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# Living in History in Lebanon: The influence of chronic social upheaval on the organisation of autobiographical memories

Samar Zebian<sup>1</sup> and Norman R. Brown<sup>2</sup>

<sup>1</sup>Social Science Department, Lebanese American University, Beirut, Lebanon

<sup>2</sup>Psychology Department, University of Alberta, Edmonton, Canada

The Living in History (LiH) effect is a litmus test for the degree to which historical events reorganise autobiographical memory. The LiH effect was studied in two Lebanese samples: a Beirut sample that lived in the epicentre of the 15-year Lebanese Civil War (1975–1990) and another group from the Bi’qa region who lived in an area that was indirectly exposed for most of the civil war but experienced one short-term period of war during the Israeli invasion. Using the two-phase word-cueing task to elicit dated autobiographical memories, we observed a significantly stronger LiH effect in the Beirut sample but also a significant yet weaker LiH effect in the Bi’qa sample. In addition to the main finding we offer evidence that the LiH effect waxes and wanes with the level of conflict in an area and that reported personal experiences of war exposure predict the strength of the LiH effect. Our findings suggest that collective transitional events which produce a marked change in the fabric of daily living engender historically defined autobiographical periods which give structure and organisation to how individuals remember their past.

**Keywords:** Social upheaval; Protracted conflict; Autobiographical memory; Historical events; Living in History effect; LiH effect; Transition theory; Event dating.

Under most circumstances people employ a personal frame of reference to date autobiographical events (Friedman, 1993; Shum, 1998). This is not true for individuals who have lived through various forms of catastrophic upheaval (Brown, Hansen, Lee, Vanderveen, & Conrad, 2012; Brown & Lee, 2010; Brown et al., 2009). These people often use public events and/or historical periods when they estimate dates for personal events. Rather than defaulting to the use of personal periods (e.g., “It was when I was sick, therefore it was in 1986”) or period-bounding personal landmarks (e.g., “That was

before I married—possibly in 1997”) to support temporal inferences about their personal memories, individuals who have lived through epoch-changing events use historical landmarks or *historically defined autobiographical periods (H-DAPs)* to date their memories (e.g., “I lost my briefcase filled with important documents sometime before the Aoun war in 1987. It must have been in 1985 or 1986”) (see Brown, 1990; Friedman, 1993; Thompson, Skowronski, Larsen, & Betz, 1996). The frequent use of *H-DAP* references to support temporal inferences has been labelled the *Living-in-History*

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Address correspondence to: Samar Zebian, Social Science Department, Lebanese American University, Orme Gray, #504 Chouran, Beirut, Lebanon 1102 2801. E-mail: [samar.zebian@lau.edu.lb](mailto:samar.zebian@lau.edu.lb)

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(*LiH*) Effect.<sup>1</sup> The LiH effect has been observed in Sarajevo, Bosnia-Herzegovina, and Izmit, Turkey. The Bosnians had endured 3 years of civil war in the early 1990s; the Turks had lived through a massive earthquake in the summer of 1999. The effect is also present in dating protocols collected from Dutch and Danes who lived through World War II. Brown and colleagues have argued that the LiH effect occurs only when public events spawn *H-DAPs*. Cross-cultural evidence suggests that *H-DAPs* are created only when external events cause a marked and enduring change in the fabric of daily life—in what people do, where they do it, and with whom (Brown & Lee, 2010; Brown et al., 2009).

The present study extends the research on *H-DAPs* and the LiH effect to two Lebanese samples: one made up of long-term residents of Beirut and the other of people who have lived their lives in the Bi'qa Valley which is some 50 km east of Beirut. Although the Bi'qa is not far from Beirut, its history with respect to the Lebanese Civil War and current events, as well as its proximity to Syria and its agrarian economy, marks it as a distinct socio-political region. In both samples all participants were at least in their teens at the outbreak of Lebanon's civil war in 1975. These samples were of interest for two reasons. First, the civil war in Lebanon, which ran from 1975 until 1990, was much longer than the one in Bosnia or the German Occupation of Western Europe. Second, the intensity of the conflict in Lebanon varied greatly over time and across regions.

The historical record indicates that, specifically, Beirut was the long-term epicentre of the Civil War. It is widely held that it sustained the majority of the civilian casualties and infrastructural damage, and bore the direct impact of deteriorating economic and social conditions (Khalaf, 2002; Makdisi & Sadaka, 2002). There were other short-term foci, including the Palestinian camps, Mount Lebanon, and specific locations in Southern Lebanon and in the Bi'qa Valley. However, conflict in these areas was

relatively short term and not widespread. This was the case for the West Bi'qa, and some parts of the Eastern Bi'qa, which endured the Israeli invasion from 1982 to 1985. The West Bi'qa did not directly experience any other major wars or widespread civil violence. However, like other parts of Lebanon, it was indirectly affected by the 16-year civil war (Makdisi, 2004; Najem, 2002).

These aspects of the recent history in Lebanon made it possible for the first time to examine the effects of prolonged conflict on the organisation of autobiographical memory and also to test the claim that the LiH effect is intensity graded; meaning that its level varies depending on the level of social upheaval in a defined geographical location (Brown & Lee, 2010).

Previous claims concerning the intensity-graded nature of the LiH effect were based on induction. Specifically, the LiH effect was much stronger in Bosnia than in Serbia or Montenegro. Likewise, for people who lived through WWII, the LiH effect was much stronger for Dutch and Danish non-combatants than for their American and Canadian counterparts (Brown et al., 2009, 2012). In the next section we provide a theoretical account of the LiH effect, explain why we believe that event-dating protocols provide information about the organisation of AM, and develop a theoretically grounded rationale for expecting an intensity graded LiH effect.

## HOW TRANSITIONS ORGANISE AUTOBIOGRAPHICAL MEMORY

Transition theory (Brown et al., 2012; Brown & Svob, 2012; Svob & Brown, 2012) underpins this research programme. In a sense this theory provides a psychologically tractable formulation for the “fabric-of-daily-life” metaphor. Specifically, Transition theory holds that repeatedly encountered people, places, and things and repeatedly undertaken activities constitute the fabric of daily life. We refer to the representations formed from these repeated exposures as *event components* and assume, along with other researchers (e.g., Barsalou, 1988; Linton, 1986), that memorable personal events are represented by a bound sets of these components. We also assume that event components often incorporate some form of temporal information. The intuition here is that people typically know, at least roughly,

<sup>1</sup>At present, there is no theoretically-derived cut-off for the presence or absence of the LiH Effect in a population. However, we have collected relevant data from some 30 samples and have found that they fall into two distinct clusters. One cluster is made up of samples in which people use *H-DAPs* 5% of the time or less. The samples in the other cluster, yielded *H-DAP* percentages ranging from 11% to 24%. Thus, in practice, identifying samples that display the LiH Effect is a straightforward matter.

when their encounters with a given event component began and when they ended.

On this view a transition is an event (or set of events) that produces an enduring change in the fabric of daily life. Put another way, transitions cause or mark the synchronised addition and/or deletion of many salient event components. Transitions differ in terms of their impact on our lives. Minor transitions (e.g., promotion from one grade to the next) occur when one aspect of a person's life changes, but many others do not. In contrast, a major transition (e.g., relocation to a distant region) is an event (or set of events) that brings an end to a person's experiences with a large number of familiar event components, and at the same time creates conditions that compel him or her to encounter many unfamiliar components. Over time, and with repeated exposure, these recently encountered components become familiar, and some of these elements eventually become core elements of a new *lifetime period*.

In Transition theory conventional lifetime periods are defined as spans of time during which there is fair degree of stability in many important aspects of a person's life. Because major transitions bring about a coordinated change in most of what people experience on a daily basis, they mark the beginnings and ends of such periods. Under ordinary circumstances the nature and timing of these life-defining transitions are unique; people undergo different transitions, and they undergo them at different times. However, under unusual circumstances groups of people undergo major transitions simultaneously. Wars and natural disasters provide the clearest examples of this. These events can have a dramatic impact on the fabric of daily life, making it difficult if not impossible for individuals in affected regions to live as they had been and requiring them to alter their lives to survive under a new set of adverse (and often unstable) conditions (Levy & Sidel, 1997).

We refer to external events that simultaneously alter the lives of a group of people as *collective transitions*. Transition theory assumes that collective transitions function like conventional individual transitions in that they delineate lifetime periods and define their content (Brown et al., 2012; Conway, 2005; Thomsen & Berntsen, 2008). As noted above, periods that form in the wake of major collective transitions are called *H-DAPs*—historically defined autobiographical periods—in order to distinguish them from conventional lifetime periods.

## DATING PROTOCOLS, MEMORY ORGANISATION, AND THE INTENSITY-GRADING OF THE LIH EFFECT

As in prior studies we use event-dating protocols to probe for presence of *H-DAPs* in a population (Brown et al., 2009, 2012; Brown & Lee, 2010; Brown & Svob, 2012). As a first step in understanding the link between dating protocols and memory organisation, it is necessary to recognise that personal memories are rarely stored with explicit calendar dates. As a result people typically make use of a *reconstructive* strategy when they need to determine when an event had occurred. In effect this strategy reduces to a search for explicitly dated *landmark* events that have a known or inferable relation to the target event (Brown, 1990; Friedman, 1993; Loftus & Marburger, 1983; Shum, 1998; Thompson et al., 1996).

Recently, Brown and his colleagues (Brown et al., 2012) have argued that most temporal landmarks are transitional events. There are two reasons why important transitions are likely to serve as temporal landmarks. First, in contrast to most personal events, people know the dates of many major life transitions (Auriat, 1993; Smith & Thomas, 2003). Second, by definition, major transitions play a role in enabling and/or terminating experiences with a very large number of event components. This means that it should be possible to access relevant temporal information by working backward, from the event memory to the event component, from the event component to the superordinate lifetime period, and from the lifetime period to the period-defining transition. By definition, major transitions are related to more event components than minor ones. It follows that major transitions should be mentioned often in dating protocols; minor ones, less so.

This argument has two clear implications. The first is that dating protocols can be used to investigate the organisation of autobiographical memory, because major transitions and important lifetime periods should figure prominently in the protocols whereas minor transitions and narrowly focused periods should not. The second implication is that the LiH effect should be intensity graded. The core observation here is that public events, even very important ones, do not necessarily have the same impact on all individuals in an affected population. In other words it is obvious that wars and natural disaster affect different

regions differently, devastating some and leaving others relatively, or even completely, unscathed. According to Transition theory, the organisational importance of such events is related to their transitional impact; when a public event produces a dramatic and enduring change in a person's life, it leads to the formation of a major lifetime period. For reasons developed above, this implies that these impactful public events will be mentioned quite frequently in dating protocols. Of course, if the same nominal event produces relatively few changes to the fabric of daily living for the people in other regions, then it will have less impact on the organisation of autobiographical memory, and therefore will be mentioned relatively less frequently in dating protocols.

Finally we note that the magnitude of the LiH effect necessarily reflects both the organisation of autobiographical memory and the temporal distribution of memorable personal events, and that the local impact of external events may well affect the latter as well as the former. We know from prior research that the memories that are accessed during word cue experiments often refer to experiences that were both distinctive and emotionally arousing (Conway & Haque, 1999; Janssen & Murre, 2008; Rubin & Schulkind, 1997). It seems reasonable to assume that such events are experienced more often by people who are attempting to survive a war or recover from a natural disaster than by people who are living secure predictable lives. If so, individuals who have had direct experience with some form of major upheaval are likely to recall more events from the span of time covered by the corresponding *H-DAP* than those who did not. Similarly, people who have lived through periods of extreme instability should have a larger store of distinct memories than people whose lives were less disrupted by external events. Taken together then, the magnitude of LiH effect (i.e., the percentage of dating protocols that make reference to *H-DAPs*) should be intensity graded because conflict intensity is likely to affect both the content and the organisation of autobiographical memory (i.e., the temporal distribution of memorable personal experiences). As noted above the disruptions caused by the civil war in the Israeli invasions were more intense and occurred over a longer period of time in Beirut than in the Bi'qa Valley. Thus we predicted the LiH effect would be more pronounced in the Beirut sample.

In addition we had expected that the distribution of *H-DAP* references would track the historical record over time. As noted above, intense social upheaval spawns memorable personal events. Assuming that people refer to *H-DAPs* when dating such events, it follows that *H-DAP* references should be most common when a conflict is at its fiercest. If so, *H-DAP* references in Lebanon would be expected to be distributed in a bi-modal manner, with one peak occurring during the mid-1970s at the beginning of the civil war and a second around 1982 at the beginning of the Israeli invasion.<sup>2</sup> In addition, because the conflicts of the 1970s and 80s were centred in different locations at different times, we might expect regional differences in the temporal distribution of *H-DAP* references; specifically, in the Bi'qa the LiH effect should be stronger in the 1980s than the 1970s. In contrast, because much of Beirut was ravaged by the civil war of the 1970s and by the Israeli invasion in the 1980s, the effect should be equally strong across the decades in Beirut. It is relevant to note that there are other ways in which things might turn out. For example, the LiH effect might dissipate over time. This would suggest that the population had habituated to a state of chronic conflict and/or that the changes brought about by the conflict were so thoroughly integrated into people's lives that they ceased to retain any temporal specificity.<sup>3</sup>

In summary, chronic conflict is theorised to have two different effects, both of which are graded and both of which combine to determine the magnitude of the LiH effect and the temporal distribution of personal events dated with reference to *H-DAPs* and public events. First, the intensity of a conflict should be related to how much the fabric of daily living differs prior to the onset of a war and subsequent to it. It is assumed that the intense conflict changes many elements

<sup>2</sup> Because most of the participants in this study were born in the 1940s and 1950s, many would have been young adults in the mid-1970s. It is well established that, under ordinary conditions, older people tend to recall more events from their teens and twenties than from other periods in their lives (Rubin & Schulkind, 1997; Rubin, Wetzler, & Nebes, 1986). Thus standard accounts of the *remembrance bump* predict that our participants should recall a relative large number of events from the 1970s, but not from the 1980s, and they make no predictions concerning the contents of the dating protocols or the distribution of the *H-DAP* references (Rubin, Rahhal, & Poon, 1998; cf. Conway & Haque, 1999).

<sup>3</sup> This notion was developed to explain the absence of an LiH effect in protocols collected in Jerusalem from a sample of relatively young Israelis (Brown & Lee, 2010).

in a person's life. When this happens the beginning and end of a conflict function as major period-defining transitions and the events themselves, and the period it defines will often be referenced to date events recalled from the time span covered by the conflict. Second, because transitions spawn memorable personal events and because periods of upheaval, by definition, include a larger percentage of memorable events than periods of stability, more memories should be retrieved from the former than from the latter. It follows that (a) the magnitude of the LiH effect should reflect regional differences in the intensity of the conflict, with the effect being largest *where* the impact was greatest (e.g., Beirut). It also follows that (b) the magnitude of effect should be greatest *when* the conflict is at its most disruptive (e.g. at the onset of a war). We test both of these predictions in the present study.

### POSSIBLE INDIVIDUAL DIFFERENCES IN THE MAGNITUDE OF THE LiH EFFECT

This study explores for the first time whether individual and collective experiences of war together contribute to the LiH effect, or whether their contributions are best understood in another way. At the outset we predicted that they might not be. This was based on the idea that public events spawn *H-DAPs* because they cause extensive and enduring disruption in the functioning of a (local) society, and in so doing bring to a close one way of life and establish the conditions for another. If it is true that group-level upheaval causes *H-DAPs* to form, it follows that it is the experience of a group living in a particular geographical location and not individual experiences that predicts the presence and magnitude of the LiH Effect.

It is also true that the same conflict like the civil war in Lebanon affected different people in different ways (Haughbolle, 2011; Karam, Al-Atrash, Saliba, Melhem, & Howard, 1999). This fact raises the possibility that personal experience might also contribute to the formation of *H-DAPs* and hence the magnitude of the LiH effect. More concretely, consider the experience of a person who was forced to relocate as a result of some conflict, compared to another who was not. Both individuals would have gone through the same collective transition, but the relocated

person would have undergone an additional transition as well. Again assuming that transitions organise memory and spawn distinctive events, it follows that the person who undergoes two transitions during some span of time (i.e., a transition from a peacetime existence to a wartime one and a transition from one local to another), would recall more memories from that span than a person who experienced only one.

### Summary

In brief, we used a three-phase procedure to address these issues. During Phase 1 participants responded to neutral cue words by recalling the memory of a specific autobiographical event (Crovitz & Schiffman, 1974; Robinson, 1976). This task is known to provide a representative sample of autobiographical memories across the lifespan (Brown & Schopflocher, 1998; Rubin & Schulkind, 1997).<sup>4</sup> During Phase 2 participants thought out loud as they estimated the year in which each of the recall events had occurred. The frequency of historical landmarks (*H-DAP* references) across the Beirut and Bi'qa group was our measure of the LiH effect. During Phase 3 they completed the War Events Questionnaire (WEQ). The WEQ also assessed individuals' knowledge of how significant others were exposed and the frequency and reasons for internal displacement (Karam et al., 1999).

To examine the influences of chronic conflict on the strength of the LiH effect we compared the frequency of *H-DAP* references (taken from the event-dating protocols) in the Beirut group and in the Bi'qa group. We also examined WEQ responses to determine whether the degree of war exposure reported by individuals in our particular samples was related to the LiH effect. We predicted that the frequency of *H-DAP* references will be higher in the Beirut group, but will vary across time, with more frequent *H-DAP* references at the beginning of the CIVIL WAR and the Israeli invasion. Our final prediction is that an individual's levels of war exposure together with the location of one's long-term

<sup>4</sup> In general, memories recalled using word cues are rated as being fairly high on distinctiveness and affective intensity and fairly low on personal importance (Conway & Haque, 1999; Janssen & Murre, 2008; Rubin & Schulkind, 1997). To put it more precisely, researchers believe that this task provides a representative sample of distinctive, affect-laden memories from across the lifespan.

residence will predict the strength of the LiH effect.

## METHOD

### Participants

A total of 44 people participated in this study; 22 from Beirut (12 males) and 22 from the Bi'qa region (19 males); all were long-term residents of the regions in which they were tested. The grouping labels Beirut and Bi'qa herein will refer to individuals whose long-term residence was either in the city of Beirut or the Bi'qa region between 1975 and 2000.

The average ages in the Beirut and the Bi'qa groups were  $M = 58.0$  ( $SD, 6.0$ ) and  $M = 59.7$  ( $SD, 5.6$ ), respectively. Participants' occupation suggests that SES was higher in the Beirut group with more individuals employed in service-based and professional jobs, while more Bi'qa participants worked in low-income occupations/settings such as construction, microbusinesses, and farming. Data were collected between February 2008 and August 2009.

The sample size in the current study was determined primarily by the number of Bi'qa participants that we were able to recruit in a period of a year and a half given our strict selection criteria, including age range, location of long-term residence, and emigration status. In addition to these criteria the sample size was limited because data collection was very time consuming for two reasons. First, the experiment was conducted in the participants' homes. Moreover, and because the West Bi'qa group had never participated in empirical research or psychological research, it took considerably more time to ensure that they had enough background and instruction to engage in the tasks in a way that yielded valid and reliable data which could be compared to data from the Beirut sample. Although similar challenges existed for the Beirut group, the data collection sessions were easier to conduct because our Beirut participants had general knowledge about research. All in all, practical considerations primarily determined the sample sizes. With respect to the sampling procedure, purposive rather than random sampling was used to recruit our first sub-sample of participants according to the following hypotheses driven criteria: (1) participants ranging in age from 50 and 65 years, (2) resided in Beirut or the Bi'qa

since 1975 (3) did not emigrate. In the second phase of the sampling procedure we used the snowballing technique and asked the participants from our purposive sample to suggest potential participants who met our three criteria

### Materials

*Word cues.* The following 20 cue words were used to elicit autobiographical memories during Phase 1: *automobile, bag, ball, book, box, bread, chair, coat, dog, pencil, darbake* (Middle-Eastern folk drum), *pill, radio, river, stone, spoon, snow, street, tree, and window.*<sup>5</sup> The first two cue words served as practice items and thus were not included in any analyses. The remaining 18 cue words were presented in a unique random order to each participant. The cue words were taken from Crovitz and Schiffman's (1974) word-cueing task. The words were comparable on the following dimensions: frequency, imageability, concreteness, and meaningfulness. Given that there is no known comparable word list in Arabic, 19 of the 20 words were translated and retained as is. The word "*darbake*" (Arab folk drum), however, was substituted for "piano" because pianos are not a common musical instrument in the region.

*War Events Questionnaire.* The War Events Questionnaire (WEQ), which is a self-report retrospective assessment of lifespan war experiences, was administered during Phase 3 (Karam et al., 1999). The WEQ was originally developed to determine whether individuals in the same nation or geographical location were equally exposed, both in terms of the frequency and the intensity of exposure, to the following types of war events: house damage, personal injury, kidnapping, business loss, and war-related internal displacement. Karam et al. also included neglected indicators of exposure such as the intensity of the exposure, subjective evaluations of the event, the means by which one learned of how

<sup>5</sup>We had two reasons for using these cue words. First, prior research has demonstrated that people have an easier time recalling event memories when they are cued with object terms than when they are cued with other types of words (e.g., emotion terms, abstract words; Robinson, 1976; Uzer, Lee, & Brown, 2012). Given that we wanted to collect as many event memories as possible, it made sense to use cues that would be most successful at eliciting memories. Second, materials similar to these have been used in all prior studies on this topic (Brown et al., 2009, 2012; Brown & Lee, 2011). This facilitates comparisons across samples.

close others were afflicted and internal displacement-related hardships. In addition to these features, the questionnaire was adopted because it had been used in mental health community surveys in Lebanon and found to be reliable and easy to administer. For the purposes of the current study we analysed only those questions related to the three types of war exposure; personally experienced events, events witnessed or incurred by a close friend or relative, and war-related displacement. The following questions from the original questionnaire were not analysed: subjective ratings of the impact of the events, how one learned of events they did not personally experience and military experience.

For the purposes of this study the scores for the various types of war exposure listed above were aggregated into three separate *composite exposure scores* which are itemised here and fully described below: Self-Exposure, Close-Other Exposure, and Displacement. Given the state of LiH research we do not yet know which types of exposure or disruptions to daily living (especially in contexts of chronic upheaval) bring about the LiH effect, and as such we wanted to separate personal exposure from knowledge of other persons' inflictions, and we also wanted to separate out disruptions caused by internal displacement, given its significance in the Lebanese context.

The Self-Exposure score reflects the frequency and intensity of personally experienced war events. The Close-Other Exposure score reflects the frequency and intensity of events that were inflicted on a person close to the participant and were learned about either through direct experience or the events were conveyed to the participant by others. The participant was free to decide who counted as a "close" person. These two composite scores, Self and Close-Other Exposure, were made up of sub-scores that assessed the frequency and intensity of house damage, bodily injury, kidnapping, and business loss. Taking an example of one sub-score, the Self-Exposure House Damage score, the participant reported the number of times their house was damaged, the date(s), and the severity of the damage (e.g., shrapnel, more than shrapnel, less than partially destroyed, partially destroyed, and totally destroyed). Depending on the type of house damage, the following scores were issued: house never hit = 0, shrapnel = 1, more than shrapnel = 2, less than partially destroyed = 3, partially destroyed = 4, totally destroyed = 5.

The house damage exposure score was computed by adding up these values for each reported event. For the Bodily Injury Self-Exposure score the participant reported the number of times they were injured and the severity of the injury. The following scoring system was applied: no injury = 0, almost injured = 1, superficially injured = 2, and seriously injured = 3. For the Kidnapping Self-Exposure measure, scores were issued as follows: never kidnapped = 0, kidnapped but returned safely = 1, and injured during kidnapping = 2. Finally, for the Business Loss Self-Exposure measure, the following scores were applied: no economic loss = 0, partial permanent loss = 1, complete economic loss which was completely regained = 2, complete loss which was partially regained = 3, and complete loss that was not regained = 4. This scoring scheme was applied to the Close Other Exposure composite. Each individual received a score for each reported occurrence of each type of war exposure.

The third composite, Displacement, is a subtype of the Self-Exposure score but due to its significance in the Lebanese context, especially with respect to the Beirut group, it was separated from the main Self-Exposure score. The Displacement score is a composite of the following items: the number of internal displacements reported and the reasons for them (0 = migration was not due to war, 1 = displacement due to shelling, 2 = displacement due to a hostile environment, 3 = displacement due to hostile environment and military tension, and 4 = displaced by force).

The WEQ was used in the current study for two purposes. One purpose was to determine whether the level and type of war exposure varied by region. The second purpose was to examine whether the three types of war exposure assessed with the three composite measures were related to the strength of the LiH effect. Table 4 includes the mean exposure composites as they vary by group and the frequency of reported war events.

## Procedure

During Phase 1 participants were randomly presented with 18 cue words. They were instructed to respond to each word by recalling a specific autobiographical memory. The research assistant wrote a short description of the recalled memory on an index card. Participants were instructed to provide an event memory that was related to the



cue word. In addition they were instructed to respond only when they had recalled the memory of a specific event that was at least 1 week old. If they could not recall a memory, the cue card was placed at the end of the pile and they were re-probed one more time at the end of Phase 1. Phase 1 took approximately 30–45 minutes to complete.

During Phase 2 the participants were presented with a one-sentence description of the memory recall from Phase 1 and were asked to estimate the date (year) of each event. They were encouraged to fully verbalise and justify their date estimate. For some participants, probing was required to obtain justifications for the date estimates. This was done by asking either (or both) of the following questions: (a) “How do you know that the event happened on that date and not earlier or later?” (b) “I am not convinced that the event happened on that date. Can you convince me?” The entire procedure was digitally tape recorded. Phase 2 took approximately 30–45 minutes.

During Phase 3 the WEQ was orally administered to each participant; their answers were filled out by the research assistant to minimise misinterpretations and missing data (see Appendix). The WEQ took approximately 30–60 minutes to administer. Following the WEQ participants were debriefed. The entire data collection session lasted between 1.5 and 2.5 hours.

## RESULTS

This section is divided into three sub-sections reflecting our three research questions. In the first the strength of LiH effect in the Beirut and Bi’qa groups will be compared and the temporal specificity of this effect will be explored by location of long-term residence (i.e., Beirut vs Bi’qa). Next the results from the War Events Questionnaire will be reported, and finally the nature of the relationship between the LiH effect and an individual’s level of war exposure will be described.

The memories generated in response to the 18 cued words (excluding the 2 practice words) were deemed admissible if the recalled memory met the following criteria: (a) it had to be related to the cued word; (b) temporally specific, and (c) at least 1 week old. Memories that did not meet all three criteria were excluded from all analyses and memories that were not justified during

**TABLE 1**

Number of accepted memories in phase 1 and the subsequent number of accepted and justified memories in phase 2

	<i>Number of cued memories<sup>a</sup></i>	<i>Number of acceptable memories (phase 1)</i>	<i>Number of acceptable &amp; justified memories</i>
Beirut	396	370	285
Bi’qa	396	385	272

<sup>a</sup> This number does not include the pilot cues; 44 in total for each group.

Phase 2 were also excluded (see Table 1 for number of accepted memories).

Event-dating protocols from Phase 2 were assigned to one of four categories. A protocol was considered *unjustified* when participants gave a date estimate but did not provide additional information. Conversely, protocols were considered *justified* when they included supporting information. In this study we coded four types of justified responses. *Personal/generic* responses included information about events, periods, people, places, and activities specific to the participant’s life and/or general temporally relevant information. Protocols that included references to historical periods and unique news events of a political, military, and/or economic nature were classified as *Historical* responses.<sup>6</sup> The frequency of *Historical* responses measured the LiH effect. The *pop/sports/weather* category included a reference to a unique popular-cultural event, a specific sports event, or an extreme or unusual weather occurrence. The *Displacement* responses involved a reference to internal migration or emigration. Although approximately 1,000,000 people of our participants’ generation migrated as a result of the Lebanese civil war, the displacement protocols did not explicitly state historical reasons for the displacement and thus were not included in the *Historical* response category.

Beyond these four categories, a final category emerged as the event descriptions from Phase 1 were reviewed. Some participants spontaneously invoked historical events as they recalled their memories in Phase 1. Such event memories were considered to be *spontaneous H-DAP* references.

<sup>6</sup> Across the two groups 19 different historical landmarks were used to date autobiographical memories. The Beirut group used a combination of 15 different historical landmarks and the Bi’qa group used a combination of 13. The diversity of this set of historical landmarks attests to the impact the conflict had on residents.

The long-term residents of Beirut spontaneously mentioned historical information in Phase 1 as part of 57 event descriptions (15.9% of the memories deemed acceptable), and the residents of the Bi'qa group included historical information as part of 34 Phase 1 event descriptions (9.9%). Spontaneous *H-DAPs* were included in the overall *H-DAP* tally only if the corresponding dating protocol from Phase 2 was justified but failed to include an *H-DAP* reference. This turned out to be a rare occurrence; only 5 of the original 57 spontaneous *H-DAPs* were added to the *Historical* response category; 4 from the original 57 for the Beirut group and 1 from the original 34 for the Bi'qa group.

Table 2 provides prototypical verbal protocols from each of the four categories described above and also includes examples of *spontaneous H-DAP* responses. Two naïve raters coded the cued responses for the presence of spontaneous *H-DAP* references and also assigned the justified dating protocols to one of the four categories

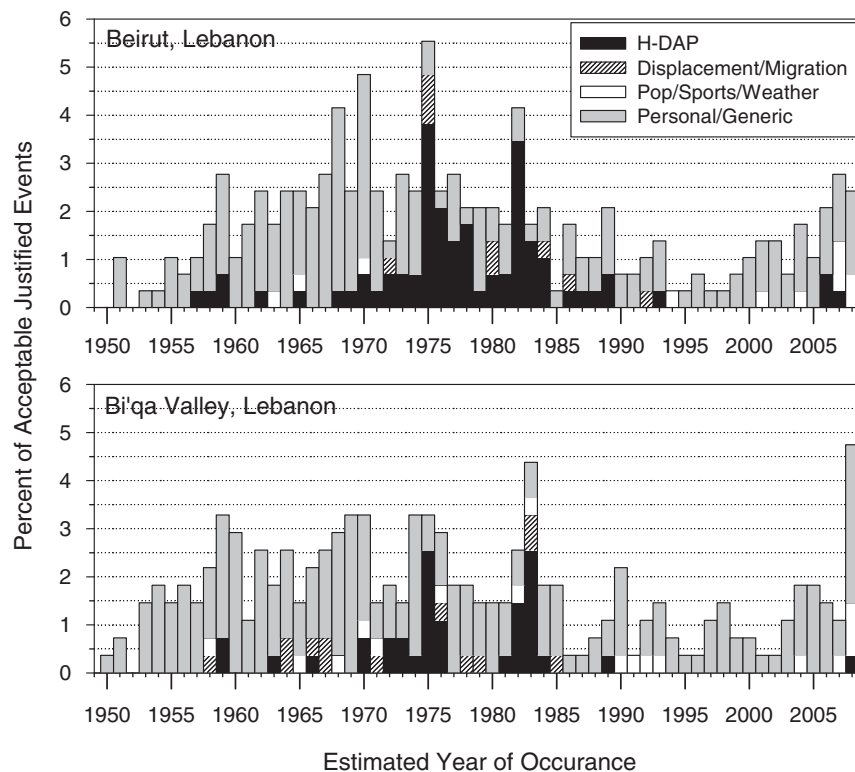
described above. The main coder scored all the protocols while the second coder independently scored 88 protocols from five randomly selected participants. The second coder coded 15% of the total acceptable and justified protocols. A good degree of consistency was achieved (Cohen's  $K = .73$ ). Importantly, and with respect to the 88 inter-rated protocols, the first coder established that 30 involved historical references (*H-DAPs*) while the second coder counted 28 *H-DAP* references.

### The frequency of *H-DAP* references across region and time

We begin by considering the prevalence of *H-DAP* references in the two groups. *H-DAP* references were present in 26.62% of the event dating protocols produced by long-term residents of Beirut and in 13.70% of the protocols produced by long-term residents of the Bi'qa. Figure 1 shows

TABLE 2  
Examples of reported memories, verbal dating protocols, and their assigned content categories

Phase 1		Phase 2		
Cue →	Reported Memory →	Verbalised Date Estimates	Response Type	Sample
Suitcase	I forgot my suitcase in front of a store and it had important papers in it.	It was before the Aoun war approximately . . . uh in 87. It was before the war. In 1985 or 1986.	Historical	Beirut
Coat	Brother borrowed my newly bought coat and took it with him when he went to Greece.	I bought it when I first went to the USA . . . I know the date because I went in 1975	Displacement	Beirut
Chair	The chair . . . also during the war I bought a rocking chair . . . this reported event related to the humorous aspect of when women get together, they tend to forget what's around them.	In the Sanayeh area, the section close to El Entabli and the Law College, they used to display furniture for sale during the war. I bought a rocking chair for \$125. After some time, we had kids, and my wife was busy attending to her sister. The 2 older children, my daughter and her cousin, sat on the chair, which was turned over, pretending it was a slide. The chair broke. It was nice . . . bamboo, and whoever saw it would say that it was a loss. it was really nice. Only few people would pay \$125 for it	Spontaneous historical landmarking and phase 2 historical landmarking	Bi'qa
Radio	We were coming back from Syria to Beirut and I was listening to the "radio East" when I guy reported that he was on the Manara and there was a big explosion.	Yes, that was the <i>Eid</i> (member of the Lebanese parliament) explosion, in six no. it was in seven. 2007. It has been a year since the assassination.	Spontaneous historical landmarking and phase 2 historical landmarking	Beirut
Snow	Slipped and hurt head when it was snowing	In the year 1990 there was so much snow . . . it did not snow that much again . . . at that time it snowed a lot . . . Allah Akbar . . . it snowed a lot in 1990 and it did not snow that much again. they had to clear the snow	Pop culture/ Weather/ sport	Bi'qa
Rock	Some kids were chasing a mixed nuts salesman with rocks and I was hit	It was about 1963. I went into the army in 1965 and it was either before or after that	Military	Bi'qa



**Figure 1.** The percentage of dating protocols types per year for all dated events for the Beirut and Bi'qa samples.

*H-DAPs* percentages for each type of event-dating protocol broken down by year and by group.

Before moving on to look at whether the frequency of *H-DAPs* varied by time period, we checked whether certain cue words differentially invoked more *H-DAP* references. A chi-square analysis was conducted and it indeed showed that the frequency of *H-DAP* references varied significantly by cue-word. In order to examine whether the group differences in the LiH were an artefact of possible associations between particular cue words and wartime experiences for one group but not another group, the words with the highest frequency of *H-DAP* references, greater than 10 *H-DAP* references, were excluded (e.g., street, bread, radio, window). Excluding these *H-DAP* references, a *t*-test examining whether the Beirut or Bi'qa group had more frequent *H-DAP* references for the remaining 14 cue words confirmed the original finding that Beirutis invoked significantly more *H-DAP* references,  $t(35) = 2.06$ ,  $p = .05$ . Thus, it appears that some cue words are more likely to invoke *H-DAP* references than others. However, this fact does not change the original analysis showing group differences in *H-DAP* formation as

both groups were cued with the same set of words.

Adding to the descriptive account, the following analysis examines whether there were group differences in the mean number of *H-DAP* references and whether the number of *H-DAP* references increased during periods of relative instability and decreased during periods of relative calm, and whether this temporal pattern differed across the groups. For each participant we computed the number of *H-DAP* references for four time periods which represent historical turning points in Lebanese history: the Pre-Civil War Period (before 1975); the Civil War Period (1975 to 1991),<sup>7</sup> Israeli Invasion Period (1982–1985); and the Post-Civil War Period (>1991). These frequencies were submitted to a  $2 \times 4$  repeated-measures analysis with *Region* (Beirut vs Bi'qa) treated as the between-participants variable and Time Period (Pre-war, Civil War, Israeli Invasion, Post-civil war) as the repeated measures variable. The number of *H-DAP*

<sup>7</sup> All *H-DAP* references for the civil war period, which officially spans from 1975 to 1990, were included except for those that were associated with the Israeli Invasions period (1982–1985).

**TABLE 3**  
Mean H-DAP references by group and time period

	<i>Pre Civil War</i> (pre 1975) M(SD)	<i>Civil War</i> (1975–1991) M(SD)	<i>Israeli Invasion</i> (1982–1985) M(SD)	<i>Post Civil War</i> (1991–2008) M(SD)
Beirut	.59(.95)	1.95(1.8)	.86(1.2)	.14(.35)
Bi'qa	.40(.66)	.68(1.0)	.59(.85)	.05(.21)

references<sup>8</sup> served as the dependent variable (see Table 3).

As predicted, the data presented in Figure 1 suggests that the LiH effect reflects fluctuations, over time and between regions, according to the intensity of Lebanon's wars. Consistent with this observation, the Beirut group produced significantly more *H-DAP* references than the Bi'qa group,  $F(1, 42) = 7.2, p = .01, \eta^2 = .147$ , and the main effect of Time Period was also significant,  $F(3, 126) = 11.8, p < .01, \eta^2 = .22$  (sphericity was not assumed). As a follow up to the within-participants main effect, we conducted four paired *t*-tests with an adjusted *p* value of .01. These tests revealed that *H-DAP* references (collapsing across group) significantly increased during the Civil War period compared to the Pre- and Post-Civil War periods,  $t(43) = -3.0, p < .01$  and  $t(43) = 4.9, p < .01$ , respectively. For the Israeli Invasion Period, *H-DAPs* were more frequent than those invoked in the Post-Civil War Period,  $t(43) = 4.1, p < .01$ . The frequency of *H-DAPs* invoked during the Civil War period and during the Israeli invasion was not significantly different. This finding suggests the impact that both historical events had on our participants, nevertheless objective indicators of the degree of disruption to daily life during the invasion and civil war periods is needed before we can make claims about the relationship between disruption to daily living and the strength of the LiH effect for specific historical periods.

The ANOVA also revealed a significant interaction between region and time period,  $F(3,126) = 3.4, p < .05, \eta^2 = .07$ . Post hoc paired *t*-tests for the Beirut group (with an adjusted

*p*-value of .005)<sup>9</sup> confirmed the descriptive data in Figure 1 which showed a bimodal distribution of *H-DAP* references, peaking during the onset of the civil war period and during the temporally embedded Israeli invasion period and significantly decreasing during periods of relative calm (before and after the civil war). For the Beirut group, significantly more *H-DAPs* were invoked during the civil war compared to the Pre- and Post-War periods,  $t(43) = -3.1, p < .01$  and  $t(43) = 4.5, p < .01$ , respectively. *H-DAP* references were also more frequent during the Israeli invasion compared to the Post-Civil War period, although the *p*-value was just short of the adjusted significance level,  $t(43) = 3.0, p < .01$ . With respect to the Bi'qa group, no comparisons reached the adjusted significance level suggesting that the main effect of Time Period reported above was driven by the varying frequencies in the Beirut group only. Together these results suggest that the LiH effect is intensity graded and that its temporal specificity is observable only in groups that experienced long-term chronic conflict. For the Beirut group, the waxing and waning of the LiH effect was in synchrony with the intensity of conflict, peaking both during the civil war period and during the nested Israeli invasion period.

### Self-reports of war exposure across geographical location

In this section we proceed to the third research question that concerns whether individual war experiences, specifically the three war exposure composites of Self-Exposure, Close-Other Exposure, and Displacement-Related Exposure, are related to the frequency of *H-DAP* references. Before examining the relationship between reported exposure and *H-DAP* frequency we look at whether the groups differed in the overall level and type of exposure.

<sup>8</sup>Since there were a significant number of unjustified responses due to our strict criteria for valid event dating, there were a slightly different number of categorisable responses across the participants. As such an identical analysis was run with the percentage of *H-DAP* references as the dependent variable. The results of this mixed repeated-measures analysis were identical to the repeated-measures analysis we report here which used *H-DAP* counts as the dependent variable.

<sup>9</sup>The *p* value for the post hoc paired *t*-test was adjusted for 10 comparisons (.05/10 = .005).

**TABLE 4**  
Severity and frequency of reported war events broken down by the three WEQ composite scores

	Beirut		Bi'qa	
	Severity Scores Mean(SD)	Frequency of Reported Events	Severity Scores Mean (SD)	Frequency of Reported Events
Close-Other Exposure Composite				
House Damage	6.68(6.5)	38	5.00(5.8)	28
Bodily Injury	3.60(3.6)	22	8.90(6.6)	46
Kidnapping	1.50(2.7)	16	3.90(3.8)	37
Business Loss	2.50(3.3)	22	2.30(2.5)	19
Sum	14.20	98	20.10	130
Self-Exposure Composite				
House Damage	3.18(1.7)	23	2.10(2.4)	15
Bodily Injury	0.18(.58)	6	0.18(.58)	2
Kidnapping	0.09(.42)	1	0.45(1.5)	6
Business Loss	1.87(2.9)	16	1.82(1.5)	1
Sum	5.32	46	4.54	24
Displacement Composite				
Number of Moves	1.80 (1.3)	40	0.77 (.81)	17
War Related Reasons for displacement	2.20(1.6)	8	0.77(.81)	1
Sum	4.00	48	1.54	18

An overall MANOVA, which compared the three mean composite scores across the Beirut and Bi'qa groups, was significant,  $F(3, 40) = 7.1$ ,  $p < .05$ , and the univariate tests revealed that the Beirut group ( $M = 4.0$ ,  $SD = 2.5$ ) showed significantly higher Displacement scores compared to the Bi'qa group ( $M = 1.5$ ,  $SD = 1.5$ ),  $F(1, 42) = 15.6$ ,  $p < .05$  (see Table 4 for the composite scores by region). The Self-Exposure scores did not reach significance, Beirut, ( $M = 5.3$ ,  $SD = 3.6$ ) and Bi'qa, ( $M = 4.5$ ,  $SD = 3.7$ ). The means for the Close-Other composite showed the largest difference with the Bi'qa group reporting seemingly more Close-Other exposure (Beirut,  $M = 14.4$ ,  $SD = 13.0$ ; Bi'qa,  $M = 20.2$ ,  $SD = 13.7$ ). However, because the standard deviations were large, this difference was not significant. This analysis suggests that only internal displacement-related upheaval, and not overall exposure, differentiates the war experiences of the Beirut and Bi'qa groups.

Taken together the results suggest two conclusions. First, the repeated-measures analysis shows that long-term Beirut residents had stronger LiH effects which peaked and waned with the intensity of conflict. The MANOVA results suggest that the Beirut group experienced more displacement-related war exposure than the Bi'qa group but that the groups did not differ significantly in their level of reported self-exposure or in close-other exposure. Thus far two group-level effects have

been observed: a group-level LiH effect and a group-level effect in terms of displacement experiences.

*The relationship between the LiH effect and personally experienced war related events.* In this analysis we go on to investigate more directly whether self-reports of displacement are related to the number *H-DAP* references independently of the influences brought about by the location of one's long-term residence. Using the Displacement variable as the covariate and long-term residence as the independent variable, results of the ANCOVA indicated a significant Displacement covariate  $F(1, 41) = 14.4$ ,  $p = .001$ , however the main independent variable, long-term residence, was no longer significant. Even when we added the two other covariates, Self and Other Exposure to the ANCOVA analysis, the Displacement covariate remained significant,  $F(1, 39) = 7.2$ ,  $p < .0$ , likewise Long-term Residence (Beirut vs Bi'qa) remained non-significant. The Self and Other Exposure covariates were not significant. Given that Displacement was a significant covariate and that Long-Term Residence no longer accounted for *H-DAP* variability when Displacement was taken into consideration, we concluded that, in contexts of long-term direct and indirect conflict, displacement related disruptions to the fabric of daily living accounted for variability in

the frequency of *H-DAPs*. The Beta coefficient for the Displacement composite was .336,  $t(39) = 3.6$ ,  $p < .05$ , suggesting that the intensity of displacement experiences are related to a stronger LiH effect. With these results, together with the finding that the LiH effect is strong in our two groups, our study suggests that there are both group- and individual-level influences on the formation of *H-DAPs*.

## DISCUSSION

In this project we set out to examine three main issues: (a) whether the LiH effect is strong but also geographically graded in contexts of prolonged conflict; (b) whether the frequency of *H-DAP* references (which are an index of the LiH effect) wax and wane with the intensity of conflict over time; and (c) whether individual levels of war exposure are related to the magnitude of the LiH effect. To examine these issues the word-cueing procedure was used to generate autobiographical memories that were subsequently dated. The presence and strength of the LiH effect was assessed by counting the historical landmarks and historical periods (*H-DAPs*) invoked during event dating and comparing the frequency of *H-DAPs* in our sample to the frequencies observed in 30 other samples. The use of *H-DAP* references for event dating is evidence that periods of collective transitions have contributed to the temporal structure of autobiographical memory.

To summarise the findings for the first research question, the percentage of *H-DAPs* in our two Lebanese samples, in comparison to the percentages observed in other samples, suggests that the LiH effect remains strong even 18 years after the civil war. Specifically in our samples, the Beirut group used historical landmarks to date 26.6% of their autobiographical memories, while *H-DAP* references were 13.7% of the dating protocols in the Bi'qa group. To date, the Beirut sample shows the strongest documented LiH effect, higher than the 23.9% observed in the Sarejevo Bosnia-Herzegovina sample which was studied 9–10 years after the end of their civil war. It is significant that, in both the Lebanese and Sarejevo samples, the LiH effect did not dissipate over time, neither in 10 years nor in 18 years after their respective civil wars. This finding is consistent with the claim that *H-DAPs* retain their

temporal specificity over the lifetime (Brown & Lee, 2010; Brown et al., 2012).

The second main finding was that the LiH effect was stronger for the Beirutis who were living in and had fled from the epicentre of the war than for the Bi'qa residents who were both indirectly affected by the war or experienced short-term conflict. A similar geographically based graded intensity effect was observed in the Balkan study. Serbian and Montenegrin samples, which were geographically close to the civil war in Bosnia, were much less likely to organise their memories in historical terms, showing a 5.3 and a 4.3% *H-DAP* prevalence rate (Brown et al, 2009).<sup>10</sup> However, in comparison to the Montenegrin and Serbian data, the robust LiH effect in the Bi'qa group (13.7%) suggests that this long-term conflict gave rise to a strong LiH effect even in regions beyond the epicentre of conflict.

From the perspective of the Transition theory, which argues that *H-DAPs* are formed in contexts of collective upheaval and within these contexts are intensity graded, a question arises as to why the Bi'qa group shows a relatively strong LiH effect given that the area experienced direct short-term conflict only between 1982 and 1985. One explanation could be that long-term conflict in a small country such as Lebanon indirectly changed the fabric of daily life for areas outside the conflict foci. If this explanation is correct, future research should find a strong LiH effect, perhaps on par with that observed in the Bi'qa, in other regions of the country.

The second issue addressed in the study was whether the LiH effect is stronger during periods of intense conflict compared to periods of relative calm. Here we found that the frequency of *H-DAP* references peaked and waned with the intensity of conflict for the Beirut group only (also see Conway & Haque, 1999). In our sample, Beirutis' *H-DAP* references were more frequent during the beginning of the civil war and during the Israel invasion and significantly less frequent during the pre- and post-civil war periods. This pattern is consistent with prior data collected from young adults living in Sarajevo, Bosnia, and Izmit, Turkey, and older individuals who lived in Denmark and the Netherlands during WWII. In these cases we saw a smattering of *H-DAP* references prior to the onset of the historically

<sup>10</sup> The three Balkan samples had cohort ages of 24, 25, 23.

defined period of upheaval, a large number of historical references during the span of time covered by the *H-DAP*, and then a sharp decline in *H-DAP* references as conditions returned to normal. These findings, combined with knowledge of Lebanon's recent history, provided an inductive justification for the prediction that the Lebanese samples might yield a bi-modal LiH effect.

The third issue was whether reported war exposure is related to the strength of an individual's LiH effect (i.e., the number of *H-DAP* references invoked). The results from the WEQ suggests that displacement-related exposure differentiated the Beirut and Bi'qa groups' war experiences; specifically, Beirutis left their homes to escape impending hostilities. No other group differences in exposure were observed, neither with respect to personal exposure or close-other exposure.

The final issue, and possibly the most perplexing, is that individual displacement-related exposure rather than long-term residence (a group-level effect) accounted for the number *H-DAP* references. Before we begin to discuss the relative contribution of group and individual experiences to the LiH effect, it is important to point out with respect to displacement-related exposure that, although there is a statistical relationship between the LiH effect and individual experiences of internal displacement, conceptually it would be misguided to treat internal displacement as purely an individual-level effect because personal transitions in these contexts are driven by and directly related to public events—and people recognise them as such. For example, internal displacement or immigration is recognised as being caused by unsafe living conditions and economic hardship caused by war and political instability. We note as we proceed in our discussion that it is technically and conceptually difficult to separate collective transitions and individual transitions in contexts of protracted conflict, yet our ANCOVA findings present an opportunity to reflect more deeply about their relative contribution to the formation of *H-DAPs*.

Our view is that the LiH effect can be driven by two types of transitions, collective and personal. Based on the current findings which show a strong LiH effect in both our Lebanese samples and based on past research with 30 samples, historically defined autobiographical periods seem to be formed only when individuals collectively experience epoch-defining events which

simultaneously change the fabric of daily living for many people (e.g., natural disasters or prolonged conflict; Brown et al., 2009; Brown et al., 2012). The available evidence showing LiH effects in Turkey, Bosnia, and among Dutch WWII civilians suggests that these collectively experienced epoch-defining events are necessary contexts for *H-DAP* formation (Brown et al., 2009). Within contexts of protracted upheaval, collective changes to the material conditions such as how food, clothing, and shelter are secured and how individuals conduct their daily affairs is what drives the group-level LiH effect. Both of our samples experienced changes to their material conditions and it is these changes that have been shown to bring about the LiH effect. When changes in the material conditions are long term and more intense, as was the case in our Beirut group, LiH effect appears even stronger.

Turning to the internal displacement result, we will interpret it with caution because it is a new finding. The ANCOVA results suggest that internal displacement is a better predictor of the LiH Effect than the location of an individuals' long-term residence. This may not be a surprising finding since the variable, location of long-term residence, is a rather indirect way to assess the degree to which protracted conflict brings about collective transitions, and furthermore it does not account for individual experiences within these contexts. In contexts of protracted civil war where displacement is frequent, as we observed in our Beirut sample, long-term residence may not necessarily be the best indicator of collective transitions because individuals moved frequently and might have lived in different locations for long periods of time as they waited out periods of intense conflict. As such, long-term residence may not capture the nuances and heterogeneity of war experiences in such contexts. From this perspective and given that the right conditions were present for *H-DAP* formation (widespread social upheaval) it is not surprising that individual experiences are a good predictor of the strength of the effect. In comparison to civil wars and sectarian violence, natural disasters (as was studied in the Imizit Turkey sample) are entirely indiscriminate, and thus using geographical location as an indicator of upheaval to predict the LiH effect may suffice in these contexts and also in violent contexts where upheaval might be indiscriminate (e.g., the Siege of Sarajevo).

Finally, and independently of how one interprets the relative contribution of group and

individual level effects, the central finding we wish to emphasise is that individuals in these contexts of protracted conflict often use the war and war-related historical events as a reference point rather than the personal transitions/periods that were established by the move.

The current study advances autobiographical memory research by demonstrating that both collective transitions and publically motivated individual transitions play a central role in the organisation of autobiographical memory. Adding to the perspectives gained in this study, future research might consider the origins of *H-DAPs* and whether they have implications for other aspect of AM organisation. A final suggestion for future research is to examine the role that *H-DAPs* might have in the formation of collective memories and group identity, given the view that historical consciousness may be related to the protracted nature of group conflict (Bar-Tal, 2007; Cairns & Roe, 2003; Halbwachs, 1992).

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## REFERENCES

- Auriat, N. (1993). "My wife knows best": A comparison of event dating accuracy between the wife, the husband, the couple, and the Belgium Population Register. *The Public Opinion Quarterly*, 57, 165–190. doi:10.1086/269364
- Bar-Tal, D. (2007). Sociopsychological foundations of intractable conflicts. *American Behavioral Scientist*, 50, 1430–1453.
- Barsalou, L. W. (1988). The content and organisation of autobiographical memories. In U. Neisser & E. Winograd (Eds.), *Remembering reconsidered: Ecological and traditional approaches to the study of memory* (pp. 193–243). Cambridge, UK: Cambridge University Press.
- Brown, N. R. (1990). Organisation of public events in long-term memory. *Journal of Experimental Psychology: General*, 119, 297–314. doi:10.1037//0096-3445.119.3.297
- Brown, N. R., Hansen, T. G. B., Lee, P. J., Vanderveen, S. A., & Conrad, F. G. (2012). Historically-defined autobiographical periods: Their origins and implications. In D. Berntsen & D. Rubin (Eds.), *Understanding autobiographical memories: Theories and approaches*. Cambridge, UK: Cambridge University Press.
- Brown, N. R., & Lee, P. J. (2010). Public events and the organisation of autobiographical memory: An overview of the living-in-history project. *Behavioural Sciences of Terrorism and Political Aggression*, 2, 133–149. doi:10.1080/19434471003597431
- Brown, N. R., Lee, P. J., Krslak, M., Conrad, F. G., Hansen, T., Havelka, J., & Reddon, J. (2009). Living in history: How war, terrorism, and natural disaster affect the organisation of autobiographical memory. *Psychological Science*, 20, 399–405. doi:10.1111/j.1467-9280.2009.02307
- Brown, N. R., & Schopflocher, D. (1998). Event cueing, event clusters, and the temporal distribution of autobiographical memories. *Applied Cognitive Psychology*, 12, 305–319.
- Brown, N. R., & Svob, C. (2012). *The effect of collective transitions or the organisation of autobiographical memory and the temporal distribution of memorable personal events*. Manuscript in preparation.
- Cairns, E., & Roe, M. D. (Eds.). (2003). *The role of memory in ethnic conflict*. New York, NY: Palgrave Macmillan.
- Conway, M. A. (2005). Memory and the self. *Journal of Memory and Language*, 53, 594–628.
- Conway, M. A., & Haque, S. (1999). Overshadowing the reminiscence bump: Memories of a struggle for independence. *Journal of Adult Development*, 6, 35–44. doi:10.1023/A:102167220815
- Crovitz, H. F., & Schiffman H. (1974). Frequency of episodic memories as a function of their age. *Bulletin of the Psychonomic Society*, 4, 517–518. doi:10.1037/0278-7393.10.4.745
- Friedman, W. J. (1993). Memory for the time of past events. *Psychological Bulletin*, 35, 1–36.
- Halbwachs, M. (1992). *On collective memory* [trans. L. Coser]. Chicago: University of Chicago Press.
- Haugbolle, S. (2011). The historiography and the memory of the Lebanese civil war. In *Online encyclopedia of mass violence*, [online] published on 25 October 2011, accessed 2 October 2012, <http://www.massviolence.org/The-historiography-and-the-memory-of-the-Lebanese-civil-war>. ISSN 1961-9898
- Janssen, S. M. J., & Murre, J. M. J. (2008). Reminiscence bump in autobiographical memory: Unexplained by novelty, emotionality, valence or importance of personal events. *Quarterly Journal of Experimental Psychology*, 61, 1847–1860. doi:10.1080/17470210701774242
- Karam, E., Al-Atrash, R., Saliba, S., Melhem, N., & Howard, D. (1999). The War Events Questionnaire. *Social Psychiatry Psychiatric Epidemiology*, 34, 265–274. doi:10.1016/j.jad.2008.03.016
- Khalaf, S. (2002). *Civil and uncivil violence in Lebanon: A history of the internationalisation of communal conflict*. New York, NY: Columbia University Press. doi:10.1111/1475-4967.00089
- Levy, B. S., & Sidel, V. W. (1997). *War and public health*. New York, NY: Oxford University Press.
- Linton, M. (1986). Ways of searching and the contents of memory. In D. C. Rubin (Ed.), *Autobiographical memory* (pp. 50–67). Cambridge, UK: Cambridge University Press.
- Loftus, E. F., & Marburger, W. (1983). Since the eruption of Mount St. Helens, has anyone beaten you up? Improving the accuracy of retrospective reports with landmark events. *Memory and Cognition*, 11, 114–120.
- Makdissi, S. (2004). *The lessons of Lebanon: The economics of war and development*. New York, NY: I. B. Tauris. doi:10.1080/14753680500064067



- Makdisi, S., & Sadaka, R. (2002). *The Lebanese civil war, 1975–1990*. Beirut: American University of Beirut, Lecture and Working Paper Series (no. 3).
- Na, J., Grossmann, I., Varnum, E. W. M., Kitayama, S., Gonzalez, R., & Nisbett, R. E. (2010). Cultural differences are not always reducible to individual differences. *Proceedings of the National Academy of Sciences of the United States of America*, *107*, 6192–6197. doi:[10.1073/pnas.1001911107](https://doi.org/10.1073/pnas.1001911107)
- Najem, T. (2002). *Lebanon: The politics of a penetrated society*. London: Routledge.
- Robinson, J. A. (1976). Sampling autobiographical memory. *Cognitive Psychology*, *8*, 578–595. doi:[10.1016/0010-0285\(76\)90020-7](https://doi.org/10.1016/0010-0285(76)90020-7)
- Rubin, D. C., Rahhal, T. A., & Poon, L. W. (1998). Things learned in early adulthood are remembered best. *Memory & Cognition*, *26*, 3–19. doi:[10.3758/BF03211366](https://doi.org/10.3758/BF03211366)
- Rubin, D. C., & Schulkind, M. D. (1997). The distribution of autobiographical memories across the life-span. *Memory & Cognition*, *25*, 859–866.
- Rubin, D. C., Wetzler, S. E., & Nebes, R. D. (1986). Autobiographical memory across the life-span. In D. C. Rubin (Ed.), *Autobiographical memory* (pp. 202–221). New York, NY: Cambridge University Press.
- Salibi, K. (1988). *A house of many mansions: The history of Lebanon reconsidered*. London: I. B. Tauris.
- Shum, M. (1998). The role of temporal landmarks in autobiographical memory processes. *Psychological Bulletin*, *124*, 423–442. doi:[10.1037/0033-2909.124.3.423](https://doi.org/10.1037/0033-2909.124.3.423)
- Smith, J. A., & Thomas, D. (2003). Remembrances of things past: Test–retest reliability of retrospective migration histories. *Journal of the Royal Statistical Society Series A, Royal Statistical Society*, *166*, 23–49.
- Svob, C., & Brown, N. R. (2012). Intergenerational transmission of the reminiscence bump and biographical conflict knowledge. *Psychological Science*, *23*, 1404–1409.
- Thomsen, D. K., & Berntsen, D. (2008). The cultural life scripts and life story chapters contributed to the reminiscence bump. *Memory*, *16*, 420–435.
- Thompson, C. P., Skowronski, J. J., Larsen, S. F., & Betz, A.L. (1996). *Autobiographical memory: Remembering what and remembering when*. New York, NY: Lawrence Erlbaum Associates. doi:[10.1037/1089-2680.7.2.203](https://doi.org/10.1037/1089-2680.7.2.203)
- Uzer, T., Lee, P. J., & Brown, N. R. (2012). On the prevalence of directly retrieved autobiographical memories. *Journal of Experimental Psychology: Learning, Memory & Cognition*, *38*, 1296–1308.

**APPENDIX**  
**Adapted War Events Questionnaire (Karam et al. 1988)**

I am going to ask you about specific war events that may have happened to you or to somebody close to you since you were very young (approximately 7 years of age). The event could have occurred **several times**:

**1. HOUSE DAMAGE**

**a. Has the house of someone very close\* to you been hit?**

	Date Month/Year	Never Hit	Shrapnel Only	More than shrapnel	Less than Partially destroyed	Partially destroyed	Totally Destroyed
Person 1							
Person 2							
Person 3							

\*A very close person is consider to be emotionally close and is left to the participant to identify.

**b. Has your house been hit?**

	Date Month/Year	Never Hit	Shrapnel Only	More than Shrapnel	Less than partially destroyed	Partially destroyed	Totally Destroyed
Event 1							
Event 2							
Event 3							

**2. PHYSICAL INJURY**

**a. Has someone very close to you been injured?**

	Date Month/Year	Not Injured	Almost injured	Superficial injury	Serious injury	Fatal
Person 1						
Person 2						
Person 3						

**b. Have you been injured?**

	Date Month/Year	Not Injured	Almost injured	Superficial injury	Serious injury
Event 1					
Event 2					
Event 3					

### 3. KIDNAPPING

**a. Has anyone close to you been kidnapped?**

	Date Month/year	Not Kidnapped	Returned	Not year returned	Safe And retu rn	Injured And returned	Killed
Person 1							
Person 2							
Person 3							

**b. Have you been kidnapped?**

	Date Month/year	Not Kidnapped	Kidnapp ed and Returned Safely	Kidnapped and Injured
Event 1				
Event 2				
Event 3				

### 4. BUSINESS Loss

**a. Has someone very close to you lost money/business or property?**

	Date Month/ Year	Partial permane nt loss.	Complete loss but regained	Complete loss but almost regained	Complete loss and not regained at all
Person 1					
Person 2					
Person 3					

**b. Have you lost money/business or property?**

	Date Month/ Year	Partial permanent loss.	Complete loss but regained	Complete loss but almost regained	Complete loss and not regained at all
Event 1					
Event 2					
Event 3					
Event 4					
Event 5					

**B. War Events - Part 2 (optional)†**

### MIGRATION

1. Since your childhood (approximately 7 years of age) have you changed your main residence for one of the following reasons?

Residence (place)	Date Moved	Duration in weeks	Reason (a-e) choose 1 Option

- a. Not due to war
- b. Shelling
- c. Hostile environment
- d. Hostile environment and Military tension
- e. Displaced by force