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Metacognitive appraisal of memory inconsistency for traumatic events in Dutch veterans

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Although memories of traumatic events are often remembered vividly, these memories are subject to change over time. In our previous study, we found that Dutch infantry veterans who had served in Iraq often reported stressful events at a second assessment point that they had not reported during a prior assessment point and vice versa. In the present exploratory study, we recontacted subjects from this previous study and asked how they explained the discrepancy in their memory reports between post-deployment assessment points 1 and 2. Common explanations were: interpreting the item differently, having forgotten the incident initially, repression and having accidentally incorporated someone else's experience into their own memory. Although such reports are not necessarily revelatory of the mechanisms driving discrepancies in memory reports over time, our study illuminates the metacognitive variables involved.

Keywords: Traumatic memory; Memory distortion; Veterans.

People who encode an emotionally traumatic event tend to remember its central details very well (e.g., McNally, 2003, pp. 105–124; Porter & Peace, 2007)—or at least they believe they do. Trauma can seem indelibly engraved in one's memory. Indeed, van der Kolk and Fisler (1995) have argued that manifestations of traumatic memory “are invariable and do not change over time” (p. 520), whereas ordinary narrative memory is subject to fading and alteration. Herman (1992) has claimed that memories of trauma are

“frozen” (p. 37, 189), and prior to their groundbreaking work on reconsolidation (e.g., Nader, Schafe, & Le Doux, 2000), behavioural neuroscientists believed that emotional memories were indelible (LeDoux, Romanski, & Xagoraris, 1989). If memories of trauma are indelible, then their manifestations should be consistent over time.

Yet the mind does not operate like a videotape machine (Loftus & Loftus, 1980), faithfully recording one's experiences and thereby enabling flawless subsequent recollection. Indeed, recollection

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is closer to reconstruction than to reproduction. Recall of any autobiographical episode, including traumatic ones, entails reassembly of encoded features of the event distributed throughout the brain (Schacter, 1996).

Studies show that memory for trauma—or at least self-reports of memory for trauma—often change over time. That is, survivors' accounts of their experience are often inconsistent. For example, six months after a psychotic woman shot students at an elementary school in suburban Chicago, Schwarz, Kowalski, and McNally (1993) asked school personnel to complete a questionnaire concerning their memory of the trauma. It included a checklist of questions about their proximity to the site and their emotional and sensory experiences on the day of the incident. Eighteen months after the shooting, Schwarz et al. readministered the questionnaire. Each subject recalled the event differently at 18 months relative to how he or she recalled it at six months. Subjects whose post-traumatic stress disorder (PTSD) symptoms remained severe at 18 months recalled the event as more harrowing than they did at six months. In contrast, subjects whose symptoms improved by 18 months recalled the event as less harrowing than they did at six months. These data suggest that a person's memory of a trauma can be enhanced or diminished depending on their emotional state when recalling it.

Others have reported similar findings. Harvey and Bryant (2000) interviewed accident survivors 1 and 24 months after the accident. During the second interview, they questioned subjects about the presence and onset of acute stress disorder (ASD) symptoms. At this interview, only 25% of subjects accurately remembered the symptoms they had reported one month after the accident. PTSD symptoms at the second interview were positively correlated with recalling symptoms that they had not reported at the first interview ($r = .43$). In contrast, psychiatrically healthy subjects tended to forget having reported certain ASD symptoms at the first interview.

The aforementioned studies concern inconsistent accounts of a single event across time. Other studies have assessed memory consistency for the occurrence of military stressors among those deployed to war zones. For example, Southwick, Morgan, Nicolaou, and Charney (1997) examined memory consistency for deployment-related stressors among veterans of the Persian Gulf War one month and two years after their return to America. Their questionnaire comprised a list of stressors

that asked respondents to indicate the ones they encountered during the war. Southwick et al. found that responses changed for 88% of the subjects: 70% of veterans recalled experiencing a trauma at two years that they failed to mention at one month, and 46% failed to mention a trauma at two years that they had mentioned at one month. The severity of PTSD symptoms at the two-year follow-up significantly predicted the number of traumatic events mentioned at two years that veterans had not mentioned at one month.

Using this approach, other researchers have reported broadly similar findings when testing memory for stressful events in Vietnam veterans (King et al., 2000), American peacekeepers who had served in Somalia (Roemer, Litz, Orsillo, Ehlich, & Friedman, 1998) and British veterans of the Persian Gulf War (Wessely et al., 2003). However, Wessely et al. found that increased reporting of military hazards, often potentially toxic exposures, was associated with veterans' perception of worsening physical health over time rather than worsening self-reported PTSD symptoms. Comparable findings have also been reported in civilian samples (e.g., Giosan, Malta, Jayasinghe, Spielman, & Difede, 2009). Most studies used standardised questionnaires or interviews, rather than a free recall reporting of a traumatic memory [but see Dekel and Bonanno (2013), for a recent exception].

In a prospective study of memory consistency, we assessed Dutch infantry personnel on measures of life events, personality and psychopathology approximately six weeks prior to their four-month deployment to Iraq (Engelhard, van den Hout, & McNally, 2008). We readministered some of these measures, plus checklists of traumatic and sub-traumatic deployment-related stressors at 5 and 15 months after their return from Iraq. The results showed that 80% of the subjects failed to endorse experiencing at least one stressor at 15 months that they had endorsed experiencing at 5 months, and 70% of subjects endorsed experiencing a stressor at 15 months that they did not endorse having experienced at 5 months. We found that subjects whose PTSD symptoms had worsened at 15 months, exhibited an increase in reporting of stressors at 15 months that they had not reported at 5 months (i.e., a no to yes [NY]) change. PTSD symptoms were unrelated to YN changes.

Six years after the end of the Persian Gulf War, Morgan and Southwick (1999) recontacted veterans from their original study of memory inconsistency for traumatic events (Southwick et al., 1997).

After completing questionnaires once again, the investigators showed subjects their one-month and two-year reports of traumatic events, and they asked subjects to comment on the inconsistencies between the two stressor checklists. Upon seeing the inconsistencies, 30 of 32 subjects expressed surprise, and nearly all of them suggested an explanation for the inconsistencies. Common explanations were: memories decay over time; they interpreted key words on the checklist differently across assessment sessions; their memories had become altered by exposure to media coverage of the war or by subsequent discussions with friends; and retrospective reinterpretation of the originally endorsed events.

Once they had provided explanations for the discrepancies between the one-month and two-year discrepancies, subjects were shown their six-year reports. Each subject noticed that his response to at least one item on this third checklist was inconsistent with the explanation that he had just provided for inconsistencies between endorsement patterns on the first two checklists. Amazed by this, most subjects tried to provide yet another explanation that could account for discrepancies across all three checklists. However, none was confident of the correctness of his new explanation. Interestingly, PTSD symptoms at the six-year assessment were associated with endorsement inconsistencies between the second and the third checklists. However, the changes were no longer unidirectional; PTSD symptoms predicted YN changes as well as NY changes.

Inspired by Morgan and Southwick's work, we endeavoured to answer the question: "How do Dutch infantry veterans deployed to Iraq explain inconsistencies in their reporting of exposure to war-related stressors on checklists administered at 5-month and 15-month postdeployment?" To answer this question, we contacted as many subjects as possible from our original study of memory inconsistency five years after their return from the war (Engelhard et al., 2008). We mailed them a questionnaire asking them with an open-ended question to provide their own explanations for specific inconsistencies we had detected between their 5-month and 15-month reports (i.e., an incident they had reported at 15 months that they had not reported at 5 months). Then, on the next page, the questionnaire contained a checklist of potential explanations for memory inconsistency that included the common explanations reported by Morgan and Southwick (1999), such as interpreting the questionnaire differently;

remembering the event, but not wanting to admit it; and having forgotten the event initially.

METHOD

Subjects and procedure

We recontacted subjects who had participated in our memory consistency study (Engelhard et al., 2008). The original sample consisted of 214 (5% female) infantry troops of the Royal Netherlands Army who enrolled in the study before their four-month deployment to Iraq in 2004 (March–July). They were stationed in the Iraqi province of Al-Muthanna under the British command. They were on average 23.1 years old ($SD = 4.5$). Most of them were single; 22% was married or cohabiting. The majority had finished high school, 7% only finished elementary school and 2% was college-educated. Nearly two-thirds had not been deployed before, 24% had one prior deployment and 15% had two or three prior deployments. A detailed description of the general procedure appears elsewhere (e.g., Engelhard et al., 2007).

About five months after returning home, 171 (80%) participants completed questionnaires about potentially traumatic stressors and non-traumatic stressors in Iraq and PTSD symptoms. About 15 months after returning home, 152 participants (71%) completed the same questionnaires. A total of 133 participants completed both follow-up questionnaires. Among those participants, 106 had at least one "no to yes" change (i.e., incident not reported at Time 1, but reported at Time 2) on the Potentially Traumatizing Events Scale (PTES; Engelhard & van den Hout, 2007; Maguen, Litz, Wang, & Cook, 2004; see Engelhard et al., 2008). Sixty-seven of them had given permission to be contacted again for further research and had a verifiable current address. We contacted them about five years after returning home from deployment (fall of 2009) by sending them a letter, a consent form, a survey and a return envelope. Thirty-one of them completed and returned the consent form and survey (response rate: $31/67 = 46\%$). They received a small monetary honorarium for participating. The Institutional Review Board of Maastricht University approved this study.

The survey consisted of questions about demographics, the meta-memory questions and the PTSD Symptom Scale (PSS-SR; see below). The

Positive Military Experiences Scale (Maguen et al., 2004), the PTES, the General Overseas Mission Stressors and Negative Peacekeeping Experiences Scale (Maguen et al., 2004) and a few open-ended questions about experiences in the military were also administered, but are irrelevant for this study and will not be reported.

Measures

Metacognitive questions. We developed a questionnaire for assessing metacognitive appraisal of memory inconsistency. We asked each participant about one specific item on the PTES that they had not endorsed 5 months after deployment, but had endorsed at 15 months. In our earlier study (Engelhard et al., 2008), we found that recall of both relatively objective traumatic events (e.g., being shot at) and subjective events (e.g., fear of being ambushed or attacked, fear that you might be taken hostage) changed over time. In the current study, we singled out an item for each participant by choosing one that referred to a specific, non-trivial event, such as being shot at, being injured in an accident, witnessing an explosion, having to aid in the removal of human remains and seeing dead or injured soldiers or civilians. We asked participants to provide their own answer to an open-ended question, and then, on the next page had them check off possible reasons for the discrepancy.

The instructions were as follows:

Many people experience changes in their memories over time. Sometimes they may remember things at one point in time, but then forget them later. In other cases, they may fail to remember something at one point in time, but then remember it later. We are interested in memories in people who have served in Iraq, and how they may change over time. We are therefore asking you to answer a few brief questions about your memory of experiences in Iraq.

As you know, you had completed a questionnaire about these experiences on two occasions after your deployment to Iraq. Like many of your colleagues, you had said that you had not had a certain experience in Iraq on questionnaire 1, but on questionnaire 2 you said that you did have that experience. We are interested in your thoughts about how best to explain the discrepancy in memory across the two testings.

Then the open-ended question followed:

At Time 1, you said that you HAD NOT [the event listed here was personalized for each participant on the basis of the participant's earlier response, e.g., been shot at], but at Time 2 you said that you HAD [been shot at]. In your opinion, why do you think your answers changed from Time 1 to Time 2?

On the next page, the closed-ended question followed:

Below is a list of possible explanations why your response changed. Please read each explanation, and check off the three explanations that seem most likely to you (putting a 1 next to the most likely explanation, 2 next to the 2nd most likely, 3 next to the 3rd most likely).

- (a) __At Time 1, I remembered being shot at, but did not want to admit it on the questionnaire.
- (b) __At Time 1, I had forgotten that I'd been shot at, but I remembered it at Time 2.
- (c) __I think that I may have interpreted what was meant by "shot at" differently at Time 2.
- (d) __At Time 1, I unconsciously repressed the memory of being shot at, but I remembered it at Time 2.
- (e) __At Time 2, I think that I might have accidentally incorporated someone else's experience of being shot at into my own memory.
- (f) __I think that my responses were consistent at Time 1 and Time 2 and my memory has not changed.

PTSD Symptom Scale. The PSS-SR (Engelhard, Arntz, & van den Hout, 2007; Foa, Riggs, Dancu, & Rothbaum, 1993) was used to measure the severity of PTSD symptoms. It has 17 items that correspond with the 17 PTSD DSM-IV symptoms and are rated on a 4-point severity scale (0 = not at all, 3 = almost always). The total score was used (current study: $\alpha = .94$; possible range: 0–51).

RESULTS

There were no significant differences between responders and non-responders for pre-deployment neuroticism and extraversion scores (measured with Eysenck Personality Questionnaire; Eysenck

TABLE 1
Participants' responses to the open-ended question

N = 30	<i>Incident not reported at Time 1, but reported at Time 2</i>	<i>Participant's explanation</i>
1	Having to aid in the removal of human remains	Maybe an unconscious memory block.
2	Seeing dead or injured civilians	At Time 1, [I] was more occupied by my own suffering than anyone else's. Perhaps the military culture (tough men) also played a big role. If someone [else] has been through something that's awful, then I at least had to have seen a dead or injured civilian.
3	Seeing human remains	I think that after a longer period, [I was] more able to make sense of things or [I had] simply forgotten.
4	Having injured civilians due to own action	Different perspective, details come with time.
5	Seeing dead or injured NATO (non-Dutch) soldiers	Because, at Time 1, people have had their fill of the deployment, and [therefore] also the questionnaire. At Time 2 they start thinking about it again, in order to help you as well as possible.
6	Seeing dead or injured Dutch soldiers	Misread the question? Or [it is] the way it was worded: Seen in the [detailed information removed] coffin, but not in the field.
7	Disarming civilians	At that time [it] did not make much of an impression, but when you think about it later, it does. Or because it's part of your job.
8	Needing to manage civilians in chaotic conditions	Perhaps because so soon after deployment you do not yet consider certain situations to be chaotic or unpredictable, but [consider them to be] 'normal'. It is not until later that you realize that a situation was actually risky.
9	Seeing human remains	Confused [my second response] with a later deployment to Afghanistan.
10	Having to aid in the removal of human remains	At Time 1, I had not read the question properly.
11	Locating unexploded land mines	I cannot remember saying [this]. I did not see any there. I did see unexploded ordnance. [detailed information removed] To answer the question, I think that you first say something different and then later you give a different answer. The more time you have to think about something, the more you can change it, even if you think that that is the reality.
12	Witnessing violence	I think that over time the impressions decrease in quantity but increase in "intensity". By often going over the events, the emphasis is being placed on the incidents against us, the military. A second explanation may be that I first thought that "witnessing violence" referred to [violence] "between Iraqis". Only later did I realize that the "violence" was also aimed at us.
13	Seeing dead or injured Dutch soldiers in Iraq	Probably because at first you do not want to face it, because it is more like a movie. Over time, you have found some rest and got everything straight in your mind and talked about it with colleagues/friends.
14	Seeing dead or injured Dutch soldiers	?
15	Seeing dead or injured NATO (non-Dutch) soldiers	I do not know. [I] cannot remember much of the deployment.
16	Seeing dead or injured NATO (non-Dutch) soldiers	It had less impact on me, because they were not Dutch military.
17	Seeing dead or injured NATO (non-Dutch) soldiers	I cannot remember seeing a dead or wounded NATO soldier. I know that British people were brought in, because they had had a car accident. Of course I know about the death of [name of fellow soldier]. In Kuwait, I often saw coffins being loaded in American aircrafts. However, I cannot remember seeing this from up close. I do not have an explanation for this.
18	Having to aid in the removal of human remains	Because of contacts with colleagues who were in the same area, and who did have to remove human remains. When you regularly talk to each other about what has happened, you take on memories from each other, because you slowly start to forget things.
19	Having to aid in the removal of unexploded ordnance	I have been deployed several times and therefore mixed things up, I think.
20	Witnessing an explosion	(no response given)
21	Being shot at	Because at Time 1, I did not think that a mortar attack was a shooting, and at Time 2 I did.

TABLE 1 (Continued)

N = 30	<i>Incident not reported at Time 1, but reported at Time 2</i>	<i>Participant's explanation</i>
22	Locating unexploded land mines	(no response given)
23	Being shot at	My answer may have changed because of the phrasing of the question: I was shot at, but it was friendly fire [detailed information about the incident removed]. So as far as I am concerned it was more about the phrasing of the question than my memory. I probably thought at Time 1 that the question was about enemy fire, and at Time 2 that it was "being shot at" in general.
24	Being shot at	No idea, I think I repressed it.
25	Seeing dead or injured Dutch soldiers	At Time 2, I thought that the farewell ceremony of [name of fellow soldier] also matched the definition; I probably interpreted the definition differently at Time 1.
26	Seeing dead or injured civilians	I cannot remember this anymore. I think I gave the same answers at Time 1 as at Time 2. I really do not know; no: I did not repress it!
27	Patrolling through the zone of separation	At Time 1, I probably filled out the questionnaire too quickly. At Time 2, the memories had sunk in better and I took more time to fill out the questionnaire.
28	Having to aid in the removal of unexploded ordnance	[detailed information about this incident removed] At Time 1, this memory probably did not directly come to mind. I also think/notice that in the past two years I remembered more "little" things that we experienced as a group that at first did not come to mind at all. In short: everything seems to have [fallen into] place [now].
29	Locating unexploded land mines	I honestly do not know. If I look back at this question in the questionnaire I see that I also filled in here that I did not experience this myself. Perhaps my answer at Time 2 was a mistake, and I accidentally gave the wrong answer.
30	Being shot at	At Time 1, I may not have seen it as a personal experience, and at Time 2, perhaps I did. As a platoon, we were not shot at, but as [a] unit and Dutch soldiers we certainly were.

& Eysenck, 1975; Sanderman et al., 1991) and educational level ($F_s < 1$). There were also no differences in the number of events on the PTES rated at least "moderately" negative at 5 months and 15 months after deployment ($F_s < 1$), the number of "no to yes" changes on the PTES ($F < 1$), and PSS scores before deployment [$F(1, 58) = 1.31, p = .26$], and 5 and 15 months later ($F_s < 1$). Responders were slightly older than non-responders [$F(1, 65) = 2.63, p = .11$], and had more prior deployments [$F(1, 65) = 1.86, p = .18$], but these effects were non-significant.

One subject did not complete the PSS-SR. The mean on the PSS-SR was 4.77 ($SD = 7.22$; obtained range: 0–38). According to Coffey, Gudmundsdottir, Beck, Palyo, and Miller (2006)'s cut-off score of 14, two subjects (2/30 = 6.6%) screened positive for PTSD.

Meta-memory questions

One subject did not complete the meta-memory questions. Another responded "don't know" to the open-ended question and did not respond to the closed-ended question. Table 1 shows the answers to the open-ended questions. Although the translation from Dutch to English was done

faithfully by one of the authors (IME) and was checked by a professional translator, some Dutch answers remained unclear. Accordingly, we inserted our best interpretation of these unclear replies in brackets. To ensure anonymity, we removed names and detailed information about certain incidents that was irrelevant for the answer and also indicated this in brackets.

Table 2 presents the responses to the closed-ended question. The most common explanation for a "no to yes" change was that veterans believed that they interpreted the item differently at Time 2 relative to Time 1. The second most common explanation was that they had forgotten the incident at Time 1, but remembered it at Time 2. The third and fourth most common explanations were that they had unconsciously repressed the memory of the incident at Time 1, but remembered it at Time 2, and that they had accidentally incorporated someone else's experience into their own memory. A minority thought they did not want to admit the incident at Time 1.

DISCUSSION

Although memory for emotionally stressful events does tend to be remembered especially

TABLE 2
 Explanations for incident not reported at Time 1, but reported at Time 2

Explanation	Responses (N = 29)			
	Most likely n (%)	Second most likely n (%)	Third most likely n (%)	Total (%)
Not wanting to admit	1 (3.5)	2 (9.5)	2 (9.5)	5 (7.0)
Forgotten	2 (6.9)	6 (28.6)	5 (23.8)	13 (18.3)
Different interpretation	13 ^a (44.8)	7 (33.3)	2 (9.5)	22 (31.0)
Repressed	3 (10.3)	2 (9.5)	3 (14.3)	8 (11.3)
Someone else's experience	1 (3.5)	0 (0.0)	6 (28.6)	7 (9.9)
Responses were consistent	9 (31.0)	4 (19.1)	3 (14.3)	16 (22.5)
Total (%)	29 (100.0)	21 (100.0)	21 (100.0)	71 (100.0)

^aOne of these participants rated "Different interpretation" as "most likely" explanation, and also rated "Responses were consistent" as "most likely". We only include this person in the former category. It is unclear what to make of this. Perhaps the person felt that a different interpretation of an item goes together with a consistent response (i.e., the interpretation was different, but not the memory itself).

well (e.g., Porter & Peace, 2007), it, too, is subject to distortion as a growing number of studies confirm (e.g., Morgan, Southwick, Steffian, Hazlett, & Loftus, 2013; Nourkova, Bernstein, & Loftus, 2004). As we noted earlier, there are two ways to study such distortion. First, one can examine how reports of a single traumatic experience change over time (e.g., Schwarz et al., 1993). In such studies, one can investigate memory for the traumatic stimulus, memory for one's emotional response to it or both. Second, one can examine endorsement of whether the traumatic event occurred at all, often with the use of checklists of stressors (e.g., Southwick et al., 1997). This second strategy often permits assessment of many subjects exposed to broadly similar circumstances such as deployment to a war zone.

In the current study, we used the second checklist method, and singled out one memory change about an incident participants had reported at 15 months that they had not reported at 5 months. Subjects were asked to complete a questionnaire that included an open-ended question about their own explanation for this discrepancy, followed by a checklist of potential explanations for memory inconsistency inspired by Morgan and Southwick's (1999) study. An advantage of the checklist over the open-ended question is that responses are easier to code and interpret. However, a limitation is that participants could have read ahead and could therefore have been constrained in the open-ended questions by the options later given.

On the one hand, the current data seemingly imply that people can forget an entirely traumatic episode or (inadvertently?) fabricate one. On the other hand, as Morgan and Southwick observe,

one must be careful about such global interpretations of inconsistent reporting. For example, one of their subjects initially responded "no" to the question of whether he lost a buddy in the war, yet responded "yes" on a later checklist. The subject explained that he had not forgotten the death of the fellow soldier when completing the first checklist, but rather he only (retrospectively) considered the dead man as a "friend" when completing the second checklist. In the current study, some subjects reported similar experiences. For instance, one subject who initially responded "no" to the question of whether he had been shot at, but responded "yes" at a later assessment, explained that initially he may not have seen it as a personal experience, and later perhaps he did. He wrote: "As a platoon, we weren't shot at, but as a unit and Dutch soldiers we certainly were" (see Table 1). Another subject explained that he was shot at, but it was friendly fire, and probably thought initially that the question was about enemy fire, and later thought it was a more general question. Accordingly, differences in how participants respond to checklists of stressful events across assessment points *may* indicate changes in memories that provide the basis for their responses or may indicate how participants *interpret* otherwise unaltered memories.

Earlier research has shown that memory inconsistencies are associated with PTSD symptoms: the more PTSD symptoms over time, the more participants change their initial non-endorsement of traumatic events to endorsement (e.g., Engelhard et al., 2008; Giosan et al., 2009; Schwarz et al., 1993; Southwick et al., 1997). In the current study, PTSD symptoms were generally low, which may

reduce the generalizability of the findings to clinical samples. In addition, the sample consisted mainly of young male soldiers, which may also impede generalizability of the findings to others such as female soldiers or to older veterans.

Our work and that of Morgan and Southwick is among the first inquiries into metacognitive appraisal of inconsistency in memory reports of traumatic stressors. The findings are limited to inconsistency between administrations of a checklist of stressors, rather than inconsistencies in the free recall of a traumatic event. To be sure, the explanations provided by subjects do not necessarily confirm the basis for memory inconsistency, but they can provide clues. Data bearing on memory inconsistency is itself important for two reasons. First, it indicates that reports of trauma are not immune to this problem. Second, it shows that confidence in our memories is not an infallible guide to their accuracy, even for highly stressful events. Indeed, Morgan and Southwick noted that veterans expressed great surprise that their memory reports of Gulf War stressors changed over time. Their findings echo those of Neisser and Harsch (1992) who studied memory reports of college students for their recollection of learning of the explosion of the space shuttle *Challenger*. When shown their inconsistent reports of their memories, the students were amazed as they had expressed confidence in their memories being very accurate. Although we did not assess confidence in one's memories, as have others (e.g., Neisser & Harsch, 1992), we have no reason to doubt that the Dutch veterans sincerely reported their memories as they remembered them.

The lack of a strong association between consistency, confidence and accuracy (see Roediger, Wixted, & DeSoto, 2012; van Giezen, Arensman, Spinhoven, & Wolters, 2005) has implications for clinical practice and legal settings. It is important for clinicians to understand that recollection of a traumatic event is a reconstructive process that is prone to errors and inconsistencies, and is not immutable, just like the recollection of ordinary events (McNally, 2003). With respect to the legal setting, consistent reports are generally judged to be more credible than inconsistent reports. For instance, discrepancies may affect how officials evaluate the credibility of asylum seekers' testimony (Herlihy, Scragg, & Turner, 2002), and government guidelines in the UK recommend that police officers ask victims and witnesses to explain any inconsistencies in their recollection of crimes they are reporting (Ministry of Justice,

United Kingdom, 2011). Yet inconsistencies are very common. The current findings suggest that one must also be careful about interpretations of inconsistent reporting, because inconsistencies may, for example, indicate changes in the interpretation of the question or of otherwise unaltered memories. The take-home message is that consistency and accuracy do not invariably correspond.

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