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Abstract

Bauer, et al. (2019) argue that Akhtar et al. (2018) state that infants and young children have no memory. But what we actually argued is that infants and young children do not in the main have conceptually rich autobiographical memories comparable to those of adults. What infants and young children do have is the ability to retain some fragments of previous experience – early episodic memory. One powerful implication of this is that when adults provide conceptually rich accounts of memories dating to approximately the age of 3 years and younger it is most probably the case that, in many instances (estimated at about 40% in Akhtar, et al.), these are adult embellishments of poorly remembered details, facts told them about their childhood, family stories, and so on. They are what we termed *fictional first memories.*
Consider the following account of a childhood memory:

“I really wanted to say something to my mother but had not yet learned to talk”

The person who recalled this memory was in their 30s and they dated the memory to below the age of one year. But is it really possible to remember not being able to talk? Consider several more accounts of memories:

“Sitting in a pram with my younger brother he was a very small baby at the time, I am 14 months older than my brother so I must have been 2 or younger. I remember being in the pram the rain cover was on and my brother was under a white blanket. I remember having a feeling of warmth and security.” Aged 2, age at recall, 46/50.

“I have a good Photographic memory which may explain why I remember a certain part in the past when I was only 2 months old. I am now 33 years old. Memory: I can see myself positioned outside my parents dark green Morris Minor (with dark wood trims looking about 4 meters facing the back of the car). The car is on the left hand side of a road, weather is bright, colours are vivid. Tall grass either side of the road. I think the back doors are shut. I can see no one. When mentioned to my parents, they thought it was impossible at the age I was at the time, told as being 2 months old.”

“Sitting on my 'potty' listening to the radio (Listen With Mother) while my own mother took my brother to school.” Aged 2 or below, age at recall 41/45.

Could a 2-month old know what a Morris Minor is or a 2-year old what a rain cover is? Is it possible to remember the radio program one was listening to aged 2? The evidence suggests not, which is why we argued that these accounts are best described as fictional memories and they are part of the life story formed by the self-memory system (Conway, Justice, & D’Argembeau, in press;
Conway & Pleydell-Pearce, 2000) a major part of which is autobiographical memory (AM). Autobiographical memory consists of conceptual knowledge of one’s life, represented at different levels of specificity, and episodic memories that contain experience-near fragmentary details (Conway, 2009). Indeed, this is what we meant by the term ‘full’ AMs. Episodic memories are then event-specific and are embedded in experience-distant associated networks of conceptual knowledge. The simple reason why infants and young children do not have AMs is that they have yet to develop the conceptual knowledge networks in which fragmentary episodic memories will eventually become embedded. On the other hand we also believe that at 3 years of age and younger infants, although lacking full autobiographical memories, may well have mental representations that at lest approximate to episodic memories.

One critically important aspect of conceptual knowledge is in the development of the self. Indeed, Bauer et al. acknowledge that “there is consensus that the memory must be of a specific past event and that it be self-referential” (italics ours; see page 5 of the commentary). As most people would also agree, this self does not emerge until around 2 years of age, (of course there will be large individual differences here and in any case the development of the self is likely a process extended in time). Nevertheless, and to clarify, our point is that to the extent that the self does not exist or exists only in rudimentary form there can be no AMs (e.g., Howe, 2000; Howe & Courage, 1993, 1997; Howe, Courage, & Edison, 2003; Ross, Hutchison, & Cunningham, in press).

Another issue here is what is meant by “memory ... of a specific past event.” We know from numerous studies (see Conway, 2005, 2009) that memories of specific events, ‘episodic memories,’ are fragmentary, time compressed, and
contain many unconscious and conscious inferences. But the schemas and conceptual networks that support such ‘filling in’ of episodic memory details are only just taking shape in infants and young children and are hardly present, if at all, in neonates. Thus, observations that an infant can recognize a row of objects, look at a new item in a display, even recall some detail, is hardly surprising. This is the beginning of the development of episodic memory, but not yet AM itself.

This is where our view of AM differs from that of Bauer et al. Our point being that what fragments remain in memory from early experiences become integrated into the life story making them consistent with current beliefs. It is, during the process of integration into the life story memories are altered to fit. Thus, the fact that infants and young children show evidence of memory does not mean that they have full conceptually rich autobiographical memory. It follows from this that adults who report conceptually rich autobiographical memories (such as those listed above) dating to below 3 years of age are giving accounts that we believe are highly embellished (see Howe, 2013). Such embellishments may be based on an episodic detail(s) retained from these very early years, conceptual knowledge of their infancy acquired later, family stories, etc. Whatever the case they are fictional in the way described by Akhtar et al. In agreement with other research (e.g., Bruce, Dolan, & Phillips-Grant, 2000; Bruce, et al., 2005) our view is that representations approaching the complexity and richness of adult autobiographical memory do not generally begin to emerge until the age of 5 to 6 years (see Wells, Morrison, & Conway, 2014). Of course, and again, there will be large individual differences in this, although the emergence of a range of full, conceptually rich, AMs we believe dates to later rather than early childhood and infancy.
References


