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Who am I? Autobiographical Retrieval Improves Access to Self-Concepts

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Key words: self, autobiographical memory, identity, self-concept, episodic memory

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Abstract

It is considered that an individual's current self-concept plays a crucial role in guiding the retrieval of autobiographical memory. Using a novel fluency paradigm, the present research examined whether or not the reverse is also true, i.e. does memory retrieval influence the description of the conceptual self? Specifically, this study examined the effect of prior autobiographical reverie on the subsequent retrieval of stored self-concepts. Participants wrote a description of a personally relevant memory or a control topic (of no relevance to the self), following which they had 60 seconds to generate as many self-defining statements as possible, each beginning with *I am*. Participants engaging in autobiographical retrieval generated significantly more statements than those in the control condition, suggesting that autobiographical retrieval increased access to self-concepts. Type of statement also varied according to group. Participants in the autobiographical memory condition were more likely to conceptualise themselves in relation to their psychological traits, and this was replicated in a second experiment conducted online. Findings support the idea that self and episodic memory are highly related constructs, and are discussed in relation to implications for individuals with autobiographical memory deficits.

Key words: self, autobiographical memory, identity, self-concept, episodic memory

Who am I? Autobiographical Retrieval Improves Access to Self-Concepts

Although the idea that there is a relationship between self and memory is not new (e.g. Locke, 1694/1975), it has been somewhat difficult to test empirically. Research demonstrates that information is more powerfully encoded with reference to the self (e.g. Rogers, Kuiper & Kirker, 1977), and that the self operates as an organisational structure in autobiographical retrieval (e.g. Rathbone, Moulin & Conway, 2008). Similarly, functional neuroimaging studies demonstrate an overlap in activation between regions involved in self-related processing and autobiographical retrieval (Addis, 2005). In cognition more generally, the self-concepts or primes related to the self have been shown to influence performance across a range of tasks. For instance, a female in a room filled with males is substantially more likely to reference gender in self-description tasks (McGuire & Padawer-Singer, 1976).

The commonly held idea that our self is (at least in part) a cognitive structure that is stored or retrieved as part of a memory system has received less empirical support. This is a critical issue, as it is argued that memory deterioration in (for example) Alzheimer's disease leads to a degradation - or lack of access to - the self (e.g. Addis & Tippet, 2004). That is, people with memory impairment are less able to generate statements about themselves. The present work uses an experimental procedure to test this idea explicitly: does autobiographical retrieval increase access to self-concepts?

The self is a multidimensional construct that has proved notoriously difficult to define, indeed, the term 'self' has been used to refer to a variety of constructs and processes (e.g. Leary & Tangney, 2012), but in this instance, self is considered from a cognitive viewpoint, as a body of knowledge. In particular, the focus of the present work is on self-knowledge and the dynamic "self-images" that people use to describe the different aspects of their identity (Markus, 1977).

The most influential model to consider the self from a cognitive viewpoint is Conway's Self Memory System (SMS; Conway & Pleydell-Pearce, 2000, Conway, 2005). This conceptual model highlights the interrelatedness of self-concepts and memory, and proposes a bidirectional relationship between the two. Within this model, Conway (2005) describes the 'working self', a dynamic entity that organises the encoding and retrieval of autobiographical memories in line with current goals and self-images. The working self is constrained by autobiographical memories that are, in turn, a product of episodic memories and the semantic contents of the long-term self. The SMS predicts that, at any given time, the most salient aspects of the self are supported by a set of relevant autobiographical memories which are preferentially active (see Rathbone & Moulin, 2014) .In keeping with the bidirectional nature of this relationship, the present study explores whether the reverse is also true – does the retrieval of particular autobiographical memories influence which aspects of the self are most active?

The Twenty Statements Task (TST; Kuhn & McPartland, 1954) is an approach to exploring aspects of self. It asks participants to describe their sense of self by responding open-endedly to the question 'Who am I?', and thus, it allows for exploration of what Conway describes as the 'conceptual self', that is, self-images that capture general factual and evaluative knowledge of one's self (e.g. "I am happy", "I am a person who likes to have fun"; Conway, 2005). Crucially, research by Addis and Tippet (2004) demonstrated that measures of autobiographical memory in Alzheimer's disease are correlated with the number of statements generated in this task, highlighting a possible association between the capacity to retrieve from autobiographical memory and the accessibility of the conceptual self. To operationalize the TST as a measure of access to self-concepts, we developed the *I Am Fluency Task* (Experiment 1). In this task, participants are instructed to generate as many *I am* statements as they can in a given time.

The *I Am Fluency Task* also derives from previous research with the I Am Memory Task (Rathbone et al., 2008), which examines the self-memory relationship by collecting memories that are associated with self-images. In particular, these self-images are in the form of *I am* statements, such as *'I am ambitious'*. This task has proven useful in demonstrating how the self plays an organizational role in memory (e.g. Rathbone et al., 2008), and how self-concept is intact in traumatic brain injury (Rathbone, Moulin & Conway, 2009), but diminished in autism (Tanweer, Rathbone & Souchay, 2010). In order to examine the accessibility of self-concept statements, the original I Am Memory Task was modified such that participants are given one minute to generate as many statements as possible beginning with the phrase *I am*. The assumption being that the ability to generate statements in a given time reflects accessibility to self-concept. This task is simple, open-ended, quick to administer and able to access both narrative (e.g. I am married) and trait based (e.g. I am cheerful) knowledge of the self. By asking participants to retrospectively rate their statements, it also allows for examination of the organization, perceived importance and emotional valence of statements. In sum, we propose that this novel tool will allow for both quantitative and qualitative exploration of self, whilst preserving the subjective and idiosyncratic nature of this construct. A major pragmatic motivation for the present research is its potential usefulness in clinical settings and patient work. For instance, the *I Am Fluency Task* might be used in clinical work to establish aspects of identity that a person currently feels connected to, as well as those they may wish to develop.

Our aims were based on a single core concept: if there is a relationship between self and memory, we should be able to use an experimental design to observe changes in the accessibility of self-concepts following a memory manipulation. Specifically, the present study examined self-concept retrieval in the *I Am Fluency Task* following memory retrieval by asking participants to retrieve a personally-relevant autobiographical memory (or perform

a control task) prior to the generation of self-concept statements. Unlike previous research in this area, the *I Am Fluency Task* allows for exploration of self-concepts in general, rather than having targeted any particular self-concept. Our prediction was straight forward: if dwelling on an autobiographical incident activates self-concepts, then we should be able to measure an increase in the accessibility of self-concept, relative to a control condition.

EXPERIMENT 1

In an attempt to ensure that participants recalled highly self-relevant and important autobiographical memories, Experiment 1 asked participants to recall a past life event that they thought about in a 'nostalgic' manner. Wilschut, Sedikides, Arndt and Routledge (2006), suggested that such "descriptions of nostalgic experiences typically featured the self as a protagonist …in momentous events" (p.975).

As the working self is dynamic and context dependent, and because contemporary theory supports the idea of a bidirectional relationship between self and memory (e.g. Conway, 2005), we predicted that participants in the autobiographical memory condition would generate significantly more self-concept statements than those in the control condition. Since our task is open-ended we were also able to consider whether autobiographical retrieval influenced the particular aspects of self that were most accessible to participants, and we propose that examining the impact of autobiographical memory on different types of self-concept will shed light on the way that these two constructs are represented and linked.

Method

Participants

The 48 participants (4 males) aged 18-24 (M = 19.02, SD = 1.08) were Psychology students at the University of Leeds who received course credit for participation. In a between-subjects design, participants were randomly allocated to one of two experimental conditions

(autobiographical memory vs. control). Groups were matched on gender, age (t (46) = .66, p = .51) and years of education (t (46) = .25, p = .81). Informed consent was obtained from each participant and research was approved by the Institute of Psychological Sciences' (University of Leeds) ethics committee.

Materials and procedure

Participants were tested in groups ranging in size from 1 to 6 participants. Participants were seated at separate desks. They were provided with a booklet for their responses and all instructions were read aloud by the experimenter. Tasks are described in the order in which they were completed by participants.

Autobiographical memory manipulation

Participants were randomly assigned to either the autobiographical memory or control condition. In the autobiographical memory condition participants were instructed to write a detailed description of a personal event from their past. The following instructions (adapted from Wildschut et al.,2006) were read aloud to participants;

Please think of a past event in your life that has personal meaning to you. This should be an event that you think about in a nostalgic way. Nostalgia refers to a sentimental longing for the past, typically for a time or place with happy personal memories associated with it. Please try to think of an important part of your past that makes you feel most nostalgic. Write down this nostalgic experience in all its vivid detail, you should be as detailed, thorough, and descriptive as possible.

In our control condition, participants wrote a description of the solar system - this was unlikely to cue self-relevant memories. Participants were instructed to write a detailed, factual description that contained no personally relevant information, specifically, the following instructions were read aloud to participants;

Please write a description of the solar system. This should be a factual description, and should not include descriptions that have any personal relevance to you. For instance, think of defining features or any facts that you know about the solar system for instance, the solar system consists of the sun, and Mercury is the planet that is closest to the sun. You should be as detailed, thorough, and descriptive as possible. Don't worry if you are not sure whether some of the things that you write down are accurate, that doesn't matter, just write as much as you can.

In both conditions participants were given four minutes to write their description and an additional minute to generate four keywords relevant to their description.

I Am Fluency Task

To measure self-concept the *I Am Fluency Task* was administered. Participants were asked to produce stable and enduring aspects of their identity, in the form of statements that they felt were essential to defining who they were. To avoid cuing statements, no specific examples were given, but participants were told that they might include roles, personality traits or physical traits. Participants were told that each statement must begin with the phrase *I am*, and were given one minute to write down as many of these statements as possible.

Subjective experience scales

Questions were administered to assess participants' mood, emotionality, feelings of nostalgia and how much they thought about themselves whilst writing their description. The question that assessed feelings of nostalgia also allowed a manipulation check to ensure that participants engaged with the description writing task.

Self-statement ratings

After the fluency part of the task, participants returned to their self-statements and were asked to rate each of their self-concept statements on two dimensions. Firstly, they rated

how important and central each *I am* statement was to defining their identity, using a scale of 1 to 10, with 10 being very important and 1 being not important at all. Secondly, participants rated each statement on emotional valence i.e. how positive or negative they felt about each *I am* statement, again on a scale of 1 to 10, with 10 being extremely positive and 1 being extremely negative. Finally, participants were asked to retrospectively date each of their *I am* statements, whereby they gave an age at which they became a person who would define themselves using that statement. Participants assigned '0' to statements that had been self-defining for as long as they could remember.

Fluency checks

As the task of primary interest involved generating statements under time pressure, a series of fluency tasks were included to examine group differences. Category fluency was assessed by asking participants to write as many animals as they could in one minute. Letter fluency was assessed using the FAS Controlled Oral Word Association Test (Benton, 1968) that asked participants to generate as many words as they could beginning with the letters 'F', 'A' and 'S'. Participants were given one minute for each letter, with a fluency score derived by averaging the number of words generated for each letter.

Data coding

Data was coded by three independent judges; the experimenter and two postgraduate students at the University of Leeds who were blind to the hypotheses. Data was coded according to three categories; physical, social and psychological. Self-statements were coded as physical if they reflected attributes that were apparent from appearance (*e.g. small, brunette, 20, female, overweight, black, curly haired, pale)*, social if they described a social category that was objectively verifiable (e.g. *student, hockey player, Irish, musician, friend, single, athlete, from Leeds, planning to be a psychologist)* and psychological if they referred

to a personality trait that required the participant to be introspective and were also subjective in nature (e.g. h*elpful, patient, self-conscious, perfectionist, good friend, a bit weird, lucky, loyal).*Whilst some self-concept statements were easy to assign to a particular category e.g. *small* and *student*, some were more difficult e.g. *good friend*. In such instances where an evaluative statement was used, statements were coded as psychological. If a statement was repeated during the task e.g. if a participant generated the word *female* twice, this was scored as one correct response. Post-coding comparisons revealed 100% agreement between judges.

Results and Discussion

Number of statements

A total of 415 *I am* statements were collected across conditions, with 225 generated by participants in the autobiographical memory condition and 190 generated in the control condition. On average, participants in the autobiographical memory condition generated 9.38 (SD = 2.02) *I am* statements in one minute, and participants in the control condition generated an average of 7.92 (SD = 1.91) statements in one minute. Univariate ANOVA revealed a significant effect of manipulation, f (1, 46) = 6.62, p = .01, η_p^2 =.13, with participants in the autobiographical memory condition generating significantly more *I am* statements than those in the control condition. The self-statement ratings that participants assigned to each *I am* statement were also considered, but between groups analyses revealed no group differences (p>.23 in each case).

Due to the nature of our task it was necessary to consider group differences on alternative fluency measures. Independent samples t-test revealed no group differences in category fluency (t (46) = 0.04, p =.97, d = 0.01), yet there was a marginal non-significant group difference in letter fluency, with participants in the autobiographical memory condition

being somewhat faster than those in the control condition, t (46) = 1.78, p =.08, d = 0.51. To investigate the idea that autobiographical retrieval had an overall effect on fluency, performance of participants in this condition on the letter fluency task was correlated with that on the *I Am Fluency Task*. Analysis revealed no correlation between the performance on these two tasks (r = .195, p = .36).[1]

A manipulation check confirmed that our autobiographical memory induction was successful. Participants in this condition rated themselves as feeling significantly more nostalgic after writing their description than those in the control condition , t (46) = 8.61 , p <.001, d = 2.48. Participants in the autobiographical memory condition also rated their mood as being more positive following the descriptive writing task, t (48) = 3.75, p <.001, d = 1.09. This observation of elevated mood reflects the direct instruction given to participants in the AM condition that they retrieve a happy personal memory, and may suggest that retrieval was truly episodic and re-experienced.

Next, findings were analysed in terms of the types of *I am* statements that were generated by participants in each condition.

Type of statement

First of all, the mean proportion of physical, social and psychological statements were calculated (see Figure 1).

[INSERT FIGURE 1 HERE]

[1]

Next, the type of statement generated by participants in each condition was examined using a 2 x 3 (condition x statement type) mixed design ANOVA, allowing for the incidence of an interaction between condition and statement type to be explored. There was no main effect of group ($F(1, 46) = .73$, $p = .40$), given that proportional data was used and thus the three statement types summed to 1.0 across groups, but there was a main effect of statement type ($F(1.46, 67.09) = 73.67$, $p < .001$), with participants generating a higher proportion of psychological statements, relative to social and physical statements. Furthermore, we also observed a significant statement type x group interaction ($F(1.49, 67.09) = 6.56$, $p = .006$), with significantly higher proportional rates of psychological statements produced in the autobiographical memory condition, relative to the control condition ($t(38.38) = 2.92$, $p = .006$, $d = 0.86$). In sum, we found that participants in the autobiographical memory condition were able to generate significantly more *I am* statements than those in the control condition; confirming the idea that autobiographical retrieval increased accessibility of self-concepts. This was independent of any variation between groups in general fluency ability. Mood ratings also confirmed that our autobiographical memory condition induces positive mood. Furthermore, the type of statement generated varied between conditions - following retrieval of a self-relevant memory participants were more likely to generate psychological, trait-like descriptions.

EXPERIMENT 2

While Experiment 1 made predictions about autobiographical memory increasing access to self-concepts in general, as evident in increased *I Am* fluency, Experiment 2 was designed to explore the particular type of self-statement generated in response to autobiographical retrieval. In particular, we were motivated to see whether the finding that autobiographical retrieval increases access to psychological self-concepts would be replicated. To this end, we developed an online questionnaire that allowed us to test the effect

in a larger and more diverse sample. Participants carried out broadly the same (between-subjects) tasks, although the fluency component was removed. Specifically, all participants were asked to generate 10 self-images, and due to Internet format, no time limit was imposed.

Method

Participants

87 participants (26 males and 60 females; 1 participant did not disclose this) were recruited via psychology questionnaire websites. Participants were aged 18-64 (M = 29.98, SD = 10.64) and groups were matched on age (t (85) = 1.36, p = .18, d = 0.29).

Materials and Procedure

Participants completed an online questionnaire that was similar to that used in Experiment 1. The fluency component of our procedure was removed, as type of statement generated was of primary interest here, but all other elements remained identical. Each participant was asked to generate 10 *I am* statements. No time limit was given for this task, but participants were instructed to respond with the first statements that came to mind and to avoid editing their statements.

Results and Discussion

A total of 865 *I am* statements were collected in Experiment 2; all but two of the participants were able to generate 10 statements (both of these participants were in the control condition - one generated 6 *I am* statements, and the other generated 9 statements). Figure 2 shows the proportion of each type of statement generated and demonstrates replication of our previous finding; retrieving a highly self-relevant autobiographical memory increases access to psychological self-concept statements.

[INSERT FIGURE 2 HERE]

Type of statement generated by participants in each condition was measured using a 2 x 3 (condition x statement type) mixed design ANOVA, with condition as a between subjects variable and statement type as a within subjects variable. Findings replicated those in Experiment 1 and revealed no main effect of group ($F(1, 85) = .000$, $p = 1.00$), a main effect of statement type ($F(1.29, 109.45) = 319.44$, $p < .001$) and a significant statement type x group interaction ($F(1.29, 109.45) = 5.69$, $p = .012$). In sum, whilst both groups generated a higher proportion of psychological statements, significantly higher proportional rates of psychological statements were produced in the autobiographical memory condition, relative to the control condition ($t(76.13) = 2.93$, $p = .005$, $d = 0.61$).Data was coded by a second independent judge who was blind to our hypotheses; Pearson's correlation reveled high inter-rater reliability between the two judges (Physical: r=.80; Psychological: r=.98; Social: r=.99). As in Experiment 1, between groups analysis revealed no group differences in self-statement ratings assigned by participants to each *I am* statement ($p>.20$ in each case).

Findings from Experiment 2 provide support for those from Experiment 1 regarding the impact of retrieval of a self-relevant memory on type of *I am* statement generated. Importantly, this replication used a different version of our original *I Am Fluency Task* with a larger sample that was also considerably more diverse in terms of age, occupation type and gender, which was crucial given that Experiment 1 included only 4 males out of a total of 48 participants.

General Discussion

How do we answer the question *who am I?* We propose that one way this is achieved is through the retrieval of stored self-concepts. This study examined whether the accessibility of such self-concepts was influenced by the retrieval of personal experiences from memory,

as is predicted in Conway's Self Memory System (e.g. Conway, 2005). As such, it provided an experimental evaluation of the idea that self and memory are inextricably linked.

We developed the *I Am Fluency Task* to examine the effect of autobiographical reverie on the retrieval of stored self-concepts. In Experiment 1, participants wrote a description of an autobiographical memory or a control topic of no relevance to the self and then generated as many self-defining statements as possible in one minute, each beginning with *I am*. Participants who retrieved a personally relevant memory were able to generate significantly more statements than those in the control condition; suggesting that autobiographical retrieval increases access to self-concepts. The type of statement generated also varied following retrieval of a self-relevant memory. For both experiments, and in both groups, the majority of statements generated were psychological in nature, but between-group comparisons revealed that participants in the autobiographical memory condition generated proportionately more psychological, trait-like descriptions.

What implications might these findings have for the SMS? Our results show that the self is a dynamic construct insofar as there is a response to having generated an autobiographical memory on the accessibility of self-concepts. Indeed Conway (2005) describes the working self as changing constantly according to the constraints of autobiographical memory. Conway also suggests that one of the fundamental control processes of the working self is to ensure that memory is coherent with self-images; this directional link is illustrated well by studies that have examined the self-reference effect (Rogers et al., 1977) and demonstrated that the self functions to boost memory. In this case, we have shown that the reverse is also true; participants can retrieve more information about themselves following retrieval of an autobiographical memory. Thus it seems possible to use memory to 'boost' the self. What is unclear from our data is whether there was an overlap between self-statements and memories, that is, whether the content of the self-statements

reflected the content of the autobiographical memories that were recalled. It would certainly be valuable for future research to tease apart the distinction between autobiographical recall increasing the accessibility of relevant self-concepts, or self-concept more generally.

There is considerable debate over whether conceptual self-knowledge is dependent on autobiographical memory. Within the context of the SMS, Conway (2005, p. 597) claims that the conceptual self is "connected to autobiographical knowledge and the episodic memory system to activate specific instances that exemplify, contextualize, and ground their underlying themes or concepts." (as cited in Prebble, Addis & Tippett, 2012). Consistent with this, Addis and Tippett (2004) found that individuals with Alzheimer's disease who presented with diminished autobiographical memory were less able to generate statements about themselves, and these two abilities were correlated. There is however, a growing body of literature that suggests that the self-concept can be known in the absence of episodic memory. For instance, Klein and colleagues (Klein, 2010; Klein & Gangi, 2010; Klein & Lax, 2010) have provided considerable evidence that episodic memories are not necessary in order for related trait self-knowledge to be accessed. Similarly, Rathbone, Moulin and Conway (2009) provide further support in their consideration of self in a case of retrograde amnesia; the authors demonstrate how conceptual autobiographical knowledge is used to support the self in the absence of episodic memory. Perhaps the most convincing evidence comes from work with patient K.C. who was able to accurately update his conceptual self-knowledge in spite of severe episodic memory impairment (Tulving, 1993). To our knowledge, the present study is the first of its type to demonstrate that autobiographical memory can be used to access the self, and thus identity can be supported by autobiographical memory. In fact most of the autobiographical memories retrieved by participants were episodic in nature. For instance, one participant wrote:

"I was sitting with three friends on the edge of a cliff which went down to a beach and the sea. It was really hot, about 30 degrees centigrade, the sky was completely blue and it was really peaceful. We had a picnic with bread, dips, crisps, those sorts of things. We had music playing on shuffle. We were all lying on towels, just really relaxed. There was a panoramic view around us, we could see all the sailing boats and some people swimming in the sea".

In response, we propose that whilst episodic memory might not be essential to the retrieval of self-knowledge, these two constructs are not entirely independent. We suggest that our findings, together with those of previous work (e.g. Klein & Loftus, 1990, 1993b; Rathbone et al., 2009), can be interpreted in relation to the Self-Knowledge and Identity Model (SKIM Model; Haslam, Jetten, Haslam, Pugliese & Tonks, 2011), which proposes that "semantic self-knowledge mediates a bidirectional relationship between episodic self-knowledge and identity" (Haslam et al., 2011, p. 184). It may be the case, that as has been shown with knowledge, self-concepts undergo a process of semanticisation, encoded initially as a response to a particular event or occurrence, but that over time, the trait, quality or disposition becomes a more enduring and context-free aspect of personality. To test this, we would need to examine the acquisition of new aspects of the self over presumably quite long time scales.

There is a general view that our memories of experience constrain what the self can be because it is tethered in reality, but likewise, our findings illustrate that what we can retrieve about our past probably also influences how we describe and think about our self. In this instance, autobiographical retrieval led participants to think more introspectively about their conceptual self and increased access to psychological trait-like descriptions in particular. Given the young age of our participants, it is possible that the memories they generated were particularly salient and personally significant and that this subsequently

exaggerated our effect. Indeed, very recent salient memories are likely to affect the selves generated more than a distant, less meaningful memory, and this is consistent with literature on the reminiscence bump, which suggests that autobiographical memories from early adulthood years are particularly vivid and also contribute to the shaping of a stable identity (e.g. Holmes & Conway, 1999). Future work could explore this issue by comparing the generation of self-statements across the lifespan.

For decades empirical progress in this area has been encumbered by the conceptualisation of self as a unitary construct (see Prebble, Addis & Tippett, 2012). Our findings support the more recent conceptualisation of the self-concept as a multifaceted knowledge structure (e.g. Klein & Gangi, 2010), with different elements being more salient and accessible at different times and in different contexts. We suggest that even within the conceptual self, 'selfhood' can be fractionated, and it may be fruitful for future work to determine what happens when other aspects of the self (e.g. physical) are primed.

Since retrieval of a memory seems to offer an immediate benefit in terms of access to self-concept, a chronic inability to think about oneself in the past may limit the number of self-concepts generated, and this is in line with the findings of Addis and Tippett (2004). In particular, this effect may be greatest for psychological self-concept. Thus we suggest that our paradigm might be useful with groups that have deficits in memory and/or the self. For instance, in dementia, acquired brain injury and post-traumatic stress disorder, it can provide a way of exploring these deficits broadly and in regard to particular types of self-concept. Indeed such research is crucial in relation to claims that an intact self-concept is necessary for maintaining normal psychological functioning and a coherent sense of self over time (Conway, 2004). The open-ended nature of our task, together with the idiosyncratic nature of the self, also promotes its use by clinicians in the delivery of person-centred therapy and the

development of individualised approaches to rehabilitation. We propose that this work can provide a platform for subsequent research in a range of clinical settings and populations.

Conclusion

In sum, our results promote the effectiveness of the *I Am Fluency Task* for exploring self-concept. Our data confirms Conway and Pleydell-Pearce's (2000) conceptualisation of the working self as dynamic and fluid, demonstrates that self-concept and episodic autobiographical knowledge are interactive, and supports the idea that the self is reconstructive in relation to memories - we provide evidence that it is possible to use memory in order to increase the accessibility of self-concepts. Of particular interest is the finding that autobiographical retrieval is most closely associated with psychological selves, which has important implications for people with autobiographical memory deficits. We believe that the *I Am Fluency Task* can be used as a measure to quickly gauge access to self-concepts. Rather than being encumbered by definitions of what the self is, and what it might be for, our task places an emphasis on the quantitative and qualitative analysis of self-concepts that are generated by the person themselves.

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Footnote

To check that verbal fluency did not underlie the difference in *I Am* statement generation that was observed between conditions, we ran an analysis of covariance, adding in letter fluency score as a covariate. The significant effect of group was unchanged.

Figure 1. Mean proportion of physical, social and psychological statements generated by participants in each experimental condition. Error bars represent standard error of the mean.

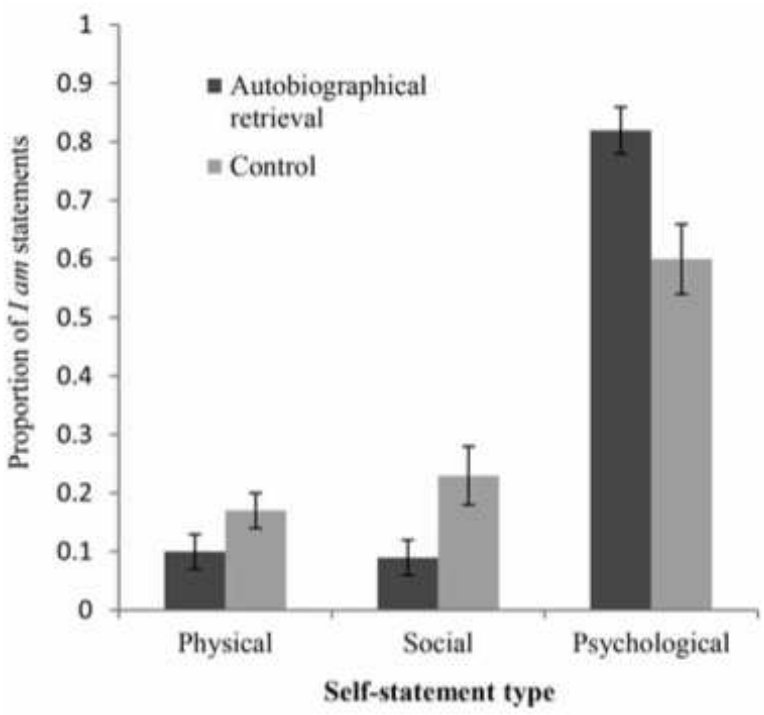

Figure 2. Mean proportion of physical, social and psychological statements generated by participants in each experimental condition. Error bars represent standard error of the mean.