorders (Green et al, 1990; Keane & Wolfe, 1990), usually anxiety or depression-related, along with suppression and denial (eg Engdahl et al, 1991), though they may include amnesia, fugue, depersonalisation, and multiple personality disorder (Classen et al, 1993). The diagnostic criteria used for classifying PTSD are not PTSD-specific. As shown above, the diagnosis of PTSD depends to a large extent on the stressor (Criterion A). Intrusion and avoidance (Criteria B & C) can be seen, not as symptoms in themselves, but as variables that mediate between the event and psychiatric morbidity. Criterion D is part of an anxiety disorder, and criteria E & F concern the duration of the symptoms.

DSM-IV has introduced the useful distinction between acute and chronic PTSD and delayed onset PTSD. The latter category is in recognition that individuals may not have immediate psychological responses to a traumatic event, but that problems may arise at some undefined

point in the future. War veterans can have very long periods of good postwar adjustment before later presenting with PTSD symptoms (eg Kolb, 1984; Van Dyke et al, 1985)

There are a variety of measures used for assessing PTSD. These include questionnaire measures such as the Impact of Event Scale (Horowitz et al, 1979) a measure of intrusion and avoidance, and interviews such as the Structured Clinical Interview (Spitzer & Williams, 1985), or the PTSD Interview (Watson et al, 1991). Keane et al (1987) describe the combination of structured interviews, psychometrics, and psychophysiological assessments that have been used to validate the concept. For example, the Jackson structured interview for PTSD (designed for use with Vietnam veterans), which takes 3-4 hours to administer and assesses the range of diagnostic criteria, with current psychological status being assessed with premilitary and military history. They also discuss the value of the MMPI as an index of adjustment in Vietnam veterans.

1.4 Comorbidity: anxiety/depression

Comorbid symptoms are also known as secondary symptoms (Peterson et al, 1991). As previously stated, a diagnosis of PTSD is not usually given alone (Escobar et al; 1983). The traumatised individual usually demonstrates a range of comorbid problems. Keane & Wolfe (1990) found 98.9% of their sample had a concurrent diagnosis. McNally (1992) found 98.8% of PTSD victims had a concurrent diagnosis of anxiety, depression, or alcohol abuse. North et al (1994) found that after a mass shooting, half of the women and one quarter of the men with PTSD also met the criteria for other psychiatric problems. They often demonstrate high levels of anxiety and depression (Joseph et al, 1994). Olivera & Fero (1989) showed that 65 out of 109 PTSD patients suffered major affective disorders, of these, 85 % had major depression. These effects can last for a long time. In recent studies of World War Two and Korean War veterans researchers have found high incidence of comorbidity. Eberly et al (1991), studying ex-POWs, found that there was a relationship between PTSD, generalised anxiety disorder, and major or minor depression. Sutker et al (1990), studying 20 ex-POWs of the Korean War, found that 45%

of PTSD sufferers also experienced anxiety. Many other studies have demonstrated that PTSD victims tend to suffer from depression and anxiety (eg Glover, 1988; North et al, 1994; Basoglu et al, 1994; Mikulincer et al, 1988; Merbaum & Hefez, 1976; Stretch, 1991). Quirk & Casco (1994) found that general anxiety disorders were comorbid with PTSD in a group of families of the disappeared in Honduras. Individuals who have experienced war trauma but are not classified as having PTSD (though they display PTSD-like symptoms) also show symptoms of depression and anxiety (Tennant et al, 1986a,b).

Anxiety and depression are not the only concomitants of PTSD. Individuals may also experience alcohol dependency, panic disorder (Davidson et al, 1990), other substance abuse (Keane & Wolfe, 1990), family and marital problems (Stretch, 1991), personality disorders (Keane & Wolfe, 1990), and general psychosocial problems (Stretch, 1991; Strayer & Ellenhorn, 1975).

Prior to the diagnosis of PTSD being available, studies showed that symptoms of what we now call PTSD were comorbid with other psychiatric disorders (eg Kral et al, 1967; Janis, 1951; Garner, 1945). McFarlane (1995) also suggests that most PTSD sufferers develop a range of other disorders.

1.5 Learning and traumatic memory

Until recently comparatively little research had been carried out looking at the biological underpinnings of PTSD. This is particularly the case for studies determining the vulnerability factors that predispose people to PTSD (Charney et al, 1993). A range of studies have been carried out looking at the biological effects of fear and stress in laboratory animals (eg LeDoux et al, 1989), which may provide some understanding of the neural pathways involved in PTSD. (For more detailed reviews of the biology of PTSD see Charney et al, 1993, Kolb, 1993, Yehuda et al, 1992, or Ver Ellen & Van Kammen, 1990; Bremner et al, 1995a).

A fuller understanding of the response to trauma must include a consideration of the mechanisms of learning, memory, and the underlying neurobiology. It is necessary to understand how these mechanisms are both similar to and different from 'normal' learning and memory mechanisms. Memory is not about linking discrete points in the past and the present, it is autobiographical, constantly summarising and condensing life experiences into a coherent narrative (Schechter, 1994). It is valuable to make a distinction between what have been known under a variety of names but will here be termed explicit memory and implicit memory. Explicit, or declarative, memory, is under conscious control, is verbal, and is an active and constructive process. According to van der Kolk & Fisler (1995) what is remembered in explicit memory depends on the person's existing mental schemata. New information is incorporated into existing schemata. Information in explicit memory may be altered by experience, demand characteristics, and the person's emotional state at the time of recall. Implicit memory is not under conscious control. In the present context it is an initial conditioned response to the trauma, containing stimulus, response, and meaning information relating to the trauma. The terms explicit and implicit memory are analogous to conscious and unconscious thought processing. They should not be seen as separate and independent systems, but as a continuum (Berry, 1993). Their importance is illustrated by findings that models of anxiety and cognition that anxious people show an implicit but not an explicit memory advantage for threat-related information (Macleod & McLaughlin, 1995), suggesting that implicit memory may play a critical role in the stress response. The findings should be treated with caution as they relate to experimental work such as tachistoscope identification, recognition, and colour naming stimulus words in groups of non-traumatised individuals.

Kolb (1993) holds the view that the development of PTSD occurs when the individual perceives an event as mortally threatening, it is associated with intense arousal responses of fear and terror. Repetition of such signals eventually lead to (an unspecified) neural change, which in turn leads to hypersensitivity and impaired potential for habituation and relearning. Ver Ellen & Van

Kammen (1990) discuss physiological studies which stress overarousal (see also Everly, 1990), while endocrine studies suggest a relationship between cortisol and symptomatology, with those in low symptom states and denial experiencing decreased cortisol production while those in highly symptomatic states experience increased cortisol production. Ver Ellen & Van Kammen propose PTSD is associated with permanent brain changes, specifically involving the locus coeruleus, amygdala, and the hypothalamo-pituitary-adrenal axis. Feldman et al (1996) provided further evidence for this showing that a bilateral lesion of the amygdala in rats inhibited adrenocortical responses to somatosensory and olfactory stimulation.

The emotional processing of fear and the construction of memories of traumatic events has been studied by a number of researchers. Rachman (1980) has suggested that it may be useful to think of people as either successfully or unsuccessfully processing or absorbing their emotional reactions to stressful events. Conditioned fear reactions are one of many signs that the emotions associated with an event have not been processed successfully (other signs include intrusive thoughts, dreams, behaviour disruptions, and the sudden return of fear). This provides evidence for a common process underlying PTSD and other anxiety problems such as phobias, which may have a traumatic origin but may not be treated until much later. The reappearance of fear after it has diminished in intensity cannot be explained successfully using traditional conditioning theory.

Lang (1977, 1979), using a conditioning framework, looked at the connection between images and affect, how images can evoke emotional responses, and how these can be altered. He suggested that images are not faithful representations of the past like photographs, but representations constructed from information stored in memory in propositional form. This idea can be linked to the work of Pylyshyn (1973) and associative network models proposed by Bower (1981). This work has been specifically considered in relation to PTSD by Zeitlin & McNally (1991), who found that combat veterans with PTSD had an explicit memory bias for combat words.

Lang (1979) suggested that emotional images are composed of three main classes of propositional unit, these are concerned with stimulus information (eg location and physical characteristics of the situation), response information (verbal, physiological, and behavioural responses), and meaning information (interpretation of the stimulus and response elements and their significance for the individual). Lang proposed a prototype fear image stored in memory. New events are tested against this prototype. If there is a sufficiently close correspondence the stored memory complete with response elements is activated and the individual experiences fear. This programmatic construction explains how the fear information is only sometimes available to consciousness, in effect when the individual is provided with a reminder. Foa & Kozak (1986) presented a therapeutic approach whereby the links between stimulus and response elements are systematically reduced by providing the individual with examples of stimuli where the feared response does not occur. There is little evidence regarding the effectiveness or otherwise of this approach.

Fear conditioning is mediated by subcortical mechanisms, involving sensory pathways that project to the thalamus and the amygdala. Saporta & van der Kolk (1992) treat trauma as an inescapable shock. According to Foa et al (1989), the experience of a trauma results in the formation of a fear network in memory which includes, a) stimulus information about the event, b) response information (cognitive, affective, physiological, behavioural), c) meaning information. The conditioned response is contained in implicit memory. Emotional memories established via thalamo-amygdala pathways may be relatively indelible (DeDous et al, 1989). LeDoux (1992, 1994) studied fear conditioning in animals. A foot shock paired with a sound elicited the physiological components of the fear reaction, such as freezing and elevated blood pressure. The animal becomes conditioned to respond to the sound alone after several pairings. The shock alters neurones in both cortical and subcortical regions of the brain, the central nucleus of the amygdala, the thalamus, and parts of the cerebral cortex (LeDoux, 1992). The thalamic

pathway may be the most useful for an immediate reaction, enabling a response before the organism fully realises what is happening. Christianson (1992) suggests that this preattentive pathway is fast, independent of context, independent of processing resources, and able to carry out parallel processing of different inputs. It is this pathway where much of what we remember and forget (including presumably traumatic memories) is determined automatically. This clearly has adaptive value. Bremner et al (1995a) suggest that memory is a survival mechanism during trauma, an organism will need efficient retrieval of memories in similar future situations. According to Bremner et al, the removal of the adrenal medulla (which produces adrenaline) results in impairment of learning. Afterwards low doses of adrenaline enhance retention, but high doses impair retention. Propranolol (an alpha-adrenergic antagonist) interfered with the recall of an emotionally arousing story, which suggests that activation of alpha-adrenergic receptors in the brain enhances the encoding of emotion-arousing memories. PTSD patients have more problems with ordinary stressful events than non-PTSD individuals. Acute stress increases the release of noradrenaline in the hippocampus, which becomes sensitised to subsequent stressors so leading to an accentuation of noradrenaline release with an ordinary stressor. Rauch et al (1996) studied cerebral blood flow changes associated with PTSD in eight patients using positron emission tomography and found that in the trauma condition there was increased blood flow in right-sided limbic, paralimbic and visual areas. They proposed that emotions associated with PTSD are mediated by limbic and paralimbic systems in the right hemisphere.

The evidence, then, suggests that there is an immediate initial learned conditioned response to a trauma, which may be termed implicit memory. Once the trauma has passed, processing can occur to develop an explicit memory of the traumatic experience. As Bremner et al (1995a) show, amnesia may be found for traumatic memories as certain memories may only be available for recall if the correct emotional conditions are present. This provides further support for the idea of the conditioned response as implicit memory, only recalled when appropriate stimulus conditions are present (Foa et al, 1989). As Bower (1981) found using an experimental paradigm, retrieval

of information is facilitated when mood state is congruent with the mood at the time of retrieval. Other evidence for amnesia in traumatised individuals is provided by Sargeant & Slater (1941) studying hospitalised combat soldiers, and Elliot (1994) who suggest that traumatic amnesia may last for years. It has been suggested that it is not possible to develop PTSD if one has amnesia for the event (Horton, 1995). This has implications for coping mechanisms. An individual may not develop PTSD if they successfully avoid reminders of the event.

Memory has two main roles; it is a storage and retrieval system, and it is a functional system with affective, psychosocial, and cultural uses (Barclay & Smith, 1992). Memories are not usually fixed photographic images of a particular time, they are malleable. Explicit memory is a active and constructive process (van der Kolk & Fisler, 1995; Bartlett, 1932). Inputting new information into explicit memory depends on existing mental schemata. Once the new information is integrated it is no longer available as a separate entity, but only within the context of the schemata. This has implications for the changes that may occur in memories over time, depending on individual circumstances. Memories can be confabulated, so presumably they can range along a continuum from being highly accurate to completely inaccurate. Davis et al (1995) describe what they call 'counterfactuals', memories of the traumatic event that are not true (cf the current debate on recovered memories, British Psychological Society, 1995). They conclude that people coping with traumatic events appeared uninhibited in their ability to generate counterfactuals. The memories of traumatised individuals should be treated with caution, but not the individual's *responses* to those memories.

While 'ordinary' memories are not fixed, it has been suggested that traumatic recollections often are. Weine et al (1995) in a study of Bosnian refugees quote one survivor who says that he has "films of traumas that constantly play in his head; although he may look away from them, they continue to inhabit him." (p 540). This is not an isolated case. Much of the work involving trauma survivors has indicated that individuals appear to relive the traumatic event, not just recall it. This

reliving is one of the characteristics of PTSD as described in DSM-IV (APA, 1994). Yuille & Cutshall (1989) state that traumatic memories are detailed, accurate and persistent. Koss et al (1995) in a review of work on traumatic memories conclude that there is a consensus of evidence regarding them. They suggest that emotion facilitates accurate recall of central details of the event, though there is no similar increment for the peripheral details. They also found that emotion slows forgetting. It is possible that time actually enhances such memories. Shortly after the trauma the emotion may disrupt retrieval, but over time such disruption diminishes. Brewer (1992) suggests that the explanation for the durability of emotional memories is not rehearsal, but occurs at the encoding stage, which would suggest that it is a form of one trial learning that is adaptive, in support of the work outlined above.

Van der Kolk & Fisler (1995) suggest that traumatic memories are unique, that some aspects get fixed in the mind and are unalterable by time or experience. The emotional and perceptual elements are more prominent than the declarative (explicit) elements. They suggest that traumatic memories are encoded differently to ordinary memories, perhaps because of alterations in attentional focusing or because extreme emotional arousal interferes with hippocampal memory functions (Pitman et al, 1993).

The hippocampus plays a critical role in the development of explicit memories of trauma (Bremner et al, 1995a; Squire, see Joyce, 1992), and stress has been shown to affect this area, with high levels of glucocorticoids released here during stressful events. Bremner et al (1995b) found that Vietnam veterans show an 8% decrease in hippocampal volume compared with controls. Van der Kolk & Fisler (1995) show that explicit memory functioning is affected by lesions of the hippocampus.

The prefrontal cortex also plays an important role in the stress response. This area acts as an interface between internal and external experience, and is suited to the integration of sensory

information during a stressful event (Bremner et al, 1995a). This area also plays an important role in sustained attention. This links with the work of Christianson (1992), who focuses on the attentional elements of the traumatic situation, suggesting that when individuals feel threatened they experience a narrowing of consciousness, they focus on central details, and it is terror that prevents the integration of traumatic memories with ordinary memories (Janet, 1925). Janet suggests that after a trauma memories become unconscious fixed ideas until they have been translated into a narrative, in other words, they are contained in implicit memory until they are processed and incorporated into explicit memory. There may be implications for the amnesia experienced by traumatised individuals. Individuals may not be able to recall all aspects of the traumatic event because the event itself may interfere with general attentional skills or the focusing of attention on details (Wolfe, 1995). With increased arousal the output of noradrenaline leads to increased activation of the posterior attentional system (Posner, 1993).

Van der Kolk & Fisler (1995) propose a model of traumatic memory whereby traumatic memories are held initially in the form of dissociated mental imprints of sensory and affective elements of the traumatic experience, and that over time there is a gradual emergence of a personal narrative (ie explicit memory). What is important here regarding the outcome for the traumatised individual is the way the narrative develops. This will depend on a number of factors: the nature of the trauma, personal characteristics of the individual, coping strategies used, support mechanisms, and post-trauma life experience. These issues will be explored below.

1.6 Cognitive processing

The work of van der Kolk & Fisler can be linked with that of the cognitive processing theorists (Horowitz, 1986; Creamer, 1995). A cognitive processing model of trauma proposes that a person enters a traumatic situation with pre-existing schemata about the nature of the world, their belief systems, and expectations regarding the future (Hollon & Kriss, 1984). The experience of trauma confronts individuals with information that is inconsistent with these schemata, which

contain information about safety and invulnerability. Horowitz (1986) argued that for recovery to occur, the individual must process the traumatic experience such that the new inconsistent information is resolved and incorporated into the person's schemata via a process of adaptation. In order to do this the pre-existing schemata must be adjusted to incorporate the new information. The individual's attempts to assimilate the trauma-related information will inevitably lead to increased arousal and hence a desire to escape from, or avoid, thoughts and reminders of the event. Horowitz argued that until the trauma-related information is assimilated it is stored in active memory, and will continue to produce intrusive recollections. Psychological numbing of responsiveness (DSM-IV, APA, 1994) is a psychological defence mechanism against such intrusive thoughts.

The learning model of Foa et al (1989) has been outlined above. The experience of a trauma results in the formation of a fear network in memory which includes: stimulus, response, and meaning information about the event. In order to reduce fear two conditions must be fulfilled. Reminders of the trauma (fear-relevant information) must be made available in a way that will activate the fear structure. Second, in order to modify the memory network information that is incompatible with the fear structure must be available. Effective processing of the new information will lead to the dissociation of response elements from stimulus elements in the fear network and hence the modification of the information about the meaning of feared stimuli and responses.

Creamer et al (1992) note that while these theories have contributed to our understanding of post-trauma reactions, there has been little empirical evidence presented to support them. McFarlane (1989) has provided some evidence for a model using intrusion as an intervening variable between the traumatic event and later distress using a sample of firefighters who had fought a large bush fire. Creamer et al (1990) verified these findings using McFarlane's original data and a data set involving a multiple shooting in an office block.

Creamer et al (1992; Creamer, 1995) presented a general model of cognitive processing in a way that would allow for longitudinal empirical testing (see also McFarlane, 1992). Their model is an attempt at a synthesis of previous models, but it has the limitation that it fails to include many elements that affect post-trauma adjustment, such as personality, social support, and biological factors. Nevertheless, the model is a testable formulation. It consists of five stages:

a) Objective exposure: The severity of exposure to the event has been found to be a critical factor in the development of subsequent pathology (eg Foy et al, 1987; Speed et al, 1989). But the severity of the stressor is not the only determinant. The model proposes that the effects of the stressor will be mediated by processing variables. These processing variables are intrusion and avoidance.

b) Network formation: This can only happen if the person subjectively appraises the event as being traumatic. The formation of the traumatic memory network in implicit memory will be determined by characteristics of the traumatic experience (stimulus, response and meaning propositions). It will also be affected by factors such as pretrauma personality and prior experiences.

c) Intrusion: The memory network must be activated for processing to take place (Foa et al, 1989). This occurs when the person is presented with information that matches stimulus, response or meaning information in the memory network (ie a reminder). Activation of the network results not only in intrusion but also the accompanying aversive responses. These intrusive memories, while causing distress, may also be thought of as processing. Exposure allows stimulus-response connections to be weakened and encourages modification of the meaning associated with the incident. Intrusion can be functional in this way, or it can be dysfunctional, perhaps because it can result in very high arousal and prompt attempts to avoid the traumatic memories. Creamer et al

conceptualise avoidance as a coping mechanism that is activated when intrusive thoughts become too difficult for the person to deal with. Intrusion leads to the automatic fear response, which is too strong for the individual, who reverts to a strategy of avoidance, thus no processing of the traumatic information takes place. This model differs from Horowitz' (1986) model where avoidance comes first, prompted by the outcry (network formation) stage (see also Horowitz et al's work on grief, 1993). Creamer et al propose that resolution occurs not only through intrusion, but also through more adaptive processing, eg discussion of the trauma with family and friends.

Recently, further evidence for intrusion as a mediating variable has been presented in different populations. Joseph et al (1994) studied 25 survivors of the Herald of Free Enterprise disaster. At 19 months subsequent to the event, intrusion was found to be significantly related to anxiety and depression to a greater extent than intensity of exposure. Baum et al (1993) in a longitudinal study of chronic stress at Three Mile Island suggested that intrusive memories were related to persistent stress several years after the accident. Davidson and Baum (1993) found that in a sample of 67 Vietnam veterans exposure to combat was not associated with symptoms of chronic stress, instead, reported intrusiveness of recalled trauma-related imagery was an important predictor of long term problems. Feinstein & Dolan (1991) sampled 48 individuals who had experienced a range of traumatic events and found that distress as measured by the Impact of Event Scale (a measure of intrusion and avoidance, Horowitz et al, 1979) was highly correlated with psychiatric morbidity and PTSD after six months.

The work by Davidson, Baum and colleagues suggest that intrusion can act as a predictor of psychological distress many years after the event. Other work with Vietnam veterans includes that by Mellman et al (1995). They compared combat veterans with and without PTSD and found that those with PTSD experienced more intrusions into sleep and more highly aroused behaviours and states. This is hardly surprising as intrusion is one of the criteria for PTSD!

d) Avoidance: avoidance is seen as a coping strategy, a response to the discomfort caused by the intrusion stage. Network activation produces a state of high physiological arousal. People may attempt to escape this by avoiding reminders of the past. Our work (Hunt & Robbins, 1994), suggests that avoidance can be a very successful long term coping strategy for some individuals. Creamer et al argue that it can be maladaptive if relied on to excess. They suggest that high levels of avoidance will be associated with the continued presence of psychological symptoms. Avoidance levels will also be determined by prior coping strategies. While avoidance may successfully alleviate symptoms, traumatic information cannot be processed. Creamer et al predict that high levels of avoidance will be associated with continuing symptoms. This stage is critical for combat veterans. During combat individuals use avoidance as an important coping strategy. After World War Two they were told to forget about what they had done, and wives were discouraged from talking about it. But evidence even from the 1940s suggests that those who avoid discussing a trauma may have more severe longer term consequences (Lindemann, 1944).

e) Outcome: Recovery is achieved through activation and modification of the fear network. This is evidenced by high levels of intrusion which leads to high levels of symptomatology at the time, but reduced symptomatology later.

Creamer et al (1992) present evidence for their model from a longitudinal study of 242 individuals who experienced a shooting in an office block. The study took place over 14 months and the individuals were tested three times, being measured on intrusion, avoidance, and symptom development. The data validated the model. There was little evidence of a direct link between the event and subsequent symptomatology, with the link being forged by intrusion as an intervening variable. They also showed that there was no direct relationship between avoidance and subsequent symptomatology and they suggested that this was because avoidance functioned as a coping strategy in response to intrusion. This conclusion is less convincing as, using a path

analysis, a pattern should still have been established between the levels of intrusion and subsequent levels of avoidance. It also conflicts with Solomon et al's (1989) finding that blunters (ie avoiders) have more psychological problems.

Creamer et al's model is more sophisticated than Horowitz's. But it remains oversimplistic because, like the other models, it does not account for the problems noted earlier, placing the response to the trauma in the context of general cognitive theory, and accounting for long term effects. One of the difficulties concerning processing is that there appears to be an assumption that when the memory network is activated it "automatically" begins processing. There is no reason to suppose that this is the case. If an individual simply goes over and over the memory, it will not necessarily become less horrific or traumatic. As Weine et al's (1995) victim of ethnic cleansing said, the memories may be like films played over and over again. Another problem is that "recovery" is oversimplified. In learning terms, the model suggests that a kind of behavioural flooding takes place, and that if the person has high symptom levels then these will reduce over time through a process of extinction. There is no evidence that this is the case. In order for recovery to take place, the individual has to act on the memories. This is where the link with the work on explicit and implicit memories and developing a narrative is important. Creamer's notion of processing is equivalent to the development of the narrative (van der Kolk & Fisler, 1995), and if traumatic recollections are 'avoided' then they remain in implicit memory, and are in a position to be activated should the right stimulus conditions be experienced.

The present thesis is concerned with individuals who have experienced trauma around 50 years ago. A full explanation of the ways they have responded to the trauma over the years cannot be obtained without consideration of the psychosocial and environmental factors that have affected their lives. The following section will consider these factors in some detail. A full model of the response to trauma has to take into account how the individual's schemata interact with traumatic recollections when developing the narrative. Though even over the long term it is argued that the

individual's response can be broadly defined within the two mechanisms of processing and avoidance. The individual either learns to adapt to the traumatic memories by avoiding them through "keeping busy", work, family, etc, or they work on the memories through processing, they change the nature of the memories to stop them being traumatic, to integrate them into their belief systems..

1.7 Coping with memories of war

An understanding of the coping mechanisms employed by the combat veteran requires an analysis of the means of coping during combat itself. Combat is unlike many traumas, such as natural disasters, rape, and bank robbery, which are discrete events with (usually) a short time span, and where the individual is not prepared for the traumatic event. Combat is complicated by a) soldiers are prepared for battle by weeks and months of training, b) combat can last for extended periods, sometimes for years, and c) there are hardships the soldier has to endure whilst fighting a war that are not related specifically to battle itself. The following review will consider pre-combat and combat factors relating to coping, coping after the trauma (which incorporates general work on coping mechanisms) and an analysis of very long term coping.

1.7.1 Pre-combat factors

Previous researchers (eg Foy et al, 1987; Cordray et al, 1992) have used the term 'premilitary' when considering pre-trauma factors. The term pre-combat is used here to enable the inclusion of factors relating to military training, which is in essence a preparation to resist breakdown during combat, and is therefore critical to an understanding of pre-trauma coping.

Early studies of the psychological reactions to war, though often speculative, suggested that combat fatigue was caused, at least in part, by personality and other precombat factors rather than extent of combat exposure or post-trauma appraisal (eg Grinker & Spiegel, 1945; Brill & Beebe, 1951). Gunderson & Sabo (1993) in a review of the literature found that there were certain pre-

disposing factors, including personality (immature defence mechanisms), a family history of antisocial behaviour, early separation experiences, and exposure to previous sustained stressors that led people with borderline personality disorder to be more likely to experience PTSD in response to later stress. But this relationship may be found because of the type of people who enter the infantry, see Cordray et al (1992), below. There is the further problem that most of this research is post-hoc. It is possible that the trauma itself can lead to personality change (see Horowitz & Stinson, 1994). It is usually very difficult to separate the two for research purposes, though it would be very useful to do so. This difficulty should be borne in mind when considering the research discussed in this section.

Much of the work carried out has used Vietnam veterans. Hunter (1978) indicated a higher rate of pre-existing psychiatric symptoms in POWs studied after the war. There may be a sampling problem with this, as POWs, particularly in the Far East, suffered a high mortality rate. Without prewar data (which is not available) there is no way of telling how those who died differed from those who survived. Care must be taken with any interpretation. Ursano (1981) found that the presence of psychiatric illness or a predisposition to psychiatric illness were neither necessary nor sufficient for predicting psychiatric illness after repatriation. He concluded that any personality change is more likely to be a result of captivity. Wheatley & Ursano (1982) found that those who had been imprisoned for longer were more likely to have increased repression and denial, and greater suspicion and distrust. They suggest this group may be more likely to experience longer term psychological problems. Studies carried out with veterans shortly after World War Two (eg Wolf & Ripley, 1946; Brill, 1946; Gramlich, 1949; Swank, 1949) also showed that veterans experienced psychological changes as a response to combat.

Other research, in relation to the Vietnam and Israeli wars, indicate that unlike those studies which show some changes in the short term, precombat factors do not play a major role in predicting who will experience longer term PTSD. Cordray et al (1992) carried out a longitudinal study of a

cohort of young men from 1964 to 1982. The sample included people who became Vietnam veterans, Vietnam-era veterans, and non-veterans. Comparing veterans and non-veterans, they found that veterans were more likely to have been delinquents, and to be lower in social class than the non-veterans. Comparing the two veteran groups, Vietnam veterans were more likely to have done slightly better at school and more likely to have successful friendships, and less troublesome adolescent histories than non-Vietnam veterans. High combat Vietnam veterans displayed higher stress levels than low combat Vietnam veterans. The study overall provides evidence for precombat factors predicting level of combat participation, but it doesn't provide any evidence for precombat factors playing a role in predicting later distress. The authors suggest in a footnote that the relationship between precombat factors and PTSD will be considered at a future date.

Foy and his colleagues (Foy et al, 1984; Foy & Card, 1987) have examined the predictive role of precombat factors in PTSD and found no relationship between variables such as relationships with parents, school grades, and number of houses lived in and PTSD. Green et al (1990b), while finding that PTSD was explained primarily by war stressors such as threat to life and exposure to grotesque death, also found that precombat factors contributed to the diagnosis. Again, there may be a problem with isolating the aetiological role of pre-war factors, and the role of such factors in determining who will experience combat.

Hiley-Young et al (1995) examined precombat and military variables in relation to postmilitary variables, including violence and PTSD. Their sample consisted of 177 Vietnam combat veteran inpatients at a VA Hospital PTSD Unit. A large proportion of the sample endorsed precombat variables such as victim of physical abuse (35%), serious family psychopathology (21%), parental history of substance abuse (42%), stealing (53%, and school suspensions and expulsions (48%). Unfortunately the study did not include a control group of combat veterans without PTSD. As Cordray et al showed, veterans did tend to have more problems at school than non-

veterans. There are other predisposing factors that may indicate a susceptibility to combat stress reaction, such as maladjustment in childhood and adolescence (Segal & Margalit, 1986).

Precombat factors should include not only variables relating to the individual's life before joining the military, but also to the precombat phase of military life - training. As suggested above, the main purpose of training can be seen as preparing the individual to not break down or panic when in the traumatic situation, the battle. The individual, through training, develops the skills and expertise necessary to cope in battle. Soldiers learn to respond automatically to given situations. Without this automaticity, it is doubtful whether they would succeed in achieving military aims.

1.7.2 Combat factors

The combat soldier has to use various ways of coping during battle itself. These can be derived from the soldier's pre-war past (such as personality factors), or from the situation they are in (eg unit morale, cognitive avoidance when a friend dies). While the focus is on longer-term coping, it is necessary to discuss coping in the battle situation itself as the choice of coping used here may affect the longer term outcome. Nowhere is this better illustrated than in the use of avoidance as a coping mechanism. The notion of comradeship is very important to combat troops. In battle, one depends on others in the unit for one's life, trusting one's comrades entirely. This, and the fact that when living in very close quarters for sometimes years at a time, leads to the development of the comradeship bond. These bonds may last for a lifetime - which has implications for longer term coping through attending veterans' association meetings. Yet while veterans may claim that the bond is stronger than ordinary friendship, in battle itself if a comrade is killed the other members of the unit may give no more than a passing glance or a passing word about it. There is no emotion expressed over the death, no sorrow, no grieving. It is as though the dead soldier was of no value. But this is not because the death is unimportant to the comrades, it is because the comrades use avoidance as a coping mechanism. They know they have to fight on, they know people will be killed, they are pleased it was not them. If they stopped to grieve then they may be

killed, or the battle may be lost. Thus they learn to use avoidance as an effective coping strategy, a strategy learned during training when they were prepared to act automatically in combat situations so they would not freeze with fear. In this way avoidance is an adaptive coping strategy during combat though, as shown below, afterwards it may continue into postwar life and perhaps become maladaptive (Chemtob et al, 1988).

There are other factors that play a large part in successful coping in combat. These include effective leadership, self-confidence, high group morale, and remaining in the same unit throughout the fighting (Steiner & Neumann, 1982; see Antonocsky & Bernstein, 1986). Measures using number of combat stress reaction casualties as the dependent variable show that the number of casualties in an operation is an important predictor. Situational factors such as the nature of the battle (eg advance versus retreat), the comprehensibility of the mission, the extent of tactical support and the availability of proper equipment, also play an important part (Noy et al, 1986). Noy et al also show group cohesiveness and group leadership are important buffering variables. Ideology may also play a role in coping, not just in combat, but other forms of violence, eg rape (Foa et al, 1991).

While particular coping styles during combat may affect later outcome, some studies show that coping style during certain kinds of trauma may not affect outcome. Ursano et al (1986) studied four kinds of coping style in Vietnam POWs and found that no particular coping style was associated with post-repatriation psychiatric morbidity. Veterans and others who experience trauma may be disadvantaged in that findings have shown that those with PTSD are more likely to experience more traumatic events in the year following, which in turn leads to further psychological dysfunction (Solomon et al, 1990).

Bradshaw et al (1993) showed that some soldiers develop a satisfaction in killing, which they label "Heart of Darkness experience" after the book by Joseph Conrad. Individuals may develop

a type of denial which allows them to assume they are invulnerable even when all their comrades are dying. Finally, they may develop blunting strategies. Lifton (1986) in a study of the Nazi doctors at Auschwitz, showed that they developed two selves, one cultural that could play Mozart at night, one demonic, that killed people during the day. Lifton suggested that they needed the "killing self" in order to survive the camps, that they learned how to detach their human feelings from the act of killing. Bradshaw et al suggest this is similar to the combat soldier. The combat soldier on returning home finds it difficult to reconcile the empathetic caring behaviour they are supposed to display with the killer behaviour they were used to.

1.7.3 Coping after a trauma

There has been a lot of research carried out into coping over the first few years after war experience, particularly in relation to Vietnam (eg Milgram, 1986) and the various Israeli wars (eg Solomon, 1993). This has highlighted a number of coping strategies that are used by veterans with varying effectiveness. Individual differences are important. One factor that has been shown to predict PTSD is intelligence. McNally & Shin (1995) studied a group of Vietnam veterans and found that those with lower intelligence are more likely to experience PTSD. This may be because they are unable to devise effective cognitive strategies, or they are less effective.

The majority of studies on long term coping in combat veterans actually refer to a relatively short time period. Green et al (1988) conducted a study on Vietnam veterans, using seven coping strategies derived from the Horowitz Coping Inventory (Horowitz & Wilner, 1980). These strategies included: event processing, focus on living, time out for reflection, sublimation/comparison, emotional expression, denial, and religion/philosophy. The most effective strategies were event processing, time out for reflection, religion, and denial.

After a traumatic experience such as war the individual can respond in a variety of ways that will depend to some extent on experience both pre-trauma and during the trauma and, the focus here,

on what happens afterwards, the emotional response, the level of social support received, and the way the individual appraises or interprets the effects of the trauma. Coping can be look at from the behavioural perspective, in terms of the learned behaviours the individual uses to reduce anxiety levels as a response to the trauma, and from the cognitive perspective, which focuses on mental coping (denial, avoidance, repression, etc). The above discussion has shown that people use a variety of means to cope with traumatic experience. This section will focus on the main ways of coping that have been identified in research: cognitive processing, avoidance, and social support.

It is important to differentiate between those who have psychological difficulties because of their traumatic experience and those who don't - or do not at the time they are assessed. Folkman & Lazarus (1988) discuss the way traumatised individuals cognitively appraise their situation. This appraisal has two levels. In primary appraisal the person is concerned with what they have at stake, for instance safety. If this is threatened then they may respond with fear. In secondary appraisal the person thinks about what they can do about the situation, how they might cope. For instance, if the situation is manageable they might use problem-focused coping; if it is seen as unmanageable they might use emotion-focused coping. Appraisals will be influenced by antecedents such as personality, motivation, and availability of resources (eg personal and financial). Individual differences must be taken into account. Lazarus & Folkman (1985) state that events cannot become stressors independently of cognitive appraisal. This is applicable even to traumatic events.

To turn to the main styles of coping, Miller (1979, 1980) suggested that monitoring and blunting are the two main ways of dealing with stress. A person employing monitoring will tend to seek out informational cues about the threat and attend to information relevant to it. Blunting involves a tendency to avoid informational cues about the threat and to attend to distracting stimuli. This helps the individual blunt the psychological impact of threats. Miller (1987) suggested that people

who employ blunting strategies are less likely to experience symptoms of stress than those who employ monitoring strategies. Baum et al (1993) found that individuals who had higher levels of intrusion experienced greater psychological distress. Miller also found that individuals suffering from somatic disorders are more likely to have high levels of arousal and to use monitoring. These individuals are constantly monitoring for danger signals and interpreting neutral signals as dangerous (Beck, 1976). Roth & Cohen (1986) suggested that specific coping strategies can be generally categorised as efforts to either approach (engage or monitor) or avoid (disengage from or blunt) the stressor. Solomon et al (1991) tested monitoring and blunting using combat veterans, and found that those who rely on monitoring strategies experience less trauma-related psychopathology. This contradicts Miller's findings. The problem might be that different groups were used (somatic disorders vs combat veterans). Combat veterans typically use a blunting style when in combat. Afterwards this style may not be appropriate. In order to process the information the veteran must use a monitoring style. Davey et al (1993) found that blunting was directly associated with both psychological and psychosomatic symptoms. However, they found no relationship between monitoring and symptoms. Hyer et al (1996), using Vietnam veterans, looked at the relative frequencies of eight ways of coping with war memories, and found that they predominantly used emotion-focused and avoidant strategies.

Lazarus and his colleagues have carried out research into the relationship between coping and emotion (Coyne & Lazarus, 1980; Folkman et al, 1979; Lazarus, 1966, 1981; Folkman, 1984; Folkman & Lazarus, 1980; 1988). Emotion is defined as having three components, cognitive appraisal, action impulses, and patterned somatic responses. Coping consists of cognitive and behavioural efforts to manage internal or external demands that are perceived as taxing or exceeding the resources of the individual (Folkman & Lazarus, 1988). This definition refers to both problem-focused and emotion-focused coping. Problem-focused coping is where the individual tries to alter the situation that is causing the distress, while emotion-focused coping involves regulating the distress, which can alter the meaning of a situation and increase the

individual's level of control. Thus problem-focused coping is used when people think something constructive can be done, and emotion-focused coping predominates when people think nothing can be done except to endure the stress (Zeidner & Hammer, 1992). Folkman & Lazarus claim, and others have replicated this, that people rely on both forms of coping. Solomon et al (1991) found that monitors tended to use problem-focused coping strategies, while blunters used emotion-focused coping.

Combat veterans use avoidance as a coping strategy during combat. After the war avoidance continues to be used as a coping strategy. Veterans from World War Two were discouraged from talking about their experiences, even to their wives and families. They continued using avoidance as a coping strategy. Minkovsky (1946, see Mazor et al, 1990) noted that Holocaust survivors used "affective anaesthesia" in order to cope immediately after the war. Avoidance has also been called psychic numbing (Lifton, 1977), these individuals are unable to confront the horror of their war experiences. Such avoidance may go on for years, perhaps permanently, but if it ceases to be effective, then psychological symptoms may arise.

Folkman & Lazarus (1988) discuss avoidance as one of the commonest ways people use for dealing with stress. They put this in the context of everyday stress. Research has associated the use of avoidance with increased levels of anxiety and depression (eg Folkman et al, 1986; Vitaliano et al, 1985). As Folkman & Lazarus note, the research carried out, because it is cross-sectional, does not allow us to distinguish between whether avoidance causes psychological symptoms or whether people who have such symptoms use avoidance. McNally et al (1994) showed Vietnam veterans with and without PTSD a combat-related video and found that veterans found it difficult to retrieve specific autobiographical memories. They suggested that the inability to retrieve such memories, especially positive ones, may contribute to the maintenance of PTSD.

In order to understand how coping mechanisms function one needs to consider individual differences in what Folkman & Lazarus call moderators, that is, the variables an individual brings to the situation. They draw a distinction between mediators and moderators. Moderators are the antecedent conditions that the person brings to the situation. A mediator is something that changes the original relationship between the moderators and the original outcome. One moderator is vulnerability. This is widely accepted as central to understanding stress-related psychological dysfunction (Kuiper & Olinger, 1989), though as Escobar (1987) notes, there is a danger of sterility when debating whether "stress" or "vulnerability" constitutes the essential factor. Holahan & Moos (1987) found that individuals with greater personal and social resources were more likely to rely on active coping and less likely to use avoidance as a coping strategy. In the end, whenever people are confronted with a traumatic stressor, it is only a small proportion of them who will experience long-term psychological problems (Zeidner & Hammer, 1992), though many may suffer sub-morbid stress responses (Cairns & Wilson, 1989). The purpose of research in the area is to try and determine the factors that affect whether or not someone will have a negative psychological response to a traumatic event.

Social support is an important means of coping used in a variety of situations, from HIV sufferers (Mulder & Antoni, 1994) to sexual assault (Harvey et al, 1991). Evidence shows that there is a relationship between social support and well-being in a variety of situations, including everyday stressors (eg Mitchell et al, 1982; Schwarzer, 1992), war stressors (Turner & Marino, 1994; Barrett & Mizes, 1988), and torture victims (Basoglu et al, 1994). Horowitz & Stinson (1994) in a study relating personality features to neurotic responses to events concluded that social supports sustain the person through the emotional turbulence following a trauma. Before considering the effectiveness of social support the process by which it works must be considered. There are two possibilities, that well-being is attributable to an overall beneficial effect of support (the main-effect model), or that it is attributable to a process of protecting people from the potentially harmful effects of stressful episodes (the buffering model). A large-scale review by Cohen &

Wills (1985) found support for both models. Evidence for a main effect model occurs when the person is integrated into a large social network. Evidence for a buffering model occurs when the individual has interpersonal resources that are responsive to the needs elicited by stressful events. Clearly, when discussing combat veterans or other traumatised groups there may be other effects. Successful social support received by the veteran is from the unit during the war (eg Kentismith, 1986) and from the family postwar (Shehan, 1987). A social network as a buffer may be important in the modulation of PTSD (Escobar, 1987). The buffering hypothesis may be effective if the person uses an avoidant strategy (recommended after World War Two, where the general attitude taken by the military was 'go home and don't talk about your experiences'). But because the family is often in a situation they don't understand, further problems may develop. Jordan et al (1992) found that families of Vietnam veterans with PTSD showed markedly elevated levels of marital and family adjustment, in parenting skills, and in violent behaviour. Social support has also shown to be effective for families living through war (Farhood et al, 1993). The lack of social support can lead to a victim becoming isolated or detached (Loo, 1993).

According to Krause (1989), social support can act as a coping mechanism in three different ways, 1) as a moderator, 2) as a suppressor, and 3) as a distress-deterrent. The moderator model is probably the most commonly examined. This is where social support is seen to have a moderating effect on the stressful event. It is suggested this is most effective at high levels of stress. In the suppressor model the level of support is dependent upon the amount of stress that is present. This assumes a resource mobilisation approach, that states as stress increases individuals act to increase social support. Hence stress increases support, which in turn suppresses stress. The distress-deterrent model differs from the moderating model in that the stressful event and the support are independent of each other, though together they exert an additive effect on the outcome. Rook (1987), supporting this last model, pointed out a distinction between companionship, which is about shared enjoyment of activities, and social support, which is an interaction that is problem-focused and looks to provide aid or assistance.

Recovery from PTSD has been linked to increased social support and less emotion-focused coping (Solomon et al, 1990; Norris & Kaniasty, 1992). Increased social support in the form of a willing listener to the story of the traumatic episode has been shown to be beneficial in a variety of situations, such as sexual assault (Harvey et al, 1991) or shooting (North et al, 1994). Social support has been shown to predict long term PTSD (Green et al, 1990b). Stretch (1991) found that Canadian Vietnam veterans suffered greater levels of psychiatric morbidity than US veterans, and proposed that this was partly because of prolonged isolation from other veterans.

An understanding of post-trauma coping is necessary if we wish to identify the factors that differentiate those who experience psychological difficulties from those who don't. The above evidence suggests that there are three main ways of coping with trauma; processing, avoidance and social support. Coping with long term memories of trauma inevitably becomes intertwined with coping with the effects of age when considering World War Two veterans. For this reason, evidence for coping in this population will be discussed in the following section.

1.8 Age-related issues

"Have you heard of an old man who forgot where he hid his treasure?" Cicero, quoted in Baltes & Baltes (1990).

Many of the issues relating to age have already been considered in the section relating to coping in the longer term, but there are several points that need to be made separately. The above quotation is recognising that older people may lose some effectiveness, they may forget or fail to recall skills and facts that they are no longer interested in, but at the same time they do not forget the things that are important to them. For many World War Two veterans, memories of the war are still important. This is shown in the studies that have been carried out in the area, which also demonstrate that ageing may serve only to focus such veterans' minds more closely on what is

important to them. The effects of ageing are important here only insofar as they impact on the way that older people's memories and thoughts about their wartime experiences change due to this ageing process. This process of a progressive loss of coherent recent memory is exacerbated in problems such as dementia, where the loss of cognitive functions leads to the world becoming fragmented and incomprehensible. This leads to the individual needing self-assurance, which they can only obtain by escaping via reminiscence into preserved older memories, and so they live more and more in the past (Fuchs, 1995).

As shown earlier, there has been research carried out into very long term coping with traumatic memories, generally with veterans of World War Two. Fairbank et al (1991) found that World War Two veterans with PTSD tended to have less control over their memories, more self-isolation, wishful thinking, self-blame, and made more use of social support to cope with their memories than those without PTSD. Eberly et al (1991) found social withdrawal and substance abuse were used as coping mechanisms among a group of World War Two ex-POWs.

There are further complications regarding coping in older veterans. Coping must be considered across the life cycle, in relation to various stages of family life, such as mate selection, marriage, childbirth, children leaving home, and marriage (Scaturo & Hayman, 1992). Scaturo & Hayman note that the normal emotional feelings when a child leaves home may be exacerbated for combat veterans because they may link this to the memories of the loss of significant friends, randomly and brutally on the battlefield. In effect the veteran may be re-exposed to the feelings of abandonment, isolation, and helplessness previously experienced during combat. Similar things may happen at retirement. Scaturo & Hayman note they have observed that a number of veterans require psychological help post-retirement. It is suggested that they put an emotional investment in their work that allowed them to be distracted from memories of their wartime experiences.

The pattern of coping responses may be different for older adults specifically because of their age. Krause (1986) studied a group of older adults and found that social support can have a buffering effect for certain types of stressors such as bereavement, crime, and social network crises - things which are more likely to occur if one is older. The question of whether social support can buffer the effects of returning memories of combat is still open. Krause recognised that previous research has been contradictory, perhaps because studies have failed to separate social support and life event measures.

Scaturo & Hayman (1992) explored the effects of combat trauma across the lifespan. They proposed that children leaving home and retirement have substantial psychological impact on the veteran. When veterans were asked why they were only presenting with problems after retirement it appeared that they had put a lot of emotional investment into their work and that when it had gone they had extensive periods of free time, which led to a flood of unwanted war-related memories returning to them. The problems of the aging veteran can be expressed as existential concerns (Yalom, 1980). By late life the individual has a need to resolve any psychological conflict they may have. It is only now they have to come to terms with their participation in the war (Scaturo & Hardoby, 1988), that is, they need to "make peace" with the world, and with themselves. They also need to resolve the conflict between the values they held as a child and the violation of these values they experienced during combat.

It has often been stated that old age is about deterioration. In many ways this is true, the body decays, there is a greater susceptibility to illness, in Western society there is less respect for the retired person than one still at work. But this is simplistic. There are many ways in which the later stages of life can be about fulfilment. Baltes & Baltes (1990) discuss what they call "successful ageing", and provide a series of criteria on which such success depends. These include: length of life, biological health, mental health, cognitive efficacy, social competences and productivity, personal control, and life satisfaction (p 5).The problem in Western society is that older people

are not positively perceived, they are often seen as a drain on resources rather than a resource in themselves. This leads to a sense of powerlessness, a sense of being unwanted. Koch & Webb (1996) discuss the need to change attitudes in society, to promote a social and political movement which opposes ageism and challenges these negative stereotypes.

The performance of older people on various measures, from the effects of life events and coping with loss to measures of cognitive ability such as memory is different to that of younger age groups. But just because a person is old, does not mean their performance is *necessarily* going to differ. One factor that is important is that this generation was brought up in a culture that did not allow the expression of emotion by males. The effects of this are undoubtedly still present, and may represent part of the explanation as to why the psychological problems still persist, though one shouldn't assume that the process is static, and though many may still be unable to express emotion, there are probably others who do, some of whom will have learned to do this over the postwar years.

Traditional cognitive psychology measures of memory have demonstrated that older adults show significant impairment on episodic memory tasks (eg recalling word lists), but their performance on semantic memory (general knowledge) does not decline (see Davis & Bernstein, 1992; Hultsch & Dixon, 1990, for reviews). There is little decline on implicit memory, but more decline on explicit memory tasks requiring conscious effort and attention (Friedman et al, 1994). Unfortunately the definitions of the terms implicit and explicit memory are not exactly equivalent to the way they are used here, so it is difficult to draw direct comparisons. Overall, the evidence suggests there is memory decline in both acquisition and retrieval, though retention remains relatively stable across the lifespan (Paulsen et al, 1994; Youngjohn & Crook, 1993). Hill et al (1995) showed that any decrement in cognitive performance is related more to a lack of participation in social activities and lower education than to age.

Wagenaar & Groeneweg (1990) looked at the retention accuracy of statements made by 78 victims and witnesses of Nazi atrocities. Follow-up interviews were conducted in the 1980s and responses were compared with information given to police investigations during the 1940s or with official documents. Their accounts of conditions, the daily routine, mistreatment, and the guards were very consistent. Experiences such as punishments were usually remembered in great detail. This research provides evidence for the accuracy of very long term memory of traumatic experiences (though see Davis et al, 1995, re counterfactuals for evidence that memories are not to be trusted). Bahrick & Phelps (1987) suggest that over the first few years after a learning event, information is forgotten. It then asymptotes, and all further data is retained without decline. This is termed a 'permastore'. But the evidence for this derives from ordinary memory performance, so it may not apply to traumatic memories. In terms of age-related memory, Fromholt et al (1995) found a chronological distribution of memories across the lifespan, with a peak of recalled memories in adolescence and young adulthood, a decrease in midlife, and an increase in the most recent years for older people.

In recent years, reminiscence has been generally accepted as a) a research method, b) a means by which older people come to terms with their lives. The purpose of both is a recognition of the need to draw out meaning from the life story (Coleman, 1994). Coleman (1986) has presented a model of the ways in which older people use reminiscence. Reminiscence can be positive if the person is in a good life situation at the present time, then their reminiscences tend to be of pleasant memories that are compatible with their current interests. If they reminisce when they have a poor present life situation then they often have troubled memories that interfere with their current life. Those who rarely reminisce but have a good present life situation tend to be so involved with current activities that they have little need for reminiscence. Those with a poor present life situation who don't reminisce tend to avoid reminiscing because of their present adversity (these findings fit with those of Hill et al, 1995).

This may have implications for predicting ageing veterans who are experiencing problems with their wartime memories. One of the earliest studies looking at ageing war veterans found that ageing veterans of the Spanish-American war who reminisced were well-adjusted and healthy (McMahon & Rhudick, 1964). Bromley (1990, p 245) says that reminiscence must be rational reflection on the past, not just passive, and also that reminiscence should be distinguished from ruminating, where the individual goes over and over the same thing without altering its psychological significance. Bromley also suggests that the current state of an individual's mind will affect the kinds of memories recalled. This may link with the ideas on the conditioned fear response outlined earlier, suggesting that if the ageing veteran is emotionally disturbed then this mood state may activate the conditioned fear response. If they have been avoiding processing the memories then the raw implicit memory may emerge, leading to further psychological distress. One further consideration with reminiscence is the purpose of reflecting back on one's life. Butler (1963) suggested that individuals need to construct (reconstruct?) the events in their lives in order to give them meaning. Again, this is considering memory in the second purpose mentioned earlier, as a functional mechanism, where memories of events interact with the psychosocial and environmental factors.

According to Carter & McGoldrick (1980) the older generation do like to pass on their knowledge about the world to future generations, and this applies to war experience in the same way as any other experience (for instance, Stierlin, 1981 discusses dialogues between German parents and children over the formers' involvement in the war). This is a cultural factor that is usually overlooked in our society, where the old are seen more as a burden than as a fount of wisdom.

Reminiscence is used as a means of therapy, where the main purpose is to enhance the individual's sense of being in control of their life, understanding the self in relation to others, and enjoyment of life (Garland, 1994). Reminiscence can be seen as oral history that has adaptive

social value (Buchanan & Middleton, 1994). This positive view is in contrast to earlier ideas that saw old age as a gradual process of disengaging or withdrawing from social life in preparation for death (Cummings & Henry, 1961).

Depression in old age is a relatively common phenomenon. This may have a number of causes, such as the loss of loved ones (though this is not a particularly good predictor, Pahkala et al, 1991), children moving away from the family, retirement, the realisation that one is near the end of one's life (see Katona, 1993 for a review). It may be concurrent with a decline in general cognitive functioning. A diagnosis of dementia is often complicated by the presence of depressive symptoms (Paulsen et al, 1994). Life events are a potential cause of depression in old age. Brown & Harris (1978) noted that elderly people with depression are twice as likely to have experienced a major life event in the past twelve months than an age-matched control group. Other studies report similar findings (Emmerson et al, 1989; Murphy, 1982; Dean et al, 1990). Macleod (1994) found that an exacerbation of PTSD symptoms in later life was related most strongly to physical ill-health, but also to retirement, loneliness, anniversaries and service reunions.

There are findings from the neuroendocrinology literature concerning depression. Asnis et al (1981) found a significant relationship between cortisol levels and age in endogenous depression (see also Maes et al, 1991). Maes et al (1991) identified age as a highly significant mediator of post dexamethasone cortisol secretion. This links with the finding of Ver Ellen & Van Kammen (1990) that increased cortisol production is linked to higher PTSD symptomatology. Perhaps this may establish a physiological link with increasing symptoms of PTSD in the elderly. Schneider (1992) suggests that increased gluco-corticoid levels may lead to age-related neuronal degeneration in the hippocampus, which fits with the work of Bremner et al (1995a), showing that the hippocampus is significantly smaller in veteran PTSD sufferers.

Katona (1993) suggests that the individual's capacity to adapt to stress and become more resilient because of it may be crucial in determining whether a particular set of risk factors leads to depression in the elderly. Hence, mechanisms of appraisal and adaptation may have an important role in predicting depression.

There are potentially problems with assessing older adults, particularly because researchers and clinicians often use measures designed for and validated on younger individuals. For instance, when assessing PTSD it is common to use paper and pencil tests. If older adults are not used to this format there may be problems, though Hyer et al (1992) found that there was no problem when using measures of PTSD and personality with older combat veterans compared with younger combat veterans. Though paper and pencil measures may be adequate they should be interpreted with caution, as items may not have the same meaning for older people as they do for younger people.

Rodgers & Herzog (1987) have considered the accuracy of the factual information provided by older adults compared with younger adults during interviews and found that there were very few differences. There were no consistent age differences, and those that were present generally had the older interviewees being more accurate. In any case, the need for accuracy of information, at least in regard to memory for war-related events, is not critical in the present research, as it is the *effects* of the memories that are of greater concern. However, it is more important when the interview questions concern the thoughts and feelings of the individual at the present time.

1.9 Questions

The present thesis is an attempt to develop an understanding of the very long term effects of war in an ageing population, in the context of a cognitive processing framework. There are a number of general problems arising from the foregoing discussion. These are:

1. *Cognitive* processing

Are cognitive processing models of the response to trauma valid over the very long term? Such models have only been tested in limited circumstances over the short term, and usually with discrete traumas. Cognitive processing and avoidance are seen as important strategies for dealing with trauma. How does processing enable the individual to come to terms with the traumatic experience and integrate it into their schemata through the development of explicit memory in the form of a narrative? How do psychosocial factors affect this process? Is it possible to develop a parsimonious model of the response to trauma using processing and avoidance?

2. *Memories and intrusive recollections*

What is the role of intrusive recollections in mediating, triggering, and maintaining long term psychological problems? Many things can act as reminders to individuals involved in a trauma. With the 50th anniversaries of World War Two being displayed across the media, it is important to see what effect if any they have had on veterans. They may play an important reminding role on individuals who may have been using avoidance as a successful coping strategy for 50 years. The 50th anniversary presents a rare opportunity to observe the effects of direct reminders of distant trauma.

3. *Coping and age*

There are many potential factors that may be leading ageing veterans to experience renewed psychological dysfunction. It is unclear whether these are due to the war, ageing itself, or the interaction between memories and ageing processes. For instance, ageing may lead to decreasing effectiveness of coping mechanisms, or the depression often found in older people may cause traumatic memories to re-emerge. It is also unclear what role major late life events such as retirement, death of a spouse, and the nearness of death has on World War Two veterans. In a period of 50 years there are going to be an enormous number of factors that potentially affect

long term psychological outcome for example; social support, other life events, and job satisfaction.

These are the issues that are explored in the following chapters. The first study involves a questionnaire, but the rest of the work concerns the analyses of a series of depth interviews with World War Two veterans, all of whom experienced severe combat, and/or were POWs. Some still have major war-related psychological problems, others appear to have no difficulties.

Most previous research on this population has considered specific groups such as POWs and Holocaust victims. The present research will look at the effects on the general British World War Two veteran population, which is a very large population. Though that generation is now ageing, the psychological problems may be increasing as there may be veterans who have lived relatively normal symptom-free lives and who are only now having to learn to cope with re-emerging war-related symptoms. It is the purpose of this thesis to explore the reasons why these problems may be re-emerging, and to provide information that will help clinicians and others provide better care and treatment for those who are having such difficulties.

CHAPTER TWO

METHODS

This chapter focuses on the methodological and epistemological issues regarding the methods chosen for the present research, and provides details of these methods. There are several parts to the chapter; a rationale for the choice of questionnaire and interview methods, a discussion of the population used, and details of the questionnaire and the interviews.

2.1 Methodological issues

The present thesis makes use of questionnaires and depth interviews. The use of the former provides a link with previous work in the area and the latter a means of going beyond previous findings. Previous research has largely been based on the use of questionnaire methods to assess the role of various factors in the aetiology and progress of the response to trauma. There are both advantages and disadvantages to this that will be considered below. Depth interviews allow a greater flexibility and the opportunity to focus on the issues that veterans themselves consider to be important.

2.1.1 Rationale for choice of methods

This section considers the reasons for choosing questionnaires and interviews. Only brief descriptions of the methods are presented. There are many texts that provide further details of the methods, eg Breakwell et al (1995); Denzin & Lincoln (1994); Banister et al (1994).

2.1.1.1 Questionnaires

The questionnaire is used in psychology to obtain information about a wide range of issues. There are several benefits to the use of questionnaires. Questionnaires are efficient in time management terms. They are easy to design, use, and analyse. They allow the collection of a large amount of data relatively quickly and cheaply. The process from conception of research question to piloting

and to data collection need only be a matter of months. Questionnaires don't take long to complete, they don't require expensive laboratory equipment. They can be sent to people's homes for completion. They are also efficient in terms of analysis. With fixed responses (eg 1-5 Likert scale) data can be input into a spreadsheet and subjected to statistical analysis with ease. Questionnaires are usually designed with ease of choice of statistical analysis in mind. Another advantage is that the researcher can specify quite clearly the questions that are of interest and the range of response categories that are appropriate. This enables the research design to be clearly focused.

Questionnaires also have several disadvantages. The collection of a large quantity of data is carried out in a form that is at the expense of detailed insight into the complex and contradictory ways in which people think about whatever issues are relevant. This is reflected in how data lose value in being grouped. Individual differences between people reflect the different ways in which people think about issues. To lose this in overall means is in many circumstances unacceptable (indeed the standard deviation often provides greater insights than the mean simply because it can reflect the range of experiences different people have). There is also the problem with quantifying experiences such as, to use a relevant example, degree of perceived stress. Veterans will inevitably interpret these in different ways.

Another disadvantage is that the researcher may not be in the best position to determine the questions that are relevant. Introducing flexibility into the question procedure allows respondents the freedom to suggest and develop other issues that the researcher may not have considered. Questionnaires tend to distance the researcher from the researched. Which questions are asked and how they are phrased are determined by the kinds of statistical analysis that will be carried out. This means that the way in which information is collected is not determined by meaningfulness but by the way they are analysed. The way in which we collect data has a major effect on the degree to which the research will allow a critical analysis of the phenomenon under

investigation (Habermas, 1987). Conclusions can only be drawn from the responses that have been given, not from questions that should have been asked.

A questionnaire was chosen as the first study in the present research for a number of reasons. It enables the research to validate and replicate previous research. Previous research in the area of trauma has made extensive use of the questionnaire. One of the purposes of the present work is to replicate previous studies using a World War Two population. Part of the present questionnaire consists of previously validated measures that will allow direct comparisons to be made between the World War Two veteran population and other trauma populations, and other studies using World War Two veterans. The questionnaire will also provide basic information regarding the present population. A questionnaire is a straightforward and relatively simple means of generating a large amount of data regarding a population. The questionnaire in the present context is used as a means of obtaining biographical information, and to determine groups of veterans who still experience war-related psychological distress, and the types of events and memories that can affect them. The questionnaire is also used to provide the first test of the theory. It will be used to test several research questions that have arisen out of an analysis of previous theoretical and empirical work. By starting the study using similar measures as other research, an indication will be obtained as to the similarity of the present population with other traumatised groups.

Finally, the questionnaire will be designed to help generate interview questions, to help design the interview protocol. Open-ended questions will also be included for this reason, to explore the kinds of memories that are considered by veterans to be still important.

Overall, the questionnaire is useful, but it is important to recognise its limitations. It has value as a tool for generating large quantities of data relatively quickly and cheaply, and to provide an initial test of a hypothesis, but the limitations of the method mean that it should not be used as the only

tool. It is a means of initially exploring topics that will be examined in more depth in the interviews.

2.1.1.2 Depth interviews

Depth interviews are used in circumstances where the researcher requires detailed information on a topic from individuals rather than groups. Interviews can range from being highly structured, where the questions are pre-determined and the researcher asks them in a fixed order without regard to the responses obtained, to unstructured, where the researcher has a number of topics to cover but no fixed questions, and the progress of the interview is determined in large part by the responses obtained. The advantage of the latter is that it allows the opportunity for flexibility, for taking account of the different abilities, knowledge, attitudes, etc of people. Questionnaires, whether structured or unstructured, can be analysed both qualitatively or quantitatively. Content analysis provides categorical data which are open to quantification (see Chapter 4), though usually unstructured interviews are analysed qualitatively (Fontana & Frey, 1994)

Interviews have several general benefits. Perhaps the most important is that detailed individual data can be obtained from a single interview. There can be flexibility in the questions that are asked, so issues that arise in an interview can be explored in greater detail. Both parties, researcher and respondent, have a greater freedom to explore issues that arise during the course of the interview, not only those the researcher initially wished to discuss, but issues which arise out of the respondent's answers. In this way answers can build on one another and provide a bigger picture. The data is not constrained by the researcher's previous notions. Once the data is obtained and transcribed, it can be subjected to a greater degree of analysis than is possible with a questionnaire that has fixed response categories. This analysis can then be used to input into developments of the interview protocol, of which more later.

Issues of reliability and validity are important to interviews. A successful interview depends on the respondent providing full and accurate answers. This may not occur if a) the material is difficult for the respondent, b) the respondent does not have full access to the material. The purpose of subsidiary questions is to get over this problem - but they may not be entirely successful. This apparent disadvantage is not peculiar to the interview method. Any method has validity problems. For instance experimental methods have such problems at the stage of the initial design, where the researcher creates several (artificial) groups and chooses a dependent variable on the basis of prior theory. These variables have an element of arbitrariness about them. This is not the place to analyse the pros and cons of experimental research. The example is used simply to illustrate that problems of validity arise in all psychological methods, and they need to be taken into consideration. In order to counteract any potential problem with validity in the research interview, the analysis is required to be both open and reflexive, open in the sense that any reader of the analysis can see how that analysis was created, reflexive in the sense that researchers must constantly question their analyses.

The questionnaire will provide the basic data needed to test theory and to generate further questions. The depth interview provides detailed individual data that takes account of the issues that are important to people, including particular issues not thought about by the researcher, and of the differences to be found between people. Though depth interviews are about the intensive study of individuals, the approach taken here is not idiographic in the conventional sense. The research is not about the study and understanding of individuals. It is about developing a theory that is applicable across the relevant population, but with the acknowledgement that there are genuine differences between individuals, and that an understanding of these differences enables a fuller picture of the general theory to emerge than the study of groups per se. This is similar to the approach proposed by Smith et al (1995) who do not argue against general laws, but state that the procedure for generating understanding should start in the idiographic mode and then generalise

to the nomothetic by what they call "intensive design". An intensive design is one in which the properties of the group are ascertained by the study of individuals.

Previous research - and the first study presented in Chapter 3 - generates findings such as "60% of veterans experience PTSD", or "30% of veterans receive inadequate social support". These figures are useful, but they only tell a small part of the story. They can only be descriptive. Questionnaire designers use multiple regression techniques with pre(researcher)-determined variables to ascertain aetiological factors, but what is not fully explored are the meanings attached to statements such as "PTSD" or "social support". What the researcher means is not necessarily the same as what the respondent means. An interview study is the only method whereby an understanding of these terms can be ascertained. An interview study allows the researcher and the veteran to discuss these factors in detail, and provides a means to deepen understanding of how and why PTSD occurs. As Allport pointed out (using a different example but the point is the same), there is not a 60% chance of a particular veteran getting PTSD because each individual is unique and no statistician is going to be aware of the particular influences that relate to that individual (Allport 1962; in Smith et al, 1995). By the intensive study of such individuals, we can build up a general theory of the response to trauma.

The process used here is similar to that of grounded theory (Strauss & Corbin, 1990). Smith et al (1995) suggest a process of analytic induction in order to move from an understanding of the individual to a general theory, the steps of which are:

a) propose a tentative hypothetical explanation for the phenomenon of interest

b) study the first case and determine to what extent the hypothesis is true. Revise the hypothesis to fit the case

c) move to the next case and assess the appropriateness of the revised hypothesis. Amend it accordingly.

d) Follow this procedure through a number of cases and the final theory should have greater explanatory power.

It is recognised that this approach has the limitation that one does not study all relevant cases and so may miss something important - but the study of groups almost always uses samples rather than populations and have the same problem. There the solution is to use a "representative sample". In the interview the solution is to sample theoretically, to choose individuals who will be in a good position to justify or falsify the hypothesis. This is the approach taken here.

2.2 The population

An initial questionnaire (see Appendix A) was completed by 731 veterans of World War Two (n=657) , the Korean War (n=22), and 50 veterans who fought in both wars (2 veterans failed to complete this section) who live in the United Kingdom and fought in the British armed forces. When asking for volunteers it was emphasised that veterans were wanted on the basis of their war experience, not on any problems they may have. It was completed on nearly all occasions by the veterans working on their own, though in a very few cases (10) they were completed in the presence of myself. The purpose of this was to pilot the questionnaire to ensure comprehensibility. These veterans had little difficulty completing the questionnaire, and there did not appear to be ambiguous or misleading questions, so their results are combined with the rest of the questionnaires. As the number interviewed is so small, no meaningful comparison can be made between the two groups.

Returned questionnaires were numbered according to their order of arrival, and input into a spreadsheet in CSS-Statistica for Windows for subsequent analysis. 731 questionnaires were completed. For details of the coding procedure used, see Appendix B.

2.2.1 Obtaining the initial sample

In order to find individuals who fitted the description and who would be willing to take part in the study a number of strategies were used. These strategies had to be employed because the United Kingdom, unlike many other countries, does not have a central register of veterans. The strategies employed included:

a) newspaper appeals. A short letter (Appendix C) was sent to local newspapers around the country asking for veterans who were willing to complete a questionnaire about their war experiences to contact the researcher at the University of Plymouth.

b) radio appeals. A similar request sent out over several local radio stations around the country.

c) veterans' organisations. Secretaries of local organisations were written to and asked to publicise our request at their meetings.

d) word of mouth. As the project became known, veterans would inform other veterans, who would then come forward as volunteers.

e) media interest. As the project got off the ground radio and TV stations and newspapers (local and national) took an interest, and this generated responses.

In this way a large group of veterans were obtained who were willing to complete the questionnaire. There are no means of knowing the proportions obtained from each source as many veterans requested the questionnaire without indicating where they had heard of it. A question could have been included to address this, but there was no rationale to do this. The response post-volunteering response rate (ie those who requested the questionnaire and then returned it completed) was very high (731 out of 803 sent, 91% return rate). In total, 731 veterans completed the questionnaire.

This method of sampling has drawbacks. One of these is that the sample obtained cannot be considered as representative of the general population of veterans, and in this instance such a sample would have been useful so some indication of the extent of psychological problems could have been determined. But this was not possible for several reasons. First, in order to obtain a

representative sample, information would need to be obtained about the population of appropriate veterans surviving in the country. Records for this do not exist as the government has no cohesive strategy relating to war veterans, and perceives no need to develop such a strategy. The only records that exist are those held by various organisations such as the British Legion and local veterans' associations, and these by no means cover the population of veterans. The alternative would be to conduct an epistemological study of a particular geographical area, which might have yielded a representative sample, at least for that area. The problem here is that different geographical areas have different mixes of veteran populations. For instance the South West of England has a higher proportion of naval veterans; while men usually joined the county regiment of the area in which they lived, so a disproportionate number of veterans in such a study would have experienced only specific theatres of operation. For example, regiments that went to serve in the Far East; any geographically dependent epidemiological study would show higher proportions of veterans who fought in the Far East.

There are also ethical considerations. Veterans may not wish to take part in any study that would ask them about their wartime experiences. Many wish to forget it all. The act of asking questions about whether they would answer questions about potentially traumatic experiences could be traumatising for veterans. Because of this it was decided veterans would not be *personally* asked if they would take part. It is considered unethical to ask people to divulge information relating to painful memories unless there is a high degree of certainty that they will be willing to divulge it.

Because there is no way of knowing how representative the resultant sample is, any figures relating to numbers or percentages of veterans in the sample will be treated with caution. It is important to note that these figures may be inflated or deflated, those who are traumatised by their wartime experiences may be more or less likely to respond to the request to complete the questionnaire. For this reason, the results of the questionnaire are considered mainly in relation to

the aetiological factors, which can be considered without regard to representativeness of the sample.

A note regarding the population used. It has been shown that older adults are at least as accurate,, and sometimes more accurate, than younger adults in their recall of information (Rodgers & Herzog, 1987). While confabulation of memories may occur, there is no reason to suppose that there will be any effect due particularly to the age of the veterans.

2.2.2 Interview sample

Those who completed the initial questionnaire were asked whether they would be willing to take part in a further study that would involve being interviewed. If so, they were asked to sign to this effect (see Appendix A). Those who did not sign were assumed to have refused. In this way individuals opted into the interview pool rather than opted out. No individual was asked to take part in the depth interview (which had the potentially to be traumatising) without giving express permission. This has the disadvantage to the research project that those individuals who experience more difficulty with their memories would not be interviewed and hence important information might be missed, but this does not offset the ethical need to ensure that individuals actively volunteer at all stages and are never under an obligation to take part. Once an individual had agreed to join the interview pool, those who were selected (see next section) were sent a letter asking if they would take part in an interview (see Appendix D). The letter contained a tear-off section at the bottom for them to complete and sign, indicating their willingness or not to take part. If this letter was not returned, there was no follow-up, the individual was deemed to have chosen not to take part. A second letter might have indicated an element of compulsion.

Once selected and the interview had been arranged, the veteran received another letter confirming the date and time of the interview, and indicating that they could withdraw at any time (see Appendix E). Before the interview started, they were again reminded of their right to withdraw,

they were asked if the interview could be recorded, and that the tape and any transcript of the tape was their property, and they could refuse to allow the researcher to use any or all of it for subsequent analysis. The individual was reminded of this at the end of the interview, and asked if there was anything they had said that they did not wish to be used.

Using these procedures it was hoped that all individuals had ample opportunity to not take part in anything they did not wish to take part in. No deception took place. If an individual made any request for information this was at all times freely given.

As it turned out, none of the veterans who agreed to take part withdrew from the study, and none requested that anything should not be used. Several asked for anonymity, but this was already guaranteed.

The selection criterion for the first 10 interviews was that the veteran had fought in Normandy during June-August 1944. The reason for this criterion was that they were to be interviewed on and around the 50th anniversary of the battle. The selection criteria for the following 15 interviews were that the veteran had experienced heavy combat (scoring above the mean CEQ score of 12.4) or had been a POW and either experienced war-related psychological problems (scoring above the cutoffs on IES and GHQ) or experienced no problems as measured by the IES and GHQ.

2.3 The questionnaire

The questionnaire comprised five sections, described below.

2.3.1 Biographical information

This provided basic information about the veterans, such as name and address, age, history of illness, retirement status, details of war service, including whether he was a POW.

2.3.2 Combat experience (CEQ)

A combat experience questionnaire (CEQ) was developed for this study because there are no appropriate measures which provide a quick and accurate measure of the amount of combat an individual has experienced. Those that do exist were not felt to be appropriate to the present circumstances because of their lack of detail, and because they were designed for specific wars or specific groups. CEQ was developed for use by those who fought in World War Two, and to be appropriate for all armed forces (land, sea, and air). Another reason for using CEQ was to provide material for subsequent interviews. Measures that do exist include one by Keane et al (1989), who devised a 7-item Likert-type combat exposure scale. Items were generated partly from a scale developed by Figley (1980), and partly by clinical psychologists. The problem with this scale is that there are too few items to cover the range of combat experiences, though the scale has been used in research (eg Blake et al, 1990). Friedman et al (1984) used a 20-item combat experience scale to assess Vietnam veterans' experiences using a scale of 1(never) to 5 (very often). The scale had a Cronbach Alpha of .91, demonstrating high internal consistency. This scale has the advantage of giving a frequency of particular combat experiences, but it is designed to be specific to Vietnam.

CEQ has a relatively large number of items to reflect the different experiences of the various armed forces. There are two methods of scoring. One is that the veteran simply indicates whether an experience happened or not (an objective scale), and the second indicates, on a 5-point Likert scale, the degree of stressfulness of the experience (a subjective scale). The objective scale does not use the Friedman et al method because the notion of frequency is very subjective.

44 items constituted the original CEQ, item analysis of the objective scale reduced this to 30 items, which were selected partly on the basis of having tetrachoric (dichotic variables) item-total correlations of >.25, and partly on the basis of retaining the range of items. This scale (CEQ-30),

has a Cronbach Alpha of .969 and a Guttman split half (alternate items) reliability of .988, indicating a high degree of internal consistency. The scale thus appears to be reliable and have content validity. To improve the scale further, items with similar content that were completed by veterans in similar ways were amalgamated. These items (correlations between item scores in parentheses) were:

I saw enemy personnel being killed or wounded, and
I saw enemy personnel who had been killed or wounded, (.80) became:
I saw killed or wounded enemy personnel.

I saw civilians being killed or wounded, and
I saw civilians who had been killed or wounded, (.87) became:
I saw killed or wounded civilians.

I saw Allied personnel wounded by the enemy, and
I saw Allied personnel killed by the enemy, (.91) became:
I saw Allied personnel killed or wounded by the enemy.

I saw Allied personnel wounded by friendly fire, and
I saw Allied personnel killed by friendly fire, (.92) became:
I saw Allied personnel killed or wounded by enemy fire.

The resultant 25-item scale was named Warex (Appendix F). Further research needs to be carried out to assess its utility as a measure for assessing combat experience in other samples from World War Two and from other wars, and to assess its validity in relation to other measures of combat experience, including non-questionnaire measures.

All analyses in this chapter are carried out using the 30-item CEQ-30, using the Yes/No response, as the perceived stressfulness score will correlate with indicators of present psychological distress. At present Warex is being validated on a wider population via an Internet project.

For details of the item analysis, see Appendix G.

Items varied considerably regarding the degree of perceived stressfulness. The most stressful items included seeing Allied personnel killed by enemy fire, being in a patrol that was ambushed, and thinking one was about to be killed. The least stressful items involved seeing enemy personnel killed and having a confirmed kill. These latter items perhaps reflect that killing is what the veterans were trained to do. It may also indicate the effectiveness of the coping strategies used to justify such killing. Control is important here. Items which indicate the person is in control of the situation are generally perceived as less stressful than those where the individual is perceived as not in control.

2.3.3 Impact of Event Scale

The Impact of Event Scale (IES) was developed by Horowitz et al (1979) as a measure of the impact of any specific traumatic event and provided a measure of the two main components of PTSD, intrusion and avoidance. Respondents are asked to indicate on a four point scale (0 1 3 5) whether they have had certain problems relating to the trauma in the last seven days. A cutoff score of 30 (derived from clinical usage) indicates whether they are experiencing significant psychological distress.

Horowitz et al presented validation data for the IES, showing that the instrument was psychometrically sound with good test-retest and internal consistency reliability and a sound two-factor structure.

Zilberg et al (1982) presented cross-validation for the efficacy of the IES using 35 subjects who were psychiatric outpatients who had recently experienced a bereavement and a similar sized control group. This study used factor analysis to replicate the subscales and also assessed internal consistency. The scale was found to be internally consistent and it was able to discriminate between the populations. Schwarzwald et al (1987) validated the IES on combat veterans using individuals who had experienced battle 12 months previously. They also found high internal consistency, and the two-factor structure was replicated. Two avoidance items (8 and 15) failed to load on either factor. The rest of the items successfully discriminated between a combat stress reaction group and a control group.

The IES was validated on the present sample, the results of a subsample of which have been published (Robbins and Hunt, 1996). Using the full sample of 731 veterans the scale had a Cronbach Alpha of .86 for the full scale, with a Guttman split-half reliability (alternate items) of .86. The Intrusion subscale had a Guttman split half reliability of .82, and a Cronbach Alpha of .89. The Avoidance subscale had a Guttman split half reliability of .67 and a Cronbach Alpha of .70. Principal components analysis with a Varimax (orthogonal) rotation generated the factor structure demonstrated by earlier researchers, with the main factor (36.5% of the variance) having loadings above .30 on all intrusion items plus the avoidance item numbers 2 ("I avoided letting myself get upset when I thought about the war or was reminded of it") and 15 ("My feelings about the war were kind of numb"). The second factor (17.5% of the variance) loaded on all avoidance items except 2, 8 ("I felt as if the war hadn't happened or wasn't real"), 12 ("I was aware that I still had a lot of feelings about the war, but I didn't deal with them") and 15. It also loaded on 4 ("I had trouble falling asleep or staying asleep because pictures or thoughts about it came into mind"). Schwarzwald et al (1987) obtained similar findings for items 2 and 12, explaining the discrepancy by observing that they include elements of both intrusion and avoidance. Intrusion and avoidance correlated at .48, indicating that the subscales are to some extent measuring different things (for factor loadings see Appendix H).

2.3.4 General Health Questionnaire (GHQ)

The GHQ was devised by Goldberg (1978) and is widely used as a measure of psychiatric caseness (eg Thompson et al, 1995). The 28 item version used here has four subscales (7 items each). These are: general physical well-being, anxiety, social satisfaction, and depression. The cutoff point for caseness is a score of 4/5. Items are scored dichotomously.

The overall scale was item analysed using tetrachoric correlations because the scoring is dichotomous. The internal consistency of the measure was high, with a standardised Cronbach Alpha of .98, an average inter-item correlation of .68, and a Guttman split-half reliability of .99. A principal components analysis with Varimax rotation generated four factors, though the first factor explained a large majority of the variance (67.18%), indicating the presence of an overarching single factor (For factor loadings, see Appendix I). The four subscales proposed by Goldberg (1978) are not supported. Any interpretations of the factors must be treated with caution because there is a lot of overlap. Factor one appears to be related to both anxiety and feelings of worthlessness. Factor two relates to physical ill-health and associated psychological consequences. Factor three relates to social dysfunction, and factor four appears to be a general factor. As factor one explains the majority of the variance this suggests that the GHQ is a measure of anxiety and feelings of worthlessness. A forced one factor solution demonstrates that all variables load significantly on the factor, providing evidence that the scale should be treated as a unitary scale rather than four separate subscales.

2.3.5 Open-ended questions

Two open-ended questions were included: What did you find most disturbing about the war? What did you find most "interesting" about the war? These were typed on a single page of the questionnaire, allowing approximately half a page for the response to each question.

2.4 Method of analysis for open-ended questions and depth interviews

When using qualitative data in psychological research, there are no clear guidelines as to what kinds of analysis should be used in specific circumstances. The use of a form of grounded theory (Strauss & Corbin, 1992, 1994; Glaser & Strauss, 1967) is used here because using this method theory building depends on being grounded in the data, an intuitively appealing concept, and one that is pertinent to the analysis of the open-ended questions. The potential problem with this is that no theory is ever fully grounded in the data. The researcher will always address data with a prior theory, no matter how vague, and this will affect the interpretation of the data. But Strauss & Corbin (1994) do not reject this notion, and Vaughan (1992) has also made use of grounded theory in this way, ie having a prior theory, calling it theoretical elaboration.

Grounded theory is concerned with substantive theory development (Strauss & Corbin, 1992). There is a process of verification which takes place throughout the research programme, with findings from early data collection being tested in later data collection. This is the justification for the interview protocol changing from group to group, rather than (as in traditional approaches) remaining the same throughout. Grounded theory is also concerned with conceptual development through close familiarity with the data, and using associated data (which fits with the use of questionnaires to test theory). According to Strauss & Corbin (1994) theory consists of plausible relationships proposed among concepts and sets of concepts. Without such concepts there can be no propositions and thus no cumulative scientific knowledge. Conceptual relationships are presented in discursive form which enables the researcher, so Strauss & Corbin argue, to attain conceptual density and conveys descriptively the substantive content of a study than the natural science form of propositional presentation ("if-then" statements). Grounded theory is not about individuals but about determining processes, of determining what happens in given situations.

The present approach does not attempt to ground the theory entirely in the data. There is an a priori theoretical position which is tested. The position regarding the action that is to be taken in

terms of the analysis of both the open-ended questions and the interviews can be summarised by the series of commonalities in qualitative research that Miles & Huberman (1994, p9) describe. These are:

1) affixing codes to a set of field notes drawn from observation or interview,

2) noting reflections or other remarks in the margins,

3) sorting and sifting through these materials to identify similar phrases, relationships between variables, patterns, themes, distinct differences between subgroups, and common sequences,

4) isolating these patterns and processes, and taking them out in the field for the next wave of data collection,

5) gradually elaborating a small set of generalisations that cover the consistencies discerned in the database, and

6) confronting these generalisations with a formalised body of knowledge in the form of constructs or theories.

Taking both this summary and grounded theory as a model of good practice appropriate to the present circumstances, a search was made for an appropriate computer program that would enable analysis to be carried out more effectively and efficiently than by hand. The solution was found in the NUD.IST programmes, published by Qualitative Solutions and Research, Ltd (1995).

NUD.IST stands for Non-numerical Unstructured Data Indexing Searching and Theorising. It is a package designed to handle non-numerical and unstructured data, via indexing, searching and theorising. The programme helps the user to:

1) manage, explore and search the text of documents,

2) manage and explore ideas about the data,

3) link ideas and construct theories about the data,

4) test theories about the data,

5) generate reports.

The use of NUD.IST allowed the straightforward generation of categories and simplified the categorisation of data, but it should be noted the programme was used as an aid to analysis rather than a solution.

2.5 Depth Interview

The depth interview approach used here has a semi-structured interview format, where a series of general questions that need to be addressed are formulated, but the specific wording depends on the conduct of the interview. The questions are not necessarily asked in the order presented at the outset, the structure of the interview depending on the responses given by the interviewee. It is often the case that the interviewee will answer more than one of the interviewer's questions in a single response, or will discuss an issue in such a way that it makes logical sense to ask a question in a different order. In this way the interview will flow more smoothly. It also leads to a broader discussion of the topics of interest, including relevant areas that the interviewer may not have incorporated into the original protocol.

2.5.1 Interview protocols

There were two basic interview protocols, one for Group One (Normandy) veterans and one for Group Two (armed forces with heavy combat and/or POW experience). Both protocols changed somewhat over the course of the interviews, to account for material and ideas generated from previous interviews. As noted above, the interviews were semi-structured. What is presented in Table 2.1 is not necessarily word for word the question asked of the veteran. The probes were included to ensure coverage of relevant issues.

Table 2.1: Interview protocols

a) Group One (Veterans 1-10)

Question	**Probe**
Do you think the 50th anniversary of D-Day has affected you in any way? Has it made you think more about the war?	Ways, interest, sadness, intrusion, pleasure
What else reminds you of the war?	
Which events from the war do you think about most?	positive, negative
Over the years have there been periods when you have thought more or less about the war?	When? First years, retirement
How do you cope, and how have you coped in the past, with your memories from the war?	Social support, other strategies
What do you mean by comradeship?	
What role do veterans' organisations play in the way you think about the war?	
Do you think your life would have been very different had the war not occurred?	positive/negative
Have you thought differently about the war since retirement?	
Question added for later interviews:	
Most people seem to think about negative or traumatic memories of the war. Why is this?	Are they most memorable?

b) Group Two

Question	**Probe**
Veterans 11-15	
Do you have memories that intrude upon your everyday life?	Not just war-related, details of memories, when they affect you, why they arise
Do these memories differ from your ordinary memories from around the wartime period?	In what ways do they differ?
What memories of the war do you find most memorable?	Worst? Why memorable? Differentiate ordinary, consummate, flashbacks
Do you have periods when you are particularly affected or unaffected by your wartime memories?	Why? Do you/have you ever actively avoided thinking about the war? Has this helped?
How is your health?	Physical, mental illness, not specifically war-related
Have there been any important things happen in your life recently?	Have they troubled you? Life events, not war-specific
Have events in your life affected the way you think about the war?	Life events, details, when
Would you say the war changed you in any way?	Personality, compare pre- and post-war
Did the war changed the ways you have coped with your problems? Has it made problems easier or more difficult to cope with?	Pre-military, military, post-military, social/family factors, non-war-related coping
Do you think the ageing process has	Think about war more or less than before,

had any effect on the way you think about the war?	why, think about different aspects of war?
Veterans 16-20	
Do any of your memories of the war affect you now?	Details, intrusion, affect health, affect life in other ways, how detailed are the memories, does ageing affect memories, eg decay?
Have there been periods since the war when you have been particularly bothered by your memories?	When, does it relate to other events?
In the postwar years, how have you coped with your memories of the war?	Friends, help resolve problems? Wife
Are you a member of a veterans' association? Why?	Discuss war at meetings? How does organisation help?
Have you experienced other psychological traumas similar to the war	coping, affected now? Relate to war
Do you think your life would have been different had the war not occurred?	Personality changes, positive/negative effects
As you get older, do you think you develop mental difficulties because of your age?	Loss of friends, family, separation from society, feeling unwanted
Given that many people had similar war experiences, why do you think some people develop psychological problems and others don't?	
Veterans 21-25	
In what situations do wartime memories arise?	When have war memories affected life - include the past
Does the war affect you now?	

Table 2.1b only shows the questions that were added after veterans 11-15. Veterans 16-25 were asked all those in 11-15 plus the ones indicated.

2.5.2 Analysing the interview data

As described earlier, NUD.IST was used to analyse the interview data. The basic procedure was to record each interview in its entirety, and then produce a transcript. Each transcript was contained as a separate Word 6.0 file and incorporated into the NUD.IST package. Several categories were generated using prior theory (this is where the analysis deviated from grounded theory (Strauss & Corbin, 1990), and then each transcript was carefully read to determine date units (which could be anything from a word to a paragraph or more) which fitted each category.

Data units that did not fit categories were given a new category, appropriately titled. A hierarchy of categories were obtained as, for instance, there are several types of coping. The contents of the categories were then further analysed in order to develop theory.

The analyses were carried out throughout the interviewing process, which lasted around one year. The interview protocol was adjusted after each group of five individuals to take account of the on-going analysis, to consider new issues arising, and to leave out issues not considered important, either because they were exhausted (no new comments arising) or because they turned out to be of little value.

The final analysis consisted of a reflexive process of constructing chapters according to the questions of relevance and drawing on appropriate data (quotations) as needed. Throughout the analysis memos and notes were made to reflect thoughts and developments

2.6 Summarising comments

The present chapter has shown why and how questionnaires and interviews were chosen and how the population was sampled for both kinds of study. Both the questionnaire and the series of interviews have been considered in some detail, in terms of the initial design and in terms of the analyses that will be used. The following chapters consider the findings of the studies.

CHAPTER THREE

QUANTITATIVE ANALYSIS OF THE QUESTIONNAIRE

3.1 Introduction

The present chapter addresses the extent and nature of war-related distress experienced by the veteran population, and the factors that predict such distress. The chapter focuses on the quantitative analysis of a detailed questionnaire that deals with war experience and the psychological consequences of such experience.

A questionnaire format was chosen for the initial study because it is a relatively simple and straightforward way to gather large amounts of data rapidly. The information obtained from the questionnaire is not only useful in itself, but also for selecting interviewees at later stages of the research. The use of previously validated questionnaires such as IES and GHQ enabled the validation exercise detailed in Chapter Two to be carried out on the present population. IES and GHQ are used in a wide variety of contexts, and this validation on an elderly population is valuable for future research. This applies also to the development of Warex which will be useful for veterans of all wars and all services (army, navy, air force).

A number of specific questions are addressed using the questionnaire. These are:

1. Do ageing veterans still experience psychological difficulties relating to their war experiences? This question has not been addressed in such detail using a British sample. Previous research (outlined in Chapter One) has mainly focused on US samples. Secondly, previous research has largely used very small samples. The questionnaire is designed to consider the extent and nature of psychological and physical problems experienced by veterans, including the main criteria of PTSD, intrusion and avoidance, general psychological distress, and any effects of war-related illness, disabilities or wounds. An interesting question is whether ageing veterans who

experienced the trauma of war 50 years previously have similar patterns of symptomatology to individuals who have experienced a recent trauma. If they do, there are implications for the permanent nature of the response.

Given that the majority of previous research in this area used different populations, eg Vietnam or Israeli war veterans, individuals who had experienced war or other trauma relatively recently. it was considered important to determine whether the population of World War Two veterans who experienced their trauma fifty years ago would fit into the same general patterns as these other populations. The study will consider descriptive variables such as the incidence of distress, differences between ranks and between services.

2. Will retired veterans experience greater war-related psychological distress? Previous research has demonstrated that retirement is one of the factors that can lead to the re-emergence of psychological problems (Macleod, 1994), perhaps because the individual now has more time to think about the past. Many veterans may still experience physical effects due to their war experiences, whether from the long term effects of wounds or of illness. With deteriorating physical health due to age there may be an exacerbation of such physical problems, which may in turn lead to further psychological distress.

3. What factors predict whether veterans experience psychological distress after 50 years? Speed et al (1989) and others have found that actual combat experience predicts later distress, but Creamer (1995) has found that the mediating variables of intrusion and avoidance are better predictors. This hypothesis will be tested in several ways, using both combat experience generally, and comparing POWs with non-POWs. The latter is included because previous work has often used special populations such as POWs and found that such experience predicts later distress. It may be that while combat experience per se is not an effective predictor, particularly traumatic experiences may be.

The questionnaire also contains two open-ended questions: what did you find most interesting about the war? and what did you find most disturbing about the war? This gives the veterans an opportunity to point out which memories have continued to have the most profound impact on them 50 years on. The responses to these questions will help in the development of the interview protocols for the main interview studies, and they are considered in detail in Chapter Three.

3.2 Method

3.2.1 Sampling and Procedure

Details of the sampling procedure have been given in the previous chapter. 731 veterans took part in the questionnaire study, volunteers being obtained via a variety of sources as already indicated.

3.2.3 Content of the questionnaire

Details of the validation of the questionnaire can be found in Chapter Two. The purpose of the present section is to remind the reader of the contents. The questionnaire consisted of several sections: biographical information, which asked questions regarding history of illness and details of war service; combat experience (CEQ), which was developed for the purposes of this study to provide a valid and easily completed measure of the amount and severity of combat an individual has experienced; the Impact of Event Scale (IES) which was developed by Horowitz et al (1979) and is a measure of intrusion and avoidance, the two principle components of PTSD; the General Health Questionnaire (GHQ), developed by Goldberg (1978) and widely used as a measure of psychiatric caseness; and two open-ended questions which are the focus of the next chapter.

3.3 Results

The following analyses are carried out using the full 15 item version of IES and the 28 item version of the GHQ. The CEQ was used to measure degree of combat experience.

3.3.1 Descriptive statistics

The percentages in the following tables and figures are derived from known scores. Missing data, because they represent very small numbers and so have little impact on the findings, are ignored.

The 731 veterans from World War Two (n=657, 90%) and the Korean War (n=22, 3%), with n=50, 7%, taking part in both wars, had a mean age of 72.4 years (range = 59-89, sd = 4.2). 81% were married, 2% single, 4% divorced, and 12% widowed. 97% were retired, with 21% of this group retiring due to ill-health. Details of war service are given in Table 3.1. These groups may not be representative of the proportions of veterans who fought in each service. There are no detailed records available to determine whether these proportions are representative of surviving veterans.

Table 3.1 War service

	N	%
Army	391	53
RAF	79	11
Royal Navy	201	27
Royal Marines	41	6
Merchant Navy	7	1
Unknown	12	2

Veterans were asked to provide their highest rank. This was recoded in three categories, officers (n=125, 17%), NCOs (n=346, 47%), and privates (n=234, 32%). 105 (14%) of the sample were ex-POWs (see below for further details).

Details of particular units served in, theatres of operations and battles fought in were also included, but have not been analysed for the purposes of the present study. Certain groups may have been over-represented, such as those who took part in the battle for Normandy 1944 because

the author was previously in contact with a large number of Normandy veterans and asked them to take part in the present study.

3.3.2 Incidence of distress

As it is not known whether the sample is representative of a World War Two population in terms of long term psychological effects, the following results must be treated with caution. It is impossible to say whether the data in Table 3.2 are inflated or deflated, but they are presented here because they are of some use in indicating the extent of psychological problems in the veteran population. It is possible that the proportions are inflated because veterans with problems are more likely to come forward to take part in the research, but it is also possible that the figures are deflated because veterans with problems *don't* come forward to take part in this kind of research. The case for both possibilities can be argued, but not empirically tested for the ethical and practical reasons given in the previous chapter.

Table 3.2 indicates the numbers and percentages of veterans scoring above the recommended cutoff points for GHQ (4/5) and IES (30). The table shows that, according to these questionnaire measures, which are well-validated and can be taken as an accurate indicator of caseness, a relatively large proportion of veterans, at least in this sample, appear to be experiencing war-related psychological distress. The critical number here is the 19% of veterans (139 individuals) who score above the cutoff points of both the IES and GHQ. GHQ indicates possible psychiatric caseness, IES indicates these problems appear to be related to memories and consequences of the veterans' war experiences.

Table 3.2. Percentages of veterans scoring above (>) and below (<) the cutoff points for GHQ and IES (N=731)

		IES		
		<	>	TOTAL
GHQ	<	55	10	65
	>	16	19	35
	TOTAL	71	29	

Goldberg (1978) validated the GHQ and his figures showed that 8-12% of people in this age group would be expected to score above the cutoff point. In this group, 35% scored above the cutoff point. Similar norms cannot be established for the IES as the scale relates to a specific event or events in the person's life.

In order to allow for the possibility that there was significant heterogeneity of variance for both IES and GHQ, Bartlett tests of homogeneity of variance were carried out on all the following analyses. Also, the dependent variables and covariate were subjected to a logarithmic transformation, and then re-analysed. This made little difference to any of the p-values, and so are not presented here.

It was predicted that differences in incidence of psychological difficulty might occur on the basis of rank. Rank was subjected to a MANCOVA, with IES and GHQ as dependent measures, and combat experience (CEQ) as a covariate (to account for any correlation between the traumatic experience and later psychological difficulty). The data are presented in Table 3.3. This highly significant result indicates that officers experience less psychological distress than NCOs or privates.

Table 3.3 Differences in psychological difficulties between ranks.

	IES		GHQ		CEQ	
	mean	sd	mean	sd	mean	sd
Private	22.8	17.0	4.9	6.0	12.3	7.6
NCO	21.0	18.0	5.1	6.2	13.1	7.3
Officer	13.3	13.7	2.9	4.1	11.3	7.3

Wilks' Lambda = .96; df = 4,1354; p<.0001

A MANCOVA was carried out for service (army, RAF, RN, RM). In this case Wilks' Lambda indicated no significant differences between the groups (when combat experience was used as a covariate). See Table 3.4.

Table 3.4 Means and standard deviations between services

	IES		GHQ		CEQ	
	mean	sd	mean	sd	mean	sd
Army	21.5	18.1	4.7	5.9	15.1	7.1
RAF	16.3	15.4	4.0	5.6	6.8	5.4
RN	19.7	15.7	4.8	6.0	8.8	4.9
RM	17.6	17.7	3.9	5.8	14.2	6.7

Wilks' Lambda = .99; df = 6,1364; p = .45.

A comparison of the experiences of World War Two with the Korean War is difficult because of the relatively few veterans in the sample who took part in the latter. The descriptive statistics are shown in Table 3.5. There were no significant differences between the groups, showing that it is not necessary to separate them for the purposes of later analysis.

Table 3.5. Comparison between World War Two and the Korean War

	IES		GHQ		CEQ	
	mean	sd	mean	sd	mean	sd
World War II	20.5	17.3	4.7	6.0	12.3	7.7
Korean War	19.0	17.7	2.1	2.9	16.2	5.5
Both	18.8	16.8	4.8	5.8	13.4	6.3

Wilks' Lambda = .99; df = 4,1400; p=.16

3.3.3 Retirement

The next analysis compares retired and non-retired veterans. Unfortunately, the present sample only contains 22 veterans who are not retired, so comparisons between these groups must be interpreted with caution.

Table 3.6 Comparing mean intrusion, avoidance, and GHQ scores in retired and non-retired veterans

	Intrusion		Avoidance		GHQ	
	mean	sd	mean	sd	mean	sd
Retired (N=684)	12.8	7.7	7.9	5.4	4.7	3.2
Not retired (N=22)	6.5	10.2	3.4	8.7	2.0	6.0

Wilks' Lambda = .98, Rao R = 3.84, P<.01

Table 3.6 compares the retired and non-retired veterans. Retired veterans score significantly higher on intrusion, avoidance, and GHQ. This finding is of interest as it supports the hypothesis that traumatic recollections may re-emerge after retirement, along with consequent psychological problems.

3.3.4 Effects of war-related physical problems

A MANCOVA was carried out to look at the effects of war-related physical ill-health. The usual dependent variables were used, along with combat experience as a covariate. The mean scores are displayed in Table 3.7.

Table 3.7 War-related illness and intrusion, avoidance, and GHQ

	Intrusion		Avoidance		GHQ		CEQ	
	mean	sd	mean	sd	mean	sd	mean	sd
No illness	10.2	9.4	6.4	8.6	2.7	4.1	10.9	7.4
Illness, not war-related	11.3	9.4	7.0	8.1	4.4	5.8	11.9	7.5
Illness, war-related	15.1	10.9	9.3	9.1	6.1	6.5	14.1	7.3

Wilk's lambda = .94, Rao's R = 6.78, p<.000001

Post hoc analysis shows that veterans with war-related illnesses experience higher levels of intrusion ($p<.0001$) and GHQ ($p<.000001$). The difference for avoidance is not significant. The difference for intrusion is specific to war-related illness compared with non-war-related illness and no illness. For GHQ there is a linear relationship. This pattern is explicable, as intrusion is linked specifically to war experience, and many veterans still have physical problems relating to the war, whether the effects of wounds or of illness, whereas GHQ is a measure of general functioning and so would be expected to score more highly for all illness. The linear relationship (higher for war-related illness than not war-related illness) indicates the effects of the war.

There are problems with this analysis. In many cases, veterans were not certain that a particular problem was caused by the war. It is perhaps impossible to determine this in many cases. An illness or experience of 50 years previously may or may not be the cause of a problem arising in old age. Also, the coding system does not distinguish between different kinds of problems. It is very likely that a disabling illness or injury that has affected the veteran's life ever since the war is going to lead to greater psychological problems than something that re-emerges after many years.

3.3.5 Combat experience

The validation details of the combat experience questionnaire (CEQ) are discussed in the previous chapter.

Some researchers (eg Speed et al, 1989) have suggested that combat is an effective predictor of later distress, others (eg Creamer et al, 1992) suggest that the stressor itself is not a good measure of later distress. The 30-item version of the questionnaire was used with the veterans, and the mean score on the scale (scoring 1 for each item) was 12.5. Differences between groups are shown in Table 3.4. It appears from this table that RAF and RN veterans have less combat experience than Army and RM. This is more likely to indicate a bias on the part of the scale, one

that could be rectified either by introducing more items relevant to the navy and the air force, or by using different scales for different groups, as combat experiences for the different armed forces are often necessarily of different types.

A MANCOVA was carried out with combat experience as the independent variable (the group was split into two, those above the mean CEQ score = "high", those below the mean = "low"), and IES and GHQ as dependent variables. This was to determine whether the actual amount of combat experience predicts later psychological distress. Table 3.8 shows the mean scores for each group. The analysis was highly significant overall. IES was highly significant ($F = 37.40$, $p<.000001$), while GHQ was significant at the $p<.01$ level ($F = 8.49$).

Table 3.8 IES and GHQ scores on levels of CEQ

		IES		GHQ	
		mean	sd	mean	sd
CEQ	low	16.77	15.20	4.04	5.60
	high	24.54	18.29	5.33	6.15

Wilk's Lambda = .95, Rao's R = 18.68, $p<.000001$

In order to determine whether both the intrusion and avoidance elements of IES were significant, a further analysis was carried out, see Table 3.9. Both measures, intrusion and avoidance, were significant at the $p<.000001$ level (intrusion $F = 32.05$, Avoidance $F = 29.47$).

Table 3.9 Intrusion and avoidance on levels of CEQ

		Intrusion		Avoidance	
		mean	sd	mean	sd
CEQ	low	10.58	9.32	6.18	7.60
	high	14.86	10.77	9.68	9.52

Wilk's lambda = .95, Rao's R = 18.66, $p<.000001$

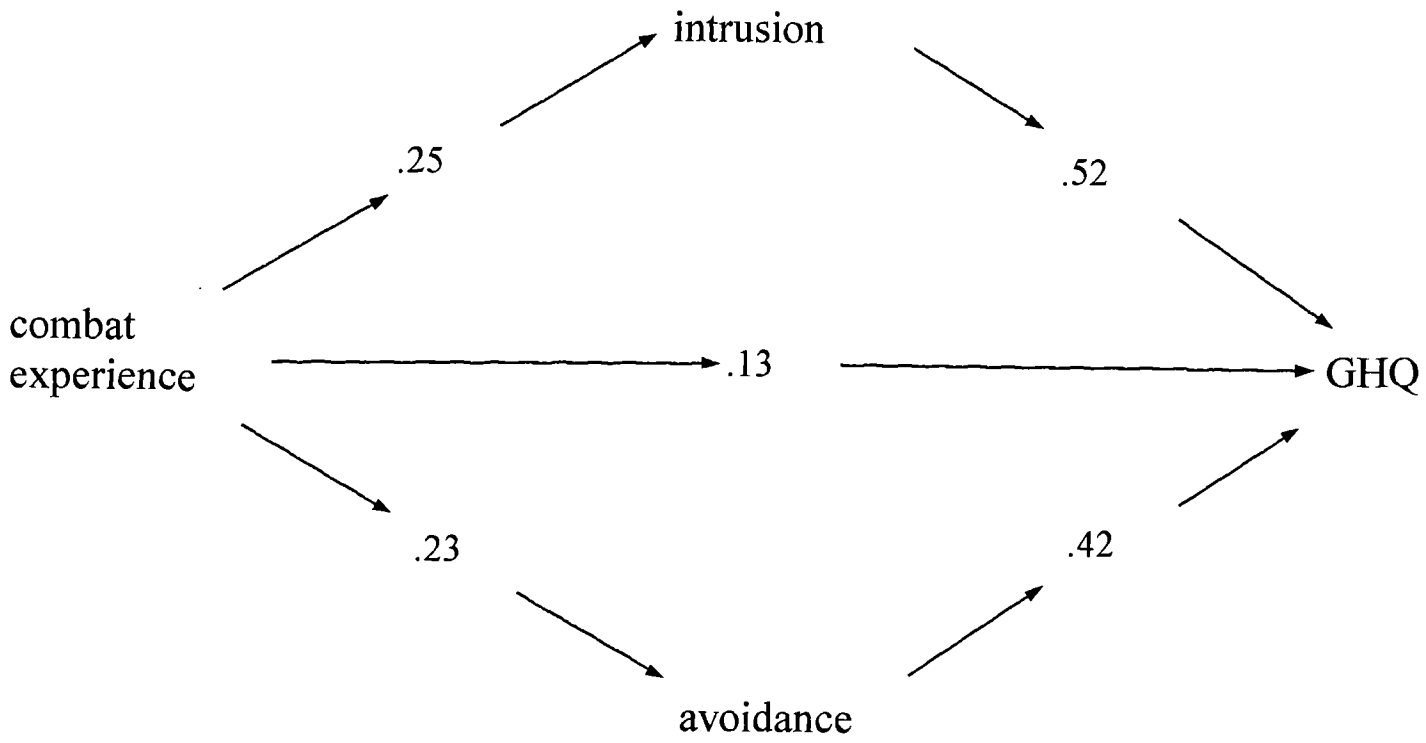
These findings suggest that the traumatic event itself does play a role in determining psychological outcome, even after 50 years. Those who experienced more combat are more likely to have intrusion avoidance, and are more likely to have high scores on GHQ.

3.3.6 The role of intrusion and avoidance

As the veterans do not constitute a representative sample, the actual figures given above concerning the extent of problems in the population should, as indicated, be interpreted with caution. The approach taken here is to analyse the relationships between variables, rather than focus on overall percentages. The results can be seen in Figure 3.1. It is clear that the relationship between the event itself (combat experience) and psychological dysfunction is very weak. The role of the mediating variables, intrusion and avoidance, can be seen to be important, as they both correlate strongly with psychological dysfunction. The correlation between intrusion and dysfunction is significantly higher than that between avoidance and dysfunction ($p=.014$). This supports the cognitive processing model of Creamer et al (1992), even though their findings were based on a trauma that occurred less than two years previously, while the data here refer to trauma 50 years previously.

A multiple regression analysis was carried out on the data with GHQ as the dependent variable, and intrusion, avoidance, and combat experience as independent measures. Other variables were included in the original analysis (such as age and socio-economic status) but these were found to have little predictive value for GHQ. Intrusion is the only significant predictive variable ($\beta = .451$, $p<.01$), though avoidance is significant at the lower level of $p<.05$ ($\beta = .122$). Overall $R^2_{ADJ}=.284$, a relatively low figure, but given the time period between the trauma and the time of measurement it is to be expected that there are many other factors that predict psychological outcome, not least ageing.

Figure 3.1: Correlations between intrusion, avoidance, combat experience, and GHQ

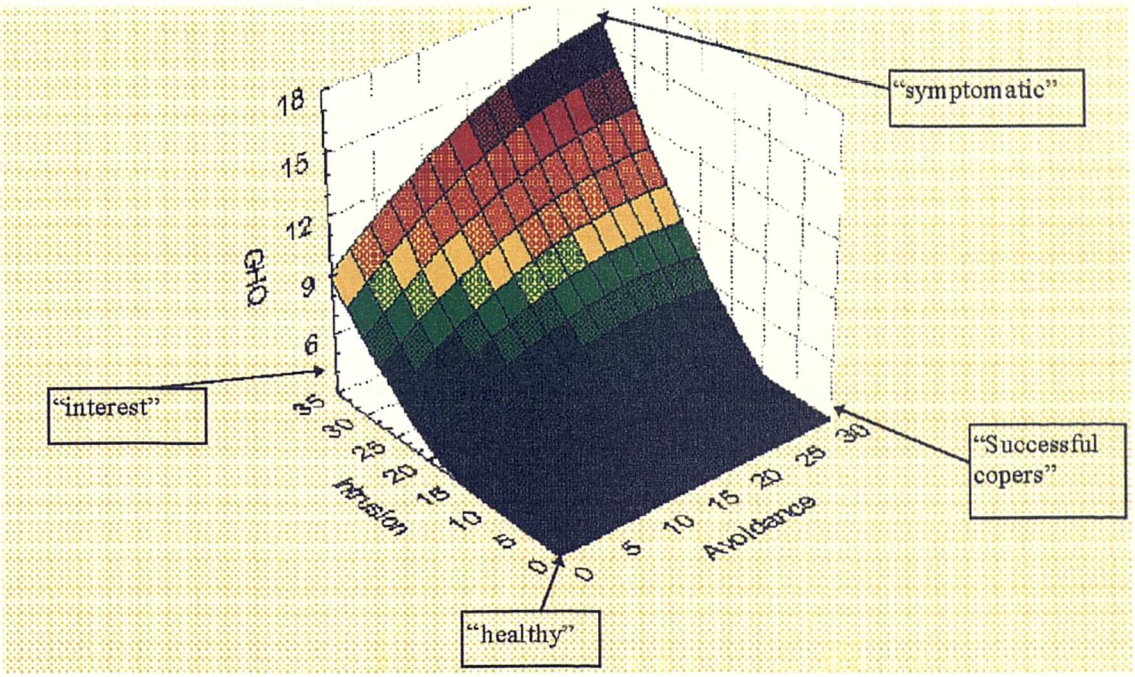


The relationship between intrusion, avoidance, and psychological distress was explored further in graph form in a poster presented at a British Psychological Society conference (Hunt & Robbins, 1994). See Figure 3.2. This graph shows that there are four separate identifiable groups, and that present psychological distress depends to some extent on the patterns of intrusion and avoidance. The first group, labelled "healthy", consisted of 394 individuals who tended to have low intrusion and avoidance, and hence few psychological difficulties. The group "successful coping" (n=18) are those who score high on avoidance, low on intrusion, and don't have psychological difficulties. This group appear to be using avoidance as a successful coping strategy. The third group, "interest" (n=191) are perhaps the most intriguing. This group appear to score high on intrusion, but low on avoidance. With this pattern we would expect them to experience psychological difficulties, but generally they don't. The final group, "symptomatic" (n=110) are those veterans who score high on both intrusion and avoidance, and also on psychological dysfunction. This is the unfortunate group who appear to be experiencing intrusion, and wish to avoid it, but are unable to. They are perhaps unsuccessful copers.

In order to assess this further an analysis of the percentage of each group who are symptomatic was made. The prediction is that there would be a higher proportion of those in the "symptomatic" group who score over the cutoff point on the GHQ than those in the "healthy" group. The results showed that 67% of the "symptomatic" group score over the GHQ cutoff point, while only 18% in the "healthy" group do. 51% of the "interest" and 44% of the "successful copers" also score over the GHQ cutoff point. These show that the main problems lie with those who experience intrusion and avoidance, particularly those who experience both..

This kind of analysis is limited because it is a snapshot in time. It would be interesting to carry out such an analysis longitudinally, to include observations both before and after retirement. This might give an indication of whether avoidance as a coping strategy breaks down at this point,

Figure 3.2. Relationship between GHQ, avoidance and intrusion



whether retirement is playing an important part in the re-emergence of symptoms (eg Macleod, 1994).

3.3.7 Prisoner of war experience

The above shows that while the trauma itself, combat experience, is only slightly predictive of psychological distress 50 years later, this is only in terms of the general traumas of war. It is possible that the pattern might be different for particularly severe traumas, such as POW experience. Being a POW has a significant detrimental effect on psychological health, particularly if the POW experience was in the Far East (eg Sutker et al, 1991). The present sample contained 101 ex-POWs, 76 who were held in Europe (by the Germans or the Italians) and 24 who were held in the Far East by the Japanese or Koreans. One veteran is unknown.

The next MANCOVA concerned whether there are any differences between POWs and non-POWs in terms of present psychological health. Combat experience was used as a covariate. The groups were compared as shown in Table 3.10.

Table 3.10 Effects of POW experience on present psychological health

	Intrusion		Avoidance		GHQ		Combat Experience	
	mean	sd	mean	sd	mean	sd	mean	sd
Non-POW	12.03	10.06	7.57	8.78	4.50	5.82	12.02	7.59
POW	15.37	10.56	9.06	8.20	5.32	6.24	15.25	7.08

Wilks' Lambda = .99, Rao's R = 1.83, df = 3,700, p=.140

Though POWs score higher in each category, the overall difference between POWs and non-POWs was not significant. A post hoc analysis demonstrated that intrusion is significant ($p<.03$), though the other dependent variables are not. Clearly, the role of intrusion is important. As noted above, previous research has suggested those held in the Far East have more problems than those held in Europe, because of the way they were treated. Table 3.11 compares these groups.

Table 3.11 Comparison of POWs held in the Far East with those held in Europe

	Intrusion		Avoidance		GHQ		Combat experience	
	mean	sd	mean	sd	mean	sd	mean	sd
Far East	17.00	10.23	9.17	8.68	6.35	6.06	13.78	7.35
Europe	14.24	12.07	9.05	7.18	5.09	7.13	15.74	6.71

Wilks' Lambda = .97, Rao's R = .84, p=.48

POWs held in the Far East tended to have slightly higher intrusion and GHQ scores, but these were not significant. Combat experience was slightly lower for those in the Far East because many were captured at Singapore without having experienced much combat.

It has been shown that weight loss is a significant predictor of later distress. Weight loss was not significantly correlated with intrusion (.13), avoidance (.17), or GHQ (.06). It appears that after 50 years the effects of the particular trauma of being a POW and experiencing physical ill health are dissipated, suggesting that the interpretation of the trauma is more important.

3.4 Discussion

The questionnaire analysis has generated a number of interesting findings. The large number of veterans who were willing to take part in the study and complete the questionnaire is itself of interest. Why should such large numbers be willing to take part? Perhaps the re-emergence of their wartime memories post-retirement has played a part. The descriptive statistics demonstrated that a large proportion of the sample experience war-related psychological distress, even 50 years after the end of the war. Ex-officers were found to experience lower levels of distress than other ranks, though there were no differences between the services or between those who fought in World War Two compared with those who fought in the Korean War. Retired veterans obtained higher scores on both IES and GHQ. Veterans with war-related physical illness scored higher on both IES and GHQ.

A direct relationship between combat experience and present day psychological distress was partially shown, though the regression analysis showed that the mediating variables intrusion and avoidance were more predictive of present day distress than combat experience itself. The latter was further supported by there being no difference in IES and GHQ scores when POWs were compared with non-POWs, or when European theatre POWs were compared with Far Eastern theatre POWs (weight loss did not predict later distress). The relationship between intrusion and avoidance and psychological distress was considered in detail, establishing the four groups of: healthy, successful copers, interest, and symptomatic.

The large sample size indicated that there is interest in the effects of war experience in the World War Two veteran population. There are a number of reasons why the veterans would want to take part. Since retirement they have become aware of the increasing frequency of memories of war returning to them, and they may believe that discussion of these memories may help in some way. There are many calls for the provision of war pensions to veterans who suffer consequences, whether physical or psychological, as a result of the war. The reasons for taking part are worth considering in future interviews.

The validation of the measures in the previous chapter proved valuable. The IES has been validated several times previously, but not on an ageing population who experienced the trauma many decades earlier. The robustness of the scale is demonstrated by the similarity of the findings presented here with the findings obtained by other researchers using other populations. The GHQ was shown to be a reasonably valid measure, though the four subscales proved of little value. The initial factor analysis demonstrated an anxiety and worthlessness scale, and all items had a significant loading when a forced one factor solution was used. Nevertheless, an analysis using the subscales and comparing scores on intrusion and avoidance was carried out. This provided further support for the one factor solution, as there was little differentiation between the scores on

the subscales. It is recommended that the subscales are not analysed separately, at least not for the version used here, the 28 item scale.

The validation of the new measure, the combat experience scale, showed that this could potentially be a useful measure for use with other populations. The scale is perhaps most useful with members of the army rather than sailors or airmen. It is perhaps difficult to create a scale that is equally suitable to all these groups, as their experiences of combat are very different. For the future, a validation exercise for the newly-designed Warex scale would be useful. The limitations of this kind of scale have been demonstrated here. How do researchers find out how much combat experience a veteran has had? Does the question even make sense? To simply ask whether something happened, as is done here, does not differentiate between someone who saw, for example, one dead body, and someone who saw five thousand. There is no such thing as objective exposure, nor does it say anything about the effect it has on the individual. To put this on to a Likert scale of frequency of occurrence brings out the problem of individual interpretation. How can frequency be objectified with this kind of question? Perhaps this just shows that it is the impact of the event that is of most value, and this is inevitably tied up with variables such as the nature of the memory, shock, and emotion.

The most important finding that emerged from the analysis is that there are many veterans who are still experiencing war-related psychological distress, even after 50 years. Nearly one fifth of the entire sample scored above clinically accepted cutoff points on both the IES and the GHQ. 35% of veterans scored above the cutoff for GHQ. This can be compared to the 8-12% identified in this age group by Goldberg (1978). Because it is unknown whether the present sample is representative of the World War Two veteran population, no firm conclusions can be drawn about the proportion of veterans still suffering the psychological effects of experiences that occurred over 50 years ago. It is unclear whether these figures over- or under-represent the population. It is impossible to determine whether those with problems are more or less likely to come forward.

The solution would be an epidemiological study, but this would be unethical. Researchers should not demand that veterans discuss something they may not wish to be reminded of.

While it is clear that many veterans are still experiencing war-related psychological distress, it is not clear whether they have had problems ever since the war, or whether they are emerging only in old age or after retirement. The present study found that veterans have more problems post-retirement, those who are retired have higher IES and GHQ scores than those who are not retired. What is unclear is why these differences occur. There are several possibilities. Retirement can be considered a life event which is potentially traumatic and may act as a reminder of the war, loss of structure in life, more free time to think about the past, about the more important times in one's life, an Eriksonian need to review one's life, and the general effects of ageing. These are all interacting variables that may play a part in the re-emergence of traumatic memories. They are all factors that need to be considered in future interviews.

Evidence for the traumatic experience itself acting as a direct predictor for later psychological distress was obtained via the comparison between high and low combat experience groups. But the finding is not supported by the regression analysis, which showed that there wasn't a direct relationship, and that intrusion and avoidance acted as mediating variables and were more predictive of psychological distress, which would support the work of Creamer (1995). The ambiguous findings may have been obtained because of the complicated nature of war trauma, which consists, for many veterans, of a whole series of interconnected events. As the traumatic experiences occurred over half a century ago, memories of the war will often be incorporated into a general autobiographical narrative (van der Kolk & Fisler, 1995). The use of a simple combat experience questionnaire does not allow an analysis of the particular elements of war memories that are traumatic.

There are particular wartime experiences that have been shown to be traumatic. One of these is POW experience (eg Fairbank et al, 1991; Sutker et al, 1995). POW experience is often considered a special form of wartime trauma. Wittkower & Spillane (1940) termed this "barbed wire disease" (p 15), which had symptoms including irritability, poor concentration, restlessness, poor memory, and depression. In the present study there were no significant differences between POWs and non-POWs, neither were there differences between POWs held in Europe and those held in the Far East, unlike the evidence of previous research (Nefzger, 1970, Eberly & Engdahl, 1991). This may be a reflection of the sample, or it may be a reflection of the time that has passed since the war. 50 years may serve to eliminate differences in traumatic experiences, and more important factors may be present coping strategies, the effects of old age, and activity. Such inconclusive findings are not unexpected. The trauma occurred over half a century ago and there are many factors that could have affected the memories veterans have of the trauma and the ways they have interpreted their feelings about the war. This remains an open issue. What are the variables that have an impact on the longer term outcome of traumatic experience? What events in the last 50 years have affected such an outcome?

While intrusion and avoidance do act as mediating variables, the pattern of scores on IES and GHQ is not straightforward. This complexity was demonstrated by the surface graph using intrusion, avoidance and GHQ as variables. Four groups emerged. the "healthy" group are those who score low on intrusion and avoidance. This group tend not to have psychological distress. Those who score high on avoidance but not intrusion are "successful copers". They use avoidance as an effective coping strategy. This is the strategy that many veterans have used ever since the war. A longitudinal study is likely to show that avoidance is a successful strategy while the individual is working, but on retirement it becomes less successful. Those scoring high on intrusion but not avoidance were predicted to experience psychological difficulties, but generally they don't. The measure of intrusion on the IES measured not only intrusion but also interest. Veterans who are still interested in the war, who watch films, talk about it, think about it, etc, can

easily score highly on the intrusion component of the IES. This is a serious limitation of the measure, and should be taken into account when using it. The final group, "symptomatic", score high on both subscales. It appears these veterans are experiencing intrusive thoughts and are attempting unsuccessfully to avoid them. Notions of phases of intrusion and avoidance as proposed by Horowitz (1986) are not assessed here. If veterans do move in phases, it is this phase where they have problems. According to Horowitz, traumatised individuals would have a phase of intrusion followed by a phase of avoidance, and they can only process the traumatic information in the intrusion phase. If the individual experiences too high a level of intrusion, then they may experience comorbid symptoms, and attempt to avoid traumatic memories.

Do veterans process the information as proposed by Creamer (1995)? If so, it would appear that veterans who are having problems now cannot have remained in this phase throughout the postwar years otherwise they would (presumably) have processed the information. It is more likely that they have been in long phases of avoidance, where such intrusive thoughts have not affected them. It is plausible that they can be in the "interest" group - interested in certain elements of the war, while at the same time scoring as "avoiders", because they repress memories associated with traumatic elements. These complications make it difficult to draw firm conclusions from a questionnaire study, and is one of the reasons why the next study will involve depth interviews.

The findings concerning intrusion and avoidance need to be linked with a consideration of memory. The processing of intrusive recollections through the development of a narrative outlined in Chapter One needs to be considered in the interviews. The narrative may be associated with the "interest" in the war as is apparently measured by the IES for some individuals. Avoidance may be an effective coping strategy because it keeps dissociated (unprocessed) elements of the traumatic recollection in implicit memory (or the unconscious).

The finding that officers experience less long term psychological effects should be contrasted with Wittkower & Spillane's (1940) finding that the proportion of officers with war neurosis was higher than for NCOs and privates. This may reflect the experiences of officers in the field or, more likely, it may be an indication that officers generally have a higher socio-economic status, are of higher intelligence, and have greater opportunities for fulfilment in post-war life. These factors would enable them to more effectively process traumatic memories of the war.

There are a number of issues arising from these findings. The role of memory is particularly important, how memory develops over time and the different ways veterans deal with the traumatic elements of memories. On the one hand there may be explicit cognitive strategies such as processing or avoidance, and on the other there may be external means of coping via, for example, social support and comradeship. These factors no doubt interact and will be explored in the following chapters. The next chapter focuses on the open-ended questions in the questionnaire, and focuses on the kinds of memories veterans consider important and whether the particular kinds of events recalled as important are different for traumatised and non-traumatised individuals. This will also help in the development of the interview protocols for the depth interviews. Chapter Five will consider the role of memory in more detail, while Chapter Six focuses on coping and the role of ageing and retirement in this group.

CHAPTER 4

ANALYSIS OF THE OPEN-ENDED QUESTIONS

4.1 Introduction

The present chapter completes the analysis of the initial questionnaire. The two questions asked, relating to the types of memories veterans find "interesting" and "disturbing", were included to establish what kinds of things are most memorable about the war and to help in the design of the interview protocols for the interview studies. As one of the main objectives of the thesis is to understand the role war memories play in the lives of veterans it is important to establish what kinds of things veterans remember.

The main questions addressed in this chapter are:

1. What kinds of interesting and distressing war memories do veterans consider important?
2. Are there differences between traumatised and non-traumatised veterans in the kinds of memories considered interesting and distressing?

4.2 Method

4.2.1 Open-ended questions

Two open-ended questions were included: What did you find most disturbing about the war? What did you find most interesting about the war? These were typed on a single page of the questionnaire, allowing approximately half a page for the response to each question. Henceforth each question will be called the "disturbing" question and the "interesting" question.

4.2.2 Analysis of responses

On completion of the quantitative analysis, the questionnaires were examined to see if there was a response to these open-ended questions. Two documents were created, one for the "disturbing"

responses and one for the "interesting" responses. A total of 302 veterans (41%) responded to the questions. Each response was split according to meaning. For example, if someone responded "Going home, seeing dead bodies" to the "disturbing" question, this would be split into two units, "Going home" and "seeing dead bodies". Each unit of meaning was coded using an alphanumeric code. The first three digits represented the number of the veteran (001 to 731), the fourth character was P, the fifth was either 0 or 1 representing below or above the mean combat experience respectively, and the sixth digit was 0,1,2 or 3. Using the cutoff points discussed earlier, 0 represented a low score on both IES and GHQ, 1 was a low IES score and a high GHQ score, 2 was a high GHQ score and a low IES, and 3 was high on both IES and GHQ. Each unit of meaning was labelled in this way to allow comparisons between the different groups. It was hypothesised that those with psychological problems might respond with more "disturbing" units of meaning, and that the units produced by this group (for both questions) might be of a different character to those produced by those without such problems, though this is tentative because "disturbing" and "interesting" were presented as different questions, biasing veterans to produce responses to both.

The 302 veterans who responded to the questions produced 465 units of meaning for the "disturbing" question and 476 units for the "interesting" question.

The analysis was carried out using NUD.IST. The coded Word documents were imported into separate NUD.IST projects and analysed separately. Each unit of meaning was considered separately and incorporated into a particular category that adequately summarised that meaning. Categories were derived subjectively.

There are several interpretations that could be made for many of the units of meaning, including putting some into more than one category. The decision was made to include each unit in only one category, the most appropriate category, for ease of analysis. The picture would become

extremely complicated if each unit was to appear in more than one category, and numerical comparisons would be difficult.

The analysis for each question is in two parts. First, a content analysis looks at the differences between those with and those without psychological problems. The codes 0-3 were grouped into two categories for the purpose of a chi-square analysis. Those who scored above the cutoff point for GHQ were compared with those who scored below the cutoff point. The rationale for this data summarisation was, a) in some categories there were too few data points to analyse four categories of distress, b) as shown in Chapter Two it is difficult to determine whether a high score on the IES is an indicator of distress or of interest. The empirical reasoning for the summarisation is that preliminary analyses indicated that grouping in different ways (0 vs 1-3, 0-2 vs 3) did not significantly alter the outcome. The second part of the analysis is the qualitative component. Each category was subjected to a hierarchical analysis to consider the relationships between each and to establish over-arching concepts, these are presented in the Results section.

4.3 Results

The "interesting" and "disturbing" questions will be considered separately. Expected scores are obtained by using the proportion of veterans who fall into each category. These are: 0=.53, 1=.18, 2=.11, 3=.19. Table 4.1 shows the numbers involved.

Table 4.1 Numbers of items produced between psychologically disturbed and non-disturbed veterans

		<GHQ	>GHQ	total	X^2
interest	obs	293	183	476	1.31 (ns)
	exp	305	171		
disturb	obs	276	189	465	4.52 ($p<.05$)
	exp	298	167		

Table 4.1 shows that there is no significant difference between the observed and expected scores for the interest question, but that there is for the disturb question. Veterans who have psychological distress as measured by the GHQ responded with more "disturbing" units than those without such distress, as expected.

Each question will now be considered in turn.

4.3.1 What aspects of the war did you find most disturbing?

The initial analysis brought out 11 categories which accounted for all 465 units of meaning. These categories, in order of frequency, are shown in Table 4.2.

Table 4.2 Categories from initial analysis of "disturbing" question.

Category	Units of meaning	Percentage of total
battle	135	29
death	70	15
psychological effects	60	13
Family, home	42	9
Civilians	33	7
prisoner	30	6
destruction	29	6
weather conditions	23	5
food	17	4
equipment	14	3
government	12	3

Chi-square analyses were carried out on each of these categories, comparing those with and those without psychological distress. There were no significant differences apart from food ($X^2 = 3.89$, $p<.05$), but the numbers are so low (17 units) and the number of analyses so high that this may be a spurious significance and will not be considered further. The results indicate that those with psychological distress do not remember different kinds of memories as being distressing to those without such distress. This is interesting because it shows that individuals with problems do not

appear to be focusing more on particularly distressing types of memory than those without such problems. This interpretation is extremely tentative and requires further exploration in the depth interviews. The difference between traumatised and non-traumatised veterans' memories is likely to be in how the memories are recalled.

The 11 categories were further analysed and four concepts were generated that subsume all categories. These four concepts were: battle/combat experience, physical conditions, the effects on others, and the government. The concepts are not entirely mutually exclusive, as will be shown below.

4.3.1.1 Battle/combat experience

The categories: battle, death, psychological effects and destruction were subsumed under this category. 294 units of meaning (63% of total) are classified here.

It is valuable to compare those who found battle "interesting" with those who found it "disturbing". What is it about the individual or about their experiences and memories that makes them give one response or the other? This is more suitable for consideration in the depth interviews.

The particular battle experiences veterans found "disturbing" include the following (only single examples of each are given). There are examples of being in battle itself:

> *(027P10) Enemy air attack on land, more so at sea*
> *(143P13) bombing of troopship*
> *(139P13) a stonk of moaning minnies or 88s*
> *(166P13) being mortared, and shelled by the 88mm in the open, in trenches it is a terrible experience, more so in a slit trench for you can do nothing but just take it.*
> *(607P10) tremendous noise in action - no ear protection when manning heavy AA 3.7" and 4.5" guns*
> *(027P10) close engagement*
> *(133P10) vicious street fighting against the Greeks*
> *(692P00) The sight of an ammunition ship or petroleum tanker disappearing in a huge flash and a cloud of smoke almost instantaneously after a torpedo hit*

(599P13) charging with rifles to engage the enemy
(634P10) Normandy up to St Lo very tough fighting.

Others expressed uncertainty regarding potential contact with the enemy or the after-effects of battle:

(000P00) The ever-present threat of heavy German ships attacking convoys
(179P00) seeing mates go out in morning never to return and then having to go through their personal effects and write letters
(683P00) first time I was in action.

Many of these examples are concerned with either the high degree of stress associated with battle or with a more general fear associated with the possibility of action. It is not surprising that prolonged experiences of intense fear and tension lead to the formation of strong memories.

Another facet of battle that many veterans exemplified was the destruction of both objects and people associated with battle experience:

(191P01) the destruction and waste of it all
(165P00) casualties and the destruction of cities
(715P01) the losses on all sides of people and material. If only it could have been avoided
(494P12) the uselessness of destruction of people's homes
(301P13) the total destruction of villages and farms, etc, throughout Normandy especially
(435P13) deliberate destruction of complete villages, towns, and cities through blanket bombing, eg Dresden
(181P10) the destruction by incendiary fire of RAMC ambulance units, in spite of Red Cross markings.

Many of these examples and others not quoted are clear that much of the destruction of war is futile or useless, that it need and should not have happened.

There were also examples of aspects of death and injury:

(726P11) possibility of death, injury, capture
(696P10) seeing my mates die
(664P00) I was afraid of serious maiming. I hoped I would be killed sooner than spend the rest of my life in a wheelchair
(652P10) suffering and death of animals. Soldiers expect to see wounded and dead comrades. It was disturbing but we could fight back. Animals poor things had to just take it.

The last kind of example was often provided by Normandy veterans, who experienced months of trench warfare in an agricultural area.

The category psychological effects was included here because the majority of the units of meaning are linked to battle experience. Some units, it could be argued, belong more closely to the third concept, the effects on others. Veterans gave examples of psychological effects both as memories of the time and the way their memories have affected them since:

(135P10) mental adjustment before sailing on yet another sweep, escort, convoy, etc
(140P13) continuous sense of having to be alert as to enemy in the jungle
(183P13) constant tension
(555P03) nerves at breaking point
(171P00) long periods of boredom
(149P01) the pressures and responsibilities while member of active squadron
(515P00) wondering if I would live or die
(568P00) never told anything whatsoever - completely ignorant of events outside daily happenings
(573P00) by May 1945 I was tired and short tempered
(597P03) the constant tiredness
(607P10) exhaustion after weeks of action and little sleep

Some gave examples of how these problems became long term:

(428P03) any aircraft flying over or near me, even after 50 years I have to spot it friendly or enemy
(334P10) the responsibilities, particularly in combat, of being an officer... the fact that it left me frightened of responsibility.
(183P13) loss of faith in humanity - loss of faith in everything
(431P10) my own (apparent) callousness
(583P00) trying wholeheartedly to destroy the "enemy" in contravention of one's prewar beliefs - bringing down one's standards.

One individual simply listed the feelings he associated with the war:

(659P13) boredom, tedium, fear, callousness, cruelty, ruthlessness, thoughtlessness, obedience, brutality, suffering.

This list probably summarises the feelings remembered by most veterans.

The psychological effects of battle experience may prove useful for further exploration in the depth interviews. Though no differences were found between those with and without

psychological difficulties in this category, the measure was exceedingly crude, a simple count of how many such memories were included. In order to substantiate any claim for the role of psychological effects a more detailed exploration must take place.

Unsurprisingly, battle provides the majority of examples when individuals are asked about their "disturbing" memories of the war. The vast majority of the veterans in the sample experienced combat, many of them heavy combat, and these experiences have a strong impact on the mind. Individuals who have experienced such traumatic events are likely to have permanent memories of them. What is clear from the above analysis is that memories of battle experience per se do not distinguish those with from those without psychological distress. This is an important point, and provides further support for the position that the trauma itself, or even the memory of the trauma, is the best predictor of later psychological distress.

The common element here is fear. Fear is associated with battle and the expectation of battle, and fear of death and mutilation. Fear will also become apparent below, in the section entitled Effects on Others. This suggests fear leads to an increased possibility of the event being memorable, which fits the work discussed in Chapter One.

4.3.1.2 Physical conditions

Four categories were subsumed by this concept: prisoner experience, weather and physical conditions, food, and equipment. 84 units of meaning (18%) were included.

It is arguable that many of the units of meaning attached to physical conditions belong in the category of battle. While this is true, many are general memories of the war and not usually associated with any particular combat experience. Similarly for weather and physical conditions. Physical conditions were difficult for men in battle, but many experienced unpleasant conditions for long periods of the war.

Comments about equipment referred to the inferiority of the Allied equipment:

(433P12) The gradual realisation that we had been sent out there with guns and vehicles greatly inferior to the enemy's
(494P12) badly equipped in personal weapons
(612P10) not having the equipment to fight with
(139P13) German tanks were far superior to ours, also Spandau machine guns
(618P10) the growing knowledge through the campaign that our weapons were inferior to the German, ie tanks, A/T weapons, the notorious 88 artillery, Spandau machine gun.

Many veterans described appalling weather conditions

(443P00) the weather was indescribable to anyone who did not experience it
(507P03) The intense cold and freezing of spray that endangered the ship in Arctic waters
(596P03) almost continual foul weather in higher latitudes.

The category prisoner is included here because examples relate mainly to the physical conditions experience as a prisoner or seeing prisoners:

(428P03) spending time in a POW camp
(133P10) the complete disregard of human dignity by the Germans - the camps - the gas chambers, the shooting of prisoners, slave labour
(301P13) the horror of liberating Belsen concentration camp
(309P10) Italian (not German) treatment of Allied POWs, Japanese treatment of POWs and civilians.

This last example is important because it has often affected the attitudes of veterans towards these nations in the postwar years, often up to the present day. This is a permanent effect of the war. It is common for veterans to be anti-Japanese, and to refuse to buy anything made in Japan. It is unclear whether these xenophobic feelings would have been present had the war not occurred.

World War Two saw the formation of citizen armed forces, comprising many individuals who had never thought of experiencing the kinds of physical conditions they had to endure through up to six years of war. While they were all young and fit men, they were forced to endure hardships that would be thought deplorable at the present time.

4.3.1.3 Effects on others

The categories subsumed here include: family/home, and civilians. There were 75 units of meaning (16%).

Perhaps the reason why more veterans did not provide examples of this, examples of being separated from one's family, was that most of the sample were very young during the war and were not married. It is likely that if the sample had included a greater proportion of men who were married at this time then the effects of separation would probably have been mentioned more frequently. Perhaps men can more easily take long separations from parents than they can from wives. Examples here include:

> *(196P10) travel to foreign countries*
> *(378P10) married men separated for years from their families*
> *(383P00) long absence from wife and home, ie Dec 1940 to May 1945*
> *(387P01) lack of home news*
> *(383P00) the long time it took for correspondence to arrive, to and from home*
> *(155P00) lack of information from home during heavy air raids*
> *(191P01) disruption of family unit on evacuation.*

Many veterans felt helpless at not being able to do anything for their families, that they were stuck on ships or in foreign countries far from home, perhaps with the fear of invasion, or for those with wives the fear of the Americans. Details are not given, but worthy of further exploration. Did troops overseas trust their wives at home? Did this have an impact on their postwar relationships?

The category civilians has been included here because World War Two was a total war. In previous wars, even World War One (in Britain - apart from sporadic raids by ships or airships), the civilian population was not directly involved in the war. Battles were fought on battlefields that had been freed of civilians, so the soldier had no reason to fear for his family. That changed with the total war of World War Two, where few were safe from enemy attack. This introduced a

totally new dimension into war experience. Apart from the fear for one's family, the soldier also saw many civilian (including children) deaths on the battlefield:

> *(133P10) the killing and wounding of innocents particularly women and children, the suffering of refugees*

This was seen as particularly "disturbing", perhaps more so than the sight of dead soldiers. In a way it is "right" for soldiers to die - they are doing a job, but it is not "right" for civilians to die.

4.3.1.4 Government

This does not subsume any category apart from government with its 12 units (3%). The examples here refer to decisions made by the government of the time:

> *(430P02) Irresponsible decisions by politicians resulting in extra losses of life*
> *(453P11) When it ended and I was invalided out, 6-14% disability, pension 10'- a week plus - wait for it - £40 end of war gratuity*

and the attitudes of the present-day government:

> *(627P03) I feel the present government has let us down in our retirement and I feel a little bitterness about that fact which affects my health.*

This concept shows quite clearly that at least some veterans have been or are unhappy about the way they have been treated by the government of the country. This extends to a bitterness still felt, a feeling of having been let down by the people they fought for.

4.3.1.5 Summarising comments

The "disturbing" units of meaning have proved useful in providing detailed information about the aspects of war that veterans remember over long periods as "disturbing". "Disturbing" is not well defined, indeed some veterans noted that it was not a good choice of word. But it has served the purpose of providing the information required to a) begin to answer questions about the memories veterans hold about the "disturbing" aspects of war and b) to help in the production of interview protocols and subsidiary interview questions. One of the purposes of this question is to

give the interviewer a better understanding of what aspects of the war veterans think about. This purpose has been well-served. The above discussion provides potential questions that will be addressed in the depth interviews.

4.3.2 What aspects of the war did you find most interesting?

The initial analysis brought out 9 categories which accounted for 443 units of meaning out of 476 (87%). These categories, in order of frequency, are shown in Table 3.3.

Table 4.3 Categories from initial analysis of "interesting" question.

Category	Units of meaning	Percentage of total (476)
Travel	103	22
Comradeship	76	16
Battle	64	13
People	63	13
Education	51	11
Escape from war	31	7
Equipment	26	5
Nothing	15	3
Adventure	14	3

Chi-square analysis was carried out on each category to determine whether there was a significant difference between those with psychological distress and those without. None were significant, which suggests that those with psychological distress do not tend to recall different kinds of "interesting" memory than those without such problems.

The nine categories were analysed and four concepts emerged. These were: new experiences, comradeship, escape from the war, and nothing. The only concept to subsume a number of the original categories is new experiences.

4.3.2.1 New experiences

The categories subsumed under this concept include: travel, people, education, equipment, adventure, and battle. They account for 257 units of meaning (54% of the total).

Examples of the categories of travel and people include

> *(517P01) The capture of big towns and cities such as Naples, Rome, Sienna, Florence, Bologna, etc. We also did about 6 months in the Holy Land, Jerusalem, etc*
> *(133P10) visiting capital cities and ancient ruins... meeting an almost bewildering variety of nationalities, races, languages, accents, and social classes. The extreme kindness of many people often with very little themselves*
> *(475P11) meeting people from all strata of society*
> *(405P13) being welcomed by the people of Belgium and Holland after liberation.*

Most veterans would not otherwise have had the opportunity to travel the world. Many had never been much beyond their own towns and villages before the war, and had the war not occurred they may never have had the opportunity to go to many of these places.

Some saw their experiences in the armed forces as providing an opportunity for education:

> *(133P10) the officer selection was fascinating and challenging physically and intellectually as was the subsequent concentrated training courses. Para selection procedure and para training with its very physical demands its very complicated matrix tests and its in-depth initiative, psychological and psychiatric tests was a most interesting facet of wartime army life, the unique opportunity to meet a miscellany of beautiful and frequently kind young women.*
> *(146P00) service in the forces ... gave one more experience of human nature in six months than a lifetime in civvy street would have done to most people*
> *(149P01) The staff work at command HQ in the Mediterranean. One's work was a piece contributing to the jigsaw of the campaign*
> *(181P10) Strangely, building a new life, adjusting to a new environment, in several prison camps while awaiting transfer eventually via lager and so to repatriation*
> *(200P01) unit education and welfare*
> *(561P00) Fitness and teaching (learning), mechanical skills and use of arms.*

For some there appears to be a general sense of education that changed them for the rest of their lives, that improved them in some way. This is worthy of further exploration. What kinds of changes took place? What did they learn? Do they feel their personalities changed, whether

because of some kind of formal education or because of the circumstances and places they found themselves?

For those who found the equipment "interesting", the advances in technology were often cited:

> *(558P00) Technical advances in aircraft/engines/weapons*
> *(586P00) throughout the duration I was impressed by the efficiency of the transport system. There was always a bus to jump into and the railways provided excellent service.*

Battle was included in this category because many of those who indicated battle experience as being of interest did so because their experiences were novel to them. The category is broadly defined, and it is arguable that some of the units may belong in the "education" category. Some mentioned specific battles:

> *(027P10) Battle of Britain (viewed from the area of Dover)*
> *(391P13) Sicilian/Italy invasion*
> *(135P10) battlefield debris*
> *(183P13) Amazed at the great numbers of soldiers killing each other, never imagined so many in such a confined space.*

Adventure is included as a similar category to battle, indeed, many of the units could belong to the same category. Veterans are remembering adventurous experiences as "interesting". The problem here is that some of these experiences, while seen as "interesting" now, were perhaps some of their most stressful episodes. It must be good that veterans (at least some of them) are perceiving this period as being one of "adventure" rather than terror. This should be contrasted with those who found battle experience "disturbing". There are inadequate numbers to do any kind of quantitative analysis of these two groups. Further exploration will take place in the depth interviews.

4.3.2.2 Comradeship

76 units of meaning mentioned comradeship (16% of the total). Most veterans simply wrote the word without elaboration. Some mentioned the dependency everyone had on each other:

> *(190P13) everyone relied on each other completely*

The complexity of battle meant that troops had to be trained to work as a team, and the individuals in the team would depend on each other for their lives, so a deep sense of trust needed to be developed:

> *(000P00) The unique loyalty one felt to your own crew, despite the very short period of the association - probably due to each other's dependence upon the other.*

One open question is the relationship of comradeship to friendship. This is something to be explored in more detail in the Chapter Six. For the present certain ideas can be expressed. On the one hand, comradeship runs deeper than normal friendship, perhaps because of the sense of dependency for one's life on others, perhaps because of the shared living experiences:

> *(471P00) my friendships with acquaintances in the RAF seem to have been on a different level from those in peacetime.*

On the other hand, in battle, comrades who were killed tended to be quickly forgotten, or at least put out of one's mind. If one dwelt for too long on the death of comrades then one might become less effective in battle, and hence endanger oneself and others.

Another difficulty is determining the extent of comradeship. Is it something that exists at the level of the unit (section, platoon, company, battalion, regiment, etc), or can it exist in a broader sense? Some seemed to suggest that the whole nation was united in camaraderie:

> *(301P13) The total unity and comradeship that existed in those uncertain times.*

Because of the nature of World War Two, ie it was a total war involving civilians at home as well as front line troops, there was a sense in which those at home were in the "front line", and thus shared the dangers and discomforts of the troops. In this way comradeship may have grown out of such shared hardship and danger, and lost after the war:

> *(344P00) The resolve of most people to carry on under difficult conditions and to help one another.*
> *(498P02) the comradeship of people, services and civilian not known in peacetime.*
> *(652P10) When the war was over and we went our different ways the ... values were not the same, and are still deteriorating.*

On the other hand, the notion of comradeship extending beyond the military unit is limited, because it lacks the notion of shared responsibility, dependency for one's life, that is part of comradeship. These questions remain open, and will be addressed in the depth interviews.

Another relevant question is that of the role of comradeship in the present day. Did comradeship outlast the war? Do comrades still provide assistance for each other? This is tied in with the role of veterans' associations, which have seen a resurgence in membership in the last decade or so. Is it coincidence that this occurred as the veterans got older, or is it that older people become more dependent on others as they approach and pass retirement age. Again, this will be explored in the Chapter Five. There is an indication that at least some feel that the comradeship shared in the nation has been lost:

> *(443P00) My view is that if you are to ask anyone who served in World War II they would reply that if only the comradeship which existed in those times was the same today this country would be a wonderful place to live.*

4.3.2.3 Escape from the war

31 instances were recorded in this category (7% of the total). There is a minority of veterans for whom the most memorable aspects of war was when they managed to get away from it, whether on leave or whether the memories of the end of the war:

> *(135P10) The exaltation accompanying the last months of the war*
> *(143P13) Japanese capitulation*
> *(148P10) Germany at the end of the war - including war crimes trials*
> *(535P10) 28 days leave on arrival in England, Oct 43*
> *(155P00) returning home after five years in Middle East and Malta*
> *(616P10) the build-up of support for a Labour Government because of frustration at inequality and unfairness all around when the war was about democracy.*

These examples combine both the end of the war and the hopes that people had for the future. Over the years these hopes often turned to disappointment, as is seen above.

For others the escape from the line during the fighting was memorable:

(140P13) hospitalisation from the front line gave me pleasurable escape from the war. Sick leave in Bombay
(557P00) marvellous runs on shore after being at sea for long periods. .

The mail provided a welcome release for some:

(549P01) In most cases their real lifeline was mail from home, the state of their families was always in their minds
(596P03) getting back to Scapa Flow and receiving mail from home and news of young family!

4.3.2.4 Nothing

This category is included here because it includes a significant number of instances. 15 units of meaning were noted (3% of the total). Clearly, for many, the war does not provide any "interesting" memories. Examples not included in the category often included phrases such as "nothing except....". There are no examples worth quoting here because there recurrent words are; nothing, none, very little. If the war failed to produce "interesting" memories, why did these veterans agree to take part in the study? This act suggests that the war is somehow important to these veterans. But it is not clear why.

4.4 Discussion

The present chapter is only a small part of the initial questionnaire study, but it provides some interesting data about the memories veterans have of their wartime experiences, and provided useful information for helping generate the interview protocols for the forthcoming depth interviews. The questions were kept very simple in order to limit bias in veterans' responses. Both the "interesting" and the "disturbing" questions produced a wide range of responses, which were interesting because they could be subsumed in a relatively small subset of categories. In effect, the veterans each said the same things over and over again. This consistency is in itself interesting.

It is inevitable that many of the strongest memories veterans have is of battle experience. The majority of responses to the "disturbing" question concerned battle experience, and for so many the horror of such experience is still apparently strong, and it is the type of memory that is most likely to lead to psychological difficulties on the part of the veteran. The battle is traumatic. The next most common response to the "disturbing" question involved the physical conditions under which the men lived, both during battle and at other times during the war. The cramped conditions of ships, the weather, the poor food, all were mentioned on numerous occasions. Veterans suffered these conditions for up to six years.

Apart from worrying about themselves, veterans would consider the worries they had about their loved ones at home, parents, wives, children, whom they knew to be suffering through German air attack or food shortages. Family separation has received little attention in the postwar years, and the consequences such separations might have on the longer term functioning of such families. This was perhaps particularly the case for those married with young children. It is also only recently that research has considered the effects of war experience on those too young to have been involved in the fighting, or the women left at home (Waugh, 1994). The neglect of these problems in the immediate postwar years and decades may have increased the difficulties these families experienced. There is also the longer term consequences of this to be considered. What consequences are there for those who were evacuated? What consequences are there for the children of men who fought during the war? Were these veterans able to bring children up "normally" or were there longer term problems?

Another question arising out of the responses to the "disturbing" question relates to the veterans' attitudes towards government, both the government of the day (during and after the war) and the present government. There appears to be bitterness in many veterans towards the present day government, that stems from a sense of unfairness at the government's refusal to assist ageing veterans. People who had spent their early years defending the country are now getting a poor

deal. It is possible that their present problems are caused at least in part by this bitterness towards a government that refuses to help them even when they are of pensionable age.

The responses to the "interesting" question were classified under two major and two minor concepts. The concept of "new experiences" was the largest, accounting for the majority of responses. Many veterans thought that their new experiences were the most "interesting" memories they had of the war, particularly meeting new people both from the same culture and from cultures around the world, and seeing new places. The majority of this generation would not have had the opportunity to travel as many of these veterans did. Most would never have been abroad before, and would not have done so had the war not occurred. With regard to meeting people of different social classes in their own culture, this probably had some impact on the changing social attitudes of the wartime generation.

For others the experience of education, or the use of advanced technology was "interesting". Again, with the school leaving age of 14 for most people, these veterans would be unlikely to have had the educational opportunities the forces provided. Their time in the forces may have led to changes in work and life opportunities and expectations (whether for the better or worse) and changes in attitudes and personality.

The second question arising out of the responses to the "interesting" question concerns comradeship. While none chose to define what is meant by comradeship, this was clearly important to very many veterans. It needs further exploration in the depth interviews. The rising popularity of veterans' associations also needs further exploration. There is no clear definition of comradeship, except that it is concerned with the unity of people (whether battle unit or nation), and their reliance on one another. Veterans appear to feel that such comradeship has gone from modern society. This may also have an impact on their present psychological state.

Escaping from the war was the most memorable "interesting" thing some could remember. Going on leave, going home after years away, the end of the war; all had importance.

Many of these memories are worth further exploration in the depth interviews. The responses to both the "interesting" and "disturbing" questions provide useful insight into the nature of veterans' memories, and ideas for further exploration in the interviews.

The issues arising from this chapter that will be addressed in the following three chapters are:

1. A consideration of the different kinds of memory associated with the traumatic experience of war. This includes differentiating ordinary from traumatic memories. The characteristics of such memories will be determined. What are the factors that differentiate traumatic recollections from ordinary memories of the war? How are traumatic recollections converted into non-traumatic memories?

2. The role of fear and other emotions in the formation and course of memory. Previous research has suggested that there is a conditioned fear response (Foa et al, 1989) in traumatised animals and humans. How do veterans deal with the negative emotional responses associated with traumatic recollections?

3. The effects on families, both during the war and after, up to the present day. Veterans coped during the war by thinking about their families back home. After the war many still relied on their families to help them deal with wartime memories. The ways in which social support works is critical to a fuller understanding of the long term response to trauma.

4. Comradeship. This is perhaps the main way in which veterans coped with their war experiences. Recent years have seen a resurgent interest in veterans' associations. Do veterans now have a greater requirement for social support from wartime comrades than they had during their working lives?

5 The role of government in affecting psychological problems. Many veterans mentioned their bitterness towards the ways in which they have been treated by the UK government. Does this feeling actually affect their psychological responses to their memories?

CHAPTER FIVE

MEMORIES OF THE WAR

I used to think what landmines have I tripped over now.... There's nothing to be seen but if you tread on the bugger it goes up.

Normandy veteran, 1994

5.1 Introduction

This and the following chapter focus on the findings from a series of depth interviews with World War Two veterans. The interviews were in two groups. Group One were all Normandy veterans who were interviewed on or about the 50th anniversary of the Normandy landings (6 June 1944). The media at the time were covering the anniversary in depth, so this was an ideal opportunity to discuss wartime memories with veterans of the campaign. This was perhaps the time when any problems they have relating to their memories were likely to emerge through being reminded of the war. The veterans were not asked only about their memories, but also about the ways in which they coped with their experiences, both at the time and later, and about any effects they feel they still have after 50 years. The second set of interviews (Group Two) were also carried out with World War Two veterans, this time of different campaigns and including a number of ex-POWs. They were carried out in the period October 1995 to October 1996. The questions explored with this group were similar, as the focus was on issues arising out of the first group, but the specific questions varied (for details see the Method sections of this and the next chapter). For the purposes of writing the thesis, the data from the two groups was combined, and the material is presented in what is intended to be a conceptually coherent order, rather than analysing the data from the two groups separately. This chapter will focus on memory, and the Chapters Six and Seven will focus on the factors that impinge on the way the memories are interpreted through coping, ageing, etc.

5.1.1 The role of memory in the traumatic response

The model of traumatic memory to be tested here is derived from the work of several authors and is concerned with the role of traumatic recollections and other memories of the war. Memories in general can be classified into two groups, explicit and implicit. Explicit memories are those memories under conscious control where the individual has ready access to the contents. Implicit memory is not under conscious control and the individual has little direct influence on when such memories might emerge into consciousness. There are parallels here with Freud's notions of the conscious and unconscious minds (but without with the theoretical concepts concerning the role of the unconscious in *controlling* behaviour).

According to van der Kolk & Fisler (1995) what is remembered in explicit memory depends on the person's existing schemata. New to be remembered information is incorporated into these existing schemata. Unfortunately, the traumatised individual is unable to incorporate the new traumatic information into the existing schemata, and hence into explicit memory. Traumatic recollections enter implicit memory, where they are not under conscious control. The contents of implicit memory, at least in the context of trauma, are the individual's initial conditioned reactions to the trauma, including associated emotional and behavioural responses. Implicit memory can be accessed via the individual being in a situation where they are reminded of the stimulus, this leads to the appropriate conditioned response.

In practical terms, the traumatised individual will be able to live a normal life except when the contents of implicit memory are triggered. When this happens, the individual experiences traumatic recollections. These are memories of the traumatic event that are still "raw". The individual has not processed them (Creamer, 1995), has not incorporated them into explicit memory. Intrusive recollections can take several forms, including nightmares, flashbacks, or intense emotion at an explicit reminder. They often consist of very detailed memories of the

event, which the traumatised individual is likely to consider as complete memories down to the finest detail.

It is hypothesised that there are two fundamental mechanisms for coping with traumatic recollections. These are processing and avoidance. They will be discussed in greater detail in the next chapter. Processing concerns the active "working through" of traumatic recollections. When they emerge they are dealt with in some way by the individual until the information can be incorporated into explicit memory. This may be termed the development of a narrative about the trauma (van der Kolk & Fisler, 1995). Through the narrative the individual deals with the emotions associated with the memory. The individual who uses avoidance is using a passive strategy, whereby whenever traumatic recollections arise they are pushed aside and not dealt with. This leaves the information in implicit memory, from which it can emerge unaltered at any point in the future.

A number of specific questions are considered in the present chapter.

1) What is the role of reminders? Do they bring back intrusive recollections and other memories? What other stimuli function as reminders?

2) What kinds of intrusive recollections do veterans of a war 50 years ago have? Are memories the same today as they were 50 years ago? What are the factors that distinguish traumatic recollections from other memories of the war?

3) In what ways do memories change over time?

5.2 Method

5.2.1 General points

The main points of the method have been described in detail in Chapter Two. In summary, a series of 25 depth interviews were conducted with World War Two veterans, a subsample of the

individuals who completed the initial questionnaire. The first 10 were chosen because they had fought in Normandy June-August 1944, the remaining 15 because they had experienced heavy combat and/or been a POW, and they either had serious psychological problems or very few psychological problems as measured on IES and GHQ. A total of 189 veterans had indicated they might be willing to be interviewed (26% of the total).

The depth interview approach used here has a semi-structured interview format, where a series of general questions that need to be addressed are formulated, but the specific wording depends on the conduct of the interview. The questions are not necessarily asked in the order presented at the outset, the structure of the interview depending on the responses given by the interviewee. It is often the case that the interviewee will answer more than one of the interviewer's questions in a single response, or will discuss an issue in such a way that it makes logical sense to ask a question in a different order. In this way the interview will flow more smoothly. It also leads to a broader discussion of the topics of interest, including relevant areas that the interviewer may not have incorporated into the original protocol.

5.2.2 Interview protocols

These are given in full in Chapter Two. Only questions relevant to the current chapter are included in Table 5.1.

Table 5.1 Questions and probes relating to memory

a) Group One

Question	**Probe**
Do you think the 50th anniversary of D-Day has affected you in any way? Has it made you think more about the war?	Ways, interest, sadness, intrusion, pleasure
What else reminds you of the war?	
Which events from the war do you think about most?	positive, negative
Questions added for later interviews:	
Most people seem to think about negative or traumatic memories of the war. Why is this?	Are they most memorable?

b) Group Two

Question	Probe
Veterans 11-15	
Do you have memories that intrude upon your everyday life?	Not just war-related, details of memories, when they affect you, why they arise
Do these memories differ from your ordinary memories from around the wartime period?	In what ways do they differ?
What memories of the war do you find most memorable?	Worst? Why memorable? Differentiate ordinary, consummate, flashbacks
Do you have periods when you are particularly affected or unaffected by your wartime memories?	Why? Do you/have you ever actively avoided thinking about the war? Has this helped?
Veterans 16-20	
Do any of your memories of the war affect you now?	Details, intrusion, affect health, affect life in other ways, how detailed are the memories, does ageing affect memories, eg decay?
Have there been periods since the war when you have been particularly bothered by your memories?	When, does it relate to other events?
Veterans 21-25	
In what situations do wartime memories arise?	When have war memories affected life - include the past

5.3 Results and Discussion

This section is organised on the basis of the general questions asked in the introduction. In most cases many examples could be given of the evidence presented. For sake of clarity only critical examples are given. Quotations in this section are preceded by a 5 digit number. This represents two digits for the participant number (01-25) and three digits for the line number in the transcript. Brief biographical details of the 25 participants are also given in Appendix J.

As discussed in Chapter Two, the transcripts were analysed using NUD.IST, the categories being derived from both pre-determined theoretical issues and grounded in the data. The categories that emerged during the analysis of the Normandy veterans' transcripts included: reminders (media, anniversary), long-term, types of memory, fading over time, deliberate forgetting, traumatic,

dreaming, importance. The second group generated somewhat different categories, including: intrusive recollections (war-related, effects, dreams, flashbacks), consummate, ordinary, most memorable (positive, negative), decay over time (horror), reminders, and re-run.

Using a reflexive analysis of drafting and re-drafting the work, these categories were analysed further and several main issues emerged. These inevitably reflect the questions outlined in the introduction.

5.3.1 Effects of the anniversary and other reminders

> *(01005) Well, it was all the TV you know, and in the paper and I think you get a bit shellshocked again you know [laughs].*

If reminders have a critical role in activating traumatic recollections then the example here, the anniversary of the battle for Normandy, when veterans were constantly being reminded of the battle through the media and events organised in commemoration, may be a good example of the effects reminders can have. The Normandy veterans were asked specifically about the 50th anniversary commemorations and the effects these had on them, if any.

5.3.1.1 Non-traumatic reminders

For some, the anniversary had no more effect than any other, even though the events were constantly in the media:

> *(04002) not really, not any more than any other one... I don't think it's any different to any of the others.*

Others saw the anniversary not as something that generated traumatic recollections of the battle, but as a time for remembrance of those who died:

> *(04021) it is one day in a year and I think that at the end of the day I lost a lot of friends. I mean there are 22 of them buried in the churchyard at Benouville, and one of them is the padre buried by the church. Does it really hurt to remember them just one day in a year?*

For these veterans, the anniversary did not bring back traumatic recollections, though this may be because they have learned to deal with their memories. For the veteran in the second quotation, the events aren't forgotten. This veteran spends a substantial part of his time now he has retired visiting schools and discussing the war with pupils, and he takes an active part in the Normandy Veterans' Association (NVA).

Evidence that the anniversary can have an effect, but it is not necessarily traumatic to those who have learned to cope with their memories:

> *(08012) Well naturally it did make me think more about the war, but in a sense I was reinforcing my growing conviction that we must find some other way of dealing with national conflict for resolving our differences. Of course, it recalls all my friends who I'd made in the war and I felt a certain sadness, but at such a distance not like the immediate effect.*

This veteran takes an active part in his local branch of the United Nations. He has very strong anti-war beliefs that stem from his experiences during the war. This veteran is not traumatised by his memories. He again has learned to cope with them. He has had what he considered to be an interesting job after the war, and he does not dwell on his war memories. Again, this does not mean they are forgotten, but that they are placed in context with other memories. He still feels sadness about the loss of friends, but there does not appear to be great emotional distress.

The emotions veterans express usually do not represent a traumatic response. Many mentioned the loss of their friends, and the way it still upsets them, but not in a traumatic way:

> *(07002) I just sat down and watched all the celebrations on the other side and I was affected, but that was to be expected of course.... It was old pals and things like that, more an emotional way than anything... not so much war but more of the old comradeship. More of the old comrades who are not here today. Just very emotional.*
> *(10005) I feel a bit special when I'm visiting the graves and I see some of my mates. But then I get over it quickly. I always did.*

The emotional response is there, but it is not traumatic. This is the pattern displayed by the majority of the veterans in the group. Sadness at the thought of the loss of friends is to be expected. In these cases the anniversary is acting as a reminder, but it is not acting as a means of

recalling traumatic recollections, memories that the veterans have difficulty dealing with. The point is that:

> *(02028) It brought back memories, there's no horror about it, that's gone. That's past history that is.*

Certainly for this veteran, the length of time between the war and the present day has led to the fading of the intense emotions associated with the battle.

Group Two veterans were asked about the effects of reminders, not as a main question, but as a subsidiary probe. There was evidence that certain situations can act as reminders, but the effect may be temporary:

> *(12085) it soon passes over, its just, it's just while it's on really.*
> *(03172) I don't think you can ever forget it. It's little things that trigger a memory off, even somebody who looked like somebody and then you think ooh - then you come back and you have five minutes with them and then you've got something else to do and you get on with it.*

This veteran accepts that traumatic recollections are part of everyday life. He accepts that they will emerge at certain times because of a reminder, and gets on with life. They have achieved a level of tolerance or acceptance of their emotions.

5.3.1.2 Traumatic reminders

Other veterans suggested that the anniversary did cause problems. For one this was in France:

> *(03003) Not until we got to France and started going around the cemeteries, we went around more cemeteries than I had been to before and therefore found a lot more lads than I had found before. It's a bit emotional really, and it's not until you get to that stage that it really hits you between the teeth.*

This veteran still experiences intense emotion when reminded of the deaths of his comrades. As he notes, it is only in certain situations that the memories will come back, and the emotions associated with the deaths appears to be very strong.

The fact that the anniversary can be a reminder was clearly stated by one veteran (the same as the one at the start of this section who suggests he gets a bit shellshocked):

> *(01184) You're getting over it you know, but if they bring up something like the 50th anniversary.... Over the years they'd put something in the paper and then you'd start to think again, but if they leave it alone then you tend to forget it until it comes back again.*

This suggests that the role of the anniversary as a reminder can be very powerful. This veteran tends not to think about the war in his everyday life, but when he is reminded of it, the traumatic memories can return. For individuals such as this, the media attention around an event such as the 50th anniversary of the battle for Normandy can be problematic.

For those who were maimed or injured, the anniversary acts as another reminder of what they have had to live through for fifty years:

> *(06002) The fact that I had injuries that I get a recurrence of even after fifty years.*

When questioned about the effects of past anniversaries, some suggested that they had more serious problems in the past:

> *(07108) When I first came out I had nightmares and all that but a lot of them did, they all suffered from it like that. Until this about this period of the year they normally did and just every year. Some worse than others.*

This will be considered in more detail later, but it does show that veterans experienced serious psychological problems after the war, problems that were not usually addressed by the government or health services, and even after the war the effects could be worse around the time of the anniversary.

Other events also acted as reminders. One Dunkirk veteran took his son to see the film Dunkirk when it came out:

> *(12056) It was a remarkable film really , you saw all the people wading out to the boats, which I was doing as well, getting in the sea up to the chest and then trying to get into a small boat to be taken to a bigger one and they said, "Oh we're full up now, go back." And we had to come back, come back to the beaches and stop there again another day, couple of days, and when I saw all*

that on the film it all came back so so and I couldn't watch it any more you know, so we came out we didn't watch that any more and I don't know I don't like watching war films at all I don't watch them at all.

When this veteran was asked why he doesn't watch them:

(12069) Well that gets me a bit worked up you know, not nasty tempered, not now, but worked up.

Veterans who still experience traumatic recollections are often aware of what can act as reminders, and they may avoid certain situations:

(11692) I have a video film... videoed off Channel 4... I've never watched it, it's about the camp I was in.... I was watching it on telly and it showed you the entrance of the mine and I said that's it. I switched off but after I thought well I'd like to see it you know, the video of that particular camp and I'm afraid to watch it. I shall have to get hepped up one night with my sons and watch it.

This veteran realises what effect seeing this film is likely to have. He still experiences severe difficulties with his memories of the war, particularly of the POW camps in the Far East. What is important here is that the veteran cannot watch the video because he knows what effect it will have on him, yet at the same time he "needs" to see it. The intrusive thoughts relating to the film are bubbling beneath the surface of consciousness. He cannot ignore them, much as he wants to. Why does he have such a need to watch it? And why does he need the reminder in order to access these traumatic memories? Are they repressed in such a way that they cannot be accessed at will? This would support the theory of implicit memory outlined earlier, where dissociated traumatic memories are contained in implicit memory. It is only by accessing them through a reminder that the individual can work on them and store them in explicit memory. This is an important point. And it is also important that the traumatised individual is aware of these memories, and the need to deal with them.

One of the more seriously traumatised veterans (who is now receiving treatment for his difficulties) has extremely serious problems relating to the war, and reminders play a crucial role:

(15043) and every time something comes up, like this 50th thing and that like it you know it sets me nerves going and in fact I was - three weeks ago I was invited back to a place in Holland that we captured during the war... I got as far

as Nottingham, got panic attacks and I said I wanted to come home again.... I don't even like reading about things about the war or on the telly.... I only go to these Normandy veterans and that because it's to be with friends and that, I don't talk about the war, or anything like that.

This veteran has to control the situations in which he experiences reminders of the war. Once he is reminded the traumatic recollections come back and he has serious psychological difficulties.

For another veteran, a Pole, problems occurred on the earlier anniversaries of his traumatic experiences:

(25180) The important thing to me is that first years they were happening only at that season of the year, my interrogation [in Poland, 1940] was 17 days, no 15 days of interrogation by the Russians, with beating up and a bit of torturing.
(25183) My boat was torpedoed in July and I spent 17 days on the raft.

The first event occurred in October. In the early years after the war this veteran had problems with nightmares in both July and October.

5.3.1.3 Positive effects

The effects of the anniversary were not all negative. Some veterans were actively pleased by the experiences they had in Normandy during the commemorations:

(03068) It almost repaid me for my misgivings... it was unbelievable in Normandy. I must have signed hundreds and hundreds of autographs, pictures, and posters and books. They were young people, that's the amazing thing, 12, 13 years like my grandchildren, and they seemed genuinely concerned for you and wanted to shake your hand. After 50 years it's a bit of a shock.
(03208) It cheered me up, yes it did. Doesn't make you feel important, that's not the work - that they seem to appreciate what you've gone through and what you did.

In a way the commemorations stopped some of the veterans thinking that everyone had forgotten them and what they did. As the veterans have aged some have felt that they have been abandoned by society and not appreciated for their actions during the war. For some at least, the commemorations may have been beneficial:

(02024) I'm glad [the Normandy commemorations] took place, if only for that reason, to remind people, and now to let it rest again.

This section has shown that the anniversary did have a reminding function for Group One veterans. The important thing is that this function varied considerably. For some it meant very little, for others it was a time of remembrance, a time of sadness when comrades were remembered, for some it was a positive experience, when they saw that other people had not forgotten what they had done, but for a minority it did serve to bring back traumatic recollections, strong memories and emotions associated with their wartime experiences. The emotional effects of the reminder seem to be transient. None of the veterans appeared to be showing any permanent effect of the reminder. Most suggested that the memories were brought back temporarily, usually for a matter of minutes, though the emotions could be very strong. Reminders can lead to intrusive recollections (Macleod, 1994). This appears to be the case here, at least for some veterans, but even when it did occur, the effect was temporary. The memories do not continue to intrude for long periods. This may be because the veterans have developed effective coping strategies, or the time period has led to a reduction of problems. This is evidenced by those who said that the problems were worse just after the war.

For some the 50th anniversary had a positive side. It showed that people still do care about what they did during the war. This is important to a generation who believe that they and what they did have been forgotten. Any problems arising out of the feelings associated with being forgotten may be alleviated by this.

Normandy veterans thus vary as to the effects of the anniversary as a reminder, there are only a minority who experience traumatic memories and intense emotions. Even those that do experience them only for a short period after being reminded. Concerns about the media coverage of the 50th anniversary of Normandy do not seem justified. The media may have made it worse for some veterans, but those who are traumatised are usually reminded by the anniversary irrespective of any media coverage.

Group Two provide further evidence for the important role of reminders in bringing back traumatic recollections. Anniversaries seem to be particularly important reminders, but many different things can act as a stimulus. Perhaps traumatic recollections can only be accessed through some kind of reminder, something that resembles the original stimulus information (Foa et al, 1989). This can come from the outside, in the form of films or other veterans, etc. Or it can come from the inside, when elements of the memory has been processed and is in explicit memory, these elements can themselves act as reminders.

The role of reminders is tied in closely with the concept of avoidance and other methods of coping. Veterans who avoid war films or situations where they would meet other veterans fall into this category. Veterans are usually aware of the kind of situations that remind them of the traumatic recollection. Avoidance is a conscious strategy. It will be considered at length in the next chapter.

5.3.2 Intrusive recollections and other memories

> *(08139) I don't think you ever forget anything. I am convinced of that. It's just that the bloody thing won't bow down... if something triggers them off.*

On analysing the transcripts, this turned out to be the largest and most complex group of concepts. The data from Group One veterans generated several questions which were addressed by Group Two, as will become clear.

Veterans have several kinds of wartime memory. The most important in respect of the present discussion is the traumatic recollection. This usually involves a very vivid memory of some traumatic event, to which is attached intense emotions. When the individual thinks of the event, then these emotions are also experienced. The individual cannot separate the sensory memory from the emotions, and he has no control over the experience of these emotions, and little control over when the event will be recalled. The second kind of memory is consummate memory. This is

where the individual recalls an event in great detail, being able to describe what happened in depth, but there is no intense emotion attached to the memory. The individual may feel sad or angry at the thought of what happened, but these emotions are under control. The third kind of memory is the decayed memory, where the individual remembers aspects of the event, but not in great detail. Again, there are no particularly strong emotions attached to the memory. Memories of the war can be fitted into one of these three categories. No comment is made regarding the accuracy of these memories, as accuracy is not pertinent to the psychological well-being of the individual. A consummate memory may well be confabulated, but that would be expected given the discussion of the development of the narrative in Chapter One (van der Kolk & Fisler, 1995). Memories may change over time, and may move from one category to another, so for example an intrusive recollection may be processed and become a consummate memory.

5.3.2.1 Evidence for intrusive recollections

The role of intrusive memories was addressed in some depth by the veterans. Wartime memories intrude on their everyday life, they assume such importance that they are unable to stop thinking about particular memories, there is a build up over time and the memories eventually intrude into consciousness:

> *(06037) I try to put it out of my mind but you can't can you? I get migraine headaches and I start swearing. I get them quite often, I take paracetamol. I have two a week or one a month.*

It is common for veterans to have memories with this intrusive quality. This example shows that they can have physical effects, even after 50 years. For others there are mood changes:

> *(03172) Occasionally something will happen and, oh dear, that reminds me of so and so and then I think I go a bit moody for a while. My daughter says he's got one on him again. But it blows over. It blows over.*

These memories have qualities different from ordinary memories because of the profound effects they have on other areas of the veterans' lives, and this difference appears to be largely the emotional impact, as will be seen.

The veterans provided ample evidence of the intrusive nature of their recollections:

> *(09020) I get to a stage sometimes when I start thinking. It just comes on and you think and think.*

What triggers these?

> *(09023) Nothing I don't think. Don't think anything really triggers it, it just happens.*

This goes against what was said in the previous section, that in order to access a traumatic recollection the individual must be reminded of it. But it may be the case that the individual simply isn't aware of what reminded him. It would be useful to test this in an experimental situation, where memories can be accessed in a controlled fashion, but there may be ethical problems with accessing traumatic recollections in this way, and there would be no gain by inducing artificial traumatic recollections as they may differ in quality from true traumatic recollections.

There are other examples showing how veterans control, or attempt to control, their memories:

> *(03164) You bottle it up. Then of course you bust every now and then... it's a safety valve really. I bottle it up for so long then the lot comes out. It's a good thing I think really. But all that stems from the war, from the war experiences.*

This demonstrates the power of intrusive recollections, even after such a long timespan. Issues relating to coping will be discussed at length in the next chapter. The memories this veteran has are outside of consciousness but still impact on it. This is evidence for implicit traumatic memories, though it again does not support the notion that a reminder is necessary for activation of the traumatic recollection. The problem here appears to be whether or not the traumatic recollection has stimulus material that has to be activated in order to experience the behavioural and affective responses, or whether there is, as suggested by the above quotation, a more active unconscious processing occurring.

5.3.2.2 What kinds of memory are potentially traumatic?

The veterans provided many examples of memories that still create problems for them. These ranged from recalling particular incidents, to nightmares and flashbacks to the event. The latter categories will be considered first.

5.3.2.2.1 Nightmares

> *(10004) I dream a lot I'm shooting them, I tweak things off the bedtable, I dream about it... it's like all silly dreams. It's like I say, I'm shooting Germans but they don't go down and they chase me and I can't get away from them. I'm running and running but the beggars are still behind me. I can't get away. Most peculiar, silly dreams.*

It is common, at least among those interviewed here, for veterans to still experience war-related nightmares. These nightmares can occur regularly. One veteran (10033) has them weekly, and has experienced them ever since the war. He now experiences them with no greater or lesser frequency than at any time since the war. Another (07113) has dreams about battle and once experienced a physical response. On waking his wound scar was red and inflamed. This occurred on the 30th anniversary of the incident. Though many have these nightmares, they do not appear to suffer after-effects during the day:

> *(10081) I'm up in the morning and I'm all right - no bother at all... not ever. My heart is thumping when I wake up and that's panic but after a few minutes that's finished and I forget about it.*

As the dreams have occurred since the war they are treated as part of normal life. They are a permanent effect of the war that the veteran has learned to cope with.

Veterans in the second group also experience nightmares. For one veteran, they have changed over time, which may suggest a form of processing:

> *(25027) since the war, during the war too, they started in the war after the first war experiences.... Lately they have got a little mixed up. At first they were clear reliving, reliving of interrogation, reliving of the days I spent on a raft after being torpedoed in the Atlantic, just reliving that.*

One veteran experienced nightmares in the early postwar years:

> *(12196) I dreamed a lot in the past, not so much now.*

Another has dreams every night:

> *(13197) After all these years I still dream about it... every night.*
> *NH: Every night?*
> *13: Every night, yes.*
> *NH: You say you dream every night are these dreams the same dreams over and over again or,*
> *13: Not the same, no, different things that happened during the course of the five years, yes we had some different experiences you know.*

This veteran does not consider his dreams to be nightmares. The content may not be traumatic because a) it has changed over the years through the dreams themselves, or b) the veteran has got so used to them that he has learned to cope with them. If they are not traumatic, why do they still occur every night? This would suggest that b) is the more reasonable explanation.

For one veteran, the nightmares do create problems that are not related only to the night:

> *(18059) Well you get yourself in a tangle, you're in a room and you can't get out. Various problems come along, about the war, about your service... perhaps I've been upset over something. I get a little wound up, and that's why I have the pills. Whatever I do I've got to have two of them a day, one in the morning and one at night - to try and keep me calm.*

Dreams and nightmares are common among these veterans. Most mentioned dreaming about the war, for some the dreams have occurred ever since the war, for others they were more frequent in the early years, for others they are more frequent now. There is no consistent pattern, but such dreams play an important role in many veterans' lives.

5.3.2.2.2 Flashbacks

The PTSD literature shows that traumatised individuals may experience flashbacks, they may imagine themselves back in the traumatic situation (Mellman & Davis, 1985). This has been shown most often with Vietnam veterans, who have suddenly found themselves "back in

Vietnam", dressed in combat gear, armed, and perhaps walking through the forest. The veterans in the present sample were questioned to determine whether they experience flashbacks.

> *(14216) Cassino is so vivid to me like I think about it many a time, when I go to bed you know. NH: Do you ever think yourself back there? 14: Yes, yes.*

This is the closest that any of the veterans came to describing flashbacks. The veteran does think himself back there, but he may be just talking about very powerful memories. None of the other veterans appeared to experience flashbacks. It does not appear to be a phenomenon that occurs after 50 years. Or perhaps it reflects how the culture of these veterans differs from Vietnam veterans. If flashbacks do cease to occur long after the traumatic event there are implications for PTSD. Flashbacks are one of the criteria under re-experiencing the event. Flashbacks may not occur in long term chronic PTSD

5.3.2.3 Other traumatic recollections

If the theory as described in Chapter One applies, then veterans may have difficulty describing their traumatic recollections because they will be implicit unconscious memories. They will only be able to recall the explicit memory that they have created of the original memory. They cannot describe the actual stimulus memory that triggers their behavioural and emotional responses. This may be a limitation of the present research. Those veterans who are still unable to discuss their traumatic recollections may not have volunteered to take part. The data provided here may relate to partially processed information. Bearing this limitation in mind, it is still worth exploring the kinds of memories veterans have, as they provide insights into the reasons why they are experiencing difficulties.

Many describe the experience of battle:

> *(01017) Everybody going into action... you get frightened... and it brought it all back you know, the shelling.*
> *(02170) [driving in a tank, the driver said] "there's a wounded German officer," and the [commander] said - well I won't tell you what he said - and we drove on. The only... point about that was - we weren't squeamish - I had a quick look, but of course the first thing in harbour at night was you had to clean your*

tank down. Fetching pieces of German officer out of your tracks which wouldn't have been bad if he'd been dead but you realise you got him [speaking quietly].... That stuck in my mind, though it is 50 years ago next February when it happened.

This memory contains elements of guilt. It is perhaps different from a traumatic recollection, which theoretically contains no cognitively analysed information. This is a processed memory that still creates problems because of the guilt. This kind of description does not impart anything of the horror of the experience for the veteran, it is very descriptive.

Others discussed the loss of friends, both at the time and seeing the graves. Again there are feelings of guilt:

(03012) Why am I standing here looking at him [in the grave] and not the other way round?

And the sight of death:

(03283) A little boy about seven I can remember his face now... I can see that look on his face now and I can see the dark eyebrows and bulbous eyes. That was the first death I see then, and then of course you see hundreds and it didn't bother me then - you can't let it bother you - and in the most peculiar positions kneeling and like a u-shape where they were crawling and got sticked. Then you go round with a blanket picking the bits up. I got another one, here another one, and they were our mates.

Recent research with grave registration troops based in the Gulf (McCarroll et al, 1995) showed that several years after the Gulf War individuals who had assisted in preparing bodies for burial still experienced PTSD-like symptoms. Here we have veterans who saw very many deaths over a prolonged period of time, many of the casualties being friends and comrades.

Guilt was also experienced by veterans in the second group of interviews:

(15090) sometimes I think if I'd done so and so I wouldn't have been there [in a POW camp] I'd be going all through it you know... when I'd done and what I shouldn't have done.
NH: Are you running over the same events?
15: Yes.
NH: So is it usually relating to when you got captured?
15: Yes when I got wounded and captured, things that happened after like at hospital prison camps.
NH: Do you really believe that you should have done something differently?

15: No no I mean and uh what I could have done differently was uh you know, not sticking where I was and uh and when people were getting wounded and that, thinking if I'd a gone and carried some of them back like the others, dashed back, I'd have been OK.

This veteran, who is at present very traumatised by his war memories (including dreaming about the war every night) and is now receiving treatment, feels guilty that he didn't behave differently. The subject was brought up several times during the course of the interview, usually associated with the idea that things would have been better if he had acted differently - yet at the same time he doesn't think he should have acted differently. Why the discrepancy? Is it because the consequences of his behaviour were so profound - wounding, capture, imprisonment? Or is it that he has not thought through the memory, developing a coherent narrative? If the latter, why is he unable to work it through, when he thinks about the event most days?

Many traumatic recollections involve feelings of guilt, where the veteran dwells on a particular action and goes over and over it in his mind. This phenomenon has been studied by Kubany (1994) in relation to Vietnam combat veterans, and by Davidson et al (1990) in relation to the feelings of guilt still experienced by World War Two veterans. Going over the information in the mind is not the same as processing (discussed below). In processing the memory and the emotions are changed, here they remain the same, yet it seems different to a traumatic recollection the veteran has not addressed. To have a feeling of guilt the veteran must have thought about the memory at some level, so why doesn't the feeling of guilt get processed? Either the veteran did do something wrong for which he cannot atone - such as guilt at others dying - or he is incapable of thinking at another level and addressing the guilt. This may be a situation where the veteran requires assistance, needs to be provided with a justification for his actions. It is a classic case of the need for someone to say, "you couldn't have done anything different". This generation did not have that kind of support.

Other veterans describe what might be termed atrocities:

(10111) I was with a sergeant one day and a German came out of a trench and this sergeant killed him because - he was crying - because [his friend had been killed]. Of course he was so upset and in fact he ran forward and killed two more Germans who were giving themselves up.

Atrocities were undoubtedly committed on both sides, often in the heat of battle, but most veterans were unwilling to discuss them. Atrocities were either only committed by the enemy, or they had heard stories of atrocities, but they had rarely witnessed or taken part - or at least they rarely admitted to witnessing or taking part. Perhaps these kinds of memories are a) least likely to enter consciousness, b) be more readily changed to conform with "acceptable" conduct of war:

(10123) Oh no, I never did that.
(04173) Although I've a feeling it was done and I'm not going to suggest it wasn't, because in the heat of battle if you are disposed to violence in a group of six or seven people and you have the opportunity of dealing with the men that did that what are you going to do? These are the men that killed your friends.... Well, we went a little berserk, that's the only way to describe it because anything that moved, German or otherwise, they had no opportunity ever. We never called on anyone to surrender... we just pushed and pushed and pushed and that was the end of it, and eventually invariably they got killed.

This may be evidence for the above, this veteran is apparently unclear as to whether he committed atrocities while in battle. He accepts they went "berserk", that they behaved in ways unacceptable out of battle, but he appears to be rationalising it as acceptable in the circumstances. The same veteran:

(04198) I don't think I could have shot a person in cold blood quite honestly, although I know we were livid about the padre... it's difficult now to say what you would have done under the circumstances then. As I say, as far as the padre was concerned, I think even now if I'd seen the man come out with his hands up, I would have shot him.

This veteran appears to contradict himself. At one point he is saying he wouldn't commit an atrocity, at another, when he has started thinking about what happened to the padre, he thinks he would commit an atrocity. Perhaps it is difficult to put these kinds of memories, emotions associated with death, with being in battle, into a coherent narrative, and it may be precisely these kinds of memories that continue to cause problems for traumatised individuals. These are the memories that when they intrude into consciousness, the individual cannot incorporate them into

existing schema because there is too much information conflicting with them. The individual at the same time feels angry - the same emotions at present recall as when in battle - and guilty, knowing that they want to act but to commit such an act would be criminal. If such an act did occur then this will inevitably create even more problems for reconciling such traumatic recollections.

These issues were considered in more depth in the second set of interviews, when a more explicit attempt was made to distinguish between traumatic and non-traumatic memories.

> *(11764) Well the vivid ones I can see as a picture like when I say the bloke who died in my hands in Mooji, a place called Mooji, picking the groundsheet up and seeing the ants crawling through this bloke's entrails and I knew he was a driver of one of the ammunition trucks.*

This veteran, a traumatised ex-Far Eastern POW, experiences very strong visual memories. When I asked if he remembers smells and sounds in the same way he said no. This suggests that intrusive recollections do not have to be consummate memories in multisensorial terms. They can be purely visual and yet traumatic. This is not surprising, as the visual component of ordinary memories is usually the strongest. Smells and sounds may not be remembered like visual images, but they may act as triggers for the traumatic recollection. The same veteran continued about the driver:

> *(11499) I'd just lifted this groundsheet and there was the driver just dead and all his entrails were strewn under the groundsheet, you never forget these things, they're constantly in your mind you know.*

This veteran was distressed for most of the interview, crying at times. When I checked his claim about the memories being always in his mind he repeated "Yes all the time, yes all the time"

> *(11507) All the time. You never forget, for never forget the sights of the men who died.*

Again he repeated that they have been constantly in his mind since the war. He also described many other traumatic recollections, mainly relating to his time in the prison camps.

The visual images are profound for other veterans. The following example also shows how the traumatic recollections can emerge for no apparent reason:

> *(13428) [The memories] can make you feel emotional at times, yes, sometimes if you sit and think about it you know going through it to visualise it as it was you can find a tear dropping, yes. If you think about it too long you think - how did I put up with that? Why did this happen? ... so therefore once it flashes into your mind you try and scrub it clear it.... If you just sit on a garden seat you think you're looking around and you start thinking, that comes into your mind when you just visualise it goes on all that was happening, yes. I mean you realise - oh I'm thinking about this, let's think about something else or get up and do something.*

This veteran avoids the traumatic recollections by blocking them out, thinking about something else, or doing something else. The recollections are visual, but they are not "as though I was there", they are not flashbacks. He is not reliving the incident. He is perfectly able to distinguish reality from memory. This shows intrusive recollections are not necessarily about reliving the event, but they are about memories coming into consciousness when they are not wanted.

Others focused on the importance of the visual memory:

> *(15331) I can see every bit of it....*
> *(15587) I were being interrogated - two Gestapo agents in this little room, they took all me clothes off, I'd just got me arm slung wrapped up, he kept asking me questions but when you're a private in the army you don't even know what time it is. He just shouted at me to come in and told me to stand up but I couldn't so he lifts me up and tells me to get to that room there.... He just opened door and all this like smoke came out - first thing that had been drilled into you - gas chamber... they just laugh about it and I'm in a corner with no clothes on kicking away at two great big six foot Nazis - when they dragged me in it were all full of wounded German soldiers. They were shower baths.*
> *(15336) NH: Can you remember the sounds and smells and all that kind of thing as well or are they mainly visual?*
> *15: Visual mostly.*

This veteran, though he was very emotional for much of the interview, could describe scenes such as the above without apparent emotion. This is not his most serious traumatic recollection. It is a bad memory, but it is the problems with feeling guilty described above that seem to cause most

problems, though he did not give much detail about the contents of his nightly nightmares. He described his medical treatment:

> *(15304) I were losing a lot of blood, it were all vague to me. I can remember going in this place, that place. I remember going in hospital, there were a doctor he were ever so cruel he just come in and pushed his fingers through something like that [demonstrates on shoulder], just laugh and say "pain, ja, ja?"*

He also discussed being in a POW camp:

> *(15310) the prison camp hospital a Russian lad got shot for stealing bread. He [the gunman] was supposed to be a doctor or orderly.... Prison camp was just the side of Belsen, it were horrible, horrid, with 350 in one hut. I think there were all them people in that hut and I didn't even know because we had no light. I never spoke to them. I couldn't say who they were. There were bunks five high, just one slat in, no blanket, nothing, just had bloodstained clothes, lice, all sorts.*
> *NH: And this was winter?*
> *15: Yeah.*

Before capture:

> *(15294) Just after we landed in Normandy we had over 200 casualties in one day and we had to go round with Germans like, collecting bodies and putting them all together ready for somebody to come and bury them*

This veteran exemplifies how memories may change. The memory of when he was first captured, relayed without emotion, may once have been a traumatic recollection that has been successfully processed.

5.3.2.3 How do memories change over time?

> *(07082) I notice as you get older, memories get stronger and stronger for some reason. You do think more now.*

The veterans presented evidence that their memories do change over the years. The specific interest here is whether these memories are showing signs of being processed, and if so in what ways, whether there are specific age-related changes, and whether any of these changes are specifically related to ageing and retirement.

(03067) I can remember those things more easily than I can remember what happened a fortnight ago. I suppose this goes with old age anyway. You tend to dwell on these things because to you they were important then and they're important now.

This quotation is important, because it shows the effects of age, that people focus on what has been important to them through their lives, and for many veterans this was the war. It is important to distinguish between traumatic recollections and the simple remembering of things past as Proust would have it. Many of the war memories these veterans focus on are there because they are among the most important events in their lives.

With regard to traumatic experience, one veteran shows how events in the early years acted as vivid reminders of the war:

(04036) The first five years. During the first five years whenever you saw an accident. I was in the police force and saw a lot of accidents, a lot of people die and when you see things like that your mind immediately goes back to the war days and your experiences. The smell of death that came back and the deaths of your comrades. But after time it does get a little better.

This shows that there can be a reduction in traumatic recollections over the years. This may be because the traumatic information is being processed in some way, incorporated into the individual's schemata. But this may not be the case, the veteran may simply learn to cope with the memories:

(01011) Gradually you get over them, but then it brought it all back again.
(04032) as the time has gone on it hasn't dulled it, but it has put it more in the back of the mind.
(04043) I would say that the memory fades of necessity. It does. And yet a lot of people, and I'm one of them, I can still smell the dead cattle, the dead bodies, the smell of death. It's as vivid today as the day I saw it. I can occasionally see some of my men getting killed, but it's only when I sit down and force myself into it. It's not a thing I normally do every day.

It is interesting that the memories fade of necessity. Is this because the individual cannot cope with them being constantly in the mind, or because they interfere with everyday life? The memories remain as vivid, perhaps because as traumatic memories they are fixed and unalterable,

as previous research (eg Foa et al, 1992) has suggested. Stone suggested that a permanent change in the amygdala was responsible for the fear response in rats. What appears to happen is that the traumatic emotion can be taken out of memories, but the images remain. The process of developing a narrative of the memory may take away the intense emotion but not the images as it is not the images themselves that create the problems, but the emotional responses that go with them.

There are similar examples:

> *(03273) You never forget their faces. You never forget what they looked like while whatever it was was happening and did happen. You can if you think deeply enough you can smell the cordite and the bombs and the blasts and that. I swear I can smell that. The stench of death never goes away. A peculiar thing death.*
> *(07201) Apart from Normandy there were other bad times, say Arnhem and crossing of the Seine, crossing of the Rhine and places like that... they were installed so vividly in some of us anyway that well, I'll always remember.*
> *(14208) You could taste it... you could taste death*

Many of these memories are no longer traumatic. They are still powerful memories to the veteran who has them - as vivid as the traumatic recollections other veterans experience- but they are not attached to the powerful emotions associated with traumatic recollections.

One describes the fighting in Calais in 1940. The events were traumatic at the time, but the traumatic element has faded:

> *(13290) [We were] very frightened yes, very frightened indeed because we'd only been in Calais a few days and uh when the Germans came and put a ring round Calais, smoke ring, and they dropped the bombs inside, their planes, the Stukas, they come screaming down and then the artillery was dropping the shells inside and of course the tanks was coming up as well blasting away at the same time.*

This veteran expressed emotion at many of the memories that he described while in the prison camps in Poland, but this was just a description of what could have been an everyday occurrence, though he was in a position where he could have been killed. The memory has ceased to be traumatic.

The wartime memories are often the most powerful memories veterans have. This may be because the war was the most important period of their lives.

> *(15534) I remember practically everything about the war. I can't remember anything after, it takes m a long time to think about people I used to know after the war.*

War memories do change over time. How they change will depend on several factors, the individual, their circumstances, coping strategies, the nature of the original memory. Some memories have faded over time. It is proposed that these were never traumatic recollections, but "ordinary" memories, memories where certain elements are retained in the narrative of autobiographical memory, but as the incident was never particularly important, the details cannot be recalled. There are also changes from traumatic recollection to consummate memory. It is suggested that a consummate memory is one which was a traumatic recollection, but that it has been processed and incorporated into the narrative. The uncontrollable emotional content has been detached, but the strong memory trace remains. The memory may also remain strong because through the development of the narrative the veteran will rehearse the material, leading to a stronger memory trace.

The findings suggest that a distinction between implicit and explicit memory applies to this situation. The findings suggest that unprocessed traumatic recollections are held in implicit memory (which is analogous to the unconscious), and processed memories are held in explicit memory (van der Kolk & Fisler, 1995). The veteran has control over memories in explicit memory, but not over material in implicit memory, which emerges when the stimulus information is activated through a reminder (Foa et al, 1989).

5.4 Conclusions

This chapter has shown that there are several distinct kinds of wartime memories veterans have, even after 50 years. The one of greatest concern is the traumatic recollection, which is a very powerful memory that emerges usually but not always when the veteran is reminded of the war in some way. These memories are difficult to control, difficult to put out of the mind, and they are associated with very strong, also uncontrollable, emotions. The emotions, anger, fear, anxiety, are what makes the traumatic recollection traumatic. The second kind of memory is what has been termed consummate, these are also vivid memories of some wartime event, but they do not generate a similar emotional response. The veteran, though perhaps having emotional thoughts, keeps them fully under control. The third type of memory are ordinary decayed memories, memories of experiences that the veteran finds it difficult to recall in detail. Memories of any particular event can change category, from being a traumatic recollection to consummate memory, or consummate memory to ordinary memory. For many, there has been an increase in the frequency or number of traumatic recollections as the veteran ages, perhaps since retirement. Issues regarding how and why this will happen will be the focus on the next chapter. Perhaps the most critical finding here is that there are still so many traumatic recollections 50 years after the event. It was shown that reminders play a role in bringing back memories of all types.

Traumatic recollections can take the form of memories that emerge into consciousness at specific times or in specific situations, or they can also take the form of dreams or nightmares. Many of the veterans described having regular nightmares about their war experiences. Reminders can play an important role in whether the veteran is seriously affected by their traumatic recollections. Many are able to control the problem via avoiding such reminders, a coping strategy that is considered in detail in the next chapter. Some veterans have had the same problems throughout the postwar period. Why is it that these recollections have not been processed? Others are experiencing more traumatic recollections now than they did pre-retirement. These issues will be

considered in detail in the next chapter, as they reflect the use of avoidance as a coping strategy in traumatised individuals.

There are World War Two veterans who are still experiencing war-related psychological distress. While the sample is small, it is likely that they reflect problems amongst the wider group of such veterans. These results show a clear distinction between traumatic recollections, where the veteran has little control over the memory and associated emotions, and ordinary memories, where the veteran does have control - even though the emotions experienced when reminded may be similar in type, but not intensity. These memories can change over the years, though some of this change is more apparent than real, particularly for those who are experiencing more war-related distress as they have aged, particularly since retirement. The factors affecting how memories change will be considered in detail in the next chapter, which is concerned with the mechanisms of coping used by veterans, such as avoidance, and age-related factors.

CHAPTER 6

COPING WITH MEMORIES OF WAR

(15305) they don't know they don't know they think it's crazy 50 years, you should be all right now.... They ask you questions, they don't understand at all like what anybody thinks or what they're been through.

6.1 Introduction

The previous chapter has shown that wartime memories still affect many World War Two veterans. The psychological impact of these memories depends on the ways they have coped with them (both during the war and since), their general well-being, and any age-related effects. For some the memories have faded over time, for others war-related memories have got stronger, with a significant proportion of veterans experiencing more traumatic recollections than at any time since the war or shortly after the war. Retirement means that veterans have more time to look back on the important events of their lives, which often means the war. As the memory network is activated, intrusive recollections emerge. This may be why more veterans are experiencing war-related psychological distress now than they did several years ago. What are the factors that determine whether wartime memories are traumatic 50 years after the event?

The present chapter explores the various coping strategies used by war veterans over the years. It is proposed that veterans' present strategies are partly the result of the strategies that they employed during and after the war. This is particularly the case for avoidance, which was used when veterans were in situations where they could not express emotion, and soon after the war, when they were encouraged to forget about their experiences. Avoidance may be an effective coping strategy for many years, when the veteran has a structured life, with work and family commitments, but when this structure goes, it can lose its efficacy.

Previous chapters have demonstrated the role of the individual's interpretation of the traumatic event as being critical to long term outcome. The questionnaire study demonstrated that the individual's interpretation of the event is critical to an understanding of the long term consequences of war experience. Scores on the IES were better at predicting GHQ scores than were combat experience scores. Questionnaire measures are inevitably crude, and do not allow the veteran to explore the meanings relating to his experiences of the war. The previous chapter demonstrated this with reference to memory, providing a much fuller picture of the ways in which wartime memories affect veterans over the long time. The present chapter will demonstrate how coping impacts on the ways in which wartime memories affect veterans.

Memory is not a unitary and unchanging phenomenon, it is affected by the person's continuing life experiences. Memories are open to interpretation and change over the years. As the events of interest took place over half a century ago, intervening factors need to be explored in some detail. It is proposed that there are two main ways of dealing with the memories of a traumatic experience, processing and avoidance. These are not mutually exclusive categories, and the ways in which particular individuals respond depend on a range of factors (social support, individual differences, retirement, health, etc) which are explored in the present chapter. Processing is an effective coping strategy. It is a means of "dealing with" traumatic recollections, turning such memories into narrative form (van der Kolk & Fisler, 1995). Avoidance is a passive strategy, whereby the individual avoids dealing with the traumatic recollections by staying away from situations where they may arise. The person may avoid situations where he may be reminded of the war, or he may focus attention on other aspects of life. The danger with this strategy is that the memories are still there, and given the right circumstances they emerge into consciousness. One of the purposes of this chapter is to examine when this occurs.

The specific issues that are addressed include:

1) Coping with traumatic experiences during the war.

2) Coping in the immediate postwar years

3) Coping in recent years. Is processing an effective coping strategy? To what extent do veterans use avoidance as a coping strategy, and has it become less effective in recent years? What role does social support play in veterans' coping, in particular the role of wives/family, comradeship, and veterans' associations? Other coping strategies.

6.2 Method

Details of interview design, participants, and analysis were presented in the Chapter Two, so they will not be repeated here. This section contains the remainder of the interview protocols used in both parts of the study. See Table 6.1. As in the previous chapter the questions given to Group Two derived from responses given by veterans in Group One, and further questions were added for later interviews, to address issues arising from earlier interviews. As before, veterans were not necessarily asked these questions in the given form, but all areas were covered in each interview. The questions were intended as guidance as a checklist for the interviewer.

Table 6.1 Remaining questions and probes

a) Group One

Question	**Probe**
Over the years have there been periods when you have thought more or less about the war?	When? First years, retirement
How do you cope, and how have you coped in the past, with your memories from the war?	Social support, other strategies
What do you mean by comradeship?	
What role do veterans' organisations play in the way you think about the war?	
Do you think your life would have been very different had the war not occurred?	positive/negative
Have you thought differently about the war since retirement?	

b) Group Two

Question	Probe
Veterans 11-15	
How is your health?	Physical, mental illness, not specifically war-related
Have there been any important things happen in your life recently?	Have they troubled you? Life events, not war-specific
Have events in your life affected the way you think about the war?	Life events, details, when
Would you say the war changed you in any way?	Personality, compare pre- and post-war
Did the war changed the ways you have coped with your problems? Has it made problems easier or more difficult to cope with?	Pre-military, military, post-military, social/family factors, non-war-related coping
Do you think the ageing process has had any effect on the way you think about the war?	Think about war more or less than before, why, think about different aspects of war?
Veterans 16-20	
In the postwar years, how have you coped with your memories of the war?	Friends, help resolve problems? Wife
Are you a member of a veterans' association? Why?	Discuss war at meetings? How does organisation help?
Have you experienced other psychological traumas similar to the war	coping, affected now? Relate to war
Do you think your life would have been different had the war not occurred?	Personality changes, positive/negative effects
As you get older, do you think you develop mental difficulties because of your age?	Loss of friends, family, separation from society, feeling unwanted
Given that many people had similar war experiences, why do you think some people develop psychological problems and others don't?	
Veterans 21-25	
Does the war affect you now?	

Table 6.1 only shows the questions that were added after veterans 11-15. Veterans 16-25 were asked all those in 11-15 plus the ones indicated.

6.3 Results & Discussion

The interview transcripts were analysed using NUD.IST and a range of coping-related concepts emerged: avoidance, social support (wife, family, friends, comrades), timespan, military, religion, counselling, along with concepts relating to ageing, personality, emotion, and physical and mental

health. These concepts were further analysed to generate the categories that are discussed below, the categories representing the questions outlined at the end of the Introduction.

6.3.1 How did veterans cope with traumatic experiences during the war?

Coping is split into several time periods: strategies used during the war, the first years after the war, and the present day. For the World War Two veteran these are closely interlinked. For instance, providing a justification for fighting, reasons for the war, could have served - and did serve - as a coping mechanism during the war and right up to the present day. The following discussion will take account of this.

6.3.1.2 Coping during the war

Before the war people were ill-prepared for what was to come:

> *(15473) we'd never had any life before we joined the army, never been anywhere... we hadn't clue what was happening.*

Most had led a relatively sheltered life. Many may not have travelled much beyond their local village or town. They were certainly not prepared for war.

Any analysis of long term coping with a traumatic experience requires a discussion of the ways in which the individual coped with the trauma at the time. This applies particularly to war-related trauma, where there was not a discrete incident but, in the case of World War Two, six years of events, some traumatic, some not, but the individual had to cope with events as they occurred. It has been suggested (Fussell, 1975) that during the war years people in the UK survived through establishing social support networks, by all working together. While this may have some truth, individuals who fought in combat units also used other mechanisms, which are considered below.

6.3.1.2.1 Avoidance

Avoidance is potentially a problem for ageing veterans whose work and family ties have been broken through retirement and death. It may have been used as a coping strategy during the war because of the training received. Individuals were trained to respond automatically to particular situations, to avoid thinking about the potential personal consequences of their - or the enemy's - actions. The individual who responds in such a way in battle is more likely to perform effectively than the individual who becomes distressed at the sudden death of comrades. Even after battle there was little time or desire to think about, to grieve, these deaths. The use of avoidance in this way may have led veterans to continue the use of the strategy after the war via keeping busy with work and family commitments. It would be interesting to compare the use of avoidance in combat veterans with the use of avoidance among those who have experienced a discrete trauma. It may be that the latter group, while using avoidance, use it less.

Avoidance is a common response to a traumatic experience. Ignore the events, ignore the memories, and the problem can be assumed not to exist. As noted above, this may apply particularly to combat veterans. Individuals would ignore the fact of a friend's death occurring next to them in battle:

> *(07075) If one did catch it there was a little bit of talk and all the rest of it, but you knew you had to forget it because it could be anybody else next day. Emotion wasn't allowed in the line. Just wasn't allowed.*

Most admitted being terrified during battle, but carried out the appropriate actions because of the training they had undergone:

> *(10230) It's the excitement, your heart's thumping, you're not really afraid. There are men firing and you fall over and get up. You don't think, all you know is survival.*

That many survived may have been solely because their training had made them automatons, they could carry out appropriate actions automatically, without thought. This is important when thought might lead the individual to freeze in terror, which in battle can have dire consequences.

While in battle many avoided the terror and the stress by keeping busy:

> *(04111) Too busy - we were too busy. We were too busy all the time to think about it. You were dealing with people who are trying to kill you, it's the survival of the fittest and believe me I was fit and had no compunction about anything I did. If someone was going to kill me I made certain he was killed too. That's the way I survived.*

During training, combat troops are prepared to act automatically in a battle situation, to respond without thinking. This training is critical to their survival. If the automatic responses failed to work because a comrade had been shot beside them then they would be putting their own and other lives at risk if they didn't carry on. While this is an effective coping strategy during battle, the problem is that it may increase the chances of the individual continuing to use this strategy later and, as will be shown below, while avoidance may be an effective coping strategy for many years, it can often break down (Solomon et al, 1991), ie it can be adaptive in battle yet become maladaptive afterwards (Chemtob et al, 1988).

6.3.1.2.2 Fatalism

Associated with the concept of avoidance is fatalism, where the individual accepts what is going to happen as inevitable, so there is little point in worrying about it.

> *(02017) Old Neville's copped one you know and that's it. That was as much as it was. You couldn't go on if you treated it any different.*

This fatalism can continue to the present day regarding the reactivation of traumatic recollections:

> *(04371) There's nothing you can do and there was nothing you could do then.*

One who was maimed says:

> *(06014) I resented it then yes, but what can you do about it?*

He has accepted his position, and the difficulties he has had since the war because of the wound. He tries to consider himself lucky because he got out of the war in 1944, and the war went on for another year:

> *(06017) I might have got bloody killed mightn't I?*

There is a sense of acceptance with one's lot, that there was no alternative to what would happen and what had happened. This indicates a sense of helplessness with the situation, that the veteran cannot have an effect on the situation. This is a passive coping strategy that may have affected their postwar responses, making it more difficult to actively process the traumatic information, leaving avoidance as the best strategy available.

6.3.1.2.3 No choice

This is linked to fatalism, the soldiers felt there was no way of escaping from battle. During the war people experienced many different difficult situations that they were forced to either cope with or die. POWs had to cope with particular difficulties. An ex-FEPOW kept himself together physically by eating the rice polishings and getting extra vitamin B from a medical officer. He was helped by working in the cookhouse, so he could obtain small amounts of extra food. The starvation was extreme:

> *(11258) a mother bird will go and get worms and then regurgitate and feed the chicks, and I've seen blokes do that with their rice so they could eat it again... swallow it so far then bring it back into their mouth and you know, eat it again.*

They would cut cigarettes in half to make them last longer and to make them less hungry. He suggests he survived where others didn't because he was mentally stronger. Unfortunately it is not possible to study the characteristics of those who died, either in the camps or after the war, though Nefzger (1970) studied cohorts of US Army ex-POWs and found that there was an excess of deaths among those held in the Far East as opposed to those held in Europe, though by 20 years after the end of the war this effect had disappeared.

For another prisoner the sense of comradeship that some used to help cope with captivity was sometimes lost:

> *(13341) they'd throw loaves at you, you had to scramble for them, fight for them. It was the survival of the fittest.*

Again, he went through horrific conditions in the camp, with poor latrines, poor food, no privacy. This veteran also talks of being mentally stronger than some who did not survive. Another ex-POW (15) discussed the conditions; 350 in a single hut, a hole in the ground for a toilet. There was no avoiding this situation and those who didn't cope died.

Coping with shelling, according to another veteran, is not a matter of choice:

> *(04368) Coping, you've got to. You've got to suffer it... you see, if you're in a position where you're being shelled or mortared or shot at or whatever you like and there is nothing you can do about it, you just have to sit there and take it. There is nothing you can do about it.*
> *(02060) You've got to lie on the grass... you're trying to get into the ground and you're saying your prayers and your only protection is 4 inches of grass and you suddenly realise how stupid it is quite frankly - you're trying to hide behind four inches of grass and that shelling lasted for half an hour.*

Problems can arise when individuals do not have a means of actively dealing with stressors. As Foa et al (1992) showed, those who cannot actively deal with stress often develop more psychological difficulties than those who do actively deal with it. This is reflected in the responses to the combat experience questionnaire in Chapter Three, where shooting at the enemy is perceived to be less stressful than being shelled. In the former situation the soldier is in control of the situation, in the latter he has no control. This sense of control is important. It applies both during the trauma and afterwards. The combat soldier who can shoot back is in a better position than the one who cannot respond to a bombardment. After the war the veteran who takes control of the ways in which he copes with his war memories can come to terms with them more easily than the veteran who feels his memories are controlling him.

Evidence for the importance of control is presented by a paratrooper, who had a fear of the unknown when going into action for the first time. He didn't have control of the situation. He describes his experiences flying over France:

> *(04105) I was scared before. It's a fear of the unknown, don't forget that the majority of young men that went to France had never been in battle before. If you had to do a parachute jump tomorrow would you be afraid [yes]. Why? It's fear of the unknown. It's got no fear for me because I've done it. It is fear of the*

unknown and this is what happened on D-Day for a lot of men. Once you get there the fear disappears.

His fear of the unknown dissipated when he became in control of the situation after landing. Before that he was dependent on the pilot and on the effectiveness of the parachute. He had little control over the situation.

6.3.1.2.4 Family

One veteran who was on a raft in the Atlantic after being sunk kept himself alive by

(25160) I was dreaming I had no right to die because I cannot leave my Mother, she would be terribly unhappy if I did die and I haven't lived full life. I haven't been with a woman yet, so I must be a man before I can die.

The troops were not the only ones who had to learn to cope with their problems. While the focus here is on veterans themselves, it should be remembered that their wives also experienced problems:

(12088) all she got [when I was taken prisoner] was a letter to say I was missing. I knew I was all right, I was a prisoner of war, she didn't know and that's the biggest worry.

6.3.1.2.5 War as justifiable cause

For many the simplest form of justification for the war was that:

(08098) at the time it was a job to be done.
(02313)I suppose to kill anybody it's not nice. It didn't bother me then, just stuff you've got to do and I think you had to do it.

Many veterans expressed this view. The idea of killing people was justified by claiming it was a job like any other. It was sometimes linking it to the Nazi atrocities and propaganda relating to what the Germans would do if they defeated Britain.

(04054) The Germans had papers saying all the British youths from about 16-50 all would be sent to Germany for slave labour, and all the women sent to Germany for brothels. This country wouldn't have existed if we hadn't gone to war. And a lot of other countries were the same. He wanted a master race. How could I say no?

When asked whether it was worth the loss of so many lives:

> *(04060)I think - how many of us would have been killed if this hadn't happened. Probably more. Massacres in the gas chambers. Why did the Germans capture 52 of my colleagues and shoot them? After they had been captured - unarmed men!*

These veterans coped with the war by providing this kind of justification. According to these veterans, these are strategies they used at the time, not just afterwards when the news of the atrocities came out in more detail.

One person copes by justifying his own actions in saving others.

> *(10224) Used to give me a nice feel when I'd bring them back and they'd survive... nobody don't know this and I haven't told anybody but I supposed I saved 50 or 60 men. They're still living today because of that. I should never have been in the infantry really, I wasn't an infantry man.*

This veteran sees his own actions during the war in a positive light. He focuses on how he helped others to live. This may be a way of freeing himself from feelings of guilt regarding what he did in the war, guilt being one of the emotions associated with traumatic recollections, as shown in the previous chapter.

The notion of the war as a justifiable cause can be linked to processing. If the actions of the soldier - killing the enemy, destroying property, etc - can be linked to the desire to get rid of something worse - Nazism - then the soldier will be less likely to experience guilt for these actions.

6.3.1.2.5 Machismo

Machismo or bravado is often considered a coping strategy used by men in stressful situations. Only one veteran gave any indication that this was a strategy used:

> *(10013) I don't know because I've never been a very brave man. It's something I've never understood because I've seen such brave men shooting at one another. Most of your friends, they go out and they kill and they come back and they're laughing and that.*
> *(10258) I got a German on the Spandau machine gun and they had these beautiful chain line. I took all the German's ammunition out because they were*

wounded at the time. I put them all around my body and I was a mass of ammunition, but the funny thing was a few French people walking around and I could hear what they were saying, he's a fighter, he's a warrior, and I thought I was a warrior see? Funny isn't it? I thought I was the cat's whiskers.

Machismo is a coping strategy used to cover up negative emotions such as fear. The "macho" response occurs in a variety of threat situations, and is again an effective strategy at the time but, like avoidance, may lead to later problems because the individual is deliberately not concerning himself with the effects of his and others' actions.

6.3.1.2.6 Comradeship

One of the most effective strategies for coping with the traumatic events of war, a coping strategy which can continue many years after the war is over, as will be shown later, is comradeship, a sense of belonging to a group of people who shared similar experiences. Comradeship is difficult to define, though the veterans in these interviews tried. The present discussion considers what is meant by comradeship and how it functioned during the war.

To begin, many of the veterans attempted to define comradeship. It is similar to friendship in some ways:

(04263) I suppose it is a feeling of well-being, warmth, by one human being for another, particularly for someone who has been through the same thing as you.

But, it was somehow different:

(09077) it was much deeper.

This is unclear. If it was deeper how did people cope with the death of comrades? There is an apparent contradiction between how comrades treated each other and how they were able to seemingly ignore the death of close comrades in battle. Perhaps it is deeper in the sense that many things were shared which wouldn't normally be shared except by the closest friends. This may come about by living together in close proximity for long periods.

(18047) you were intimate in every respect.

But because comradeship is a forced experience, it is shallower than friendship. It is not possible to choose your comrades. The people you are with may not be the people you would choose for friends. One veteran distinguished between comrades and friends in the forces:

> *(06185) You became friends, you put things together and went out and had a drink. You picked the friends the people you could get on with.*

Here he is talking about while his unit was still at home. This may not have applied once they were in action. Another suggested that in the infantry you did become friends.

> *(01110) Well of course the army is different to Civvy Street, you're all thrown together you know, and I found the comradeship in the infantry was more so than in the service corps. If you put a couple of dozen infantrymen together who haven't known each other previously, in ten minutes you're all friends.*

Does this instant friendship stem from training, or from the knowledge that in ten minutes one may be dead, so you have to forget the formalities and get on with living? All found it difficult to explain exactly what they meant by comradeship.

> *(03047) I can't explain it. You would look on them I suppose as someone who knows how you felt. It wouldn't be the same as if you suddenly met up with some of the old regimental association chaps in the service and straightaway I think you'd feel entirely different. I can't explain how but, just the unity and the comradeship that's there and yet very funnily enough even though you have all this togetherness, if one was suddenly killed at the side you only took one look at him and you had to get on because it could happen to anyone at any time.*

There are two things here, first, that real comradeship exists only between those who have shared the same experiences (ie fought at the same places together), though a form of comradeship exists between any veterans - irrespective of where they fought (would such comradeship exist between, say, a Falklands veteran and a World War Two veteran?). Second, this ability to take little notice of the death of a comrade, the ability to get on and fight. As noted elsewhere, without this ability the individual would not have been able to continue. But it does appear to lead to problems later.

There is a shared view that comradeship began early, that people bonded during training, and that this was actively encouraged, because in the end soldiers would depend on one another in battle:

> *(24034) I think it's being trained together and getting to know everyone, their strengths, their weaknesses.*

Training was designed to make people depended on one another, to work together as a team. This idea of dependency was discussed by veterans:

> *(24028) the thing that kept us going was the feeling that the man next to you would never let you down.*

They had to rely on one another implicitly for their lives. If the man behind did not perform his job correctly you could die, if you did not perform your job correctly, the man behind might die.

> *(07061) A well-known thing in World War Two, particularly in Normandy, usually about two or three of you team up watching each other's back. No speech was needed, just a team up. Obviously if it were one of those that had gone... you'd realise they weren't there any more and it made you more anxious and more to look after yourself.*

So the individual didn't get upset by someone's death, but by the gap in the team. The team is more important than the individual:

> *(04270) Every man was taught to do everybody else's job so if one man got killed someone else took his place. If I fell down on my job my men got killed and if my man fell down on his job then I got killed. We were all in the same boat. It was just as simple as that. That made a bond of friendship unsurpassed... the common things they've been through together. They've survived together.*

This is one factor that created comradeship, and one that was mentioned by many veterans, facing the same dangers and hardship.

> *(01111) In the infantry you're all together.*

This bond, this unity, was emphasised by many of the veterans, as being a critical factor in comradeship.

So what was comradeship? Some suggest it only existed between small groups of men fighting in the same unit, others that the whole country were comrades. It is not possible to come to a firm decision as to the meaning of the term comrade, but it does have certain definite characteristics. It is not the same as friendship, it is deeper in the sense that comrades share experiences and lifestyles friends normally wouldn't. Because it involves sharing hardship and danger and that training prepares soldiers to depend on one another for their lives, there is a very strong bond that ties people together. On the other hand, comradeship is weaker than friendship because of the

nature of how the bond is created, one does not choose one's comrades. It is not appropriate to consider comradeship as weaker than friendship because of the ability to virtually ignore the death of a comrade in battle. But as shown in the section on avoidance, soldiers were trained to respond in this way, to suppress the normal emotions and behaviours one feels in the event of a death.

6.3.1.2.7 Failing to cope

Learning to cope in battle was crucial, otherwise an individual would crack. There is a lot of evidence to show that people have only a limited amount of ability to cope with the fear of battle, that in the end all will break:

> *(10018) As the war went on some got more nervous. Some of the best men were veterans but they were gone. The best man was the man that went in for the first time. As it goes on I had twelve months of solid action and I don't think, I'm sure if it had gone on enough I'd have come back out because you can only stand so much. But fortunately I just cried and though I'm not a churchgoer my God I can pray and I found prayer certainly helps.*

Here we are concerned with individuals who didn't crack, but might have done if they had been under battle conditions for longer, or if they had not learned certain strategies of coping with their fear. Swank & Marchand (1946) described how combat efficiency forms an inverted U-shape. Soldiers in the early days become "battlewise", then for a period of several weeks they are at maximum efficiency, but if they remain in battle for over a month they begin to experience combat exhaustion.

6.3.1.2.8 Summary of war-related coping

The above discussion shows that veterans used a number of coping strategies during the war. These included avoidance, fatalism, lack of choice, family, justification for fighting, machismo, and comradeship. Out of this list, probably the most important are avoidance and comradeship. Veterans discussed both in some detail. While the interest here is not necessarily with how people cope in a battle situation, any impact that these coping strategies have on future strategies is

important. It will be argued below that these coping strategies did have an impact on the way that veterans have coped in the years since the war.

6.3.2 Coping in the immediate postwar years

An analysis of the ways in which veterans cope with their war-related memories is complicated by the 50 years that have passed between the war and the present day. Veterans discussed the immediate postwar years in terms of the difficulties they experienced with their memories and how they received little psychological assistance to help them come to terms with their memories. After the war they were told that the memories would fade over time, and their families were told not to discuss the war as this would create problems. Both are now shown to be erroneous pieces of advice, for which the long term consequences are, for many, devastating.

There was no psychological help for those who had not actually succumbed to battle shock, there was no:

> *(12099) counselling not anything like that.*

This itself may have created or exacerbated many of the problems that came later. Perhaps if they had been able to process the memories through counselling at the time then there would have been fewer traumatic recollections now. One veteran:

> *(18075) Just after the war I got blackouts you see, I had blackouts for a long time, I got dizzy... They couldn't get me around... I had it very very bad.... When I think of the daft things, any noise of a car, something like that, I'd be under the table, covering my eyes, shivering with fright.*

This lasted 7-8 years. Fortunately, his wife helped him come to terms with it. His wife helped him through years of psychological suffering. She was his main source of support. Unfortunately, she died fairly recently and this has led to a re-emergence of war-related problems. This is another difficulty experienced by ageing veterans. If they have relied on their wives for many years as social support then the loss, whether through death or infirmity, may affect their ability to cope - at a time when they have less physical resources themselves.

6.3.3 Coping in recent years

Many veterans have not learned to cope with their memories, or they are experiencing problems for the first time for years, and there are situations that arise where they have great difficulty. For one the actual interview was one of these situations:

> *(11394) [Just before you came I] nipped to the toilet and had a tranquilliser just to stable me, they would take about half an hour to work just to say to myself I could speak to you. NH: If you hadn't taken the tranquilliser? 11: I would have probably been effing and butting and shouting.*

War veterans are still having difficulty coping with their memories, particularly when they are placed in such stressful situations.

The responses from the interviewees varied according to many factors, including whether there are still unprocessed traumatic memories, whether they consider the war to be an important part of their lives, and their social activities. The following discussion focuses on three main strategies, processing, avoidance, and social support. Before embarking on this it is worth noting that for some veterans, there is no apparent coping strategy, but wartime memories have become incorporated into their normal lives:

> *(03064) I've learned to fend for myself.*

Another says that he has just forgotten about it and got on with his life.

> *(08093) I think because I just want to forget all that and get on with the business of here and now so that as soon as the job was done then right, forget it. I think that is why I am so hazy on details. That I just haven't bothered to remember them in detail and think where and why and all the rest of it.*

These veterans do not appear to be using any particular coping strategy, but that is not to say they didn't at some point in the past. A difficulty with this kind of research is that it may not be possible for veterans to reflect on some distant point in the past and declare that they used particular methods of dealing with their memories. We can only make inferences from what they say. Their strategies may have become incorporated into the general autobiographical sketch of

their lives. Strategies used in the 1940s and 1950s may no longer be explicit and independent in memory.

6.3.3.1 Is processing an effective coping strategy?

The model of processing presented here suggests that cognitive processing of traumatic recollections is an adaptive mechanism, veterans who use this strategy are less likely to experience psychological problems than those who don't. Processing is a mechanism whereby the traumatised individual can learn to adapt to intrusive recollections (Creamer, 1995). Van der Kolk & Fisler (1995) have described processing as the development of a narrative. At one level, the description of war veterans as "always going on about the war" may be related to this. Veterans needed to develop a way of dealing with their memories and by repeating the scenes, by providing justification for actions, by coping with the associated emotions, they develop a narrative that then provides them with an explicit controllable memory. Unfortunately, as already shown, not all traumatic recollections are processed in the early stages. Some do actively process thoughts when they arise. One veteran described how memories could arise and how he dealt with them:

> *(08037) I had seen something on television which reminded me and in a sense that sparked the memory and about the Coloires des mortes that was triggered off by an article in the Guardian and they were two elements in my unconscious or subconscious which had to be dispensed with and so I sat down and wrote those two pieces. I wrote them quite quickly.*

These 'pieces' were poems. They were instances where the individual was clearly processing some of the traumatic memories:

> ***The Camp***
> *The Corps centre line ran alongside/Beech Wood. The leading division/Paused. Urgent calls crackled/Demanding medics, food, ambulances pronto.*
>
> *Behind barbed wire skeletons with skins/Stared out from shaven skulls./Around us neat piles of/Dead and dying, like logs/Layered criss-cross with dangling heads.*
>
> *Bursts of fire from pale soldiers/Ended the slouching arrogance/Of guards who failed/To leap to instant orders/Officers turned a blind eye.*

In this camp, poised on the tips 'Of bayonets, hate and madness swayed./Outraged love burst from the barrel of a gun. 'There remained only tears For the dying in Buchenwald.

After Falaise
His men, flung like discarded dolls,/Lay close around the young captain. Old in war beyond his years he lay 'Tranquil.

Ghouls, stealing through the bloated dead/Emptied wallet and holster and hacked away/His ring finger.

On his grey tunic, tight with corruption 'Campaign medals and an Iron Cross flashed/Indifferent pride.

Around the corpse letters and snapshots 'of a young woman and two fair children/Lay scattered.

Larger than death his sex had risen,/Still yearning for the new, young 'Widow.

This veteran has worked in a professional capacity throughout the postwar period. He has, on his own admittance, not had serious problems with his wartime memories. When potentially emotive memories arise, he knows how to deal with them. He doesn't push them to one side and avoid them (though there are situations he does avoid, as will be seen below), he actively consciously works through the memories and the emotion associated with them. He has learned through experience to carry out this processing. As he says, once he has done this, perhaps through poetry as in the examples above, the memories cause him no further emotional distress. He recognises that there may still be traumatic recollections to emerge in the future, but he has a clear and effective strategy for dealing with them.

Another veteran provided direct support for the van der Kolk & Fisler (1995) notion of developing a narrative. He explicitly states that there is a change from the reliving of experiences to memory:

(25050) I can tell the story of it but not reliving experience. It becomes memory, in consciousness. Unless something triggered me it is just a story I remember.

Processing of the traumatic information has occurred:

(25561) I think it is now more of a story and less of the actual experience.

This veteran is a sculptor and a poet, a man of great imagination, a veteran of some horrific experiences that caused him a lot of psychological distress, particularly in the immediate postwar decade, including an overdependence on his wife that led to her temporarily leaving him, and psychiatric treatment in a hospital. In the early days this veteran experienced what can be called flashbacks, but he hasn't experienced them for many decades. This relates to the discussion in the previous chapter of how these veterans do not experience flashbacks to the traumatic event after such a long period. In the first instance, traumatic recollections are experienced as actual reliving of the event, and over time the memories are translated into a "story". The story develops over time, with new elements of the traumatic memory being recalled at different times, and then being incorporated into the narrative:

(25564) there are variants in what seems important at particular times.

The effects of a traumatic experience are permanent, even when memories are successfully processed. This has implications for treatment success, which needs to be measured not in terms of whether the individual still experiences memories of the traumatic event, but whether these memories have traumatic emotions attached to them.

Processing is an effective active coping strategy for some individuals, a minority in the present study, in that it enables them to deal with their traumatic recollections, to break the link between wartime memories and associated emotions to make the transition from implicit uncontrolled memory to explicit memory, from a lack of control to control over the emotions associated with the memory. It should be emphasised that both the individuals discussed above are highly intelligent, articulate, and with a lot of imagination. They both use processing as a conscious strategy, a way of dealing with their traumatic recollections that they have learned is effective. As will be shown in the next section, the majority of the interviewed veterans do not use processing in this highly individualistic rational way, they are more likely to have used avoidance, or to have processed traumatic recollections via interacting with other veterans.

The veteran who is the sculptor experienced far worse traumatic experiences during the war than the other veteran. He was systematically tortured by the Soviet Army, he was threatened with execution, he was torpedoed in mid-Atlantic and survived 17 days on a raft, before finally becoming a Spitfire pilot in the RAF. He still experiences some difficulty with his memories, as evidenced by the emotions he was displaying during the interview. On the one hand this shows that processing does not eliminate traumatic recollections, just makes them easier to deal with on a day to day basis, but on the other this was a highly sensitive and emotional individual who is aware of what he calls his emotional immaturity, his tendency to become emotional in many situations. This shows that caution should be observed when drawing conclusions if individual characteristics are not taken into consideration.

6.3.3.2 To what extent do veterans use avoidance, and has it become less effective in recent years?

> Give sorrow words, the grief that does not speak
> Knits up the o'erwrought heart and bids it break
> Macbeth

Folkman & Lazarus (1988) claim that avoidance is one of the commonest strategies people use for dealing with stress. Creamer (1995) suggests that avoidance is commonly used as a coping strategy by traumatised individuals. If intrusive recollections become too difficult to handle then the individual may resort to avoidance to minimise their impact. Certain events in life may lead to the introduction of avoidance as a coping strategy. Many veterans demonstrate that the avoidant strategies they had used during the war to deal with trauma continued after the war:

> *(15209) the first ten years after coming out of the army. I never told anybody, the wife and daughter knew nothing about being a prisoner of war and all that. There's not many at the Normandy Veterans [Association] knows everything.*

This veteran didn't and doesn't discuss his problems with his friends and relations. The patterns set up at both during the war, when they were trained to respond automatically in battle situations, irrespective of what happened, and after the of the war, when they were told not to talk about it

and that any problems would go away stayed throughout life. When this veteran's memories emerge, he still avoids them:

> *(15370) I try to do some little jobs you know like in the basement, I do a bit of joinery work and things like that. When I get something I'm interested in I can take me mind off that and put it to that, that's how I cope and if in a morning I'm having my breakfast about what I've been thinking in bed I go walking for two or three hours, that's how I cope... people keep lending me military books like D-Day and all that. I'd take it off them but I never read it, I'd say it were a good book but don't ask me what was insider I won't read them now.*

Others also actively avoid the traumatic elements of their memories:

> *(13259) I don't let it bother me... I sort of ignore it I put me mind if I'm doing something you see and it goes away... If you just sit on a garden seat you think, you look around and start thinking, that comes into your mind when you just visualise it... you realise oh I'm thinking about this let's think about something else or get up and do something.*

This policy of actively doing something different helps veterans avoid war-related thoughts. It is also something they may be less likely to be able to do after retirement, or with increasing infirmity due to age. It is an entirely different strategy to that used by the veterans discussed in the previous strategy, who face their difficulties directly and deal with them.

One veteran who was at Dunkirk went to see the film of the battle with his son:

> *(12056) Well seeing it all again you know it was a remarkable film really, you saw all the people wading out to the boats, which I was doing as well, getting in the sea getting up to the chest and then trying to get into a small boat to be taken to a bigger one and they said, oh we're full up now, go back, and we had to come back, back onto the beaches and stop there again another day, couple of days, and when I saw all that on the film it all came back and I couldn't watch it any more you know so we came out... and now I don't like watching war films at all... I don't watch them at all.*

This veteran introduced a strategy of avoiding films that he knew might upset him. He also avoids watching news items about current wars such as the Bosnian Conflict, as they make him:

> *(12080) physically sick.*

Traumatic recollections are deliberately put out of veterans' minds. One veteran who was in a tank that drove over corpses in the Falaise Pocket in Normandy said:

(08029) being such a horrific memory I think I've put it out of my mind. Automatically tended to forget it.

This opens up the question of whether avoidance is a conscious or an unconscious process. The veterans interviewed in the present study all seem to suggest that it is an active strategy. The same veteran (who is the individual who actively processed traumatic recollections through poetry described in the previous section) noticed a letter from a comrade in the Guardian. He wanted to contact him but didn't:

(08226) Perhaps I have avoided this because contact with him would arouse all these old feelings once again and I want to avoid all that.... I can only think that I don't want to raise the possibility of bringing up more submerged material.... I'd probably have a lot more nightmares. What I have - out of the blue I find myself upset - it's as if there's a great well of undischarged emotion there, whether that's because of the war I can't say.

Yet this veteran was willing to discuss his war experiences with me. He can happily discuss the material he has already processed into narrative form, but he does not want to meet a comrade who might remind him of material that is not yet processed. He also expressed little interest in veterans' associations, perhaps at least partly for the same reason. This veteran appears to process material that arises but does not actively attempt to bring back material, the memories associated with the poems described above emerged without conscious effort, he didn't want to have to deal with them. Avoidance is part of the way he copes. He once went to a psychoanalyst:

(08163) thinking that it might clear whatever problems I had, it seemed to me perhaps that it didn't go deep enough because it cleared certain things in my head but it didn't clear certain things deeper down and maybe I should have continued with that.

Avoidance doesn't enable the veteran to deal with the memories, they are still there in implicit memory. Many veterans appear to have used avoidance as an effective coping strategy for many years, perhaps the whole of their working life. It is only recently that for some this coping strategy has ceased to be as effective. It is not an infallible strategy. The memories are not permanently submerged, as shown in the above examples where veterans still have intrusive recollections when appropriate stimulus material is activated. In this sense avoidance as a passive coping strategy has

limited effectiveness. It doesn't enable the veteran to live a symptom-free life. Instead of attempting to process the traumatic information the individual thinks or does something different. Another example of how avoidance is ineffective is given by a Normandy veteran:

> *(06029) NH: Do you often think about those days? 06: Not really, I try to put it out of my mind but you can't can you? I get migraine headaches and I start swearing. I get them quite often. I take paracetamol. I can have two a week or one a month.*

The reemergence of the memories creates physical problems, so the veteran tries to avoid them.

Avoidance is a passive coping strategy used widely by veterans ever since the war. Avoidance was an effective coping strategy at the time of the war, when if the emotions were allowed to intrude the individual would not function effectively in battle. What was an effective strategy then continued to be used after the war, quite effectively when the veteran had a busy active life. Unfortunately, the changes in life associated with retirement may be responsible for the breakdown of avoidance as an effective strategy.

There may be several reasons why ageing and retirement affect the efficacy of avoidance as a coping strategy. One of these is that the breakdown in structure associated with the loss of work and activities associated with work might give the individual, a) more time to think about the past and b) it might serve as a trauma in its own right, providing stimulus material appropriate to remind the individual of his war trauma.

The idea of work providing a means of avoiding traumatic recollections is suggested by the following:

> *(08189) while I was active with work I was so bloody busy that the problems I had dealing with occupied me at both an emotional and intellectual level.... But as you say, once you have retired you have got plenty of time, especially if you see an article in the Guardian or a programme on TV that refers to some aspect of it. You begin thinking about it because you've got time.*

This quotation suggests that work keeps one's mind active on matters unrelated to the war.

(15154) When you're younger, you're doing things all the time, you haven't got time to think

It has been important for some veterans to remain busy in order to avoid thinking about the war.

The next consideration is that retirement gives veterans more time to think. The evidence from these interviews supports this notion:

(09025) I think you've got more time to recollect than you did before.
(01142) you've got more time to think about it.
(11036) since I've retired I've had more time to think about what memories of the six years I gave you know and the three and a half years in POW camps.

An instance of problems emerging after retirement is given by one veteran:

(15152) as you get older you think a lot more, you can remember more of the past then when you're younger, you're doing things all the time, you haven't got time to think and I'd I'd put a lot of it past me until there was a lot of interest building up about the ex-service associations and things like that, because I'd never been in one and when I joined them I'd meet somebody who I hadn't seen for donkeys years and we'd talk about it and thinking about it and it just built up over time.

Evidence again that there was a resurgent interest in such associations as the men got older, suggesting that the need for the support they provide have increased (veterans' associations will be the focus of a later section).

The failure of avoidance as a coping strategy leads to changes occurring in the ways veterans' memories affect them:

(07078) I notice as you get older, memories get stronger and stronger and stronger for some reason.

With regard to the way traumatic recollections affect the last-quoted veteran:

(07086) It can keep on building up. Just a sod to get out of.

Another, when questioned about the frequency of nightmares now:

(25106) with age they come more and more frequently.

Another also shows that their memories are for some reason emerging more frequently now.:

(12272) Yes, I look back more on it now than I did twenty, thirty, forty years ago.

There is clear evidence that war-related psychological difficulties are increasing with age rather than decreasing. What is unclear is whether these are age-related difficulties or retirement-related difficulties. They are probably both. The loss of structure associated with retirement means the individual has more time to think, and if Butler's (1963) notion of a life review is accepted, then individuals as they age will tend to dwell more on the past. There is also reason to suggest that the problem might be in the changes that occur in ageing individuals' cognitions. It has been found that older individuals tend to be less able to formulate newer memories, and so will dwell more on memories of the more distant past (eg Fromholt et al, 1995).

In summary, what appears to be happening to many of these veterans is that the avoidant coping strategy they have used for many years is, after retirement, becoming much less effective. As they may not have other coping strategies to rely on, their traumatic recollections emerge and create psychological difficulties. Avoidance has succeeded in keeping traumatic recollections out of consciousness, but this has prevented the individual from dealing with them - unlike those who use processing as a coping strategy. This clearly has implications for therapy, and traumatised individuals are now encouraged to talk through their experiences, to process them.

This section and the previous one have provided strong evidence for the use of the two strategies of processing and avoidance, and that, while avoidance can be an effective coping strategy, there are certain circumstances when it will break down and traumatic recollections will emerge, with attendant psychological consequences. Many stimuli can act as reminders of traumatic memories. This finding concurs with that of Ramchandani (1990) who obtained similar results with Vietnam veterans. Processing, though it is more difficult for the individual, is a more effective coping strategy. This evidence supports previous work which was reviewed in some detail in Chapter One. Miller (1980) suggested that monitoring and blunting are the two main ways of dealing with stress. The person using a monitoring strategy will seek out information about the stressor and deal with it, the blunter avoids such information. Miller (1987) suggested that blunters will

experience fewer symptoms, which contradicts the findings presented here. Blunters may experience fewer symptoms at certain stages of the post-trauma experience, but as is shown below, blunters may later experience more psychological symptomatology.

A difference observed but not measured in this study supports McNally & Shin's (1995) argument that those with lower intelligence are more likely to develop PTSD. On the basis of observation during the interviews, it appears that the more intelligent veterans are more likely to use processing as a coping strategy and hence have fewer long term psychological difficulties than those of lesser intelligence who are more likely to use avoidance and experience problems if the strategy fails. This tentative view should be studied further in more controlled circumstances.

6.3.3.3 What role does social support play in veterans' coping?

Another common way of coping with the experience of war is to rely on social support (Turner & Marino, 1994; Barrett & Mizes, 1988). The Spanish Civil War provided evidence that a situation of common danger reinforces morale (Hargreaves et al, 1940). Evidence for the use of social support here arises in three main examples; wives, comrades, and veterans' associations. Each will be considered separately. It should be noted that wives and families also experienced trauma during the war, whether directly in terms of bombings or the effects of rationing, or indirectly, hearing of the deaths of friends, relatives, or others. The wives' suffering is not the primary focus here and will not be considered in any detail, though it is worthy of further study, as discussed in the next chapter. Comradeship was an important means of social support during the war and has remained so for many in the postwar years. This section attempts to identify what is meant by comradeship as well as determining the role it plays as a means of coping. Membership of veterans' associations is important to many veterans, and have become more popular in recent years, perhaps reflecting a greater need for this kind of support on the part of veterans. Though veterans' associations relate closely to comradeship they are kept separate for the purposes of clarity.

6.3.3.3.1 Wives/family

The support received by veterans from wives has rarely been officially acknowledged. Many have taken a large role in the care of their husbands for many years, providing both practical assistance and emotional support. This role was important for some during the war as well as after. For one ex-FEPOW it was his wife who, he says, kept him going through the war:

> *(11192) I was about 17 when I fell in love with my wife and then she was 13-14.... I've never been with anyone else.... I had her photograph with me all the time and I brought it back, the same photograph that I've had. It was a photograph I'd had enlarged in India, only an ordinary photograph, it was with me all the time.... [Down in the] coal mine, twelve hour shifts, but it was the thought that the wife would be here, knew that she would be here when I came back.... NH: Did you ever doubt that she would wait? 11: No no. NH: Never in the camps? 11: No. NH: Even at your worst moments? 11: Never, never, never entered my mind that she wouldn't be here. NH: Was she the main reason you survived? 11: Yes.*

This veteran is still very close to his wife:

> *(11204) She's been marvellous, marvellous like anything. I worship the ground she walks on.*

It would be interesting to learn of those individuals who went through similar circumstances and whose wives or girlfriends did not wait for them. This poses a difficulty for this kind of study. It is not possible to discover these individuals unless they volunteer to take part, and intuitively - though without evidence - it seems that these may be the ones with the most serious difficulties.

The early years were often difficult for veterans and their wives because of the psychological problems associated with the war. For one, shortly after the war:

> *(25045) the nightmares were even then, not as powerful but the nightmares were there... I would wake up screaming and she would be tremendously caring. Because of my high sexuality she usually helped me by being first motherly and then a lover, and in this way she would detract and soothe me.... NH: Have you made use of love and sex as a way of coping with your emotions? 25: Yes, that's what I was making love to my wife for- and that's what was the trigger that she left me for because I was using her as the sponge with the vinegar which was offered to Christ on the cross.*

He got back together with his wife after several months, which included receiving psychiatric treatment relating to his nightmares, and subsequently he ceased to use her in this way. They are still together.

It is not only the wife who has taken this caring role. After the war many veterans were cared for by their parents. One, who was maimed through an arm injury, describes his circumstances:

> *(03088) my family, my Mum and Dad, looked after me until I was 37 and they helped me do things. I didn't have to ask them. They knew if I was struggling or I was about to struggle... I used to try and do things and you can't.... You can't hold a spanner in one hand and a spanner in the other one ... you'd screw up.... My brother used to come over if I was stuck even when I got married and I'd got things in the garden to do like fixing paving slabs or something like that, he'd come over and help me. The family are very good. I had all the help before I asked them.*

This veteran has little use of one arm, and apart from the physical difficulties described above he experienced serious psychological difficulties in his interpersonal relations, being very aggressive with others, often unjustifiably. The assistance from the family is largely physical, his wife and family know little about his experiences during the war. He is bitter.

Wives have not only provided the emotional support that veterans have needed in the postwar years, many have had to provide their husbands with practical help throughout marriage:

> *(06101) she's more or less a nurse you know, I told the pension people she ought to get assistance. If I had to go to hospital they'd pay for that but because she's here we don't get anything. Millions of people in this country look after a mother or father for 50 years and get nothing. Not fair really is it?*

This veteran expresses a concern of many, that the state has failed in not providing any financial assistance for most veterans and carers, which adds to the difficulties they already have, and this can only become worse with increasing age, as exemplified here:

> *(10091) I've gone forgetful now... I leave everything to the wife, she does all the paying of this and that... I rely on her and I've got terribly forgetful.*

It is common for veterans to express the idea that the wife has been central in life. Problems can arise out of this if, as in this case, the wife has died:

(18081) I don't know what I would have done without her... perhaps some of my stress now is thinking about her - still I can't get her back.

This veteran's wife died fairly recently, but afterwards:

(18083) it took me three years to sort myself out, and nobody knows how desperate I felt, daughter in law, my son, I couldn't let them know. I got desperate, and when I say desperate, it took me three years to sort myself out... it's a process of time and that's when I felt how am I going to cope, I didn't know, but I have. You don't forget, it's a gradual process of time. I've got a family, I've got a good son, I've got a good daughter in law.

If the veteran loses his partner, the person he has depended on, then it may be very difficult to cope if he has depended on her so much over the years. This is another reason why war memories may emerge. This becomes more likely to happen as the veteran gets older. If he has depended on his wife for emotional and/or practical support since the war, then the joint effects of losing wife and losing support can be extremely traumatic. This veteran got over his problems through the support of his family, but not all veterans have such a family.

Not all veterans have depended on the support of their wives. I asked one whether his wife provided support:

(03185) No, and occasionally something happened... she asks for an explanation... then she thinks - silly old soul!

There is little understanding of the horrors of war:

(03190) She had this [programme] on apparently and I think it was a bloke talking where the tanks are coming off and the lads were still wounded on the beach and they had to move off a bit sharpish and it made her cry and I thought, well good for you. They never thought anything like I don't think they knew what you did when you went off to be a soldier or go to war. No blood or mess with it, no crawling or shouting or anything like that.

He thinks the civilians, the families, show little understanding of the experience of being a soldier. So why hasn't he tried to explain? Why is it so common for soldiers never to tell their families about what happened, to be more willing to talk to strangers? Is this another version of using avoidance as a coping strategy, ensuring that if the family doesn't know they can't bring the subject up, encouraging them to use the same strategy?

The above findings show that wives and family have played an important coping role in the lives of many veterans throughout the postwar years (and for some during the war itself). What only emerged in the last quotation was this idea that the wife doesn't really know about what happened. Prior to or just after some of the interviews veterans would inform me that they had never told their wives about some of the things that they had been talking about. This suggests that while wives may serve as social support in one sense, they do not provide the kind of support that veterans might receive from another group - comrades.

6.3.3.3.2 Comradeship

Comradeship has already been discussed in terms of what it means and the role it played during the war. This section will focus on the role it has now. Comradeship helped veterans cope with war, and it is still preserved for some, often in the form of veterans' associations. While comradeship may be a source of social support, it may also function as a reminder of traumatic recollections, which conflicts with its social support role. Whatever function it provides, it is a bond that is difficult to break:

> *(04285) We'd been through something special. People can't even describe - I really can't describe the way people feel toward each other. Having been through an experience. Why do people still, my brother-in-law goes down - anybody that's been a prisoner of war and he's down there. Probably never met them before in his life but he is down there... the ordinary person in the street will never experience - which is rather a shame.*

This comradeship does not extend outside the population of people that fought:

> *(03224) It still is comradeship. It's a thing which you'll never get in any other walks of life... your battalion is your family... you soon find out the lads who you don't mind being behind you and the lads you don't mind being in front. You know who you can depend on and there is no doubt about it you can depend on them. You can never get that in Civvy Street.*

Here the veteran mentions the lack of a similar bond in civilian life. Comradeship is something very special, it arises out of wartime experiences, but he seems to expect that such bonds should exist in civilian life and is disappointed by the fact that it isn't. Several veterans expressed this

regret. Perhaps it is one reason why veterans' associations remain popular, it is the only place where such comradeship remains:

> *(03217) They're chaps who've been in the war, soldiers even because soldiers were soldiers... lads who were in the sharp end. Like a club almost. A very exclusive club.*

A club to which you cannot belong unless you were there.

For others comradeship is something special relating not only to those who shared battle experience, but to the whole generation that survived the war, and it is something that cannot be shared with younger people.

> *(07028) Well, these days life seems to be everybody for themselves, economic situation and all that. Everyone seems to be for themselves, blow you Jack I'm all right, but during the war there was so much at stake that you seemed to be there for each other, you laughed with each other, you saw each other die and fight and all the rest of it. There was just something there that isn't there now. It can't be because there isn't the goal. You can't really explain it.... Yes, we were united. Absolutely united.*
> *(01129) After the war the country was in a very bad way and people used to be more friendly then. You had comradeship then with civilians after the war because we were in a bad way and people helped one another - not like today.*

There is something more here, bitterness that what they had fought for has been lost.

This discussion of comradeship shows that it is still important today for many veterans. While there are differences in the ways that comradeship is perceived by different individuals, it is generally seen as something that cannot be destroyed by time. Comradeship was formed during the war years, initially in training, and then in battle. It has continued to be important for many veterans, as will be seen in the next section, which will show how useful a role it plays in the present lives of many veterans. Comradeship is seen as deeper than ordinary friendship, the depth of the relationship arising because of the shared hardships, the shared personal lives, and the sense of dependency for one's life on others. Many veterans are still dependent on their comrades.

6.3.3.3.3 Veterans' associations

For many veterans, these associations are an important part of their lives. They have become more popular in recent years, perhaps coinciding with veterans reaching retirement age, though this is not possible to determine because there is no veterans register in the United Kingdom. Veterans' associations are a means of retaining or regaining comradeship. They provide practical help. They may not be entirely positive if they play a role of reminding the veteran about war, but it is suggested that these reminders mainly serve to help the veteran process any trauma-related information in a safe environment. The following discussion shows that the main roles of veterans' associations are remembrance, discussing the war, and support.

For many veterans, associations provide a means of remembering the war and the comrades who were killed:

> *(02255) Next Sunday we go to Leicester for a commemorative service there. I suppose I've got to be honest we like to march and we love a good band to march to. A commemorative service to try again to remember the pals you've lost, it doesn't do them any good, it doesn't hurt you to remember them.*

Why do so many veterans still wish to take part in such remembrance activities? They are if anything more popular in recent years than in earlier times. Again there may be an effect of having more time after retirement. Meetings are generally regular, perhaps once a month, and veterans get together to have a drink and a chat - often about the war:

> *(09061) [We] get together and chat on wartime activities more than anything. We do go to different places. It's a social evening really.*
> *(01109) Once you get in the reunion you're back in the army again.*

An interesting element of this is that it can serve as a means of socially developing narratives about the war. Veterans who discuss the war may develop a shared memory of particular events, a generally agreed story, or perhaps more realistically, a generally disagreed story, where the veterans constantly argue over details - thus avoiding the traumatic emotion. Alternatively a comrade will act as someone who is worthy of listening to the veteran's story. Many veterans do not like to speak of their traumatic recollections to non-veterans.

(02260) We're all of the same age you see, we talk the same language, and you might see someone with your cap badge on - "do you remember?" - and I've met people I haven't seen for forty years sometimes. It's a little reunion. It's generally a day out, which is interspersed with the fact that you've got a common bond, you were there.

Comradeship is necessary to a lot of veterans. It appears to be that traumatic experiences can only be shared with others who have had similar experiences. These events can be traumatic for the veterans:

(01006) Oh yes, I come out shellshocked! [Laughs].
(12110) its very emotional really.

Sharing memories in this way can act as processing in a similar fashion to that described for individuals earlier. To discuss these matters in a social group is easier, as the group provides support, a means of social counselling. But sometimes it is not very effective. One of the most severely traumatised veterans said:

(15212) I start reeling off things that's happened to me and they just don't believe half of what I tell.

The other veterans are here not providing a support role. This demonstrates a difference between the comradeship of the war and the comradeship of the veterans' association. The latter does not consist of a cohesive group of men who all fought in the same actions; even if they all belong to the same regiment it does not mean they experienced similar events. Some veterans who find it difficult sharing their experiences with friends and family also find it difficult sharing reminiscences with veterans who belonged to different units.

The veterans do not only discuss the traumatic memories of the war, they also:

(12142) find that you're remembering the good times you know, all the good things.

The meetings give the veterans an opportunity to relate their processed narratives about the war, the stories that have been developed to diminish the traumatic consequences of memory. As shown earlier, and by van der Kolk & Fisler (1995), narratives are developed and can be regularly rehearsed, these meetings provide a suitable and safe venue for such rehearsal.

Veterans' associations provide more than a venue to discuss the war and to think about dead comrades. They do not exist solely to relive the past. For many veterans who are now retired and perhaps in physical decline they fulfil a practical support role, from the veteran who has lost contact with work friends after retirement and the veterans are:

(15158) the only friends I've got.

To the practical help such organisations can provide in helping with pensions and benefits:

(02252) It's a question of welfare first of all.
(01158) they're very helpful actually.

This section has shown that veterans' associations play a variety of roles. These include remembrance of dead comrades, and providing the veteran with a forum for discussing war memories that arise more frequently now he has retired. Other veterans may be the only people the veteran can talk to because of the special relationship forged through shared wartime experiences. They are also places the veteran can make friends after the loss of work-related social relationships after retirement. Finally, they provide practical help with advice on pensions and other matters, and monetary support. These factors explain their apparent resurgence in recent years.

6.3.3.4 Other coping strategies

Most of the ways in which veterans described how they have coped with their experiences fit into the above categories, processing, avoidance, and social support. For the sake of completeness this section briefly describes other strategies veterans mentioned.

One form of coping is religion. One veteran who was asked how he coped with being a POW said:

(18087) Well I can put it frankly, it's my faith in God.

This individual saw his god as providing a source of strength. Another veteran discussed how he copes now with his war-related feelings of panic:

> *(11463) When I get these feelings of panic I say the Lord's Prayer time and time and time... and gradually things calm down... it helps me to get through a lot of the trauma that I went through when I was a prisoner of war.*

Religion and dependency on a god can be interpreted as avoidance, faith in a god allows the individual to be freed from both feelings of guilt and of responsibility.

Another form of coping that was mentioned is counselling. Counselling was not provided for the men at the end of the war, and most appear unimpressed by the counselling offered to veterans of modern wars:

> *(14301) I was so incensed about when the lads came back from Falklands and the Gulf, they were being counselled. Nobody thought of counselling us - nobody.*

He is unsure whether it would have helped, but he regrets that it wasn't offered. Another had a similar experience:

> *(15347) when we came home there were no, we had no counselling, we had to get on with it, if you know you said you got your nerves were going bad and that you just got a rollicking from officers and nowt, and told to get on with it. That were the end of it, there were no counselling or things like that.... Things weren't geared up to things like that, there weren't any counsellors.*

Others don't fully approve of counselling for army personnel:

> *(05098) it seems a bit affected to me somehow, you're out and you should be thankful you're out.... Why would you want a counsellor anyway? I don't understand it, I think that's the top and bottom of it.*

This was from an individual who does not experience traumatic recollections. The overall picture is that these veterans are quite negative to the idea of counselling, perhaps they feel a little embittered because they were not given access to such resources after the war, or they have the attitude that men do not need such things. But there were three veterans in the study who have made use of some sort of counselling service and have benefited from it.

6.3.3.5 Concluding remarks

Is there an effective way of coping?

> *(07095) Well to be quite honest I haven't found it. I think a lot of people have told me... you've just got to stop thinking of the past. Go out and do something. That's all very well but some people can't do that. Unfortunately I'm one of those that can't - my - life's very lonely. I've got a son here but apart from him that's all. You can't talk to members of the family.*

Veterans have several ways of coping with their memories. The main ways are via processing, avoidance, and social support. The vast majority of comments regarding coping fall into these categories. Veterans feel that the war has changed them in various ways, including physical changes due to maiming or the long-term effects of war-related physical illness, to personality and mood changes. These effects are linked to age-related factors. For instance, the ability of the veteran to use avoidance is reduced post-retirement, they are physically weaker so are thus more likely to experience a recurrence of war-related illness.

The results show that war-related trauma is usually best dealt with by veterans who have used processing as a strategy. In support of Creamer (1995), veterans who actively work through their memories are - even now - better equipped to deal with any re-emerging traumatic recollections. Van der Kolk & Fisler (1995) show that traumatised individuals who develop a narrative of their trauma are least likely to be psychologically affected by their memories. This position is supported in the present study. Veterans who have discussed the war with others, or have actively worked on the memories in their own way (eg writing poems) seem to be less traumatised than veterans who have not gone through this process.

The most frequently used coping strategy is avoidance. Many veterans learned to use this strategy through their war experiences, where it was an adaptive strategy, enabling the individual to carry on. After the war it ceased to be adaptive, but veterans could, because they were very busy working and building families, successfully avoid their traumatic recollections. For many this

strategy has been successful almost to the present day. It is retirement that has led to an increase in difficulties. The veteran has more time to think, more time to dwell on his past life, and if the war was the most important time of life, as many claim, then they are more likely to dwell on that era.

The effectiveness of the twin strategies of processing and avoidance supports earlier work (eg Miller, 1987; Hyer et al, 1996) but goes further in showing how the effects of each change over time, and how they remain critical even 50 years after the war. Some veterans, perhaps the majority, use avoidant strategies. These strategies are effective over long periods of time and can help ensure the veteran does not experience serious war-related psychological distress. Unfortunately, as shown in the present study, for many this strategy can break down if the individual undergoes serious life changes such as retirement or the death of a partner. Avoidant strategies are therefore effectively temporary (though they may last for a lifetime) and ineffective at resolving traumatic recollections. Veterans who use processing strategies, who allow traumatic recollections to emerge through intrusion and then deal with them may experience some psychological distress but they can, by working through the memories, resolve them so they do not create problems in the future. Veterans who use processing tend to be able to deal with new traumatic recollections as they emerge.

The present study resolves the contradiction between the work of Solomon et al (1991) who found that monitors experienced less psychopathology than blunters, and Miller (1987), who found the opposite, that blunters experience less psychopathology. The pattern is somewhat complex, and would be difficult to resolve using the questionnaire method both studies used. The present work demonstrates that avoiders (blunters) do not experience psychopathology unless they are reminded of the traumatic event. They are then in a position where they find it difficult to cope if they can't "make themselves busy" on other activities. Monitors (processors) may experience similar levels of intrusive recollections, but they can deal with them without

experiencing psychopathology. They can develop a narrative. Both processors and avoiders are less likely to experience psychopathology than individuals who are experiencing traumatic recollections in the form of intrusive thoughts and wish to but are unable to avoid them.

Veterans do not use only processing or avoidance. Most are likely to use both strategies at one time or another. The most balanced approach occurs in those who are able to put war-related recollections aside while getting on with life but at the same time can address these memories when they have time and inclination to do so. Psychological distress is likely to occur with individuals who are not able to a) process traumatic recollections effectively or b) avoid traumatic recollections effectively. These are the individuals who would benefit from receiving counselling, receiving training in how to process traumatic recollections. Dealing with traumatic recollections effectively involves the use of both avoidance and processing. Memories of the trauma are initially stored in implicit memory, and the veteran may choose to avoid thinking about them in which case they will remain there, but if they emerge as traumatic recollections the individual can process them and place them in context in explicit memory.

What the veterans in the present study show is that those we would classify as processors are also the most effective avoiders. They may not think about the war for long periods, but when they do they can deal with it. This supports Horowitz's (1986) notion of cycles of intrusion and avoidance. If the individual is experiencing intrusive thoughts they are able to process them. Those who only use avoidance are the ones who have problems because they cannot process intrusive thoughts when they arise. They can only attempt to avoid, or depend on others for support.

Neither processing nor avoidance "cures" the psychological problems resulting from a traumatic experience. Processing appears to allow the individual to take control over his memories, to create an explicit memory where the emotions attached to the original implicit memory are now

no longer uncontrollable, though they may still be experienced when the veteran thinks of the event. It is an active strategy, one that veterans will use when traumatic recollections appear for the first time. They are able to incorporate these memories into their narrative and hence deal with them. Unfortunately the majority of veterans do not appear to use processing effectively. The majority of veterans used avoidant strategies that are not adaptive because they do not enable the veteran to develop an explicit memory, to provide the memory with a context. Horowitz's (1986) notion of integrating pre-trauma schemata with post-trauma schemata is important here. Thus the traumatic recollection remains uncontrolled, and may emerge, along with associated emotions, at any point. As the evidence presented here has shown, the memories do not change in terms of their impact even after fifty years if they have not been processed.

The third main coping strategy, social support, can be incorporated into the model of processing and avoidance. For some veterans, the problems associated with processing traumatic information are too difficult or painful to resolve alone, so they turn to others for help. Usually this means turning to other veterans who have undergone similar experiences, people they can talk to and who will validate the ways they are thinking.

Previous research has shown that while women are more likely to receive social support than men, men of lower socio-economic status (SES) receive high levels of social support (Turner & Marino, 1994). While it wasn't formally assessed (and cannot be because of the nature of the sample and the wording of the questions), the present study appears to indicate that veterans in low SES groups are more likely to belong to veterans' associations. This would be useful to determine empirically. Shehan (1987) found that Vietnam veterans who had a supportive marital relationship were more able to adjust successfully to the delayed psychological effects of combat.

Social support is a complex phenomena, it is concerned with both processing and avoidance. Wives and families are used by avoiders as people who will provide both practical and emotional

support, but not as individuals with whom the war can be discussed. On several occasions during the interviews, veterans would explain that they were telling me things they had never told their wives. Why? Perhaps because of what was discussed earlier. In one sense wives are not appropriate audiences, they are one means by which the veteran avoids discussing the war. The veteran requires an audience who will understand his problems. This brings in the role of comrades - now particularly within the context of veterans' associations. Veterans who wish to discuss the war find it easiest to discuss it with people who have had similar experiences (Alternatively, as in my case, they can discuss the war with someone with whom they have no emotional attachment but who demonstrates an interest in their experiences). Veterans who use processing as a strategy often use their comrades as aids to developing their narratives about the war.

Social support is important to veterans. Some of those interviewed here may not have been able to survive, or at least not with any quality of life, without the support provided by wives and comrades. The role these people play should not be underestimated. Veterans would emphasise the importance of their wives in keeping them stable during the postwar years.

Previous research conflicts as to the types of coping strategies used by older people. Martin et al (1992) tested individuals from the ages of 60 to over 100 and found that older people used less behaviourally active coping strategies and used cognitive coping for health-related matters. All age groups used avoidance to a similar extent. Aldwin (1991) reviewed studies of older people and proposed that older people use less avoidant coping mechanisms and similar levels of problem-focused coping compared with younger people. Older people also experienced less control. The problem with these kinds of studies is that little account is taken of individual differences. Confusing results are inevitably obtained when heterogeneous groups are used. The present research has demonstrated quite clearly that older people use both avoidant and problem-focused coping strategies. The way they deal with problems depends on their individual

circumstances. Some veterans have the cognitive and emotional resources to deal with their traumatic recollections. Those with more intelligence, higher socio-economic status, and those who have had fulfilling and rewarding lives appear to be more likely to cope effectively. Those with health problems may experience difficulties coping, and some have continued to use avoidant strategies after retirement. Group statistics will never predict who will experience psychological distress and who will cope effectively because they can never fully take into account individual circumstances.

The emergence of wartime memories is one reason why more veterans are forming and joining veterans' associations than in previous years. The use of such veterans' associations fits with previous research. Jerrome (1993) found that older men who join clubs are more likely to have established social relationships with their peers than with their wives. This links with the idea that veterans find it easier to discuss their traumatic recollections with comrades than with wives. She suggests that one difficulty is that men find it more difficult to establish new confiding relationships than women, though he is aware that veterans' associations have played an important role for World War Two veterans (Jerrome, 1992).

This chapter has shown that the permanent effects of war experience can be mitigated by appropriate coping strategies, but for many these strategies are only partially effective. Wartime memories, even when processed into narrative form, remain powerful, and can still generate intense emotions, even after 50 years. Successful coping still means having to cope throughout life. For many this is becoming difficult due to the extra problems created by ageing. The issues considered in the next chapter relating to changes that veterans perceive are due to the war, will illustrate some of the reasons why the problems are exacerbated with age. This is particularly the case with the re-emergence of wound- or illness-related problems. The main conclusion regarding coping strategies is that most coping can be categorised under the two headings of processing and

avoidance, and this reflects the way we cope, not only with traumatic events, but with everyday occurrences.

CHAPTER 7

FURTHER CHANGES DUE TO THE WAR

7.1 Introduction

This brief chapter is included to consider issues relating to the war that emerged during the interviews that are not specifically concerned with memory or with coping. They are included because they complete the picture that is being created of the effect of the war on the veterans that were interviewed.

The changes due to the war that are considered are general negative psychological change, the long term physical effects of being wounded and maimed, and finally, to end on a more positive note, the changes that have taken place which veterans consider to be of beneficial effect.

7.2 Results & Discussion

7.2.1 Negative psychological changes

Even though many veterans learned to cope with the memories of their experiences they still believe they were changed because of their war experiences. They provided many instances of negative psychological changes because of the war. These may have been permanent:

> *(07234) You'll settle down they said, but I couldn't. Something was lacking. I settled down but it's been forced. I had to force myself... never been happy at all.*

He can't help thinking about his experiences:

> *(07243) Left me with a feeling that I get up every day actually my first thought or feeling - Normandy. I'm not here.... I've never really wholly come back I'm afraid. Might only be a smell or a feeling or a thought of something or other. But I'm back there before.... They were the best years and the worst years together. They were my time. I suppose to be quite honest I often feel as if I should've died. That sounds a bit morbid but that's how I feel.*

There are things that affect veterans lives:

> *(03215) I hate going to crowded places.*

Another has had problems with aircraft:

> *(10176) With time the time is healing... for the time I have been able to go in an aircraft. My wife's been to America in an aircraft. I couldn't go, I was terrified. Now I go in an aircraft I enjoy it.*

Why wasn't this veteran treated for his phobia? Some regret that the war changed their career:

> *(10327) You see I would have ended up a very wealthy man because I had fifty houses being built, and don't forget I owned ten acres of land.*

Personality change seems to be quite common after the traumatic experience of war - though it is difficult to determine which are changes due to the war and which characteristics were there beforehand:

> *(08261) The tendency to fly off the handle*

of the veteran with the damaged arm seems common.

> *(08398) We used to lose our temper very quickly and all the little girls would scream one way or another.... The town clerk sent for us and said we'd got to forget about the war. Which is the right thing to do, no doubt about it. You're not in the army any more. How can you chop that off? You're a sane poor little sod one day and you're still a poor little sod until they knock it out of you or into you and they knock more in than they do out and then eventually after the years go on you can look after yourself, you can fend for yourself.*

More bitterness. The recognition that it isn't easy to forget the war, that people outside the group don't understand how you are feeling. This perhaps shows why veterans' associations are so popular. Likeminded people talking with the only ones who understand. This individual physically attacked one of his work colleagues.

> *(03426) It was nothing to do with the wound. Just riled me and continued to rile me and then tried to rub it in. Whether it is to do with the war or not I don't know.*

Another person still feels angry about the way the Germans and Japanese treated people:

> *(04215) I can't feel sorry for the Germans. I can't. War makes you like that. War makes you hard.*

Hatred is a common reaction towards the Japanese:

> *(11355) They have completely no regrets at all of raping Chinese women and then bayoneting them... It was their way of life... I'll never forgive... I still hate.*

Anger can be directed at younger people:

> *(14286) what upsets me is why these - not you particularly - but young people like, they couldn't care less they don't some of them don't think it happened they think like it's a John Wayne film or something you know. It annoys me.*

There is a sense of frustration in being unable to put their story across to the younger generation.

One veteran now:

> *(14489) can't suffer fools gladly.*

This was, according to him, a result of the war, though it is difficult to be sure about this.

One veteran is angry about the reception received by Gulf War veterans, when he:

> *(15329) got no flags flying, no banners or nothing, it bothered me like.*

He wants to receive recognition for what he did.

The war can destroy the ability to respond emotionally. During the war:

> *(04236) I think that so many bad things happened that you could literally do nothing about at the time for one reason or another and that is always in the back of your mind.... I think that is the result of war.... It's self-preservation and believe me I always fought to preserve my own life, and I was pretty efficient with it.*

Another veteran (25) considered the war arrested his emotional development. War was also seen as a waste of life:

> *(11499) it put my career back five years.*

This section shows that there are many changes in veterans' lives that occurred as a direct result of the war, even though these changes are not strictly quantifiable. During the interviews themselves, many veterans experienced emotion, or discussed emotions they had felt as a result of the war. These emotions ranged from anger and fear, through bitterness and pride, to hate, regrets, and crying. Several did cry during the interviews, but I did not stop questioning as it was a) deemed

important to obtain the information about why they were crying and b) it may have actually helped them. Several talked about being emotional when they were reminded of aspects of the war. One (11) suggested that he had become more emotional in recent years, particularly at funerals. Perhaps this relates to his thoughts about his own death.

Many veterans still feel bitter:

> *(13165) It makes you feel a little bit bitter doesn't it... especially when the best five years of your life has been just stowed away.*

He was a POW in Poland. He doesn't feel bitter towards the younger generation, but towards the Germans. He feels bitter about having skin cancer that he believes stems from the hot sunshine in the camps. Another veteran (14) is bitter towards the people of his generation who skipped the war and who are now financially better off because they had five years advantage.

Ageing leads to changes. One veteran, a driver in his working life, has lost confidence in his driving ability, and won't drive more than a few miles from home:

> *(13613) I haven't got the willpower.*

Another experiences age-related memory deficits:

> *(25295) I used to remember much better, my memory used to be quite good, poetry five or ten readings I could recite, now I have to read it for a fortnight to remember the poem.*

This is evidence for the proposition that as one ages, day-to-day memory begins to fail, and the individual develops a tendency to depend more and more on memories of the past. The memories that they focus on are likely to relate to the important aspects of life. It is unfortunate that traumatic recollections don't fail in this way.

The increasing difficulties experienced by veterans can make them wish to get a war pension. The lack of availability of such pensions often made veterans bitter towards the government. This in itself can lead to psychological distress, particularly if it means the veteran is living in poverty.

The process of claiming is difficult for some. One with a disabled arm contacted the pensions agency, and a representative visited:

> *(03081) She says I don't think there's a snowflakes chance in hell and they sent me a form since about four pages to fill in. They will not allow you anything like [an allowance for power steering] I don't know why... she said I've got one man he's got both arms off and they wouldn't give him an allowance for a chiropodist to come in and cut his toenails.*

This individual has always had problems obtaining allowances:

> *(03086) it's just the same as it was 50 years ago. It's the same as it was after the First World War... I grew up with wounded soldiers... I knew about pensions and how meagre and miserable they were.*

Pensions are being awarded more now the veterans are ageing, but for some it is coming too late. One veteran (13) has received a 50% disability pension for three years. It wasn't backdated.

It is difficult to determine which of the changes described above are wholly or partly due to war experiences and which are changes that the veterans would have experienced as part of normal maturation and ageing. A prospective study with controls would be more effective at ascertaining that. What is clear is that there are negative psychological changes associated with war experience.

7.2.2 Physical Health: The long term effects of being wounded and maimed

> *(07181) The way the war has affect me really is physical health.*

Many of the veterans, mainly but not only those that were wounded, were physically affected by their war experiences. These physical effects could last for only a short time, or they could be permanent. During the First World War maimed soldiers were treated as heroes, but afterwards "the glory faded in the light of the common civilian day" (Miller et al, 1940: 81-82). This also applied to the Second World War. With increasing age and physical frailty some recurring illnesses due to ill-treatment as POWs or harsh conditions in combat are returning for the first time in years. Some get pensions, others feel they have missed out.

(10331) I think that I suffered because of the war, because of my back. I severed a nerve in my back, of course they said to me twenty or thirty years later I should have had a pension.

There is a lot of anger towards the government for not providing adequate pensions for war veterans.

One person lost an eye after a shell blast.

(06005) It was a shell that burst on the landing craft I was on. I looked at the blast and that was it. That was D-Day plus two. I didn't see much of the war after that because I was in hospital until November 1944... I lost my sight initially. Shell went through the eye and landed up here [points to side of head].

This had severe permanent consequences on his lifestyle.

(06011) It stopped me driving, football, cricket.... I can't see a thing that side [right].... I did drive my car but I was very - in traffic you can't see anything. Fast car coming up on your right hand side and it's there before you know where you are. So I packed up driving ten or twelve years ago.... I resent it. I had very good eyesight I could see most things, you know, without any problems. But to lose one of your eyes, especially if you're a good sportsman, like football, swimming, cricket, anything like that I was into. But it's happened, you can't see the ball because of where it's gone or the speed or how far away it is. If I walk along the kerb like that and it's lower than it should be I stumble like hell. Silly things like that and you don't realise until in that position. I get used to it because I take a bigger step.

Losing the sight of an eye clearly has serious consequences in many areas of life. A good sportsman, he can no longer play sport, he can't walk without compensating, he can't drive safely. He also gets headaches:

(06107) I've been on tablets ever since it happened fifty years ago. That fact of having to go to work on tablets or even if you're at work and you haven't got a tablet. Once these headaches start you can't do any work at all... times I've lost from work but I've never claimed for it. I couldn't claim for it because I was self-employed for twenty five years, because I couldn't get a job because I couldn't see.

It appears that there is also an effect from the blast.

(06040) I had a medical two years ago and said to the doctor that the sun hits a blast into my eyes or a car switches its headlights on and that sends me.

The flash acts as a reminder of the shell. What does he do when he gets a headache?

(06083) Well, I suppose I go to the bedroom, put the lights out and that can last three or four days. When I get better I have a pain right on the back of my neck. Your head reels as if it is going to split open. Strange feeling.

And he has had to put up with this since the war. He receives 70% pension, increased from 50% two years ago. He also gets depressed.

Another veteran was maimed. He has a severely damaged right arm as a result of a wound. This led to problems with many everyday tasks, and also to feelings of anger.

> *(03109) I was embarrassed I suppose, at that time [just after the war] my Mum had to cut my meat up and vegetables and stuff like that. You could shovel it up with one hand but if I had a piece of steak or went out to a Sunday meal or anything like that I had to pass the plate over to Mum to cut it up. It was all right having Mum but then you think of having a girlfriend and you can't go up to a girl and ask her to start cutting your dinner up and things like that, and that put me off for a long while. I was 24 when I came home and I didn't get married until I was 37. I used to go with girls but never got close to them. I didn't want to get close to them... I couldn't face it for a long time.*

The damaged arm also led to problems at work. He became angry.

> *(03025) I think my bad tempers have subsided a bit. I used to get very hot under the collar.... I think it came from the war. I remember when I first started work and that was in the Town Hall and all the little girls locked themselves in the toilets and what I'd done I tripped over some lino which ought to have been levelled and I caught my arm. Then I lost my rag.... It were just the fact that if somebody else had have tripped over well then they probably wouldn't have hurt themselves. Most people in that office didn't know I'd been wounded. I used to keep my hand in my pocket and my sleeve rolled down, and that was it. It was the fact that they were going to find out that I was crippled if you like in a way.*

What was the problem with being wounded? Does this make him somehow inadequate?

> *(03034) I didn't like people to think I was crippled. In the war you didn't mind being killed, that was it, par for the war... it was the fact that you were going to be wounded.*

He still feels some bitterness.

> *(03042) I feel bitter because people have never allowed the fact that you couldn't cope with things. I had to learn to write because I was right-handed. You didn't mind being wounded, you felt almost proud of the fact that you'd done something, but you felt bitter because the rest of the people, the majority of people couldn't have cared less if you'd been wounded or not.*

So the problem is less with the wound than with the response of people around. This is another example of how veterans think that they are forgotten, that what they did is forgotten, and how many seem to have been pleased with the anniversary because it provided evidence that it wasn't forgotten. But is this individual's perception an accurate one? Didn't people have more sympathy

for him than he allows? If he was simply wanting to be "normal" he might have a problem accepting the disability. How has his mind been distorted by the physical maiming. He feels some bitterness at how he was treated while in hospital at the end of the war:

> *(03054) The girls used to come and see us, very kind, and bring you soap and cigarettes and bars of chocolate and that kind of thing, and the Salvation Army would come - and the war ended and I don't know if it ended on a Thursday or Friday but the next Saturday the only people who came were the Salvation Army. The rest of us might have died at the end of the war. There were no wounded soldiers in the war. You see, my hospital, it just ended.*

More bitterness towards people who didn't experience the problems the wounded experienced. The sense of abandonment - it is no wonder this person became angry with the world. Not only did he have to cope with being crippled, he had to cope without social support.

Another individual has had wound-related problems since the war.

> *(01219) It was explosive that did it, shrapnel wounds. It was very close proximity to the shell or mortar. They told me to wander over to the surgeons. They didn't understand that I'd ruptured this and ruptured that, collapsed lung and God knows what. But I did lose the sight, lost the hearing, and I never did, I can remember being in a straitjacket for a few days. There were quite a few of us strapped down. But I don't know what happened. There were about four weeks of treatments, but fortunately we had a very good psychiatrist.... We got over it and mainly it just left me with the hearing trouble and the sight. The nervous system never been anything since. I get along OK but there only has to be the slightest thing go wrong and I just can't - feel terrible. I get along with the pills and that. That was the thing the war did to me.*

So physical problems aren't necessarily associated with the actual wound, but can be indirect physical effects.

These permanent physical effects have been with these veterans since the war. Not only have they had to live with the psychological consequences of their experiences, they have had to live with being maimed or otherwise physical damaged. Many took years to learn to cope with their problems before recognising that their postwar lifestyle was necessarily different. As in the case of psychological changes, these veterans did not receive counselling or advice on how they could

adapt to their disability. With increasing age and physical infirmity, the means of coping can become less effective, and problems re-emerge.

Physical difficulties often increase with age, as several veterans described. Ageing brings its own health problems that can exacerbate war-related problems, or can stem from war experiences. One (18) experiences stomach troubles that stem from malnutrition during the war. He has always had problems with it, but it is worsening with age. Another:

> *(11117) [my wife is] disappointed that we can't go on holiday because I've got this prostate trouble. Some days I have to go every half hour... NH: You've got to know where the toilets are? 11: It's exactly the same, I've got to know where I'm going to go with the car, where I'm going to park the car.*

Everything needs to be clearly defined before doing anything. It is impossible to say how much of this is to do with age and how much the war. Another example:

> *(13147) [the physical problems have serious affected my life] in a roundabout way same as now I can't bend down properly.*

This creates problems with gardening, where the veteran now requires help:

> *(13153) it's disappointing when you can't do a thing yourself.*

It is sometimes impossible to separate age-related and war-related health problems. It is possible that many problems at the time of the war appeared to clear up while the veteran was physically fit and only caused trouble again later in life. They are now at the stage when they require a lot of medical attention, broken bones, arthritis, emphysema, ponderosas, etc. One (11) has spent the postwar period on a special diet because of tropical diseases caught in POW camps. Another (14) who damaged a knee during the war has recently started to use a walking stick. A third (15) who was wounded in the shoulder still experiences pain if someone knocks into it.

Others are troubled by their increasing physical difficulties, such as the inability to take part in remembrance activities:

> *(14379) I love parades, but today I couldn't go because I can't keep up with the troops now.*

The discussion about war pensions above applies just as strongly to physical difficulties. Many of the men who were maimed received pensions, but they often had to regularly attend boards to ensure they still "deserved" it.

7.2.3 Positive changes

Not all changes associated with the war were negative. Some veterans feel that they gained valuable experience during the war that made them better people. At one level the war provided excitement:

> *(09103) I think [life] might have been dull.*

This probably applies to a lot of veterans, particularly those who didn't have interesting jobs after the war. These are the ones who dwell on the war as the most exciting time of their lives. He also thought about the people:

> *(09107) I met a lot of people and got on with them really well. The comradeship.*

Others gave more general benefits:

> *(08295) I think in a sense they gave me more confidence... I found that I could talk to a general... I found him talking to me and he said he was a human being like myself. He had technical skills which made him a general, but his feelings about life and things like that were quite sympathetic... It was meeting people like that in positions of high authority within the army yet to whom I felt I could relate very directly that I think changed my attitude towards myself.*

But this wasn't just an increase in confidence:

> *(08323) It was one of the things which had been important in making clear that I wasn't quite the little twit that I'd been led to believe.*

Another considered the war broadened his outlook:

> *(04456) I think it makes your life much broader. You have an insight into much more things that I would never have seen... You are much wiser because of what has taken place. If people would only sit down and listen to some of the people who have gone through all these things and stop thinking about whether they can afford a new car next week or whether they can afford to go to the South of France... the world would be a much better place... If I had to live my life again I don't think I would change it. I don't know if I enjoyed it but now it's all over and I can look back and say, look what I've survived in my lifetime. I've been*

through all this lot and here I am still alive. If only I was now the age I was during the war with all the experience I've got now.... That would be quite something wouldn't it? Quite something.

This veteran feels that he has learned a lot through his experiences, that his life has taken on a wider meaning than it perhaps otherwise would. But it is difficult to assess how different would his life have been had the war not taken place. This is a problem that applies with all retrospective work such as this.

There is no agreement as to the effects on personality of war experience. Any effects will depend on many factors. Some feel that they were stronger after the war:

(11514) went back to university as a more mature student... I was a better teacher.

Another changed his outlook towards people:

(25190) It is during the war experiences which make life sacrosanct... something of great importance.

This veteran feels he learned self-discipline, perhaps partly as a result of being tortured by the Russians, and because he spent seventeen days on a liferaft after being sunk.

For many veterans, not only those who do not experience war-related psychological difficulties, the war provided opportunities that enables them to become more fulfilled in their lives. This is linked with the notion of processing, whereby the individual learns to benefit from traumatic experiences, and to experience growth (Herman, 1992).

7.2.4 Concluding remarks

The war has clearly had profound and permanent changes on veterans' lives, whether physical or mental. These changes were not always for the worse, some grew and matured as a direct result of their war experiences, and feel they became better people. But for the majority of veterans interviewed the war led to negative changes. For some these changes were physical, wounds,

maiming, long term physical illness - all of which have impacted on their postwar lives. For others the changes are psychological. It is not surprising given their circumstances that many have psychological problems. What is surprising is how well they have coped given the lack of official support (eg war pensions).

CHAPTER 8

DISCUSSION & CONCLUSIONS

The previous four chapters have shown that many World War Two veterans are still experiencing psychological distress relating to their war experiences over 50 years ago. Many people still have problems relating to memories that stretch back over most of their lifetimes, and they seriously affect the quality of their present-day lives. The purpose of this final chapter is to summarise these findings, and present a theoretical model incorporating the findings into previous work. There will then be a consideration of the main issues arising, and a discussion regarding potential future research.

8.1 Summary of the main findings

The first study consisted of a questionnaire looking at veterans' wartime experiences, biographical details, and present day psychological health using validated measures. Several interesting findings emerged, the first being the willingness of large numbers of veterans to take part in the study. This may reflect the need for them to deal with memories that are re-emerging after so many years. The study validated the IES on this population for the first time. Previously validated only on other traumatised populations, and never after such a long time, the IES is an appropriate instrument for use with this population. The GHQ, was shown to be acceptable as a measure of global psychological functioning, but not in terms of its subscales, and it is recommended that it should be used only as a single scale. The combat experience questionnaire was designed for use with combat veterans and was also validated. The final version, Warex, requires validating on an appropriate population.

Approximately one-fifth of the sample experience some kind of war-related distress, as assessed by scoring above the cutoffs on both IES and GHQ. Normative data of the GHQ shows around 9-12% of the ageing population experience problems (Goldberg, 1978). In the present sample, over

30% scored above the cutoff, including 20% also scoring above the clinically-derived cutoff for IES, demonstrating that, for these people at least, their psychological problems were war-related. While there were no differences between incidence of distress between the services, those who were ex-officers, and those who had not retired experienced less psychological distress. The latter demonstrates the critical importance of retirement in re-emerging traumatic memories - a finding supported by the interview study. It was tentatively proposed that those who were officers in the war might have led more satisfactory or fulfilling lives in the postwar years - perhaps being generally of higher social class - and so experienced less psychological distress. This proposal was also supported by the interview studies.

Previous research (eg Speed et al, 1989, Creamer et al, 1992) is inconclusive regarding whether there is a direct relationship between the traumatic experience and later distress, or whether mediating variables are more predictive. The questionnaire study showed that the mediating variables (intrusion and avoidance) were more predictive. Even particularly severe traumatic experiences such as being a POW of the Japanese were less predictive than intrusion and avoidance, which contradicts some previous research (eg Speed et al, 1989). This finding is important because it shows that the mediating variables proposed by other researchers (eg Creamer, 1995) are applicable even after 50 years. It also shows that the effects of a traumatic experience are functionally permanent, which has implications for the treatment of traumatised individuals.

The questionnaire contained a section asking veterans to answer the open-ended questions: What did you find most disturbing about the war? What did you find most interesting about the war? These were included to discover what kinds of wartime memories are most important to veterans. Some of the strongest memories veterans have are of battle. The majority of the responses to the "disturbing" question concerned battle experience. For many the horror of the experience remains strong. Many also described the difficult physical conditions in which they lived, not only during

battle but also at other times. It is important to remember that World War Two experience was not a unitary traumatic experience but a significant part of the veterans' early adult lives, lasting six years, and covered a whole range of phenomena, from battle through to the boredom of waiting, not to mention the "normal" experiences of everyday life. Veterans also described worries about their loved ones. Attitudes towards the government were discussed, attitudes of the wartime period and of today - on all occasions negative. There is still a feeling of bitterness towards the government, which may be impacting on present day psychological distress.

Veterans also described their more positive memories; seeing new things, having the opportunity to meet people of different cultures and different classes, while travelling the world. Meeting people of different social classes probably had an impact on the changing social attitudes of the war generation. Others found the use of new technology or experiencing education to be "interesting". Many described the comradeship they found amongst others, an experience they have not repeated since.

The interview study showed that veterans retain several distinct kinds of wartime memories. Traumatic recollections are very powerful memories which emerge usually when the veteran is reminded in some way of his war experience. It is linked with intense emotions. Unfortunately, because the war was not a discrete event, but a whole series of life events (traumatic and non-traumatic) over a number of years, many things in normal life can still act as stimuli to remind veterans of their memories. Veterans who experience traumatic recollections can have severe war-related psychological distress. The second type of memory is the consummate memory, which is perceived as a highly detailed and accurate memory of a wartime event. Whether the memory is accurate or is confabulated through experience of talking about it is not relevant here. The veteran believes it to be real so it is. It was proposed in Chapter Five that consummate memories are actually traumatic recollections that have been processed, turned into a narrative. The consummate memory is the narrative, the story that the veteran repeats both to himself and to

others, with little variation. Variation may bring out further traumatic recollections. Traumatic recollections are implicit memories that emerge into consciousness when the veteran is reminded of the incident, and that consummate memories are explicit verbal memories of the incident. The third type of memory is the faded memory. These are ordinary memories that were never traumatic.

The ways that memories change over time depend in large part on the means by which the veteran coped with his experiences at the time and the means by which he has learned to cope with the memories after the war. Many depend heavily on social support, which was provided during the war by fellow comrades. Many still depend on these comrades, other World War Two veterans, because they are the only people who "truly understand". Wives provide social support, but not in the same sense. They are there, they have helped traumatised veterans survive in the postwar years, but many veterans do not talk to their wives about their experiences. Only comrades can help the veteran develop a narrative about particular events.

War veterans generally respond to their memories in one of two ways, processing and avoidance (eg Solomon et al, 1991). Many veterans learned to use avoidance during their training and on the battlefield, and continued to use it after the war - indeed they were encouraged to. So they avoided addressing their traumatic recollections. They kept themselves busy and were successfully able to avoid these recollections. This has been successful until retirement, when with the loss of structure associated with work and family they have more time to reflect back on their lives, and are only now being forced to address these issues. Others successfully processed the traumatic recollections, turning them into narratives, stories about the war. If new traumatic recollections emerge they find ways of incorporating them into their "war story". Processing is the more effective strategy of the two.

In summary, World War Two veterans 50 years after the event still experience psychological difficulties relating to their war experiences. For many these difficulties are becoming more serious, often re-emerging after retirement for the first time for many years. This supports a finding by Ramchandani (1990) who obtained similar results with Vietnam veterans. The problems relate to traumatic recollections, memories of wartime events with intense emotions linked to them. Veterans are experiencing more problems now than before because when working they were able to use avoidance as a successful coping strategy. Since retirement this has become a problem. The most effective way of dealing with distress is via processing the traumatic information into a narrative, which detaches the intense uncontrollable emotions from the memory.

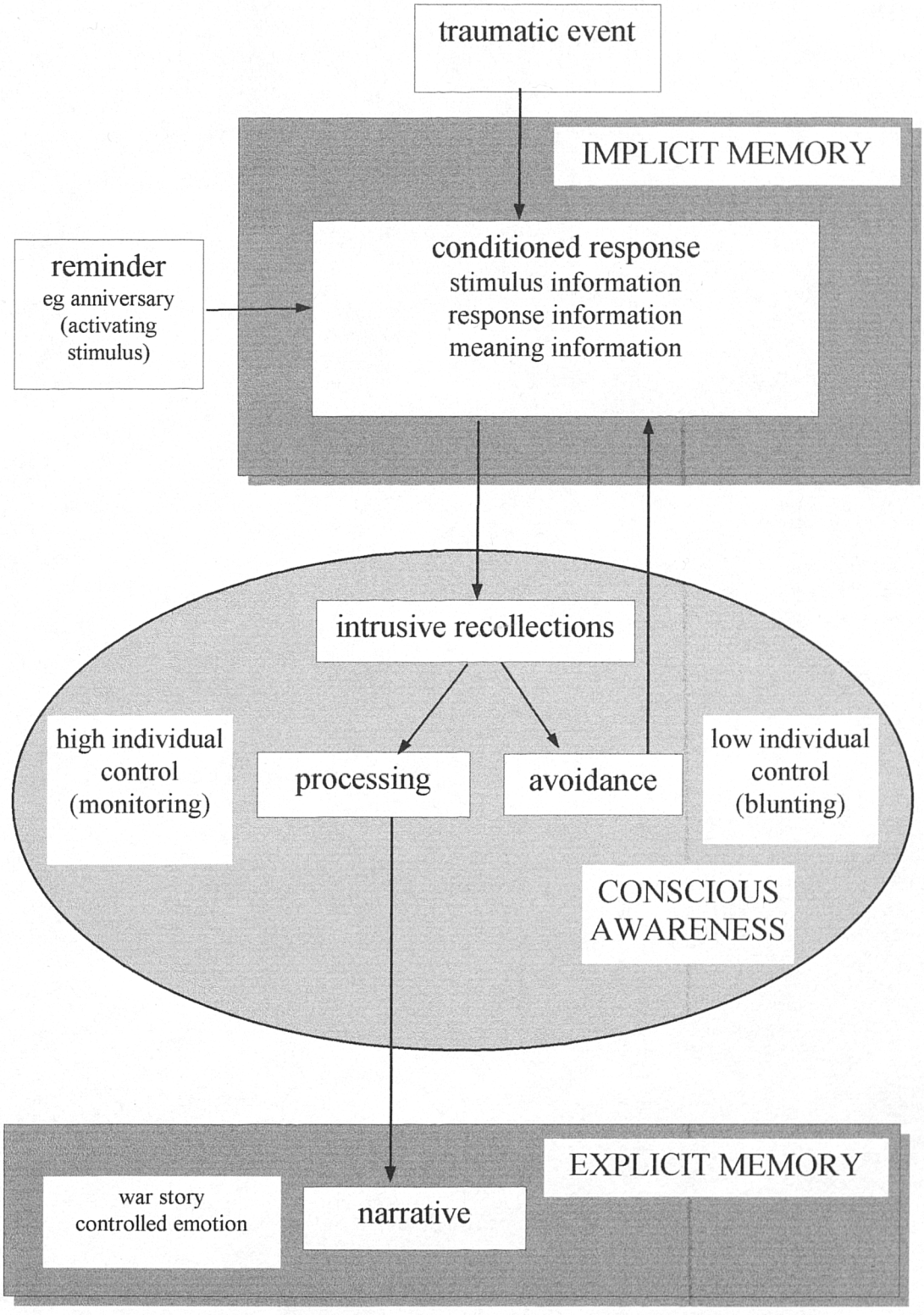
8.2 Theoretical model

The findings described above can be incorporated into a parsimonious theoretical model, which considers the role of memory and coping in respect of the response to a traumatic experience. The findings show that memory plays a key role in this long term response, and the styles of coping that veterans use to deal with their memories are critical to the outcome. This model is shown in Figure 8.1.

8.2.1 Trauma and Memory

Veterans have, as described earlier, several different kinds of memory relating to traumatic experience; traumatic recollections, consummate memories, and ordinary faded memories. Traumatic recollections are defined as memories that have not been processed, the individual still has problems with this type of memory. Consummate memories are detailed memories that have been processed. The veteran recalls things in great detail partly as a confabulation through processing the memory into a narrative. The faded memory has never been traumatic, it is an ordinary memory that fades with time. These types of memory were readily distinguished in the data presented in Chapter Five.

Fig 8.1 Theoretical model



The model presented in Figure 8.1 proposes there are two forms of memory of interest to the present model, implicit and explicit memory. Both were described in detail in Chapter One. Implicit memory is out of conscious control and is non-verbal, whereas explicit memory contains autobiographical information, information relating to past life that can be drawn upon at will, and is malleable.

A traumatic life-threatening experience leads to the establishment of a conditioned response that is similar to the Garcia effect (Garcia & Koelling, 1966) in that it is a form of one-trial learning. This conditioned response is adaptive. An organism in a life-threatening situation which escapes from that situation will remember the method of escape in case the event occurs again. A traumatic experience results in the formation of a conditioned fear network, which includes stimulus, response, and meaning information (Foa et al, 1989; Lang, 1979). Animal research has validated the concept of the conditioned response to a traumatic event (LeDoux, 1992, 1994). This form of implicit memory is rapidly accessible if the right stimulus information is activated - critical if it is to be an effective survival mechanism - but it is not accessible to conscious thought (Christianson, 1992). Implicit memories, unlike other memories, are fixed and unchangeable (Weine et al, 1995; van der Kolk & Fisler, 1995) even, as demonstrated here, over a period of 50 years.

In humans the situation is complicated by the existence of emotions and cognitions (meanings) that are associated with the original memory. Veterans who have implicit traumatic memories of the event will always be at risk of these memories emerging into consciousness, along with associated emotion (Creamer, 1995) if any part of the stimulus information is accessed. Stimulus information is wide-ranging and complex because of the nature of war trauma, so many things act as reminders. This leads to the activation of the automatic response and the meaning information (Foa et al, 1989). The present work provides ample evidence that intrusive recollections lead to psychological distress (see also Joseph et al, 1994; Davidson & Baum, 1993), and that this is not

diminished by time if the individual has not effectively processed the traumatic information contained in implicit memory.

Explicit memory describes memories that are accessible to consciousness. Such memories have two main roles, as a storage and retrieval system, and as a functional system with affective, psychosocial and cultural uses (Barclay & Smith, 1992). It is the latter that is of interest here. Explicit memory does not consist of fixed images of a particular event, but is malleable. Inputting information will depend on previous memories and existing mental schemata. In normal day-to-day life, memories are inputted directly into explicit memory and become part of one's autobiographical memory (Conway, 1990).

The next section will consider memory in more detail in relation to how veterans respond to or cope with their traumatic recollections. As discussed in Chapter Six, there are two main ways of responding to a traumatic event, processing (or in van der Kolk & Fisler's, 1995, terms, developing a narrative) and avoidance.

8.2.2 Processing

The most effective way to deal with traumatic recollections is to process them (Creamer, 1995) to turn them into a narrative about the traumatic event (van der Kolk & Fisler, 1995). The present study has shown that those veterans who have used this strategy are best able to deal with their traumatic wartime memories, and that there are different ways of processing the information. Veterans who are aware of traumatic recollections and when they arise try to think about them in a constructive way, try to develop a narrative or story about the events that took place.

By carrying out this processing veterans alter the nature of the memory, they bring it into consciousness where it can be dealt with. The memory is translated from a conditioned implicit memory into an explicit verbal memory, a memory that can then be accessed on other occasions

(whether consciously or through stimulus cueing) without the attendant problems (emotions, psychological dysfunction) associated with a traumatic recollection. The process of making an implicit memory explicit involves detaching the uncontrolled emotional response elements from the stimulus information, from the memory, and developing a rationale for the memory (this is what occurs in successful debriefing treatment). This process leads to a confabulation of the memory, which can occur in several ways over the years. The veteran may think alone about memories and reinterpret events such that the memory becomes less problematic, eg if he felt guilty about a particular action he justifies to himself that there was no other option available and he did what is best, he may discuss the event with others who have different interpretations, or he may read books, see films, etc that provide an acceptable version of the event. Direct evidence for this would require a longitudinal study and would be very difficult to carry out because the study itself would have an impact on the memory trace.

Once successfully processed the veteran may still become emotional when he thinks of the event, but it will be controllable because it has been made explicit. This may help explain why many veterans need to constantly talk about the war, they are rehearsing their narratives. Once this strategy of narrative development is developed, further traumatic recollections can be incorporated into the narrative (into explicit memory) in a similar way.

The narrative has been discussed as a unitary phenomenon, though undoubtedly with such a complex series of events that took place during the war there will be many narratives, relating to different events linked under the common theme of the war. Narratives will share information, will overlap, because of the similarity between events and time condensing events. Hence the narrative (memory) structure will be complex.

The processing strategy is likely to be more effective in the longer term than avoidance which is discussed in the next section, because it deals effectively with traumatic recollections. After

processing, memories are no longer traumatic recollections in the same way. While the original conditioned responses may still be present in implicit memory, consummate memories are developed, which are highly detailed, but possibly confabulated using information not originally part of the memory. The veteran does not return to a pre-morbid state. There are permanent changes, and with such a complex trauma as war there may be new traumatic recollections arising at any time, or the original traumatic recollection may arise. But such veterans know how to deal with them. Herman (1992) has discussed how post-trauma, individuals can experience psychological growth, how the long term result of such experience can be a transformation, a learning experience that leaves the individual more fulfilled than they were before the trauma. As Lifton (1988) suggested, the traumatised individual needs to develop a degree of conceptual integration of the traumatic experiences and learn to move on and develop in the post-trauma period. This has much in common with Erikson's (1986) concept of personal integration as an integral part of normal ageing.

The concept of stages of post-traumatic development needs some consideration. There was a discussion in Chapter One about the stages proposed by Creamer (1995), where the final stage was outcome, and traumatic information was processed and became part of the individual's world schema. This was developed from the Horowitz model, whereby individuals pass through: outcry, denial, oscillation (between denial and intrusion), working through, and relative completion. Lifton (1988) suggested that the final stage for Hiroshima survivors was identification with the dead. All stage theories share the common idea that there is no final "cure". The trauma survivor never becomes as before. The best that can be hoped for is a kind of psychological growth, a greater self-knowledge (Herman, 1992). The present research has clearly demonstrated this lack of "cure". World War Two veterans still experience psychological problems because they have not reached the final stage proposed by Creamer, Horowitz and others. The stage theories proposed are generally concerned with a short-term outcome, not the longer-term effects, where buried traumatic recollections can re-emerge after decades. Horowitz's model is too simplistic,

the oscillation between denial and intrusion may occur shortly after the trauma, there may appear to be a resolution, but there can again be a period of oscillation brought on by reminders of unresolved traumatic recollections, and as shown, this new period can occur half a century later.

8.2.3 Avoidance

Soldiers are trained to fight battles. Through training, they are prepared for their traumatic experiences. Training is about developing both unit cohesiveness and the ability to respond automatically in given situations (Watson, 1978). Troops who are well-trained in both tend to be more effective fighting units. During wartime these skills are adaptive. The individual who is part of a unit where he can trust his comrades and who responds automatically to life-threatening situations is more likely to come out of battle alive than those who do not have these advantages. This links with the denial of vulnerability that is required in order to function (Shaw, 1987; Solomon, 1993), the soldier who feels his life is threatened in combat is less likely to perform effectively.

Unfortunately, these advantages in battle can become disadvantages after the war (Solomon, 1993). The findings of the present study show that avoidance has been used as a coping strategy throughout the postwar years by many veterans. During battles if a comrade is killed the soldier carries on fighting, and spends little time thinking about the death. There is no time to mourn. The individual avoids thinking about the consequences of one's own and others' deaths. Once the battle is over those who are dead are still little thought of. If soldiers thought too much about those that were killed they may not be able to fight as effectively, so all such memories are pushed out of the conscious mind.

This strategy can persist into the years after the war, as has been demonstrated in the previous chapter. After World War Two soldiers were told by the army to go home and forget about the war, their wives and families were told not to remind them, and so for many years the strategy of

avoidance persisted for many. It was the simplest way of dealing with memories. If memories arose, they were pushed away by "keeping busy". Over the years this strategy would be very effective while the veteran had the resources to ensure the traumatic recollections could be successfully avoided, eg through work or raising a family.

This does not mean that avoidance is a coping strategy specific to combat veterans. Evidence shows that individuals who have experienced many kinds of trauma use avoidance (Joseph et al, 1994; Harvey et al, 1991; Herman, 1992). It is also to be recognised that avoidance is a typical strategy used in everyday stressful situations (Miller, 1980; Roth & Cohen, 1986). Roth & Cohen suggest coping in any situation can generally be categorised as approach (processing) or avoidance.

Many World War Two veterans still do their best to avoid reminders of the war. They are aware of the stimulus elements of the memory (for example watching a film, seeing people, hearing loud noises), and try to keep out of these situations. If they are reminded and intrusive recollections emerge, then they often try to carry out other activities to help them stop thinking about it. This strategy can be effective for many years, for some traumatised veterans it may be permanently effective (this would be difficult to prove, as avoiders may not take part in research), but it doesn't help change the traumatic recollections, to make them more bearable. The intrusive recollections do not change if they are not dealt with through conscious processing. Veterans still retain intrusive recollections after 50 years because they have consistently pushed them back into the unconscious (implicit memory, not an active unconscious, but one that is not consciously accessible) rather than deal with them. It is only in recent years that the strategy has begun to fail, because the veteran has more time to reflect on his life, and so recollections emerge more frequently. Because the veteran hasn't developed effective processing strategies, they are unable to deal with the emotions, and so may develop psychological symptomatology.

Avoidance is a common strategy in combat veterans, and in other traumatised individuals. It is a conscious coping strategy, the individual is motivated to avoid anxiety-provoking thoughts and memories. It is argued that in the end this active process of avoidance becomes habitual and automatic (Bowers & Farvolden, 1996), and it is only a major life event or an important change in one's life that can break the habit. In the case of World War Two veterans, this is often retirement.

Folkman & Lazarus (1988) looked at the relationship between coping and emotion, and propose coping mediates the emotional response. In this role coping changes the original emotion in some way . Folkman & Lazarus also note that the use of avoidance is a very common way of coping with stress. They suggest that avoidance usually neutralises stress, but there is a type of avoidance they call escape-avoidance which is less successful and is associated with depression and anxiety. The present work shows avoidance may reduce or eliminate psychological symptomatology, but not the traumatic recollections. Escape-avoidance is where traumatic recollections still emerge and cause psychological dysfunction. Here avoidance has been seen in a largely negative light, not as a means of reducing the emotional impact of the traumatic recollection, but as a means of suppressing the response. For some veterans the use of avoidance may be permanently effective at reducing or eliminating the negative consequences of intrusive recollections.

8.2.4 Processing and avoidance reconsidered

The present research supports previous work that has shown processing and avoidance to be the two main coping mechanisms used by traumatised individuals. Solomon et al (1991) discuss monitoring (processing) and blunting (avoidance) strategies used by Israeli soldiers who suffered combat stress in the 1982 Lebanon War. Those who used monitoring were less likely to experience trauma-related psychopathology than those who used blunting. They suggest that their blunters were those who failed to cope with wartime intrusive thoughts rather than effective coping, and monitoring is associated with the ability to work through the traumatic experience.

The present findings go further than this and show that these two strategies apply even 50 years after a trauma, which suggests that they are fundamental human responses to events.

8.2.5 Social Support

Social support has often been considered a fundamental way of coping with stressful situations (Mulder, 1994; Harvey et al, 1991). Here it is proposed that social support can serve as a means for the veteran to a) process the traumatic information through interaction with comrades and b) deal with the psychological symptomatology that arises when neither processing nor avoidance is effective.

Soldiers learn comradeship through training, they learn to depend on one another for their lives, but at the same time they learn not to mourn when a comrade dies. As the study has shown, these factors make the comrade relationship very special, and very different from friendship. It remains important in the postwar years as the only way in which veterans can receive social support, and a means of helping with the processing of traumatic recollections. Groups who share life-threatening situations often become more cohesive. As Elder & Clipp (1988) put it, "shared danger enhances the common bond" (p 343). Archibald & Tuddenham (1965) note that when these intense relationships are broken, the soldier is left feeling alienated from others who have not shared the experience and the emotions. That may make it difficult to establish relationships with non-veterans after the war. Elder & Clipp show that these ties can be long-lasting, that veterans who experienced heavy combat are more likely to retain wartime friends than those who experienced light or no combat. The present research supports this. This need for and reliance on other veterans is demonstrated by the increasing interest in veterans' associations. With veterans now ageing and being in need of more support they are turning to the ones they can trust the most, the ones they relied on during the war.

Comradeship as social support is a means by which veterans can process their traumatic recollections. In Chapter Six it was speculated that the more intelligent and fulfilled veterans were more likely to use processing as a strategy without any guidance. This supports the McNally & Shin (1995) study which found Vietnam veterans with lower intelligence were more likely to experience PTSD. This is worth further exploration, particularly in relation to the research on ageing and intelligence, which is ambiguous, but there is evidence that there is some decline in intelligence in old age (Horn & Donaldson, 1976), though it is arguable that the decline may relate to differences in experience (Gilewski & Schaie, 1983). This presents the possibility that the re-emergence of psychological symptoms may be related to some kind of decline in intellectual faculties. Those with varied and fulfilling experiences are less likely to experience such a decline (Schaie & Herzog, 1986), and hence less likely to experience psychological problems. This suggests the possibility of social class differences.

The present study has also shown that wives and families are used as a prop when the veteran is unable to deal with traumatic recollections. Wives do not fulfil the same role as comrades, veterans do not discuss traumatic recollections with their wives because they cannot help reconcile these memories. Only someone who was there can do that, it is only comrades (and sometimes therapists) to whom veterans will confide their thoughts. Comrades can help them develop the narrative. Wives help veterans when they are suffering psychological difficulties relating to war memories. They serve as a prop.

8.3 An integration of theoretical perspectives

Attempts have been made to understand the response to trauma from a variety of perspectives. What follows is an integration, which includes work on learning theory (conditioned responses), cognitive theories of implicit and explicit memory, psychodynamic theory, the underlying neural mechanisms of trauma, and humanistic ideas about trauma as growth. Together these perspectives provide a detailed and coherent account of the response to trauma.

8.3.1 Conditioning

There is an increasing amount of research carried out linking fear conditioning of memory and the biological underpinnings. Prince (1891; see Janet, 1925) was the first to suggest that fear neurosis can be compared to Pavlovian conditioning. Foa et al (1989) discuss the formation of a fear network. After a traumatic experience a conditioned reaction forms, with stimulus, response, and meaning information. They conclude that traditional S-R learning theories can adequately account for fear and avoidance consequent to a traumatic event.

Foa et al suggest that a person is reminded of a traumatic event by some element of the stimulus information being activated. This leads to the activation of the original response information, including emotional, cognitive and behavioural elements. This is an adaptive mechanism because the organism has learned how to survive a life-threatening situation and is in a permanent state of preparedness in case the same situation arises (Bremner et al, 1995a). Unfortunately, for the war veteran, this means that they are forever reliving their war.

8.3.2 Biological mechanisms

Memories for normal events are stored in explicit verbal memory. There is evidence that the hippocampus and prefrontal cortex play an important role in the formation of such memories (Bremner et al, 1995a). Most of the research in this area has focused on animals, with extrapolation to humans. The findings suggest that the underlying mechanisms regarding unpredictable and uncontrollable aversive events resemble PTSD symptoms in humans (Foa et al, 1992). Research has been carried out which validates the animal model (Bremner et al, 1995a).

Zola-Morgan & Squire (1990) show that the hippocampus is important for encoding and retrieval of explicit memories, but not for long-term storage. Monkeys with hippocampal lesions show

impairment in recall of recent learning, but not of distant learning. Damasio (1990) suggest that neocortex is implicated in long term storage.

The limbic system, particularly the amygdala (Sarter & Markowitsch, 1985), has been implicated in implicit learning, including memory for traumatic events (LeDoux et al, 1989; Charney et al, 1993). Lesions of the central nucleus of the amygdala have been shown to completely block fear-potentiated startle (Hitchcock & Davis, 1986). The role of the amygdala is to integrate information which is necessary for the proper execution of the stress response (Bremner et al, 1995a).

DeDous et al (1989) proposed that conditioned fear memories are established via thalamo-amygdala pathways, and that they might be relatively indelible. LeDoux (1992) has demonstrated that the amygdala plays a critical role in implicit memory. Using animal models, he demonstrated that conditioned fear responses are mediated by the amygdala. Hitchcock & Davis (1986) showed that if the amygdala is lesioned then a fear-potentiated startle response will be blocked. Such implicit memories are non-verbal, and stored in relatively old, in evolutionary terms, areas of the brain. This provides converging evidence for the formation of traumatic memories. There must then be some mechanism whereby they are activated and brought to the individual's attention.

Van der Kolk (1994) reviewed research in psychobiology and concludes that while ordinary (explicit) memory is active and constructive, in PTSD explicit memory failure leads to the organisation of the trauma at a somatosensory level (implicit memory) that is relatively impervious to change. This occurs outside the hippocampal system. He shows that it is high level stimulation of the amygdala that interferes with hippocampal functioning (in animals), and leads to permanent neural change.

8.3.3 Cognition

Explicit memory is active and constructive (van der Kolk & Fisler, 1995; Bartlett, 1932). According to Barclay & Smith (1992) memory has two main roles, as a storage and retrieval system and a function system with affective, psychosocial and cultural uses. Most memories - though not traumatic recollections - are not fixed photographic images, they are malleable, they change according to certain conditions. During the time an explicit memory is being consolidated (which can be a period of weeks or months) it is susceptible to change. It can be argued that it always remains susceptible to change under the right conditions.

The findings here and the previous research support the distinction between implicit and explicit memory (van der Kolk & Fisler, 1995; Bremner et al, 1995a). Memories for everyday events are formed in explicit memory, but traumatic conditions interfere with normal attentional skills and lead to the focusing of attention on details (Wolfe, 1995). There is biological evidence for this, with extreme emotional arousal interfering with hippocampal memory function (Pitman et al, 1993) which is necessary for explicit memory processing. Traumatic learning is a form of implicit learning, a phenomenon studied by cognitive psychologists (eg Reber, 1993). Reber suggests that implicit learning has several characteristics, one of the main ones being robustness, which supports the present research, which shows that traumatic recollections can be fixed and unchanging over a period of 50 years. Parkin (1993) suggested that implicit memory may play a greater functional role with advancing age because explicit memory deteriorates. This is another reason why traumatic recollections emerge in later life.

The study of implicit memory is a relatively recent phenomenon in cognitive psychology (Schachter, 1993). Information in implicit memory is not available to conscious control. An individual with a traumatic recollection cannot recall it at will. As shown above, it is accessed via reminders. If the individual is reminded of the trauma (ie the stimulus information is activated) then the memory will emerge into consciousness as an intrusive recollection. The individual can

then deal with it in one of two ways. If avoidance is chosen, then the information will remain in implicit memory in an unchanged form. If the individual processes the information then explicit memory processes are used to incorporate it into existing schemata. The individual develops a narrative about the trauma (van der Kolk & Fisler, 1995). In this way the memory becomes verbal and is stored in explicit memory.

Because the memory was originally traumatic, it will need to be processed by the individual and it will become a consummate memory, one that no longer has the uncontrollable emotions attached. There are several ways in which this can be done. The individual can deal with it himself or with the assistance of comrades as already discussed, or he can deal with it via therapy. Veterans can learn to use processing through receiving treatment. Chung (1993) suggested that any treatment programme requires an integration of one's understanding of the meaning of the trauma with current symptomatology, ie the development of a narrative incorporating the traumatic recollections into existing mental schemata (see also Mollica, 1987). This principle is common to many of the treatment programmes provided for sufferers of PTSD.

8.3.4 Psychodynamic theory

Psychodynamic theory has been used throughout the Twentieth Century to explain post-traumatic stress. Emery & Emery (1989) related psychodynamic theory to the diagnostic criteria of PTSD and concluded that the distinction between psychoneuroses and traumatic neuroses should be retained, and that the aetiology of PTSD lies in the stressor itself. This argument is directly relevant to the debate regarding the role of the stressor. The critical distinction between explicit and implicit memory is analogous to psychodynamic notions of the conscious and the unconscious respectively. In Freudian psychology, the individual has little control over the contents of the unconscious, and uses defence mechanisms to deal with information contained therein. While the present model does not make any claims regarding the structure of the unconscious, apart from it containing classically conditioned non-verbal mechanisms, the analogy

is acceptable, particularly as the behavioural effect is for the contents of implicit memory to be accessed via appropriate stimuli of which the individual may not be aware.

Freud's "seduction theory" was one of the first formal theoretical approaches to how traumatic experiences can lead to psychological problems (see Wilson, 1994). One of the main differences between this and modern (non-psychodynamic) approaches concerns the role of repression and the unconscious. Freud suggested repression was an ego defence that suppressed traumatic memories. Once these memories were in the unconscious neurotic symptoms might arise as a result of active forces being applied in the unconscious. Modern theory uses the concept of avoidance in place of repression, where the individual may actively avoid reminding situations. But once the traumatic memories are repressed, they do not change, but are retained in an inactive unconscious (implicit memory) and emerge via the activation of situational reminding cues. In this sense avoidance is an effective coping strategy, while repression is not.

Janet (1925) showed that traumatised individuals may have an unclear verbal memory of the traumatic incident. He used the term "psychological automatism" and suggested that the traumatic memory was constituted of "images and movements" (p597) which were unconscious, but would over time begin to encroach into consciousness. Janet suggests that this leads to psychological symptomatology. He also suggested that after a trauma memories remain unconscious ideas until they have been translated into narrative form, ie through conscious action, or processing.

Janet also discussed repression as a defence against traumatic memories emerging into consciousness, and in this way it is similar to the term avoidance used here. He suggests that a memory that is persistently repressed becomes subconscious and lives apart from consciousness. He suggests that dissociation thus results from repression. Terr (1994) distinguished dissociation and repression, proposing that dissociation involves inadequate processing of traumatic events at the time of their occurrence, and repression involves blocking the retrieval of something already

stored. In the present study, veterans are repressing their traumatic recollections, but these are unprocessed memories. Initial dissociation at the time of the trauma may have led to the memories being input into implicit memory in the first place.

Freud's (1921) work on the war neuroses is also applicable. He also proposed that repression is the main defence against anxiety, in the same way the present discussion focuses on avoidance as a defence against anxiety. Freud initially considered repression to mean the conscious suppression of traumatic memories, and it was only later that it came to mean something out of conscious control (Healy, 1993, p64).

8.3.5 Humanism/existentialism

An alternative formulation of the response to trauma has focused on the humanistic perspective. Individuals who experience trauma can experience growth through the way they deal with the memories. Some of the veterans discussed in the present study have clearly experienced such growth. Herman (1992) focuses on how psychological trauma is about disempowerment, loss of control and disconnection from others. She proposes that recovery is about empowering the survivor and taking on new connections. To Herman, recovery can only take place in the context of relationships (ie comradeship for veterans). But as she notes, the only way for an individual to recover is to do the recovering themselves, there is no external cure. The survivor has to come to terms with the traumatic past and reconnect with life. Herman puts this in terms of mourning the old self and developing a new self. The resolution of the trauma is never completed, there is no full recovery in the sense of a return to the previous self. The humanist perspective considers the traumatic experience from the perspective of the individual in a holistic sense. Many Vietnam veterans keep alive their memories of the war because they are significant and meaningful. Many continue to suffer from PTSD because of this (Bradshaw et al, 1991).

Greening (1990) discusses PTSD in terms of a fundamental assault on one's right to live, on our sense of worth, and on our sense that the world (including people) basically supports human life. This is similar to Horowitz's (1986) cognitive theory, whereby our world schemata are shattered by traumatic experiences, and in order to be "cured" we have to reconcile these schemata with the evidence provided by the trauma that the world isn't as pleasant as we believed it to be.

8.3.6 Integrating theory

Responses to traumatic events can be classified in terms of many of the theoretical perspectives in psychology: learning theory, cognition, biology, psychodynamics, and humanism. Both the present studies and previous research has demonstrated the efficacy of an integration of these perspectives. Much psychological work tends to focus on a particular theoretical perspective. The ease with which this area can be explained in terms of several perspectives says a great deal about how it taps into the fundamental attributes of human functioning, that processing and avoidance are critical means by which we deal with everyday activities and these are grounded in fundamental biological structures and mechanisms from which common behavioural responses emerge. Further research that is specifically focused on integrating psychological perspectives, eg considering the underlying biological mechanisms in veterans, will lead to a greater understanding of the associations between these perspectives.

8.4 Post-traumatic stress disorder

This section has been left until this stage in the chapter as the theoretical issues surrounding memory and coping needed to be clarified before a consideration of the validity of the construct of PTSD.

PTSD was devised to describe the psychological response to a traumatic experience. While the construct has been shown to be useful for disparate groups of traumatised individuals, it makes no claim to be explanatory in a theoretical sense. The diagnostic criteria represent a description of

the responses to trauma rather than an explanation of *how* people respond to trauma. The main sets of symptoms described by PTSD, re-experiencing, avoidance, and arousal, have been shown here to apply to World War Two veterans, even after 50 years. This time span makes a nonsense of long term PTSD as described in DSM-IV, where long-term is taken to mean more than three months. What is clear from the present research is that the symptomatology associated with PTSD can persist for a lifetime. Longitudinal research is required that considers how the patterns of response change over the long term.

PTSD does not adequately do justice to the psychological responses of traumatised war veterans. It was shown in Chapter Three that patterns of avoidance and intrusion are complex, and this was further illustrated in Chapter Six. For an individual to be diagnosed as having PTSD, they must fulfil the diagnostic criteria. The questionnaire findings supported this. Only veterans with high intrusion and high avoidance generally experienced high psychological distress as measured on the GHQ. Their physiological arousal was not measured, so little can be said about that except in reference to the interview findings. What became apparent from the interview studies though was that it is not simply a matter of "intrusion" and "avoidance" (as measured by questionnaire) being present, it is that the memories the individual has must be intrusive and that he uses avoidance as the main coping strategy - and, if he experiences psychological symptomatology, it must be a coping strategy that is not working effectively. PTSD as described in DSM does not show that avoidance is just an ineffective coping strategy. The present study has shown that if avoidance is used effectively, then any intrusive thoughts will not present serious problems, and so an individual could experience both intrusion and avoidance but not have PTSD.

PTSD is too simplistic to be of much use in describing the response to trauma. First, recent research (Scott & Stradling, 1994) has demonstrated that individuals can experience PTSD-type symptoms without a trauma, the critical component of the disorder! Without the specific trauma, DSM-IV recommends a diagnosis of adjustment disorder (APA, p427). Second, intrusion and

avoidance are normal components of a response to many everyday situations. The authors of DSM remain unclear as to when a normal post-traumatic *response* becomes a post-traumatic *disorder*. DSM-IV is worse than DSM-III-R in this respect, as it now includes Acute Stress Disorder to classify individuals experiencing such symptoms for less than one month after the trauma. In effect, this means that anyone who responds to a trauma by blocking out thoughts of it and by having dreams or flashbacks is classifiable! There is no recognition that these responses are normal. In non-traumatic situations people both avoid dealing with troubles *and* deal with them. What is the difference between this and the response after a trauma? The authors of DSM-IV try to resolve this by saying the trauma results in "clinically significant distress or impairment in social, occupational or other important areas of functioning" (p 429). But again, there are many situations that lead to people having temporary problems with work because of some event that has occurred. The authors of DSM-IV are pathologising a normal response by not discriminating between this and a genuine psychological dysfunction that requires some form of treatment.

The problems will be addressed by considering each diagnostic criteria will be considered in turn:

1. The traumatic stressor. Decisions regarding the kinds of events that can be classified as a traumatic stressor are unclear - why should an unexpected death not be included? The comparison between six years of war experience and a single natural disaster shows that - rather than there being a single pattern of responses to any traumatic stressor - there is a single pattern of responses to *any* event, whether the event is traumatic or not. Deciding that a particular kind of event is "traumatic" or not is arbitrary. The difference between six years of war and a single natural disaster is that more post-trauma events can act as reminders triggering intrusive recollections. March (1993) lists a whole series of events that can trigger PTSD-type symptoms, such as combat, rape, natural disasters, a sudden illness, severe burns, etc. The decision as to whether a particular event can be defined as traumatic or not cannot be based on objective criteria.

Witnessing a sexual assault might be traumatic to one person, but may not affect another. Many people go through natural disasters without apparent psychological damage. Research has not established why this is, but what is clear is that if there is to be a "Criterion A" then it has to be defined in a subjective manner, which it partially is in DSM-IV ("The person's response involved intense fear, helplessness, or horror", APA, p428).

Because of the difficulty of deciding what constitutes an appropriate stressor, it has been suggested that the criterion should be abolished altogether, or defined in very simple terms as an event that is shocking to the individual (Solomon & Canino, 1990). A subjective definition requires that the traumatised individual decides whether or not the event was traumatic. This will be defined in terms of their own responses, such as re-experiencing, avoidance, or hyperarousal, ie the other diagnostic criteria for PTSD. If this is the case then there can surely be no requirement that there be objective criteria for the event, ie that it is "an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others" (DSM-IV, p 427), because the subjective definition of the event will be based on these other criteria! In this sense, the term "traumatic event" means nothing in itself, only in so much as it is defined as such by the individual. March (1993) accepts that discriminating quantitatively between "catastrophic" and "everyday" events is an impossible conundrum.

The present study shows that what constitutes a traumatic experience can only be defined by the person who has had that experience. Veterans experienced similar events but have interpreted them very differently. It is not possible to define a clear group of events that accurately predict the onset of PTSD-type symptoms. The stress *disorder* is the experience of arousal and co-morbid depression and anxiety. Intrusion and avoidance are *normal* responses.

The problem then would be that one could be classified as having PTSD no matter what the event, as long as the response involved fear, helplessness, or horror. This would increase

diagnostic heterogeneity, and make the classification effectively useless for both clinical and research purposes. The other extreme is to minimise such heterogeneity by restricting the range of events that can be classified as "traumatic" (the method chosen by DSM), but this creates an essentially arbitrary group of events. Who decides which events should be included and excluded? Research demonstrates that individuals can feel fear, helplessness, or horror in relation to many different kinds of events (March, 1993).

McFarlane (1995) has discussed the role of the traumatic event, concluding that the complexity of the relationship between the stressor and subsequent morbidity is often ignored, and that an understanding of traumatic events requires more complex models of aetiology than are presently available. Research, including the present study, shows that there is only a weak relationship between the stressor and later psychological distress (Creamer, 1995; Feinstein & Dolan, 1991).

2. Persistent re-experiencing. Intrusive thoughts are the critical criterion for a diagnosis of post-traumatic stress. The individual by definition has no control over such thoughts, and they commonly lead to psychological distress. The problem remains that after a trauma such thoughts are "normal" and an arbitrary cutoff point cannot be the most satisfactory decision as to when to pathologise a response, it should depend more on psychological symptomatology. There is a second problem. Intrusive thoughts do not necessarily mean the individual should be pathologised. Problems occur when such thoughts lead to psychological distress, generally in the form of anxiety or depression-related symptoms. This brings in the whole argument as to whether there is a need for a separate diagnosis of PTSD. Why not simply have anxiety/depression relating to a particular event?

3. Persistent avoidance of stimuli associated with the trauma. Avoidance is a coping strategy. If an individual has psychological distress relating to intrusive recollections then avoidance is a coping strategy that has not worked. Avoidance should not be a diagnostic criterion for PTSD.

Avoidance can be an effective coping strategy, as shown in the present study, where it has been effective for decades. Research needs to be carried out to see how often it remains a successful strategy throughout life. The difficulty is teasing out the difference between successful processing and avoidance in traumatised individuals. PTSD does not provide any means by which to pursue this problem.

4. Increased arousal. To what extent is this caused by, ie depends on the existence of, intrusive thoughts, a factor not incorporated into PTSD? If one has difficulty sleeping or is irritable, that might be a direct consequence of intrusive recollections, which would mean that arousal should be incorporated into persistent re-experiencing rather than standing alone. The hypervigilance and exaggerated startle response were not found in the present study. Such symptoms do fade over time, as some veterans suggested they did have an exaggerated startle response in the early years after the war. This has implications for the structure of PTSD over time. Which leads to the next criterion.

5. Time. The cutoffs in DSM-IV are arbitrary. A World War Two veteran would not consider three months to be long term PTSD, they may have been experiencing it for 50 years, or they may have started experiencing symptoms only in the last few years. World War Two veterans may have experienced increased arousal in the early years after the war but, certainly in the present study, not now. There needs to be a differentiation between PTSD over the first few years post-trauma and PTSD after decades (I am deliberately avoiding specific timespans as any cutoff is arbitrary), especially if, as the evidence suggests, the symptom patterns change.

There is a waxing and waning of symptoms over the years and these patterns may be predicted by factors such as life events. Research in this area has consistently shown a relationship between the experience of life events and high levels of PTSD in traumatised individuals (eg Friedman et al, 1986; Creed, 1993). Stressful life events create a temporary state of disequilibrium which must be

readjusted to establish a new balance. This will drain people's resources and will thus contribute to deterioration in health (Solomon et al, 1988). If individuals are already drained by coping with the memories of a traumatic experience, then the health problems are likely to be exacerbated. Solomon et al found that life events were linked to coping styles, and that individuals with psychopathology tended to use emotion-focused coping, particularly when they experienced more life events. The problem with this research is that it is based on questionnaires and the findings are correlational, so although there is a direct correlation between life events and PTSD causality cannot be inferred. Orrell & Davies (1994) reviewed research concerning the effects of life events on older people and, while finding that events are an aetiological factor for psychiatric disorders, they appear to have less of an impact for older people than chronic difficulties.

6. Clinically significant distress or impairment in social, occupational, or other important areas of functioning. This is vague, but is perhaps the biggest improvement in PTSD in DSM-IV. Again it is not an adequate criterion, because it is not possible to assess in any objective sense who is not functioning well because of a traumatic experience. There are too many variables confounding it. Personality variables, social support mechanisms, other coping strategies, all are going to impact on the diagnosis. An individual with excellent support mechanisms may not be diagnosed as having PTSD, but should the mental health services be relying on the support of wives and families? Many World War Two veterans have coped with their lives over the years because their wives have been so supportive. They would not be classified as having PTSD on the basis of social dysfunction! A diagnosis must include a valid measure of the support the individual has.

8.4.1 Concluding remarks

The PTSD construct reflects in the first instance a normal response to an abnormal event. It only becomes an abnormality if the individual is unable to cope with intrusive recollections. There are several problems with the diagnostic criteria, particularly as they apply to very long term PTSD. The problem of the stressor criterion has not been resolved, and is unlikely to be so satisfactorily.

The most reasonable use of the stressor criterion is as a subjective marker, an indicator of the particular event that caused the individual problems. Breslau & Davis (1987) claimed the stressor criterion was the critical criterion for a diagnosis of PTSD. Here it is argued that the critical criterion is the intrusive recollection (associated with a specific incident) that the individual fails to cope with through either processing or avoidance.

Re-experiencing and avoidance are the critical diagnostic criteria, but it must be recognised that they are to a large extent normal responses to both normal and abnormal situations. It is only when the individual fails to control them that problems arise. This can be assessed by determining whether there has been clinically significant distress or impairment in some important area of functioning. This is not the place to go into the validity of measurement but suffice to say that questionnaire measures are inadequate determinants of whether someone has PTSD, as individuals' interpretations of questionnaire items differ. This was demonstrated in Chapter Three on the IES where similar responses could mean either "intrusion" or "interest".

PTSD is a memory problem. It is a problem with processing implicit memories into narrative form in explicit memory, ie to normalise the traumatic recollection. The actual psychological distress is closely related to depression or anxiety. Those who have war-related problems are generally depressed and/or anxious. It is difficult to justify PTSD as a diagnostic category when the actual response to the traumatic event is an entirely normal event, and it is the presence of intrusive recollections that leads to psychological distress - distress of a kind already identified in other diagnoses.

8.5 Ageing and the long term effects of war

The purpose of this section is to bring together the information relating to the very long term effects of war and how this interacts with ageing, and to focus on the particular consequences of traumatic experience for older people who experienced their trauma many years previously. As

discussed in Chapter One, recent years have seen the first attempts at carrying out such research on World War Two veterans. Though history is strewn with the human debris of war, it is only in recent years that there have been studies attempting to understand the very long term consequences for the survivors.

Analysing events over the life course of an individual has implications that go beyond the individual to the wider culture. Each veteran interviewed has spent 50 years of life between the war and the time of interview. This time has a major influence on the ways in which they perceive and remember the war. There is the impact of the media, which is awash with accounts of the war, from official histories to personal stories, from major documentary series to the retrieval of ammunition from the seabed. All have an impact. There are also social factors to consider, how individuals born in the first thirty years of the century had a very different background and upbringing than those born after the war. There is also the possibility that veterans' war experiences will be transmitted in some form to successive generations. We are only just beginning to consider the impact of that (such as children of the Holocaust; Danieli, 1988; Solomon 1993). Current psychological theories are being used in a retrospective manner. PTSD is being used to retrospectively classify individuals 40 or 50 years ago according to their problems of 40 or 50 years ago. This may be problematic because of the cultural and social changes that have taken place during this period. What is an appropriate classification for the way people respond now may not have been appropriate 50 years ago. Many of these questions are far beyond the scope of this thesis.

Previous research has demonstrated differing views about the continuing impact of war experience on older survivors (Elder & Clipp, 1988). The view prevalent before the 1980s was that symptoms of distress would only occur for a few years after the war. Unfortunately, though there is ample evidence to the contrary, PTSD in DSM-IV does not seem to have been affected by it! A second view is that there is a persistence of emotional distress in the postwar years and that

this will be exacerbated if the veteran lacks adequate social support, such as Vietnam veterans who experienced alienation because of the unpopularity of the war (Figley, 1978). A slightly different viewpoint is that stress will persist if elements of the original stimulus situation persists, eg if the person experiences difficult times, or with retirement or with vulnerability through ageing (Foa et al, 1989). Several studies, including this one, demonstrate that many ageing veterans experience permanent psychological effects due to the war.

Many of the veterans interviewed here feel bitter towards the government for the way they are being treated. They find it difficult to get war pensions and other help at the time they need it most. This can only exacerbate their symptoms. They are experiencing old age at a time of social upheaval. They fought their war for many reasons, among which was for the introduction of the Welfare State. The present study has shown that they now find that after putting into the welfare system all their lives they are being refused access to funds they consider rightly theirs. The impact of these policies on veterans has not been considered.

The effects of ageing are difficult to parcel out from the long term effects of war experience. There is no adequate control group in the UK because most people were involved in the war in some way, even those in protected jobs such as mining experienced the war through shortages, bombing, and fear for family and friends in the services. World War Two veterans are all now past retirement age. Their health would generally be in decline. There is clearly an interaction between their naturally declining health and health problems (both physical and mental) associated with the war. Many experience a re-emergence of war-related physical problems that they didn't have while they were physically active.

There are several factors that suggest an interaction between ageing and the re-emergence of war-related problems. An important one that was amply demonstrated in the present study was the re-emergence of physical problems or the exacerbation of physical problems because of increasing

physical frailty. Veterans who had been wounded or who had experienced physical illnesses because of the war experiences described how these problems were re-emerging because their physical resources were diminishing. The problem is that it is often not possible to be certain that present day difficulties are caused by the re-emergence of war-related problems. For instance, one veteran who experiences back problems, which he believes are a result of experiences as a POW in Polish mines, may simply be experiencing problems that would have occurred in old age irrespective of his experience 50 years ago. The confounding factor of compensation can also play a part here. There have been suggestions that veterans may have a bias towards interpreting problems as war-related in order to get a war pension. That is not to say these people are being dishonest, but for them this explanation is the simplest and best.

Some disorders clearly do relate to war experience. One veteran who was wounded in the arm has started to experience difficulties. Previously he would compensate by using the other arm, but deterioration in physical strength means that he cannot compensate as easily. Does this mean he should be liable for an increase in war pension because the disability is exacerbated because of normal ageing? Alternatively, what is happening is not that the older veterans are claiming pensions undeservedly, but that it is easy to miss war related-psychological distress because of age. If an individual is not directly questioned about military service then the cause of problems may not be clear (Macleod, 1994). There are few circumstances where such questioning would take place. It is not typical of GPs to look for psychological causation in physical illness, or to look for a cause in the distant past for a problem in the present, whether psychological or physical.

Retirement can be a major life event that causes psychological distress, or it can be a transition to something better. It depends on the individual. This has been discussed earlier. Life review, as first proposed by Butler (1963). Erikson (1950; Smelser & Erikson, 1980) proposed eight stages or conflicts within the life cycle, with the final stage being integrity or despair. According to

Erikson, integrity means that one has done one's best and the events of life cohere and make sense, or alternatively there is a feeling of despair, that life has ran out too soon, and one's contributions are irrelevant and futile. The healthy individual will attempt to reconcile the conflict in terms of the positive outcome. Both Erikson's and Butler's approaches mean that the individual will reflect back on life and attempt to resolve any difficulties associated with particular periods or events. This can be done most easily after retirement when there is time to think, to reflect back. If there are unresolved traumatic recollections, then this is when they will emerge. It is difficult to test this approach. The data can be made to fit many different models. But it is a valuable one to consider in any explanation of why these memories re-emerge after so many years.

A more effective analysis of the long term effects of trauma would be to focus on how previous stage resolutions were affected by the consequences of trauma. Most veterans would have been in Erikson's fifth stage, identity versus role confusion, when they went to war. It may be that they failed to attain a sense of wholeness and identity, that going to war creates a "psychosocial moratorium") (Wilson, 1980), it stops the young person from exploring and consolidating their identity (Wilson, 1978 showed that Vietnam veterans found it difficult to attain a meaning in life). Eriksonian theory proposes that if any stage is resolved in a negative manner, then this may affect the resolution of future stages. The next stage is intimacy versus isolation. If the individual fails to establish a clear identity then there may be difficulties with establishing intimacy, which may lead to a resolution of the next stage in terms of stagnation. Wilson (1978) suggests that even if Vietnam veterans do have problems with stage resolution then they will engage in reprocessing of wartime experiences. If they are successful, then the final stage may be resolved in terms of integrity. Unfortunately it is not possible to study World War Two veterans in this light. Retrospective analysis would not be appropriate, but it is interesting to speculate on a lifetime prospective study using a similar group of veterans.

The effects of age at time of trauma is of interest. Evidence suggests that younger soldiers are more likely to experience long term psychological distress than older ones (Green, 1994). There were few differences during World War Two between the rates of breakdown in younger versus older soldiers (Brill et al, 1953), though this might have been because of selection at an earlier stage. Brill et al suggested that fewer older men (>30 years) were selected for combat units.

Memory has already been considered in some depth, and will only be considered briefly here in relation to the effects of ageing on memory. There is anecdotal evidence that older people tend to forget things more easily and to be less able to learn and remember new things, but apart from loss of memory being a common complaint among the elderly, to what extent and why ageing affects the ability to remember is not clear (Aiken, 1995). It has long been recognised that older people tend to be more engrossed in memories of the distant past than memories of recent events (Kastenbaum, 1966). There is some evidence of a small deficit in short term memory (Craik & Jennings, 1992), and a deficit in episodic but not semantic tasks (Paulson et al, 1994), though Baddeley (1986) suggests that the problem lies in a deficit in the central executive. Older people appear to have no deficit in implicit memory (Craik & Jennings, 1992). One interesting finding relating to eyewitness memory is that older people are more likely to believe an interpretation of an event is an actual memory of that event (Cohen, 1989). This is an issue requiring further exploration. Cohen & Faulkner reviewed the literature which was largely relating to artificial situations, does the same principle apply to older people's own memories, as this has obvious implications for the present research? Overall, there is little evidence to suggest that memory deficits that are found are any more than artefacts of poor experimental design, often an effect of older people's diminished ability to learn new material than memory per se (Aiken, 1995).

The conclusion to be drawn from this brief review of the effects of ageing is that factors associated with the ageing process may be bringing back war-related traumatic recollections for World War Two veterans. Retirement has the profound effect of giving the veterans more time to

think, more time to reflect back on their lives. Butler (1963) argued that the last few years of life is a time for reflection, and for those who have spent many years avoiding addressing traumatic recollections, it can be a time for these recollections to re-emerge. Parkin (1993) suggested that implicit memory processes are more robust and stable than explicit memory, so as explicit memory becomes less effective in older age, information in implicit memory may have a greater impact. The present study has provided ample evidence of the validity of this. Added to this, physical deterioration can also impact on the veteran's well-being, and war-related injury or illness can become apparent as the person becomes more frail. All these factors may cause war-related thoughts to emerge.

8.6 Implications for future research

The thesis has generated various questions that require further research. These are considered below and relate to various aspects of the work, both theoretical and empirical. New directions for research are discussed as well as immediate follow-up studies that should be carried out.

8.6.1 Civilians and women

There has been little research carried out to look at the very long term effects of war experience on women and civilians. It would be interesting to consider how women differ from men in the means by which they cope with their traumatic experiences. Women may tend to use social support networks more effectively than men. Many civilians in the UK were in war zones where they were subjected to bombardment and shelling, and experienced many of the traumatic events experienced by combat troops. Unlike combat troops, they were rarely in a position to do anything in response. They experienced less control over the situation than men. Did this have a negative impact on them?

The study related directly to the present work concerns the wives of veterans. As already discussed, many veterans discussed their wives in terms of how they helped them cope - and still

help them cope - with the effects of their war experiences. Many wives had their own traumatic experiences during the war yet after the war were expected to deal with their husbands' problems. How do they manage to cope? What coping mechanisms do they use? Their perspective may be very different to their husbands'.

Shehan (1987) describes the difficulties Vietnam veterans' wives have in coping with their husbands' PTSD. They may blame themselves for their husbands' symptoms rather than the war. Secondly even if they recognise the difficulties relate to the war they may not know how to respond, how to help. This may have been a particularly difficulty for World War Two veterans wives who had a) been through difficult times themselves (though this may have increased the level of empathy) and b) were told by the army not to discuss their husbands' war experiences with them.

8.6.2 Analysis of war-related literature

Published literature, poems, plays and books, are rarely used as psychological data (Shay's Achilles in Vietnam is a worthy exception; Shay, 1987, 1994). Understanding of the psychological effects of war would be benefited by a detailed consideration of literature published in the area. Apart from a means of validating the present research, it would provide an opportunity to explore past responses to war trauma. Have people in different times and different cultures responded in similar ways to war experience? This may also enlighten the study of women and war. Hanley (1991) focused on women and children's experiences of war, reviewing literature regarding women and war, interspersing this with her own short stories, fictionalising accounts of real experiences (see Cobley, 1994).

Literature is a useful tool for exploring psychological phenomena. It provides a means of providing convergent validity. Examples can be given of how soldiers have coped in the early aftermath of war experience. Both Wilfrid Owen and Siegfried Sassoon experienced shellshock

during World War One and were sent to Craiglockhart hospital outside Edinburgh for treatment. Owen demonstrated both processing and avoidance through his poetry. Owen shows how soldiers use avoidance:

"Why speak not they of comrades that went under?"

Owen didn't want his question to be intelligible to non-soldiers. He believed that only they would see the point of the question (Hibberd, 1992). This fits the notion that social support can only be provided by comrades, that veterans can only talk to other veterans. It also shows that unwillingness of soldiers to discuss their traumatic experiences. Another example is provided by Hibberd of Owen's description of battle experience:

"I can find no word to qualify my experiences except the word SHEER... it passed the limits of my abhorrence. I lost all my earthly faculties, and fought like an angel."

Owen is describing the battle that won him the Military Cross. It shows how in battle soldiers can fight automatically, as highly trained warriors without conscious thought.

The potential benefits of traumatic experience in terms of increasing wisdom (processing and growth) are demonstrated in tragic literature throughout history.

"I will tell you something about stories,...
They aren't just entertainment.
Don't be fooled,
They are all we have, you see,
all we have to fight off
illness and death."
LM Silko, Ceremony (in Shay, 1994, p 183)

The concept of the tragedy has been used in drama throughout history. It shows how writers have dealt with traumatic experiences. Krook (1969) looked at tragedy in literature and identified four stages: 1) Precipitant: the act of shame or horror - tragic circumstances always arise from the fundamental nature of humans; 2) suffering: this is only tragic if it generates knowledge or insight or understanding of the fundamental nature of humans; 3) Knowledge; 4) Affirmation; of the

worthwhile nature of human life and the dignity of the human spirit. Tedeschi et al (1995) used this to consider how traumatised individuals can benefit from the insights gained after a traumatic event. War trauma can be considered in the light of these stages. Effective processing is directly analogous to the model of tragedy. There is a traumatic event which involves suffering. The individual who successfully processes that information gains knowledge and understanding of themselves and also of the "true" nature of what it is to be human.

If the war veteran believes that his suffering has no meaning, if he can't interpret his suffering in terms of saving civilisation or doing a worthwhile job of work then it becomes despair (Frankl, 1961). A war veteran, in order to successfully process the traumatic recollections, must recognise the meaning of their suffering. This processing is not a matter of reverting to a former state, but an acceptance that things are permanently changed, and thus a learning experience. Many veterans, whether writers or those interviewed here, acknowledge the beauty of the simplicity of life, the value of others and of relationships, in a way they did not prior to combat experience. It could be argued that they would have learned this anyway with increasing age and wisdom, but it is very likely that their experiences enabled them to alter the ways they look at the world.

These mechanisms of coping with trauma, avoidance and processing, are recognised in literature from Homer to Levi. For many - such as Levi and Remarque - writing has been a means of processing, of giving their experiences meaning. Processing the information became the sole task in Primo Levi's life. When he had completed his task of bearing witness, when he had established the meaning in his own traumatic recollections, he committed suicide. Erich Maria Remarque's book, All Quiet on the Western Front, is another classic example of turning traumatic recollections into - literally - a narrative.

These examples of literature are used only to illustrate how books can be used to provide converging evidence for the present thesis. A thorough review of war literature and how it can be

used as psychological data is beyond the scope of this chapter. A discourse analytic approach (eg Potter & Wetherall, 1987) to war literature would provide insight into the psychological mechanisms underlying the response to trauma.

8.6.3 Memory

The problem with much of the experimental research carried out looking at the distinction between implicit and explicit memory is that the tasks used may not be accessing true implicit memory. Many tasks do not discriminate adequately between the use of implicit and explicit memory. The memories that are being accessed in an experiment may not be "pure" implicit memories, often because they have linguistic (ie explicit memory) components (Schachter, 1993). What is needed is a population where the distinction between explicit and implicit memory is clearer. World War Two veterans provides an ideal population for detailed experimental study to validate the theoretical position regarding the distinction between these two forms of memory. Veterans' traumatic recollections can be accessed in experimental situations to obtain more detail on the kind of information that is held in implicit memory, what sensory format, detail, what stimulus conditions can access it, etc. This kind of study would allow researchers to postulate that different memory systems are actually used for different tasks. Clearly there are ethical implications relating to such work. The present study was carried out with the veterans' full knowledge of the kinds of issues that would be discussed in the interviews. It is important that any experimental work is ethically sound, without deceit and not causing undue harm.

Cognitive tasks that draw on the distinction between implicit and explicit memory can be used in conjunction with PET scans and other means of accessing information about brain activity in order to validate the theoretical distinction between implicit memory and explicit memory functioning in traumatised older veterans, and to validate the findings obtained using animal research (eg LeDoux et al, 1989). A comparison of older veterans and recently traumatised

individuals would give an indication of longer term changes in functioning that occur as a result of processing. This work would also help integrate theory in the manner discussed earlier.

Attempts have been made to discriminate implicit and explicit memory with war veterans. Zeitlin & McNally (1991) used a technique involving two tasks, an explicit memory task involving recall of combat words and an implicit word completion task. They were looking at implicit and explicit memory bias for threat-related words in Vietnam veterans with and without PTSD. A study using these techniques on World War Two veterans should discriminate between traumatised individuals who use processing as a coping strategy and those who use avoidance (this assumes that verbal material can act as stimulus material for implicit traumatic recollections). Those who use avoidance would have an implicit memory bias, those who use processing an explicit memory bias. If effective, this technique could be a simple model for assessing coping strategies. Zeitlin & McNally don't discuss coping strategies, but found that only veterans with PTSD experienced a memory bias.

There are also methodological implications for the study of memory, particularly when the events described were, a) personally significant, and b) occurred a long time ago. It is difficult to differentiate between "real" memory changes (whatever that means) which occur through processing and apparent changes that are a result of reporting characteristics, such as situational cues at the recall stage (Wolfe, 1995). The recognition of the constant interchange between present (environmental cues) and past (memory) is critical if a clear understanding of implicit and explicit memory is to be obtained. This will occur if the findings of laboratory and naturalistic studies converge.

The conditions at the time of the trauma needs more thorough research, particularly concerning the role of dissociation. Dissociation at this point is going to affect how memories are structured and recalled (van der Kolk & Fisler, 1995). Classen et al (1993) show that people who have a

traumatic experience may be vulnerable to a variety of dissociative states, such as amnesia and depersonalisation. Bremner et al (1992) suggest such dissociative symptoms can persist into the long term. This will occur when traumatic recollections are not processed. Understanding dissociation in World War Two veterans is difficult as retrospective reports may not indicate clearly the role of dissociation or amnesia at the time of the trauma. At least one veteran in the present study (7) experienced amnesia and apparently hysterical symptoms, but from this point 50 years on it is difficult to ascertain why. There are implications for the training of combat troops. If they can be prepared for the traumatic experiences they are likely to have, then this may positively affect their long term outcome (though there are ethical implications for psychologists regarding whether they should be involved with the preparation of combat troops). This supports Solomon et al's (1991b) finding that soldiers who used monitoring (processing) strategies experienced less psychopathology than avoiders. If soldiers can be trained to use processing strategies then the outcome will be more positive.

Experimental work can help determine the underlying biological sites of explicit and implicit memory in humans, in order to validate the animal research. The use of brain imaging methods (eg PET scanning; Shalev & Rogel-Fuchs, 1993) can indicate sites of activity under different conditions, though care must be taken because measures of blood flow may be indicating an epiphenomenon rather than a causal link between cognition and neurobiology (Robinson, 1995). It is ethically feasible to encourage veterans to recall traumatic experiences, as long as this involves their active and prior consent.

Because of the difficulty of mapping cognitive functions onto brain regions, a population such as combat veterans is useful because there is a clear distinction between explicit and implicit memory traces, unlike many cognitive studies, where the border between implicit and explicit memory is unclear, so the effect should be easier to obtain.

8.6.4. Implications for treatment

A wide range of different methods have been employed to treat traumatised individuals. These include cognitive, behavioural, biological, all with varying degrees of success. The first treatment principles were laid down by Janet (1925). He was also the first to recognise that complete recovery from a traumatic experience is rare, even when the patient can recount the trauma in detail. This view is still held by modern authors (van der Hart et al, 1995), and is strongly supported by the findings of the present study.

There are several implications of the present research. First, that without treatment the traumatic recollections do not go away. Only those individuals who are able to "treat themselves", who can actively process the traumatic information, can diminish the impact of the traumatic recollections. The most common response is avoidance. In recent years debriefing has been offered to traumatised individuals (Deahl et al, 1994), and while it apparently has short term benefits, it is too early to conclude that the benefits are permanent. There are no ageing veterans who received debriefing immediately postwar. The findings of the present study, which indicate that ageing veterans can have similar symptoms to those who have recently experienced a trauma, suggest that forms of treatment used on recent victims might be equally effective. The difficulty is that over 50 years other factors may play a part, such as consolidation of the traumatic recollections, habitual coping strategies that are difficult to change, and any ageing related factors such as the recognised inability of older people to learn as quickly as younger people (Aiken, 1995).

Apart from the present study demonstrating the need for veterans to have access to therapy, the present population provide a useful opportunity for assessing the utility of standard treatment techniques on such a population. There are techniques that have been devised for treating older traumatised veterans (Robbins, 1995). The long-term factors discussed above may affect how the treatment should be carried out. The inability to "cure" traumatised individuals means that

treatment goals should be clearly set out, with the aim not of eliminating the effects of the trauma but of ensuring the individual can live a satisfactory fulfilling life.

The present study has demonstrated that older veterans with psychological problems are less likely to have meaningful lives. They are more likely to be lonely and less likely to be involved in meaningful activities post-retirement. Many described how they had more time to think so they thought more about the war. There is also the intelligence factor. Those with higher intelligence may be more likely to use effective coping strategies. Other personality factors may play a part, though the evidence is inconclusive (eg Engdahl et al, 1991). These factors suggest that increasing the meaningful activity of older people will reduce their chances of experiencing psychological problems. One way of doing this is to introduce compensatory education to restrict any age-related decline in intelligence (Aiken, 1995). The effects of this could be studied in a straightforward manner using two matched groups, one group receiving compensatory education, one not.

Horowitz (1986) has proposed that treatment for PTSD should match the phase of the disorder. According to Horowitz, the response to trauma passes through several stages, including intrusion and avoidance. During intrusion Horowitz proposes that treatment should be supportive and suppressive. During avoidance it should be evocative. The present discussion indicates that while support should be provided throughout treatment, suppression of memories is not recommended, as this is likely to lead into an avoidance phase, and the memories will not be processed. It also contradicts the notion of evocation used when the individual is in the avoidance phase.

Cognitive treatments of PTSD accept the basic cognitive model outlined by Horowitz (1986) among others. All approaches allow the individual to "work through" or process their traumatic recollections, and to accept their feelings as normal (Hodgkinson & Stewart, 1991).

8.6.5 Processing and avoidance as universal strategies

The validity of these two means of dealing with traumatic and non-traumatic information can be assessed by considering the means by which individuals in a variety of situations deal with problems. They are problem-solving or problem-avoidance activities.

Van der Kolk & Fisler (1995) studied a group with PTSD who had experienced a range of traumatic experiences. Immediately after the trauma individuals did not have a narrative for their experience, but that one gradually emerged over time. Unfortunately this study has limitations. It involves retrospective reporting, the traumatic experiences were heterogeneous, and includes some that occurred in childhood. Little account was taken of individual differences. A similar study should consider the conditions under which a narrative develops, and the conditions under which it doesn't. Such a study would provide further evidence for the role of processing and avoidance.

An alternative method is to use the Stroop (1935) colour naming task (see McNally, 1995). Cassidy et al (1992), studying rape victims, found that interference for trauma-related words was related to the severity of intrusion, but not to the severity of avoidance symptoms. This supports the distinction between explicit and implicit memory, showing that implicit memory is not verbal. This task could be used with similar groups of veterans.

8.6.6. Longitudinal study

The effects of life events on traumatised individuals was discussed earlier, with the view that life events can have a more serious impact on individuals with PTSD than those without PTSD. Unfortunately the research findings are ambiguous. There is a need for a longitudinal study following a cohort of people who have experienced a trauma, and assessing the effects life events have on them. This study could also explore the role of individual differences such as intelligence, and how social support impacts on the individual's responses over time. Such a study

could also focus on the waxing and waning of symptoms and what factors affect such changes, not only life events, but coping mechanisms, social support, treatment, etc. The only way to do this effectively would be a concurrent longitudinal study, as biases are introduced with any retrospective analysis.

Retrospective studies have several general problems including: reporting bias, variations in forgetting, effects of subjective appraisal, impact of multiple intervening life events, plus person-based characteristics such as age at the time of the trauma, affective responses, age at the time of reporting (Wolfe, 1995). While a longitudinal study will have problems of its own, not least the effects of being studied on future memory recall, it will eliminate at least some of the above difficulties. There will also be advantages to such a prospective design, such as the ability to obtain collateral reports, thus increasing reliability. Laboratory research could be incorporated into the study to examine how, for example, certain affective states impact on recall.

Such a study must take note of the fact that individuals are constantly developing their life history, that material should not be taken out of context. As Dollard (1935) stated: "Some writers treat life history material as if it were a series of uncoordinated events without sequence or necessary relationship.... They simply drop a statistical bucket into the well of experience and draw it out; they will view their bucket of data as self-explanatory and not as part of an individual unified life" (Quoted in Mollica, 1992: 33-34). The study, unlike other studies, should not be based solely on the use of questionnaire measures and multivariate statistics. This tells us little about the aetiology and course of the post-traumatic response. A technique which "explains" 60% of the variance and claims this is a good fit of the model to the data (eg Fontana & Rosenheck, 1993) is lacking validity. How accurate are the predictors? Furthermore a general model says little about the responses of the individual.

A longitudinal study will allow a closer inspection of the aetiology and course of PTSD. Too often research has accepted a simplistic notion of the stressor being the sole or main cause of a later problem, but the research is contradictory (McFarlane, 1995). The problem is that different studies measure different variables (eg severity of stressor, pre-morbid factors, social support, etc), choosing them almost at random, and applying questionnaire measures that have limited validity. It is inevitable that findings are contradictory. The response to trauma depends on many inter- and intra-individual variables, and any representation of the trauma that is going to help account for individual responses must consider the time period, from the time before the stressor (appraisal of threat, personal characteristics and experience), the event itself (characteristics, duration, perceived danger), and both short and long term consequences (McFarlane, 1995). While statistical modelling may give some leads as to important variables, only intensive study of individuals and their personal experiences can ascertain aetiological factors and understand and predict the course of the post-trauma responses. A longitudinal study would also allow the researcher to account for the changes that occur within the individual in response to a traumatic experience (eg Laufer, 1988).

A longitudinal study will inevitably consider the life-course of the individuals involved, and will show how traumatic experiences are expressed across the lifespan and perhaps into successive generations (Elder & Clipp, 1988). When this is taken into account, surprisingly little is known about the consequences of trauma. Previous research has usually provided snapshots at best, grouped statistical data at worst. Previously, it was speculated that older individuals experience a re-emergence of traumatic recollections when faced with the loss of structure associated with work (van der Kolk & Blitz, 1981). The present work has rectified this, but there is still scope to expand this to consider the changes that occur throughout life because of life events or other factors.

8.7 Conclusions

The present research has conclusively demonstrated that there are still substantial numbers of World War Two veterans who, 50 years after the end of the war, have serious psychological problems. The research has demonstrated that veterans problems include symptoms of anxiety, depression, and emotional distress, and that their difficulties appear to be increasing with age post-retirement. The problems arise from the existence of traumatic recollections that are stored in implicit memory. Many veterans experience these. They have two fundamental ways of coping with these traumatic recollections. The less successful method is avoidance. Many veterans have successfully avoided thinking about their war experiences for many years, but after retirement this has become more difficult because of the loss of structure in their lives, because of increasing frailty or recognition of mortality. Whatever the reason, avoidance has been demonstrated to be less effective now for many veterans than it has been through most of their postwar lives. What is interesting is that the traumatic recollections that re-emerge after all this time are as strong as the memories they had immediately after the war. This shows that certain kinds of memory are implanted as one-trial learning into implicit memory, where they will remain indefinitely, emerging only when the veteran is reminded of the traumatic event. If the veteran doesn't deal with these intrusive thoughts then they will remain unchanged. The second means of coping is through processing. When an intrusive recollection emerges the veteran actively deals with the information, turning it into a narrative that will incorporate the discrepant traumatic information into existing schemata, or develop new ones. Comradeship, often through veterans' associations, is useful for this. Veterans who use this strategy most effectively often suggest they are improved for having had the traumatic experience, that it has enabled them to gain wisdom about the meaning of life.

The veterans in the present study varied a lot according to their specific responses. The two coping mechanisms, avoidance and processing, are not mutually exclusive, they are better described as the ends of a continuum, with most veterans using both mechanisms at different

times. Traumatic memories relating to six years of war can have complex effects on the mind of a veteran.

There are several conclusions to be drawn from this work. First, even 50 years after the trauma the same cognitive processing model derived from the short-term response to trauma (Creamer, 1995) can be applied to good effect. Second, measuring the use of processing and avoidance will be predictive of psychological outcome, and traumatised individuals use the same mechanisms as used by individuals in response to any event. The psychological dysfunction relates to difficulties that occur in response to uncontrolled traumatic recollections, with consequent anxiety and depression. Third, the use of a debriefing model of treatment will enable traumatised individuals to be trained in the use of effective processing. Finally, ageing World War Two veterans are more in need of psychological assistance now than they have been for many years because of the effects of ageing and of retirement.

APPENDICES

Appendix A: Initial Questionnaire

Questionnaire

Long term effects of war experience

Nigel Hunt & Ian Robbins
Psychology Department
University of Plymouth

The following questionnaire is fairly straightforward to complete. It contains the following sections:

1. Biographical information
2. Armed forces experience
3. Combat Experience
4. Open questions relating to interesting/disturbing aspects of the war
5. Impact of Event Scale
6. General Health Questionnaire

Please note that the pages are double-sided.

If you are willing to take part in further research, please sign below. We are intending to ask some of the people who complete the questionnaire to to take part in a detailed interview. SIGNED:

Please ensure you have completed the name and address section overleaf, unless you wish to remain anonymous.

All responses will be confidential.

If you require further information, please contact me at the above address, or telephone: 0752 233150/7

Thank you for your help.

Biographical information

Name:	Age:
Address:	Tel:

Marital status:	married	date of marriage
	single	
	divorce	date of divorce
	widowed	date spouse died

History of serious illness:	
Date	Illness/disability (please state if any of these were due to the war)

Are you retired? YES/NO	If yes, was this because of ill-health? YES/NO

What is/was your occupation?	Pre-war:
	Post-war:

Armed Forces experience

Please ring the appropriate responses:

World War II - Korea - other (please specify)
Army - RAF - Royal Navy - Royal Marines - Merchant Navy - other (please specify)

Year joined forces:	Year left forces:

Highest rank attained:

Theatre(s) of operations:
UK - Europe 39/40 - NW Europe 44/45 - North Africa - Italy - Far East - Other WWII (please specify) - post-WWII (please specify)
Main battles (if any) you were involved in:

Please complete the appropriate section below:
Army: Unit/Regt/Div: Trade/specialism:
RAF: Bomber Command/Coastal Command/Fighter Command Aircrew: YES/NO Trade/specialism: Squadron:
Royal Navy: Unit/Ship: Trade:specialism:
Royal Marines: Unit/Ship: Trade/specialism:

Prisoner of war
Were you ever captured? YES/NO If so, by whom? Germans - Japanese - Italians - Koreans - other (please specify)
When/where were you captured? Where were you held?
Did you escape? YES/NO
Approximate weight on capture:
Approximate weight on release:

Combat Experience Questionnaire

This part of the questionnaire relates to your experience in a war operation. Please fill in "NO" for events you did not experience. Fill in "YES" for each of the events you experienced during your time in the armed forces and indicate how much stress (if any) that particular event caused you on the following scale:

1 = not at all stressful
2 = a little bit stressful
3 = moderately stressful
4 = quite a bit stressful
5 = extremely stressful

For instance, if you were stationed in the front line and you found it a little bit stressful, ring number 2.

				How stressful was it?
1.	I served in a unit/ship/aircraft that fired on the enemy	NO	YES	1 2 3 4 5
2.	I flew in an aircraft that was shot at by the enemy	NO	YES	1 2 3 4 5
3.	I was stationed in the front line	NO	YES	1 2 3 4 5
4.	I received incoming artillery or fire	NO	YES	1 2 3 4 5
5.	I encountered mines or booby traps	NO	YES	1 2 3 4 5
6.	I experienced sniper fire	NO	YES	1 2 3 4 5
7.	I went on combat patrols	NO	YES	1 2 3 4 5
8.	I was surrounded by enemy units	NO	YES	1 2 3 4 5
9.	I was in a patrol that was ambushed	NO	YES	1 2 3 4 5
10.	I fired rounds at the enemy	NO	YES	1 2 3 4 5
11.	I engaged the enemy in a small arms fight	NO	YES	1 2 3 4 5
12.	I had a confirmed kill	NO	YES	1 2 3 4 5

13.	I saw enemy personnel being killed or wounded	NO	YES	1 2 3 4 5
14.	I saw civilians being killed or wounded	NO	YES	1 2 3 4 5
15.	I saw enemy personnel who had been killed or wounded	NO	YES	1 2 3 4 5
16.	I saw civilians who had been killed or wounded	NO	YES	1 2 3 4 5
17.	I was wounded or injured myself	NO	YES	1 2 3 4 5
18.	I saw Allied personnel wounded by the enemy	NO	YES	1 2 3 4 5
19.	I saw enemy personnel killed by the enemy	NO	YES	1 2 3 4 5
20.	I saw Allied personnel wounded by "friendly fire"	NO	YES	1 2 3 4 5
21.	I saw Allied personnel killed by "friendly fire"	NO	YES	1 2 3 4 5
22.	I had an officer/NCO killed or wounded	NO	YES	1 2 3 4 5
23.	I had a friend killed in action	NO	YES	1 2 3 4 5
24.	I had a friend wounded or injured	NO	YES	1 2 3 4 5
25.	I was attacked by enemy aircraft (strafed or bombed)	NO	YES	1 2 3 4 5
26.	I was attacked by enemy tanks	NO	YES	1 2 3 4 5
27.	I thought I was about to be killed (eg pinned down or near miss)	NO	YES	1 2 3 4 5
28.	I was in a ship that was sunk	NO	YES	1 2 3 4 5
29.	I was in an aircraft that was shot down	NO	YES	1 2 3 4 5
30.	I was attacked by submarines	NO	YES	1 2 3 4 5

31.	I was adrift in the sea	NO	YES	1 2 3 4 5
32.	I was in a lifeboat	NO	YES	1 2 3 4 5
33.	I sailed with a convoy	NO	YES	1 2 3 4 5
34.	I was part of the crew of a submarine	NO	YES	1 2 3 4 5
35.	I flew in an aircraft that was fired on by the enemy	NO	YES	1 2 3 4 5
36.	I was in a plane that crashed	NO	YES	1 2 3 4 5
37.	I used a parachute	NO	YES	1 2 3 4 5
38.	I flew in a plane that dropped bombs/attacked military targets	NO	YES	1 2 3 4 5
39.	I flew in a plane that dropped bombs/attacked military cities	NO	YES	1 2 3 4 5
40.	I experienced heavy anti-aircraft defences over enemy territory	NO	YES	1 2 3 4 5
41.	I was trapped behind enemy lines	NO	YES	1 2 3 4 5
42.	I was involved in raids on enemy positions/coast	NO	YES	1 2 3 4 5
43.	I was involved in searching buildings to find enemy personnel	NO	YES	1 2 3 4 5
44.	I attended to casualties	NO	YES	1 2 3 4 5

Anything else? (Write below and rate)

_____	YES	1 2 3 4 5
_____	YES	1 2 3 4 5
_____	YES	1 2 3 4 5

What aspects of the war did you find most disturbing?

What aspects of the war did you find most interesting?

Impact of Event Scale

This part of the questionnaire is a list of comments made by people after stressful life events, such as the experience of war. Please check each item, indicating (by circling *) how frequently these comments were true for you ***in the last seven days***. If they have not occured in this time, please mark the "not at all" column.

	NOT AT ALL	RARELY	SOME-TIMES	OFTEN
1. I thought about the war when I didn't mean to	*	*	*	*
2. I avoided letting myself get upset when I thought about the war or was reminded of it	*	*	*	*
3. I tried to remove it from memory	*	*	*	*
4. I had trouble falling asleep or staying asleep because pictures or thoughts about the war came into my mind	*	*	*	*
5. I had waves of strong feelings about the war	*	*	*	*
6. I had dreams about the war	*	*	*	*
7. I stayed away from reminders about the war	*	*	*	*
8. I felt as if the war hadn't happened or wasn't real	*	*	*	*
9. I tried not to talk about the war	*	*	*	*
10. Pictures about the war popped into my mind	*	*	*	*
11. Other things kept making me think about the war	*	*	*	*
12. I was aware that I still had a lot of feelings about the war, but I didn't deal with them	*	*	*	*
13. I tried not to think about the war	*	*	*	*
14. Any reminder brought back feelings about the war	*	*	*	*
15. My feelings about the war were kind of numb	*	*	*	*

We should like to know if you have had any medical complaints and how your health has been in eneral, *over the past few weeks*. Please answer ALL the questions on the following pages simply by nderlining the answer which you think most nearly applies to you. Remember that we want to know bout present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

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lave you recently

A1 – been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2 – been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3 – been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4 – felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5 – been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6 – been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7 – been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual

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B1 – lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2 – had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3 – felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4 – been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5 – been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6 – found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7 – been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

C1 – been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2 – been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3 – felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4 – been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5 – felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6 – felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7 – been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

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D1 – been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2 – felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3 – felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4 – thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5 – found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6 – found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7 – found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

A ☐ B ☐ C ☐ D ☐ TOTAL ☐

Appendix B: Questionnaire Codes

1. AGE: years
2. MARSTAT: 1=married, 2=single, 3=divorced, 4=widowed
3. ILLNESS: 1= no serious illness, 2= not war-related illness, 3=war-related illness
4. RETIRED: 1=no, 2=yes
5. ILL?: 1=no, 2=yes
6. SES: 1=professional/senior management, 2=management, 3=clerical, 4=skilled manual, 5=semi-skilled manual, 6=unskilled manual
7. WAR: 1=WWII, 2=Korea, 3=both/other
8. SERVICE: 1=army, 2=RAF, 3=RN, 4=RM, 5=Merchant Navy
9. JOINAS: 1=volunteer, 2=conscript, 3=regular, 4=reservist
10. YEARIN: year joined forces
11. YEAROUT: year left forces
12. LENGSERV: years in forces
13. RANK: 1=private, 2=NCO, 3=officer
14. POW: 1=no, 2=yes
15. CAPTBY: 1=Germans, 2=Japanese, 3=Italians, 4=Koreans, 5=other
16. YEARS: years in captivity
17. WTLOSS: percentage weight loss in captivity

18-61. CE: combat experience, 1=yes, 2=no

62-105. CES: 0=not experienced, 1-5 scale of increasing stress

106-120. IES: 0 1 3 5 scale

121-148. GHQ: 0 0 1 1 scale

149. FUTURE?: willing to participate in interview, 1=yes, 2=no
150. INTDIS01: responded to open-ended questions, 1=yes, 2=no
151. CETOT: sum total of CE (0-44)
152. CESTOT: sum total of CES (0-220)
153. IETOTI: total intrusion score (0-35)
154. IETOTA: total avoidance score (0-40)
155. IETOTAL: total IES (0-75)

156-159 GHQA-D: subscales of GHQ (0-7)

160. GHQTOT: 0-28
161. IESYN: above cutoff point of 15 for IES, 1=yes, 0=no
162. GHQYN: above cutoff point of 4/5 for GHQ, 1=yes, 2=no
163. IES30: above cutoff point of 30 for IES, 1=yes, 2=no
164. WAREX: 30 items from CE
165. WAREXS: 30 items from CES
166. CATEGORY: 0=<GHQ/IES30, 1=<IES30/>GHQ, 2=>IES30/<GHQ, 3=>IES30/GHQ

167-168 (used for devising 166)

169. INTYN: above cutoff (14) for intrusion, 1=yes, 2=no
170. AVOYN: above cutoff (16) for avoidance, 1=yes, 2=no
171. INT_AVO: 0=<IA, 1=>I/<A, 2=<I/>A, 3=>I/A

Appendix C: Newspaper appeal for volunteers

[NAME]
[ADDRESS]

Dear Editor

I am carrying out research into the long term psychological effects of war experience here at the University of Plymouth. I am looking for volunteers who served in the armed forces during World War Two or the Korean War to help by completing a questionnaire that relates to their experiences. If you would like to help, or if you would like further information, please contact me at:

Department of Psychology
University of Plymouth
Drake Circus
PLYMOUTH
PL4 8AA

or we can be contacted by telephone: 01752 233157.

Yours sincerely

Nigel Hunt

Appendix D: Letter: Request to take part in an interview

[DATE]

[NAME]
[ADDRESS]

Dear [NAME]

You completed a questionnaire for me some time ago relating to your war experiences. On it you indicated you might be willing to take part in a further study. I am now interviewing some of the veterans who completed the questionnaire. I will be in [LOCAL AREA] on [DATE] and I was wondering whether I could come and interview you then. The interview would last around 1-2 hours, and will relate to your memories of the war and how they affect you. With your permission I should like to tape record the interview. There would be no travelling involved for you as I will come to your house.

I should be grateful if you would complete the following and return it to me in the enclosed FREEPOST envelope.

Thank you for your time.

Yours sincerely

Nigel Hunt

I am available/not available* for interview on [DATE]

NAME: ADDRESS: TEL:

If you are available, are there any times of the day when you would not be available?

If you are not available on that date, please indicate whether you might be available on another date: YES/NO*

*please delete as applicable

Appendix E: Letter: Confirming arrangements for interview, explaining withdrawal from study

[DATE]

[NAME]

[ADDRESS]

Dear [NAME]

Thank you for agreeing to take part in an interview relating to your war experiences. I confirm that I will meet you at your house on [DATE]. With your permission, I shall tape record the interview and take notes. If you are unhappy with this, please let me know.

If you change your mind and decide not to take part in the study, please contact me. There will be no problem if you change your mind. This does not only apply to before the interview, but also during and afterwards. If you are unhappy while being interviewed you can stop it at any stage. I shall give you the tape of the interview for you to dispose of as you wish. After the interview is completed (at any point, including after I have left), if you then decide that you'd rather not have what you have said included in the study, let me know and I shall return the tape to you.

I shall only include information that you are happy for me to include. In any case I shall of course ensure that anything I do include is anonymous. Whatever you choose to say to me is confidential.

If you have any further questions before the interview, please telephone me at the above number, or write to the above address.

I look forward to meeting you.

Yours sincerely

Nigel Hunt

Appendix F: Warex

Warex

This questionnaire relates to your experience in a war operation. Please fill in "NO" for events you did not experience. Fill in "YES" for each of the events you experienced during your time in the armed forces and indicate how much stress (if any) that particular event caused you on the following scale:

1 = not at all stressful
2 = a little bit stressful
3 = moderately stressful
4 = quite a bit stressful
5 = extremely stressful

For instance, if you were stationed in the front line and you found it a little bit stressful, ring number 2.

				How stressful was it?
1.	I was stationed in the front line	NO	YES	1 2 3 4 5
2.	I received incoming artillery or fire	NO	YES	1 2 3 4 5
3.	I encountered booby traps or mines	NO	YES	1 2 3 4 5
4.	I experienced sniper fire	NO	YES	1 2 3 4 5
5.	I went on combat patrols	NO	YES	1 2 3 4 5
6.	I was surrounded by enemy units	NO	YES	1 2 3 4 5
7.	I was in a patrol that was ambushed	NO	YES	1 2 3 4 5
8.	I fired rounds at the enemy	NO	YES	1 2 3 4 5
9.	I engaged the enemy in a small arms fight	NO	YES	1 2 3 4 5
10	I had a confirmed kill	NO	YES	1 2 3 4 5
11.	I saw killed or wounded enemy personnel	NO	YES	1 2 3 4 5
12.	I saw killed or wounded civilians	NO	YES	1 2 3 4 5
13.	I was wounded or injured myself	NO	YES	1 2 3 4 5

14.	I saw Allied personnel killed or wounded by the enemy	NO	YES	1 2 3 4 5
15.	I saw Allied personnel killed or wounded by "friendly fire"	NO	YES	1 2 3 4 5
16.	I had an officer/NCO killed or wounded	NO	YES	1 2 3 4 5
17.	I had a friend killed in action	NO	YES	1 2 3 4 5
18.	I was attacked by enemy aircraft (bombed or strafed)	NO	YES	1 2 3 4 5
19.	I was attacked by enemy tanks	NO	YES	1 2 3 4 5
20.	I thought I was about to be killed (eg pinned down or near miss)	NO	YES	1 2 3 4 5
21.	I used a parachute	NO	YES	1 2 3 4 5
22.	I was trapped behind enemy lines	NO	YES	1 2 3 4 5
23.	I was involved in raids on enemy positions/coast	NO	YES	1 2 3 4 5
24.	I was involved in searching buildings to find enemy personnel	NO	YES	1 2 3 4 5
25.	I attended to casualties	NO	YES	1 2 3 4 5

Anything else? (Write below and rate)

_____	YES	1 2 3 4 5
_____	YES	1 2 3 4 5
_____	YES	1 2 3 4 5

Appendix G: CEQ item analysis

Item	item-total correlation			stress		"YES"
	first pass	second pass	final pass	mean	sd	N
1. I served in a unit/ship/ aircraft that fired on the enemy	.29	.22	X	2.71	1.21	479
2. I flew in an aircraft that was shot at by the enemy	.05	X	X	3.24	1.04	70
3. I was stationed in the front line	.73	.79	.80	3.38	1.21	354
4. I received incoming artillery or mortar fire	.73	.82	.83	3.74	1.18	444
5. I encountered mines or booby traps	.62	.68	.68	3.44	1.21	395
6. I experienced sniper fire	.67	.80	.81	3.51	1.19	289
7. I went on combat patrols	.69	.75	.76	3.54	1.27	248
8. I was surrounded by enemy units	.72	.77	.77	3.74	1.27	270
9. I was in a patrol that was ambushed	.73	.81	.81	4.27	1.06	98
10. I fired rounds at the enemy	.76	.78	.78	2.47	1.32	404
11. I engaged the enemy in a small arms fight	.77	.83	.83	3.24	1.42	230
12. I had a confirmed kill	.67	.69	.69	2.80	1.46	133
13. I saw enemy personnel being killed or wounded	.84	.85	.84	2.63	1.32	401
14. I saw civilians being killed or wounded	.64	.66	.67	3.65	1.20	277
15. I saw enemy personnel who had been killed or wounded	.85	.87	.87	2.54	1.34	472
16. I saw civilians who had been killed or wounded	.61	.62	.63	3.39	1.29	350
17. I was wounded or injured myself	.59	.58	.58	3.46	1.38	241
18. I saw Allied personnel wounded by the enemy	.87	.86	.86	3.32	1.20	507

19. I saw Allied personnel killed by the enemy	.82	.80	.79	3.61	1.22	469
20. I saw Allied personnel wounded by friendly fire	.67	.73	.73	3.67	1.23	180
21. I saw Allied personnel killed by friendly fire	.65	.74	.74	4.12	1.11	141
22. I had an officer/NCO killed or wounded	.72	.74	.74	3.59	1.22	400
23. I had a friend killed in action	.81	.70	.70	3.96	1.14	513
24. I had a friend wounded or injured	.76	.77	.77	4.23	1.17	449
25. I was attacked by enemy aircraft (strafed or bombed)	.52	.41	.40	3.83	1.23	542
26. I was attacked by enemy tanks	.66	.78	.78	3.92	1.13	206
27. I thought I was about to be killed (for example, pinned down or near miss)	.80	.79	.78	3.36	1.06	448
28. I was in a ship that was sunk	.04	X.	X	3.87	1.32	84
29. I was in an aircraft that was shot down	-.00	X.	X	3.45	.95	13
30. I was attacked by submarines	-.02	X.	X	2.47	1.19	150
31. I was adrift in the sea	.02	X	X	2.29	1.39	62
32. I was in a lifeboat	.09	X	X	3.44	1.31	42
33. I sailed with a convoy	.21	X	X	3.81	1.15	384
34. I was part of the crew of a submarine	-.14	X	X	2.53	1.20	14
35. I flew in an aircraft that was fired on by the enemy	.06	X	X	3.11	1.11	54
36. I was in a plane that crashed	-.21	X	X	3.11	1.11	27
37. I used a parachute	.35	.29	.30	3.40	1.25	36
38. I flew in a plane that dropped bombs/attacked military targets	-.32	X	X	3.81	1.16	28
39. I flew in a plane that dropped bombs/attacked	-.43	X	X	3.24	1.18	18

enemy cities						
40. I experienced heavy anti-aircraft defences over enemy territory	.17	X	X	3.37	1.24	55
41. I was trapped behind enemy lines	.70	.62	.62	3.42	1.25	73
42. I was involved in raids on enemy positions/coast	.40	.27	.25	3.24	1.29	167
43. I was involved in searching buildings to find enemy personnel	.76	.82	.83	3.37	1.33	135
44. I attended to casualties	.58	.54	.54	3.42	1.17	214
Cronbach alpha	.930	.967	.970			
Average inter-item correlation	.400	.519	.540			
split-half reliability	.982	.990	.988			

Appendix H: IES factor loadings

	Factors (only loadings >.3 recorded)	
	1 (intrusion)	2 (avoidance)
1) I thought about the war when I didn't mean to (I)	.76	
2) I avoided letting myself get upset when I thought about the war or was reminded of it (A)	.54	.36
3) I tried to remove it from memory (A)	.32	.63
4) I had trouble falling asleep or staying asleep because pictures or thoughts about it came into mind (I)	.65	.37
5) I had waves of strong feelings about the war (I)	.68	
6) I had dreams about the war (I)	.70	
7) I stayed away from reminders about the war (A)		.61
8) I felt as if the war hadn't happened or wasn't real (A)		.56
9) I tried not to talk about the war (A)		.60
10) Pictures about the war popped into my mind (I)	.76	
11) Other things kept making me think about the war (I)	.74	
12) I was aware that I still had a lot of feelings about the war, but I didn't deal with them (A)	.59	.33
13) I tried not to think about the war (A)	.34	.71
14) Any reminder brought back feelings about the war (I)	.78	
15) My feelings about the war were kind of numb (A)		.54

Appendix I: GHQ factor loadings

Eigenvalues for principle components analysis

Factor	eigenvalue	% variance	cumulative % variance
1	18.81	67.18	67.18
2	2.07	7.38	74.56
3	1.36	4.87	79.43
4	1.22	4.34	83.78

Factor analysis and item details

Item	Factors (only loadings >.3 recorded 1	2	3	4	% YES
Have you recently:					
A1. been feeling perfectly well and in good health?		.84	.36		27
A2. been feeling in need of a good tonic?		.74		.43	22
A3. been feeling run down and out of sorts?	.31	.82		.34	26
A4. felt that you are ill?		.76		.41	19
A5. been getting any pains in your head?		.31		.75	13
A6. been getting a feeling of tightness or pressure in you head?		.35	.31	.75	12
A7. been having hot or cold spells?		.55		.51	11
B1. lost much sleep over worry?	.35			.71	16
B2. had difficulty in staying asleep once you are off?				.71	20
B3. felt constantly under strain?	.46	.45		.70	17
B4. been getting edgy and bad-tempered?	.31	.34		.69	20
B5. been getting scared or panicky for no good reason?	.42			.74	16
B6. found everything getting on top of you?	.45		.35	.71	17
B7. been feeling nervous and strung-up all the time?	.50		.31	.69	17
C1. been managing to keep	.33	.46	.61		11

yourself busy and occupied?					
C2. been taking longer over the things you do?			.71	.34	51
C3. felt on the whole you were doing things well?		.30	.83		20
C4. been satisfied with the way you've carried out your task?			.81		20
C5. felt that you are playing a useful part in things?	.42		.72	.32	19
C6. felt capable of making decisions about things?	.41		.60	.52	16
C7. been able to enjoy your normal day-to-day activities?	.35	.45	.60	.37	25
D1. been thinking of yourself as a worthless person?	.61		.57	.31	10
D2. felt that life is entirely hopeless?	.75	.37	.41		7
D3. felt that life isn't worth living?	.82		.35		5
D4. thought of the possibility that you might make away with yourself?	.89				7
D5. found at times you couldn't do anything because your nerves were too bad?	.48	.33	.40	.60	10
D6. found yourself wishing you were dead and away from it all?	.81		.35	.35	4
D7. found that the idea of taking your own life kept coming into your mind?	.84				7

Appendix J: Veterans' biographical details

#1

Married (1943) with no children. Left arm weak after being wounded in Normandy. Osteoarthritis in right knee "due to army service". Worked as a hair dresser before the war and a postman afterwards. Conscripted into the army in 1940 and attained the rank of corporal. Served at home until 1944 (RASC), involved in battle for Normandy (Hill 112, Mount Pincon) and then transferred to Singapore at the end of the war. After being wounded in Normandy he was mistakenly declared dead and his family received official notification to that effect. No real psychological problems relating to the war, though reminders can upset him. Attends reunions, sees them as important. Doesn't believe his memories have changed much over the years, though since retirement he has had time to think about them more.

#2

Married (1951) with no children. Has had diabetes since 1973. He was a bricklayer before the war and became an architectural technician afterwards. He was conscripted into the army in 1941 and attained the rank of corporal. He was a radio operator in a flail tank through the battle for Normandy, and served through Holland. He has no real psychological problems relating to the war, but enjoys going to reunions and talking about his war experiences.

#3

Married (1960) with two children. He received a gunshot wound in the right forearm in NW Europe. His arm is still crippled, with little use. This has led to a lot of resentment and bitterness, and was one of the reasons for not getting married until relatively late. He didn't have the confidence to meet girls. His parents cared for him after the war and helped him develop skills with his left hand. He joined the army in 1941 and remained a private, being involved in the D-Day landings, serving through Caen, the Falaise Gap, Belgium and Holland before being wounded. His problems relate mainly to the effects of the wound. He was unable to accept the disability and became bad-tempered, which affected his performance at work. Before the war he was a clerk, afterwards working as a local government officer.

#4

Married (1946) with four children. He has arthritis of the spine which may be due to parachuting, and had a heart attack in 1990. Still fit. Before the war he was a painter, afterwards a police officer. He volunteered for the TAs in 1937 and attained the rank of Sergeant during the war. He served in the UK as a parachutist until 1944, when he was involved (as a sniper) in the parachute

landings to take Pegasus Bridge over the Caen canal. He was involved in severe fighting at this point. He fought in the Battle of the Bulge and in Germany. He does not have serious problems relating to his war experiences, but it is an important part of his life. He is involved with veterans' associations and in visiting schools to talk about his war experiences.

#5

Wife died in 1987. Two children. He has experienced some ill-health, three heart attacks around 1987, ulcers, and in 1948 suffered a broken back that incapacitated him for three years. He worked as a clerk after the war. He joined the TA in 1938, attained the rank of Sergeant, and served as a parachutist during the war, being involved in the D-Day landings. He lives alone and is involved with veterans' associations, as they provide him with his only friends.

#6

Married twice. Divorced from first wife in 1960, second marriage 1968. Lost right eye to shell splinter. Heart attack in 1993. Before the war he worked as a machine operator and was a carpenter and joiner after the war. He was conscripted into the army in 1942, and remained a private. He was involved in the invasions of Sicily, Italy, and Normandy. The loss of the eye seriously affected his life. Before the war he was a keen sportsman, but couldn't play effectively afterwards. He gave up driving early because his vision was not good. He experiences migraine that appears to be related to his wound. The shell splinter entered below his eye and lodged in his head. He gets serious migraines and has to lie in the dark sometimes for days. They are often brought on by a flash of light (eg car headlights) and may be linked to the flash of the explosion of the shell that wounded him.

#7

Divorced in 1980. Has 80% loss of hearing due to explosives and various war-related nervous problems. He lost an eye due to a building accident. He worked as a printer before the war and as a builder afterwards. He was conscripted in 1942 and attained the rank of Sergeant. He was involved in the fighting from Normandy through to Germany, including Hill 112, Mont Pincon, and the Seine and Rhine crossings. He was wounded twice, once being buried for two days before he was found. He is amnesic about this. After his second wound he was again amnesic and spent some time in a psychiatric hospital having lost his speech, movement, and hearing (hysterical reaction). He is very fit and active. He constantly thinks about the war and it causes him some distress. He feels that he lives in the past, that he has never left those times. His health has steadily deteriorated since retirement. He is clear that this deterioration relates to his war experiences rather than old age. He has used tranquillisers for years.

#8

Married twice, first in 1939, divorced in 1980 and married again in 1980. Worked as a teacher before the war and a headmaster and university lecturer afterwards. He has no serious psychological or physical difficulties relating to the war or otherwise. He volunteered for the army in 1939 and attained the rank of Major. He was involved in the landing at Normandy, and fought through Caen, Falaise, and on through to Holland and NW Germany. He wasn't involved in heavy fighting, though he was involved in activities behind enemy lines. His experiences made him anti-war and he has been involved in the local branches of the United Nations. He copes well with any traumatic recollections.

#9

Wife died in 1988. He was an office worker both before and after the war. He volunteered for the army in 1939 and attained the rank of Colour Sergeant. He was in action at Dunkirk, El Alamein, the Sicily landings, and the Normandy landings. He has no declared health problems. He thinks very little about the war and is not involved in any veterans' activities or organisations. He has no contact with friends from the war. He is close to his family.

#10

Married in 1957. Early retirement in 1974 because of ill-health. Has experienced heart trouble. He has compression of the spine and hearing problems that may be related to wartime blast injuries. He worked as a builder both before and after the war. He was conscripted into the army in 1939 and attained the rank of corporal. He fought from Normandy to Bremen as a mines and explosives specialist. He was captured by the Germans in Holland but released after 20 minutes because he was with a medic. He has dreams about his war experiences, but he has always had them so he copes with them.

#11

Married wartime sweetheart in 1946. Health seriously affected by wartime POW experiences. He experienced tropical diseases including malaria, beri beri and dysentry, which has forced him to have rigid dietary control ever since. He has irritable bowel syndrome, depression, nervous symptoms, and has had diarrhoea for 3 years. He has a 50% war pension. Before the war he was at university, and afterwards was a teacher. He was conscripted in 1940, became a Lance Corporal and served in the Far East, fighting in the Malaya campaign before being captured at Singapore. He was held prisoner by the Japanese for three and a half years, and went from 12 to 5

stone. He worked in a copper mine in Formosa and a coal mine in Japan. He has serious psychological distress, and broke down during the interview.

#12

Married in 1940, he reported no illnesses, though his wife has many problems. Before the war he worked in a foundry and afterwards was in engineering. He was conscripted into the army in 1939 and attained the rank of Sergeant. He fought at Dunkirk and in North Africa and was captured in Tunisia, 1943. He was held in Poland and Germany and lost four stones while a prisoner. He had psychological difficulties after repatriation but settled down. He has difficulties with some memories, such as being unable to watch the film Dunkirk because it reminds him of his experiences. He used to have war dreams, but not now. He believes that his wartime experiences were so bad that nothing could be worse and this has helped him cope in the postwar years.

#13

Married with two children. He was captured in Calais in 1940 and spent the war as a POW in Germany and Poland, working in the coal mines. He was on one of the long marches for several months in 1945 keeping ahead of the advancing Red Army. He lost 4 stone during his captivity. He experienced back and neck injuries during the war that are becoming problems again in old age. Before the war he worked in farming and afterwards was a lorry driver for the local council. His physical health is deteriorating with age, and he experiences nervousness about driving his car.

#14

Recently (1991) married, he joined the army in 1940 and fought in the Italian and Greek campaigns, in particular at Monte Cassino. He has had emphysema and bronchitis since the 1940s due, he says, to the free issue of cigarettes during the war and the dust he swallowed during four years as a despatch rider. He worked as a labourer in civilian life. He experiences some war-related psychological difficulties, partly because he feels he goes to many funerals of his wartime comrades. He is now experiencing difficulty going to British Legion meetings because of walking difficulties. His major trauma was not the war but the loss of his five year old daughter in a fire in the 1950s

#15

Married, he joined the army in 1943, fighting from Normandy to Holland, where he was wounded and then captured by the Germans. He was held in cramped and cold conditions in a

camp near Belsen. After the war he was a security officer. He had open heart surgery in 1993. Since retirement he has experienced severe psychological distress. He has war-related nightmares every night, from which he wakes up sweating so severely he has to change his pyjamas. His wife assists him with this. He usually avoids situations where he may be reminded of the war. After the interview, which was clearly distressing, he was referred to a local clinical psychologist.

#16

Married, he joined the army in 1940 and attained the rank of colour sergeant. He fought in the North Africa and Italy campaigns, being involved in the landing at Salerno, Monte Cassino, and fighting on the Gothic Line. After the war he was a works and quarry manager. He is a very active physical fit individual. He appears not to experience any significant psychological problems relating to the war, though he does tend to avoid situations which remind him of it, and doesn't talk about associated feelings. He has retained a circle of wartime friends who were fellow members of a concert party, but they remember the happier times. He is confident and optimistic about life.

#17

Widowed in 1989, he joined the army in 1939, and left in 1946 having attained the rank of corporal. He was a tank gunner and a despatch rider, and fought in the North Africa campaign, where he was captured by the Germans. He experienced a perforated right ear drum as a consequence of being a gunner. After the war he was a plumber and then a lecturer in plumbing. After repatriation he experienced some problems (unspecified) but his parents allowed him to work through them. He drank a lot at the time. His father had been a POW in World War One. He has a positive attitude and doesn't dwell on negative wartime memories.

#18

Widowed in 1981, an event that caused several years of severe problems, he was in the army from 1940 to 1946, leaving as a lance corporal. He was involved in the North Africa campaign and the landings at Salerno, where he was captured by the Germans. He experienced problems after the war, and claims to have always been a nervous person. After the war he was a clerical officer. He has had heart problems for the last 20 years. He experiences some distress relating to wartime memories.

#19

Married since 1943, he was in the army from 1938 to 1946, and attained the rank of substantive sergeant. He was involved in raids on the French coast before D-Day, and then fought through the

Normandy campaign, Arnhem, and the Rhine crossing. In the last week of fighting he was taken out of the line with anxiety neurosis, and spent 3-4 months in a hospital in Belgium. After the war he worked in the pit. He experiences some psychological problems relating to his war experience, though his questionnaire scores which are above the cutoff points, are belied by his comments during the interview. He is a physically fit and active individual, who enjoys life. He comes across as a "hard man", though this image was shattered when he broke down in the first minute of the interview.

#20

Married, he was in the army from 1938 to 1945, attaining the rank of sergeant. He was involved in the retreat to Dunkirk, where he was captured, and imprisoned in Poland. He was repatriated in 1943. After the war he was a chiropodist and physiotherapist. He is a pacifist and is strongly Christian. He claims the latter helped him deal with his experiences during the war. He is an intelligent man, and this appears to have helped him cope with his experiences and memories.

#21

Married, served in the army from 1940 to 1946 as a driver with the RASC. He was involved in Europe 1939-40 (Dunkirk), North Africa, and the Normandy campaign. After the war he was involved in designing bicycles. Didn't experience serious problems after the war, only since retirement, when his memories have bothered him. He feels some bitterness towards doctors who won't acknowledge that he has a problem. The memories do cause some problems with his marriage.

#22

Widowed in 1982, he served in the army from 1939 to 1946, reaching the rank of sergeant. He was involved in Europe in 1939-40, and then the North Africa campaign. He was captured in 1943 by the Germans, losing 30% of his bodyweight during the two years of his captivity. The most difficult time for him was when he received three months leave after repatriation. After the war he worked as a radio service manager. He has wartime memories but they don't trouble him. He has a wide range of interests.

#23

Married, he served in the army from 1941 to 1946 reaching the rank of corporal. He was involved in the North African and Italian campaigns, including the landing at Salerno, and the battles for Monte Cassino and Anzio. After the war he worked in a foundry and down the pit. He was made redundant at the age of 59. He is physically fit and has a positive approach to life.

#24

Married (1982) with a young child, he served in the army from 1941 to 1959, attaining the rank of Major. In World War Two he served in North Africa, Italy (Cassino), and NW Europe 1944-45, serving with the 1st and 6th Airborne Divisions. Postwar he served in Malaya. After leaving the army he became a management consultant. He does not experience significant war-related distress.

#25

Polish, he served from 1939 to 1946, marrying at the end of the war. He attained the rank of Flight Sergeant with the Polish forces. He was captured by the Russians in 1939, tortured and then released. He made his way across to Canada and his ship was sunk on the return. He spent 17 days on a liferaft. After the war he became a sculptor. A very sensitive and intelligent man, he experienced severe problems after the war. He still experiences some problems but is able to cope with them.

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