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DATA PAPER

Data from Interviews with 95 Respondents Recollecting Repeated Dental Visits

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In 2012, Swedish dental care patients (n = 95) participated in a quasi-experiment in which they were interviewed twice about dental visits they had made between 2002 and 2012. For verification purposes, the participants' narratives were compared to the dental records. The qualitative data was quantified, stored as a .csv file, and supplemented with a codebook in plain text. All study materials are freely available online. The data can be reused to further analyse memory for repeated events. The data can be used both as data from an experiment (including both interviews) and as single interview data (including data only from the first interview, i.e., before the respondents were provided with memory cues).

Keywords: autobiographical memory; episodic memory; repeated events; mnemonics; investigative interviewing

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(1) Overview

Context

Dental care visits in Sweden between 2002 and 2012.

Collection Date(s)

2012.

Background

These data were collected and analysed for the purpose of two studies [1, 2] investigating memory for repeated events and how to facilitate recollection of repeated events. Memories for events that have been experienced repeatedly tend to be less complete and more generic than memories for single and unique events [3, 4]. Most of the research on memories for repeated events has been conducted on children's memory for repeated events, due to its value for legal investigations about child sexual abuse (see e.g., [5]). Adults' memory for repeated events has been less studied (for exceptions see [1, 2, 3, 4, 6, 7, 8, 9]). However, the study of adult memories for repeated events can also be important for legal investigations, for example in cases of intimate partner violence which typically occurs repeatedly [10]. The data from the current studies were collected with the aim to gain further insights into how adults' reports about repeated events can become more detailed (with no cost of accuracy). This aligns with requirements from courts and other legal decision makers.

(2) Methods

The study was originally a quasi-experiment with a mixed design, with three between-subjects conditions (Derived specific cues vs. Derived categories vs. Comparison cues). Moreover, each participant was interviewed twice, both before and after being provided with the memory cues. Participants were randomly assigned to the three conditions, with the exception that we balanced conditions with regard to interviewee age, number of self-reported dental visits, interviewer, and experiment leader. Specifically, before assigning participants to conditions, the experiment leader considered these four variables to ensure that all conditions had a similar number of participants in terms of age (i.e., young respondents, < 25 years; older respondents, > 59 years), number of self-reported dental visits (i.e., low numbers, < 8; high numbers, > 15), that each interviewer interviewed approximately the same number of respondents from each condition (i.e., about 8 from each condition), and that each experiment leader met with the same number of respondents from each condition. The experiment leader's scheme over conditions is available online [11].

Sample

The sample consisted of 95 individuals (71 women, 24 men). Initially there were 99 respondents, but four were excluded prior to coding the data; two were excluded for lack of dental records and two were excluded due to interviewer error. No respondent dropped out during or after interviews. Participant mean age was 43.33 years (range: 24–74 years). Participation was voluntary and each respondent received a gift card worth approximately 28 Euro. Participants were recruited through advertisements in 20 dental clinics and by inquiries sent to people who had announced interest participating in research at the Department of Psychology in Gothenburg, Sweden. Additionally, staff at some clinics verbally informed patients in target areas that we were missing (e.g., who were 30 years or younger, who had made 20 dental visits or more between 2002 and 2012) about the study.

According to the dental records, the number of experienced events for each individual ranged from 3 to 80 dental visits. Some respondents found dental visits to not be unpleasant at all while others found them very unpleasant. Most respondents found dental visits to be somewhat unpleasant.

Materials

The study materials consisted of the following:

- Written study information including the informed consent form (only in Swedish)
- Structured interview protocols
- Three different packages of memory cues (one package for each condition). The cues were presented to participants in printed folders (only a summary is available in English)
- A post-interview questionnaire including questions about demographics and how the respondent had experienced the interview and interviewer (only in Swedish)
- A post-interview questionnaire inquiring about the perceived value of the memory cues (only in Swedish)
- Written manual on how to divide the narratives into short utterances
- Written manual for categorizing memory type (generic, specific, specific-extended)
- Written manual for the verification process
- Code for automatic transfer of utterances from text documents (.odt) to calculation spreadsheets (.ods)
- Code for automatic calculations of variables relating memory type to verification categories (e.g., number of specific memories that were confirmed by the dental records)

All 190 interviews were audio recorded and transcribed verbatim. All written instructions for coders and other assistants have been translated to English and are freely available online, including a manual with the codes [11]. For more detailed information about the material, please view the material online [11] and/or review the published experiment [1].

Procedures

The memory cues were derived from participants in a different study. See the original experiment [1] for details on how the memory cues were chosen and collected.

The data collection was conducted at the Department of Psychology, University of Gothenburg, Sweden. Respondents arrived and participated one at a time. They stayed in the same room during the whole experimental session. Each session usually lasted between 90 to 120 minutes. Respondents were informed that the study goal was to investigate how people remember repeated events. The experimental design was unknown to participants.

Participants brought their dental records in sealed University of Gothenburg's envelopes to the experimental session. Each envelope had been sealed by the personnel at the collaborating dental clinics. The concealment was made with coloured sticky tape delivered to the clinics by the experiment leader. At arrival, the participant was asked for the envelope, which was handed over to the experiment leader before the experiment session started. Approximately 5 respondents had dental records from other clinics than those we collaborated with. A couple of these respondents asked their dental clinic to send the dental records directly to the experiment leader, while the others brought them sealed with ordinary tape in the dental clinic's own envelopes.

Participants were asked to recall all dental visits they had made during the past ten years (between 2002 and 2012). In order to recall visits they had made to the dental clinic, participants were left alone for 5 minutes before starting the first interview.

All interviews were conducted by one of four trained interviewers. Each respondent was interviewed by the same interviewer in both interviews. The first interview was usually around 30–60 minutes while the second interview usually lasted about 10 minutes.

There was a 15–20 minutes break between the two interviews in which the respondents were presented with the memory cues. The presentation order of cues was partly randomized (see [1]). Participants had access to pen and paper during this break.

The questionnaires were answered after finishing the second interview but before viewing the dental record.

Variables concerning number of visits were coded by one research assistant. Inter-rater reliability (see the next section, "Quality control") was calculated on 21% of the material (randomly selected).

Inspired by a previous study [15], all transcripts were broken down into short utterances (see the shared manual online [11]). This work resulted in about 70,000 utterances. Each utterance was then categorized as one of five categories:

- interviewer – questions or responses by the interviewer;
- error – irrelevant (e.g., "I don't know");
- generic – summaries of how something usually or typically occur (e.g., "because I'm often very dry in my mouth when being stressed");

- specific – a memory of something particular that lasted less than 24 hours (e.g., "they had a trainee there during that visit");
- specific-extended – a memory of something particular that lasted more than 24 hours (e.g., "I had a lot of acne during that time period").

These categories are commonly used in research on overgeneral memory (OGM) [16]. One research assistant categorized all statements. Inter-rater reliability was calculated on 21% of the statements, and did not include the interviewer category (see below).

Finally, utterances categorized as generic, specific, or specific-extended, were coded for verification: confirmed, refuted, or unverifiable. Agreement calculations were based on 21% of the material, which included about 7,000 utterances. More information about the inter-rater reliability is found in the next section.

Quality Control

Interviewers and coders were blind to the experimental conditions and study hypotheses. Interviewers never saw the dental records. The envelopes containing the dental records were sealed by personnel at the dental clinics, and the experiment leader always checked that the seal was unbroken when receiving the envelope from participants. Interviewers practiced together on how to conduct the interviews in order to minimize differences in for example pronunciation, understanding of interview goals, when to use follow-up questions, and when to continue to the next question.

The inter-rater reliabilities (intraclass correlations) for variables concerning number of visits ranged from .90 to 1.00. The inter-rater reliability (Cohen's unweighted kappa) for categorizing memory type (generic, specific, specific-extended) was unfortunately only marginally acceptable: .66, 95% CI [.65, .67]. Also, the verification categorization (confirmed-refuted-not verifiable) suffered from low agreement (unweighted Cohen's kappa: .58, 95% CI [0.56, 0.60]; 86% agreement). Sixty-one percent of the disagreements concerned different interpretations of content in the dental records (e.g., which visit the interviewee referred to), 27% concerned differences in how to understand coding rules in ambiguous cases (e.g., level of rigidity when an interviewee expressed hesitations), 8% concerned different interpretations of an utterance (e.g., when an interviewee used words like "many" or "often"), and 5% was due to typing mistakes during coding. Because of the low agreement, the two coders worked together on each utterance until they reached a 100% agreement. The main coder continued with the rest of the material, and was instructed to follow the joint guidelines the two coders had agreed upon.

Ethical issues

This research was approved by the Regional Ethical Review Board, University of Gothenburg, Sweden (No. 1007–11). All respondents signed an informed consent form. To avoid potential identification of respondents through combination of variables, the archived data set was adjusted in the following ways: respondents were assigned new ID-numbers, three continuous variables (Age, Moving_3, Frequency_4) were categorized, and one variable (Sex) was removed. When categorizing the continuous variables, we aimed to create groups of similar sizes and to avoid making them too small so that anonymity could not be threatened.

(3) Dataset description

Object name

The name of the data set is "Recollection of repeated dental visits". The data set consists of seven files:

- One file (.csv) with data for inter-rater agreement for variables regarding number of visits
- Two files (.csv) containing the main data: one with data collected from the post-interview questionnaire and one with data quantified from the interviews and dental records
- Three files (.csv) containing the data from the questionnaires about perceived value of the memory cues
- One file (plain text) containing the codebook

Data type

Primary data, secondary data, processed data, and interpretation of data.

Format names and versions

CSV and plain text.

Data Collectors and Assistants

Rebecca Willén was the experiment leader for the majority of participants; Erica Thurang and Jenny Rangmar were experiment leaders for the others; Kerstin Adolfsson, Andreas Aspholmer, Anna-Klara Behlin, Thérèse Eriksson, Isabelle Hansson, David Lopes, Jenny Rangmar, and Sara Svedlund contributed to coding and categorizing of data; Anna Krook, Maja Jansson, Lukas Jonsson, and Juulia Setterberg interviewed the participants; Erica Thurang assisted during the data collection; Daniel Berntsson developed the progamming code; Kerstin Adolfsson, Yohanna Andersson, Andreas Aspholmer, Jeanette Jansson Bolinder, Lisa Hederos Eriksson, Thérèse Eriksson, Lisa Håkansson, Sara Johansson, Anton Mattsson, Sally Salomonsson, Maria Thorson, Erica Thurang, Sissel Thurang, and Jacintha Town shared the workload of transcribing the interviews.

Language

Original language: Swedish. Language in data set and codebook: English. Most of the shared material [11] is available in both Swedish and English.

License

CC0.

Embargo

The data are freely available for any purpose with appropriate citation.

Repository location
The data set is archived on Dataverse:
http://dx.doi.org/10.7910/DVN/AGZW7E

Publication date
21/09/2015.

(4) Reuse potential
The data set includes variables that, due to time restrictions, were not analysed. We want to highlight three such variables. First, there were surprisingly high numbers of visits registered in the dental record(s) that were never mentioned by the respondents. For respondents who had made a large numbers of visits, the proportion of never mentioned visits could exceed 90%. This variable may be very interesting to investigate further from a memory perspective (especially memory for repeated events), but also from an interview perspective (e.g., what proportion of information is likely to be reported during an interview?). Second, the respondents answered questions about how many times they have moved during the past ten years, and how often they had visited the dentist. These questions were included in the questionnaire because we predicted that they might influence recollection. Because recollection tends to improve when the to-be-remembered event is somehow distinct from other events [12], recollection may be enhanced when a respondent can anchor an event in time with help from other life events such as a resettlement. Additionally, frequent dental visits may improve memory for recurring details [13] (if controlling for number of experienced events), but can also make it more difficult to recall specific details or episodes [3, 4, 14].

Data can be used as data from an experiment (including both interviews, as in [1]) or as single interview data (including data only from the first interview, i.e., before the respondents were provided with the memory cues, as in [2]).

Competing Interests
The authors declare that they have no competing interests.

Author Information
The first author planned, and was responsible for all parts of the studies including: creating the materials, applying for ethical approval, collecting data, analysing data, preparing data and materials for archiving, archiving, and writing up the reports.

The second author was responsible for creating the idea for the project, being the principal investigator, and providing feedback on all parts of the studies.

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