The Reminiscence Bump

Ask a seventy-year-old to recall the events of her life, and the memories will not be spread evenly across the decades. A few will come from early childhood, a great many from the last year or two, and a conspicuous cluster from a single stretch of the distant past: roughly the ages of ten to thirty. That cluster is the reminiscence bump. It is one of the most reliable findings in the study of autobiographical memory, and it tells us something important for any case that turns on a person's recollection of long-ago events: memory is not equally accessible for every period of life, and the period that is most accessible is not the most recent one.

The bump is best understood as one feature of a larger pattern called the lifespan retrieval curve, which plots how many personal memories a person reports against the age at which those events occurred (Rubin, Wetzler, & Nebes, 1986). For an older adult the curve has three distinct parts. The first is childhood amnesia, the near-absence of memories from birth to about age five (discussed in a companion paper). The third is a period of ordinary forgetting in which recent events are remembered better than older ones, producing a steep rise toward the present. Between them sits the bump: an excess of memories from adolescence and early adulthood that interrupts the otherwise smooth decline. This paper explains what the bump is, why researchers think it occurs, and what it does and does not establish about the reliability of testimony. Readers interested in the developmental origins of this pattern, and in particular the boundary at puberty that marks the lower edge of the bump, are encouraged to consult the companion paper, Memory Across Puberty and the Reminiscence Bump, which treats those mechanisms in fuller detail.

A Robust and Well-Replicated Finding

The bump is not an artifact of one method or one population. It appears whether people are asked to free-associate memories to cue words, to list their most important memories, or to recall specific categories of experience, and it has been observed across many countries and cultures (Janssen, Chessa, & Murre, 2005; Conway, Wang, Hanyu, & Haque, 2005). A systematic review of the literature found the effect to be highly consistent across studies that differ widely in design (Munawar, Kuhn, & Haque, 2018). The bump also extends beyond purely personal memories: people show the same over-representation of the second and third decades when asked to name favorite books, films, and music, or to recall important public events, suggesting it reflects a general property of how memory is laid down rather than a quirk of any one kind of content (Holbrook & Schindler, 1989; Rubin, Rahhal, & Poon, 1998). What the research consistently shows is that material encountered in adolescence and early adulthood is, on average, remembered unusually well across the rest of the lifespan.

Why the Bump Occurs: Competing Explanations

There is broad agreement that the bump is real and considerable debate about why it happens. Several explanations have been proposed, and the current consensus is that more than one of them is probably at work (Koppel & Rubin, 2016). It is worth understanding the main accounts, because they make different predictions about what kinds of memories the bump contains.

The cognitive, or novelty-encoding, account holds that the second and third decades of life are crowded with first-time and transitional experiences, leaving home, starting work, forming lasting relationships, and that novel events are encoded more deeply and distinctively, making them easier to retrieve later. A striking test of this idea comes from people who emigrated as adults: their bump shifts to align with the age at which they immigrated rather than sitting at the usual ten-to-thirty window, exactly as a novelty-and-transition account predicts (Schrauf & Rubin, 2001). A related cognitive-abilities account points out that the same period coincides with the brain's peak encoding capacity, so memories formed then may simply be better-formed memories.

Two further accounts emphasize meaning rather than mechanics. The identity account, grounded in the self-memory system model, holds that adolescence and early adulthood are when people form a stable sense of who they are, and that self-defining experiences from that period remain especially accessible because they are bound up with the enduring self (Conway & Pleydell-Pearce, 2000; Rathbone, Moulin, & Conway, 2008), supplying the central chapters of a person's life story (Glück & Bluck, 2007). The cultural life-script account holds that every culture carries a shared timetable of expected life events, finishing school, beginning a career, marrying, having a first child, most of which are scheduled in the bump period; recall is guided by this script, so the script's contents are over-represented in memory (Berntsen & Rubin, 2004). Cross-cultural work supports the life-script idea, while also showing that no single factor fully explains the bump: one large study found it was not adequately accounted for by novelty, emotionality, valence, or rated importance taken alone (Janssen & Murre, 2008). For the courtroom, the practical point is not which theory wins but that the bump reflects how memories are encoded and retrieved, not a guarantee about their accuracy.

The Bump Is Largely a Positive Phenomenon

One feature of the bump deserves particular emphasis because it is easy to misread. The bump is far more pronounced for positive memories than for negative ones. When researchers separate happy from sad or traumatic memories, the characteristic adolescence-and-early-adulthood peak appears clearly for positive events but is weak or absent for negative ones, which tend to be distributed differently across the lifespan (Berntsen & Rubin, 2002). The cultural life script, which is dominated by positive milestones, helps explain this asymmetry. The implication is that the bump is not evidence that distressing or traumatic experiences from youth are specially preserved or unusually accurate. It describes a tendency to retain accessible, often positive, self-defining and culturally scripted memories from a particular life stage, and it should not be invoked to suggest that a long-ago traumatic event must therefore be vividly and reliably remembered.

What the Bump Does and Does Not Tell a Court

The reminiscence bump bears on cases in which a witness is asked to recall events from the distant past, including historic allegations and matters that surface decades after they occurred. Its central lesson is a cautionary one about a single inference: that better-remembered means more-accurate. The bump shows that memories from adolescence and early adulthood are more numerous and more accessible than memories from neighboring periods, but accessibility is a statement about quantity and ease of retrieval, not about correspondence to what actually happened. A confidently and richly recalled memory from a person's youth is, by virtue of the bump, exactly the kind of memory the mind readily produces; that fluency does not by itself make the memory true, and the reconstructive errors documented elsewhere in this series apply to bump memories as well. At the same time, the bump does not license the opposite overstatement. It does not show that memories of youthful events are generally false, only that their abundance has an ordinary cognitive explanation. The science here is descriptive: it tells a court what to expect about how much and how vividly a person recalls a given life period, and it leaves the accuracy of any particular memory to be tested by the usual means of corroboration and cross-examination.

Special Issues in Legal Practice

The principles described above apply with equal force to every party in a legal proceeding. Memory operates the same way regardless of who is asking the questions, and the science summarized here favors no side. What differs between the parties is not the science but the vantage point — the particular places where memory issues tend to surface, and the particular errors each party is best positioned to guard against. The two summaries below identify those recurring issues.

They are offered for orientation, not as litigation strategy; in every case the controlling question is what the evidence in that case will, and will not, support, and the expert's role is to inform the trier of fact rather than to advocate for either side.

Special Issues for Prosecutors

For the State, the reminiscence bump is most relevant when a case rests on an adult or older witness recalling events from adolescence or early adulthood, as in historic allegations brought many years after the fact. The bump helps explain why such a witness may retain a substantial, detailed body of memory from that period, and it guards against the naive assumption that the passage of decades necessarily empties the memory; people do carry forward an unusually rich store of recollection from those years. The error the prosecution should guard against is the converse overstatement, treating the vividness or abundance of a bump memory as if it were proof of accuracy. Because the bump reflects how readily memories from this life stage are produced rather than how faithful they are, and because it is driven largely by positive and self-defining material, the State is best served by corroborating the specific contested details independently rather than leaning on the fluency of the account, and by resisting any suggestion that a confidently recalled youthful memory is, for that reason, beyond ordinary error.

Special Issues for Defense

For the defense, the reminiscence bump bears on the weight of testimony about long-past events and on how that testimony is framed for the jury. The defense is well positioned to remind the trier of fact that the ease and richness with which a witness recalls a youthful event is an expected product of how memory is organized across the lifespan, not an index of reliability, and that the reconstructive errors and post-event influences documented elsewhere apply to these memories as fully as to recent ones. The corresponding error to guard against is overclaiming in the other direction. The bump does not establish that memories of adolescence and early adulthood are generally false or fabricated, nor does it support the inference that a traumatic event from that period could not be genuinely remembered. Responsible cross-examination and expert testimony should present the bump for what it is, a well-documented pattern in the accessibility of autobiographical memory, and confine its use to rebutting the unwarranted leap from vividness to accuracy rather than advancing an equally unwarranted claim of unreliability.

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