

HISTORICAL CLAIM	WHAT THE EVIDENCE SHOWS	IS THE SIN CONSISTENT WITH THE EVIDENCE?
<u>WHAT THE SIN CLAIMS</u>		
AD 570 Muhammad born AD 610 Muhammad Receives revelations that make up Quran AD 632 Muhammad dies.	There is NO 7TH CENTURY source that corroborates any of these claims. The earliest Islamic source is AD870-930 ie 250 years later. Therefore there are NO EYEWITNESS ACCOUNTS.	NO
MUHAMMAD'S FOLLOWERS MEMORISED HIS TEACHINGS VERBATIM	Studies of how human memory works show that: 1. We forget 75% of what we hear within 1 week. 2. We do not remember things 'verbatim'. Our minds 'reconstruct' memories using parts of the original experience and parts of what we know from past experiences	NO
MUHAMMAD'S FOLLOWERS THEN TRANSMITTED HIS TEACHINGS VERBATIM VIA ORAL TRADITION	Studies of cultures that use oral tradition show that: 1. Their memories are NOT superior to literate cultures. 2. Oral tradition does NOT preserve stories verbatim 3. Oral tradition can preserve the 'gist' of a story but with each transmission there is much variation added to details.	NO
CONCLUSIONS	HIGHLY UNLIKELY that Muhammad's listeners remembered his revelations verbatim	
	HIGHLY UNLIKELY that his followers transmitted his teachings others VERBATIM	
	The only reason that people today can memorise the Quran is because it has become a WRITTEN DOCUMENT.	
	We must therefore dispense with any Islamic sources that use 'oral transmission' to support the SIN	
WHAT WE ARE LEFT WITH	If we are going to test the SIN claims then we are left with: 1. Archaeological evidence from the 7TH CENTURY 2. Written sources from the 7TH CENTURY.	

Is the Standard Islamic Narrative historical? The problems with using Islamic Sources

- When we examine whether any historical claim is true, we usually don't have any DIRECT EVIDENCE ie photographs, recordings etc.
- As such, we need to rely on INDIRECT EVIDENCE like:
 - A. eyewitness accounts
 - B. archaeological evidence that may corroborate what the eyewitnesses say
 - C. contemporary written sources (ie those from the same time period as the claim) that may corroborate what the eyewitnesses say
- Islamic sources say that Muhammad was born in AD 570, then began receiving the 'revelations' that would make up the Quran in AD610 and died in AD632.
- The problem is that Muhammad didn't write anything down and the earliest Islamic sources for anything he allegedly said are from AD870-930. That's 250-300 years after he died.
- This means that none of the writers were EYEWITNESSES.
- A bigger problem is the that we have don't have any actual manuscripts for these sources that date to the time they were actually written. Regardless of the SIN claims, we can only go on the manuscripts we have and the earliest manuscripts we have for the Sira, Hadith, Tafsir and Tarikh date from 9th to 15th centuries. That's 400-800 years after the death of Muhammad.
- Islamic sources rely on the idea that teachings and sayings were perfectly preserved by a kind of oral tradition called 'Isnad'. They claim that the early Arabs were able to do this because they were an 'oral culture' and therefore their memories were far superior to those of people today in terms of memorisation.
- The problem is that scientific studies of memory and anthropological studies of oral cultures show that oral tradition CANNOT perfectly preserve material.
 1. Memory science has shown that only people retain at best 25% of the information they are exposed to. Often this occurs within hours of exposure.
 2. In addition, experiences are broken up into bits of memories and stored in different parts of the brain.
 3. When we want to remember something, these fragments are then reassembled but much of the original information is missing, so the brain fills it in based on similar experiences from the past.
- A good analogy is that our memories work with information fragments much like paleontologists work with bones. They almost never find the whole animal but only fragments. They then take those fragments and then add what they already know about species with similar parts to reconstruct what they think the animal may have looked like.

- In the same way, our take retained bits of information and reconstruct the original memory using other experiences that may be related to the original one.
- Studies of oral cultures confirm that while oral tradition is very good at passing on the 'gist' of stories or poems, the details are quite unstable changes based on the audience. The basic process is as follows:
 - A. Each transmitter works with a basic skeleton of a story eg key figures and events that stays the same
 - B. They forget parts of the story they have heard and add their own details based on their own unique experiences, often with a great deal of liberty and creativity.
 - C. The result is in effect a NEW story or poem that has the same basic skeleton as the first but different details.
 - D. Again the palaeontology example is a good analogy.
 - E. They confirm that you only have 'verbatim' transmission with a written text.
- Based on this, we can conclude that several things are **HIGHLY UNLIKELY**.
 1. IF Muhammad gave any recitations, it is **HIGHLY UNLIKELY** that anyone listening would have remembered them verbatim ie word for word
 2. If anyone wrote them down, they would only have recorded the basic story. It is therefore **HIGHLY UNLIKELY** that they would have recorded his revelation verbatim.
 3. If they tried to tell others about these revelations it is **HIGHLY UNLIKELY** that whatever they transmitted was a verbatim transmission. There would have been much variation.
 4. If we repeat this process over 250-300 years it is **HIGHLY UNLIKELY** that the end result would have anything remotely resembling what was originally said.
 5. Therefore it is **HIGHLY UNLIKELY** that the SIN claim about the accuracy of its oral transmission is correct.
- Therefore we cannot use the Islamic sources to verify the historical claims of the SIN. We are left with only the following:
 1. Archaeological evidence: coins, epigraphy, pottery, inscriptions etc.
 2. Contemporary written sources: those from the 7th and 8th centuries.

If they do not support the SIN, then no matter how passionately one believes in the teachings of Islam as a **RELIGION**, they cannot claim that describes **HISTORY**.

When the recall of one person is the initial stimulus for that of another, the first person's recall is ALL that is transmitted and the recall of the second person will be the product of:

1. What the first person has transmitted
2. The biases and style of the second person
3. The conditions of the second person's recall.

Therefore, if Muhammad was a historical figure, then what we know about him is entirely dependent on the memories of any of his earliest followers. If they are to be regarded as accurate, then we need to have independent evidence that their transmissions can be regarded as accurate. The best way we can look at this is to examine the current evidence on memory science and oral tradition and see if they can give us confidence that Islamic traditions are accurate.

A number of memory science experiments have shown that we forget about 75% of the information we are exposed to within a week. About 25% is retained as an enduring memory. The rest is either lost or replaced by erroneous recollections. It is described as the Ebbinghaus Forgetting curve named after the pioneer of memory science Hermann Ebbinghaus.

Further studies (Bartlett) showed that when we experience something, that bits of the memory are broken up and stored separately in different parts of the brain. We then assemble the various fragments of the memory in question from these different locations, but many of these pieces are no longer there. Therefore the brain fills in the missing gaps using similar memory experiences from comparable experiences in the past.

‘Remembering is not the re excitation of innumerable fixed, lifeless and fragmentary traces. It is an imaginative reconstruction, or construction, built out of the relation of our attitude towards a whole active mass of organised past reactions or experience’

A good analogy is that our memories work with information fragments much like palaeontologists work with bones. They almost never find the entire animal but only fossilised fragments. They then use whatever other information and knowledge they have to reconstruct the original animal. In the same way our minds work with retained bits of information and then reconstruct the original memory using other information that may be related to the experience being remembered.

These discoveries show that our memories degrade very rapidly and that within 15minutes our memories introduce a high number of distortions to our recollections. They confirm the Ebbinghaus forgetting curve and suggest that the memories of what Muhammad said would have been subject to the same process of distortion and decay.

“If we add to these limitations the regularly terse, confusing, elliptic, and even downright nonsensical style of the Quran’s words, it seems ludicrous to imagine that Muhammad’s companions could have remembered them accurately. These qualities certainly do not lend themselves to any possibility of verbatim memorisation and recall in the absence of a written document. Indeed, people today are able to memorise the Quran verbatim only because it has become a written document.” Shoemaker

A few people have trained their memories to be accomplish things like remembering the orders of multiple decks of shuffled cards or a series of random numbers. Their memories are not supernatural however, just well trained, just like a bodybuilder bulks up by regular training.

Some rare individuals are born with ability to remember almost everything they experience, but this ability is much more of a curse than a blessing. These people are usually unable to function normally in society because their minds are overwhelmed by the ‘clutter’ of useless details. Others have a condition called hyperthymesia but again this is rare and they are not particularly good at remembering texts and poetry.

If Muhammad existed and his followers were ordinary Bedouins, then memory science confirms that, in the absence of a written text, they would have forgotten most of what he said within hours or days of him saying it. They would have retained some fragments that made up a ‘gist’ of his sayings but they would have had to fill in the details with

supplemental ‘filler’ based on the experiences amassed by the particular individual. Just like the palaeontology example above, it is highly unlikely that we have Muhammad’s exact words, but rather a ‘recomposition of them inspired by some gist memories that, like the palawe would have a recombination of Muhammad’s words inspired by gist memories, that like

DETAILED ANALYSIS OF THESE QUESTIONS.

WHAT DOES THE EVIDENCE SAY ABOUT THE SIN CLAIMS FOR ISLAMIC SOURCES.

(Source: ‘History of Sunni Hadith’, Pat Andrews, 2025’)

SUMMARY TABLE

Collection	Death date of author	Manuscript dates
6 CANONICAL HADITH		
Sahih Bukhari	AD 870	11th cent, 14th cent, 15th cent
Sahih Muslim	AD 875	11th cent, 15th century
Tirmidhi	AD 892	13th cent, 14th cent
Abu Dawud	AD 889	11th cent, 13th cent
An-Nasai	AD 915	12th cent
Ibn Majah	AD 887	11th cent, 12th cent, 13th cent
OTHER BOOKS		
Muwatta ibn Malik	AD 795	9th cent
Taylisi	AD 820	13th cent
Abi ShahbaH	AD 849	13th cent
Hanbal	AD 855	13th cent
Abdul Razzaq	AD 827	13th cent, 14th cent
Munabbih	AD 720 or 759	12th cent

BUKHARI

- Despite the claims of the SIN, there is no clear consensus that his hadiths are ‘Sahih’. There are several different versions of his corpus. ‘Although all of the hadiths in al-Bukhari are claimed to be sahih, not all scholars are agreed. Nor have these collections

come down in a single unchallenged edition...’it exists in several ‘narrations’ (riwayat) of which the version handed down by al-Kushmayhani (d389) on the authority of Bukhari’s pupil al-Firabri is the one most frequently accepted by the ulema’ (Power B, Challenging Islamic Traditions, 2015 p 9)

- Al-Firabri died 932, whereas al-Bukhari died 870. Bukhari had other students ie Hamad b Shakir (d902) who included 200 fewer narrations and Ibrahim b Maqil al-Nasafi (d907) had 300 fewer narrations.
- There is also evidence that Sahih Bukhari did not circulate significantly until well into the 10th century and that there was textual instability into the 10th century (Melchert, Christopher, Bukhari and his sahih, Le Museon 123 (3-4), 2020, p430).
- The extant manuscripts for Al-Bukhari are as follows:
 1. Al-Yunini (1302)
 2. Al-Qastallani (1448-1517)
 3. Bard al Ayni (15th century)

HAMMAN B MUNABBIH

- This document is supposed to be from a disciple of Abu Hurayra and include 138 hadiths.
- Hurayra is supposed to have died in AD678-9 yet Hamman died either in AD719 or in 750. It also mentions young children learning Hadith which is a practice that only became common later on and not in the late 7th century.
- This leads one to question the historicity of this account.
- This document is more likely to have been written in the 9th century (Morris, how early is the shahifah of hamman.

MUSANAF OF ABDUL RAZZAQ

- He was born in AD744 and died 827
- It is based on manuscripts from 1209 (13th century) and 1346 (14th century)

MUWATTA IMAM MALIK

- While this is believed to be the earliest Hadith collection, there are no copies from the 7th and 8th centuries. Also, later Hadith writers from 9th centuries do not mention this work.
- He lived AD 711-795 and also revised his Hadith over 40 years. Why would he need to do this if the narrations were strong and valid?
- The focus of the Muwatta appears to be more on FATWA than HADITH. This is consistent with Malik being an Islamic Jurist whose intention was to illustrate the law, ritual and religious practice recognised by Muslims, rather than a historian focused on accurately collecting traditions .
- Malik was also known to form ‘apocryphal’ family Isnads ie inserting his own family members into the chain of transmission.
- The oldest manuscript is from Chester Beatty Library and dated to 890. There is another papyrus fragment that also dates to the 9th century.

ABU DAWUD SULAYMAN IBN DAWUD B AL-DJARUD AL-TAYALISI

- He was born 751 and died 820
- Earliest possible manuscript is from 1250 AD and only other manuscript available is from 1903

SUNAN ABU DAWUD.

- Born 817 died 889

- Most famous commentary on this is Al-Khattabi who died 998
- Manuscripts available are from 1070 (Rylands 130), MS. Marsh 292 (1207AD)

IBN ABU SHAYBAH

- He supposedly lived 775-849 and was an Iraqi scholar.
- His works include Hadiths against the Mutazilites. This was an issue that occupied the Abassid caliphs from 849 onward. His works were compiled and preserved by Baqi bu Maklad in Cordoba in SPAIN.
- So not only is his work not early, it was compiled thousands of km away.
- Earliest extant edition is 1204 ie 13th century.

IBN HANBAL

Lived from AD780-855

Earliest manuscript available is from AD 1236

SAHIH MUSLIM

- Died 875
- This collection is regarded as one of the two most authoritative Hadith collections, along with Al-Bukhari.
- He gives all the lines of transmission and some see him as correcting errors in Bukhari (James Robson, The transmission of Muslim's Sahih, 1949 p46)
- Guillaume notes that the grounds of their authority seems to lay in how well they were accepted by the Islamic community, rather than how accurate or historically reliable they were. 'Like the customs they sought to authorise by appeal to apostolic custom and precepts, they owe their position to IJMA , not their inherent virtue and faultlessness" Guillaume, the Traditions of Islam, p94
- Motzki notes that there was an element of redaction and variants transmission
- Calder notes that his work would only have emerged in its final form at least one generation after his death (Calder, Norman, Studies in Early Islamic Jurisprudence, 1993 p194)
- Manuscripts are from 1050, 1352, 1309 ie 11th to 14th centuries

At-TIRMIDHI

- This was not recognised early on by Muslims as being important or authoritative (Robson, James, The transmission of Tirmidhi's Jami, 1954, p258). Why should this be the case if it is a collection of historically reliable traditions?
- The earliest manuscript is 1325 AD

SUNAN AN-NASAI

- He was born AD829 and died AD915. Some say that he studied under Bukhari but this is disputed.
- Very little is known about his life and there are questions about historical reliability and the accuracy of his transmission.
- Earliest manuscript dates to 1123 ie 12th century.

SUNAN IBN MAJAH.

- This was not counted among the 6 canonical Hadiths only by the end of the 11th century. (Robson, James, 'The transmission of Ibn Majah's Sunan', 1958, p129)
- There were also doubts about this collection because of the weakness of many of the traditions (Goldhzedr, Muslim studies Vol 2, p240)

- “The canonisation of *Ibn Majah*’s sunan illustrates that the Hadith canon was formed in part for reasons other than textual authenticity as defined by Sunni Hadith criticism. Although advocates of *Ibn Majah*’s sunan lauded its author for his selectivity and critical rigor, luminaries of the Sunni Hadith tradition across the centuries have lambasted the book for the unreliability of its contents. According to testimony of influential participants in the Sunni study of Hadith, the book was admitted into the canon not because of its reliability but because it vastly expanded the number of useful hadiths in the canonical body” (Brown, Jonathan, ‘the canonisation of *Ibn Majah*, 2011, p171)
- The oldest manuscript dates from the 11th century

SUMMARY:

Sahih Bukhari - Mingana Arab. *Isl.* 225 – c. **1000**, so **tenth-eleventh centuries**.

Extant editions of Bukhari are based on al-Yunini (d. 701/1302, so **fourteenth century AD**), possibly by way of al-Qastallani (**fifteenth-sixteenth centuries AD**).

Asqalani’s *Fath al-Bārī fī Sharḥ Ṣahīḥ al-Bukhārī* (**fifteenth century AD**), and *Umdat al Qari* by *Badr al Ayni* (also **fifteenth century AD**). The Maknaz edition uses a text from 873/1468 - also **fifteenth century AD**.

Sahih Muslim - Tahrir edition of **1384**, based on the Sultaniyya edition of **1329**.

MS. Marsh 648 stored at Bodleian Library, Oxford University, contains *Sahih Muslim*, and has a commentary by ‘Sibṭ ibn al-‘Ajāmī, 1352-1438 AD’, which indicates that the manuscript is no earlier than the **fifteenth century A.D.**

Islamic Arabic 1070, stored at Cadbury Research Library, University of Birmingham, and dated probably to the **fifteenth century A.D.**

Mss. Or. 1714, containing the *Sahih*, is dated to **1309 A.D.**, and is stored at University Library, Cambridge University.

Schoenberg lists a copy (36526) dated to **1050**, which had belonged to Bertram, 4th Earl of Ashburnham.

Another copy also belonging to the Earl (185703), entitled *Musnad as-Sahih* is given the same date. So the oldest copy is **eleventh century A.D.**

Jami’ At-Tirmidhi - Manuscript No. 648 Hadith preserved at the Egyptian National Library, dated 726/1325 - **fourteenth century A.D.**

Maknaz Edition uses a mss. dated to 626/1229 (copied by Mustafa b. al-Hajji Qutilmish) - **thirteenth century A.D.**

Abu Dawud - Rylands 130 manuscript, dates from 1070 A.D. - the **eleventh century**.

MS. Marsh 292, dated 604 A.H./**1207 A.D.**, and kept in the Bodleian Library in Oxford University - **thirteenth century**.

Schoenberg (119193) lists a copy from **950**, as part of the Chester Beatty library.

Arberry describes it as ‘**Undated, 4/10th century**’ so perhaps this is more of an estimate.

An-Nasai - mss. of ‘Sunan an-Nasa’i dated 525 A.H. (1123 A.D.) and preserved in Maktaba

al-Aqsa in Jerusalem’ - **twelfth century A.D.**

Ibn Majah - ‘authorized’ mss. dated 601/1204 - **thirteenth century A.D.**

Manuscript Taymur Pasha No. 522 Hadith, preserved at the Egyptian National Library, copied in 561/1122 - **twelfth century A.D.**

Another mss. in the Suleymaniye manuscript library in Istanbul, dated 485/1092, so the oldest mss. for Ibn Majah dates from the **eleventh century A.D.**

The other books:

Muwatta - Dublin's Chester Beatty Library, *Mss. 3001*, dated to **277/890**. **PERF No. 731** in the Austrian National Library, Vienna, dated second half of 2nd century A.H. by Nabia Abbott, but more recently dated to **first half of the third/ninth century** by Professor Petra **Sijpesteijn**.

Taylisi - *Al-Musnad*, dated to **1250 A.D.**, from Khuda Bakhsh Oriental Public Library, Patna, Bihar.

Abi Shaybah - **thirteenth century**

Hanbal – **1236 - thirteenth century**, from Khuda Bakhsh Oriental Public Library, Patna, Bihar, a partial copy.

Musanaf of Abdul Razzaq – The basic manuscript Murad Mulla (Istanbul) dates from the year **747/1346-7**.

The manuscript Fayed Allah Effendi (Istanbul), from the year 606/1209-10. The dates here are **fourteenth and thirteenth centuries**.

Sahifa Hamman B. Munabbih – **twelfth century**.

CONCLUSION

*It is amazing that so many articles and academic books on the Hadith, whether by Muslims or not, for whatever reason fail to address the question of what manuscripts are extant. Usually, studies of Biblical or Classical material show great concern on equivalent matter, and we need only consider the title as well as the theme of the book by the renowned Biblical scholar Bruce Metzger called *The Text of the New Testament*. In many cases, even non-Muslim scholars seem to content to be guided by the Islamic concept of *isnad*, rather than the normal academic approach of examining the date of manuscripts and working back from that starting point. The issue becomes particularly important when we consider the question of Islamic Origins. Apart from non-canonical seerah material, the main Muslim source – and certainly the canonical one – is the Hadith. The canonical Sunni Six Collections only emerged two centuries after the events they relate, but the gap is even larger when we take into account manuscript age. The oldest manuscript for Bukhari is tenth-eleventh centuries; for Muslim, eleventh century; for Tirmidhi, thirteenth century; for Abu Dawud, possibly tenth, or eleventh century; for An-Nasai, twelfth century; for Ibn Majah, eleventh century. Surely this makes reconstruction of Islamic Origins even more questionable, but it certainly raises questions as to why the manuscript evidence should be so sparse when Sunni Islam was empowered?* (Andrews, Pat: History of Sunni Hadith)

WHAT DOES MODERN MEMORY SCIENCE SAY ABOUT THE ISLAMIC CLAIMS?

(Source: 'Creating the Quran, Shoemaker, 2022)

- The problem is that scientific studies of memory and anthropological studies of oral cultures show that oral tradition **CANNOT** perfectly preserved material.
- Memory science has shown that only people retain at best 25% of the information they are exposed to. Often this occurs within hours of exposure.
- In addition, experiences are broken up into bits of memories and stored in different parts of the brain.
- When we want to remember something, these fragments are then reassembled but much of the original information is missing, so the brain fills it in based on similar experiences from the past.

[All of what follows has been taken verba 'Creating the Quran', Shoemaker, 2022. Much has been reproduced verbatim]

When the recall of one person is the initial stimulus for that of another, the first person's recall is all that is transmitted of the original; there is no chance for a new context to recover information that was known by the first person, but was not told. The recall of the second person will be a product of the recall of the first person, the biases or style of the second person, and the conditions of the second person's recall.

Therefore, the closest that we can possibly come to understanding Muhammad as a historical figure and his teachings depends entirely on the quality of the memories of his earliest followers. Unfortunately, the nature of human memory and its workings as revealed by memory science do not offer much cause for optimism in this case. The weaknesses of the human memory lead us instead to the conclusion that already in this first generation of remembering a great deal of information and detail would have become lost or corrupted, even in a very short span of only a few days or hours. The scientific study of human memory began with the field-defining work of a German psychologist named Hermann Ebbinghaus (1850–1909), who commenced his career by studying himself and his own memory. His initial experiments consisted of preparing a series of nonsense syllables, such as DAX, GUF, and NOK, which he would regularly memorize and rememorize. Then he would test his memory of these invented syllables at a variety of intervals after committing them to memory, in an effort to determine just how long the memory could contain accurate information and how quickly it would forget or alter this information. The drop-off turned out to be quite rapid: testing himself only nine hours after memorizing the syllables, he had forgotten around 60 percent of the sequence. Thereafter, the decay became much slower. After sixth months, he had forgotten a little over 75 percent of the original string of syllables: "not that much worse," as memory expert Daniel Schacter observes, "than the amount of forgetting at the nine-hour delay." Ebbinghaus's important discovery, "that most forgetting occurs during early delays, and then slows down at later ones, **has been replicated in countless laboratory experiments.**"

Accordingly, his findings, known as the Ebbinghaus forgetting curve, have become a foundation of modern memory studies, which have determined that our memory loses an enormous amount of information very quickly after the events we seek to remember, within a matter of mere hours. Most of what we forget, then, happens almost immediately after the event that one later seeks to remember—more than half of what we might try to recall about a given morning is wrong or forgotten by dinnertime. The extension of the

curve, however, indicates that a small core of memories that we have developed about an event after the first several hours can persist in approximately the same form for a significant amount of time thereafter. Nevertheless, these enduring memories generally recall only around 25 percent of the original events with any sort of accuracy. The rest is simply lost or replaced by erroneous recollections.

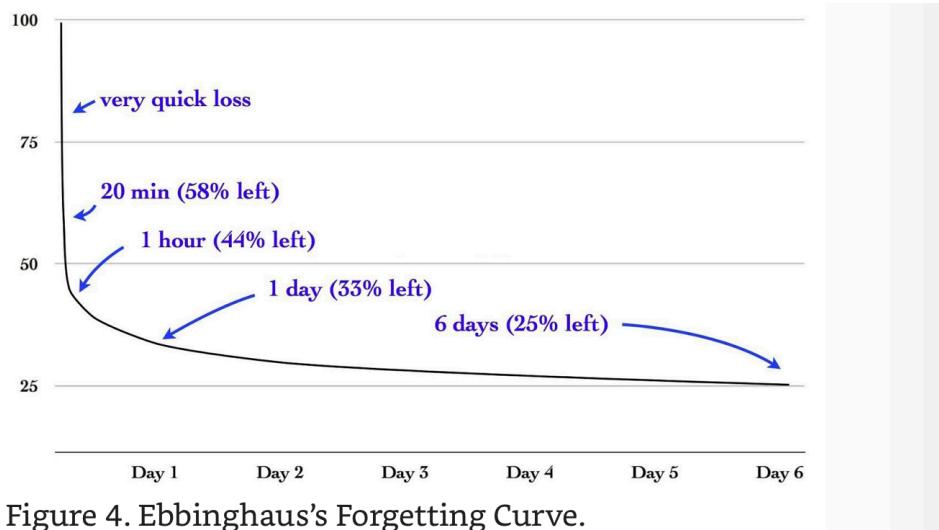


Figure 4. Ebbinghaus's Forgetting Curve.

The next great pioneer of memory studies was Frederic C. Bartlett, Cambridge University's first professor of psychology, and his early works, together with those of Ebbinghaus, laid the foundations of modern memory science. One of Bartlett's most significant contributions was to identify the basic process that our memories use to recall events from the past. Too often we are prone to thinking of our memories as simply recording devices or cameras that capture individual moments as we experience them and compile them into discrete files. These memory files are then stored away somewhere on the vast hard drive of the mind, to be recalled from storage at will, like some sort of repository of personal PDFs from the past. Yet it turns out that the brain does not work this way at all, as Bartlett's research discovered. As he writes, "The first notion to get rid of is that memory is primarily or literally reduplicative, or reproductive. In a world of constantly changing environment, literal recall is extraordinarily unimportant." That is, there is little practical value in being able to recall past experience with meticulous accuracy, and so our brains have adapted to forget a lot of needless detail. As Bartlett continues, "if we consider evidence rather than presupposition, remembering appears to be far more decisively an affair of construction rather than one of mere reproduction."

When we experience something, Bartlett's studies demonstrated, bits and pieces of the memory are broken up and stored separately in different parts of the brain. When we then later seek to remember something, the brain must assemble the various fragments of the memory in question from the different storage locations. When we attempt to recall some past event, however, it turns out that some of the pieces of a memory—more often than not a lot of the pieces—are no longer there, and so in order to complete the memory for retrieval, the brain must fill in the missing gaps, using similar memory fragments drawn from comparable experiences in our past. Using this supplementary data, the mind effectively pieces the memory back together to fit the way that we have come to expect

things. In the process, bits from other memories associated with similar emotional states or sharing a similar visual pattern or having similar semantic associations can come along for the ride, conflating various memories into a new, altered recollection. Thus, Bartlett concludes, Remembering is not the re-excitation of innumerable fixed, lifeless and fragmentary traces. It is an imaginative reconstruction, or construction, built out of the relation of our attitude towards a whole active mass of organised past reactions or experience, and to a little outstanding detail which commonly appears in image or in language form. It is thus hardly ever really exact, even in the most rudimentary cases of rote recapitulation, and it is not at all important that it should be so.

The significance of Bartlett's discoveries for our purposes is clear: our memories of what we experience, and in this case, of textual material especially, degrade very rapidly. Within only fifteen minutes, our memories introduce a high number of distortions, many of which are significant, to our recollections. The results therefore offer conclusive confirmation of the Ebbinghaus forgetting curve that was obtained using a slightly different method. This initial degradation only worsens over time, as one would expect, so that within a few months our memories of an event or a text will consist primarily of false memories that recall the original experience—or words—with a high degree of inaccuracy. Accordingly, we must recognize that any memories of what Muhammad said or did by his earliest followers would have likewise been subject to the same process of rapid distortion and decay—within mere minutes of the experience and becoming significantly worse after just a couple of months.

The very nature of human memory and its transmission all but ensures that such recollections would be, to quote Bartlett, “exceedingly subject to error,” errors that would have arisen almost immediately in the memories of Muhammad's followers. If we add to these limitations of memory the regularly terse, confusing, elliptic, and even downright nonsensical style of the Qur'an's words, it seems ludicrous to imagine that Muhammad's companions could have remembered them accurately. These qualities certainly do not lend themselves to any possibility of verbatim memorization and recall in the absence of a written document. Indeed, people today are able to memorize the Qur'an verbatim only because it has become a written document.

If readers may be beginning to despair at the fallibility of human memory, there is, it turns out, some good news. Memory, of course, must have some usefulness or reliability; otherwise, we could not and would not rely on it. Indeed, some persistence and accuracy of memory is essential for human beings to live their daily lives and to have complex interactions with each other and with society as a whole. Most of the time, our memory functions very well to remember the broad outlines of what we have experienced. Thus, despite all its significant limitations, human memory excels at remembering the “gist” of what happened in the past, even as particular details and specific words fall quickly into oblivion. Our recollections are in fact organized in the memory and retrieved on the basis of such “gist information,” a feature that “is adapted to retain information that is most likely to be needed in the environment in which it operates.”

To remember the gist of a story or a conversation is to be roughly faithful to the argument, the story line, the underlying sequence of ideas.” If this is the standard, then very often our memories in fact fail to retain the gist of an experience, and in reality we can recall no more than the general themes of past conversations or experiences. Of course, if we instead regard memory of these more general patterns to be reflective of the “gist,” then our memories are quite good at preserving the gist.

One of the most important studies demonstrating the limitations of memory for retaining the gist, in this case defined as recalling an original “text” in different words, is based on the congressional testimony of John Dean, Richard Nixon’s White House counsel, in the Watergate proceedings. During the Senate hearings, Dean recalled with great detail his interactions with Nixon, often recounting dozens of conversations with him from his three years of service as if he were citing them verbatim. The senators were often skeptical concerning the precise level of detail that Dean claimed to remember, and they frequently pressed him on the specifics. Nevertheless, Dean maintained that he had an excellent memory, which his reputation seemed to confirm. Indeed, at the time of the hearings, some writers referred to Dean as “the human tape recorder,” so precise were his accounts of these conversations.

Within a year of his testimony, however, real tape recordings of their conversations made by Nixon in the Oval Office were released in the course of the investigation: On the basis of these two sets of data, one can determine just how much Dean was actually able to remember and how accurate his memory of these conversations was when he was testifying. The results of this analysis are one of the most remarkable studies in the history of memory science—“John Dean’s Memory: A Case Study,” published by the famous memory researcher Ulric Neisser. Neisser compared Dean’s testimony with transcripts of two recorded conversations between Dean and Nixon, one on September 15, 1972, and the other on March 21, 1973: these were the only two recordings available for comparison. One should note that these conversations took place only nine months and three months respectively before his Senate testimony began on June 25, 1973. The comparisons with the two transcripts yielded striking results, revealing some remarkable differences between Dean’s memory of the conversations and what actually transpired in the Oval Office. In general, Dean showed a tendency to elevate his own significance in the events as he remembered them, but more importantly, his memories about many things, including some very big things, were simply wrong. Nevertheless, although his recollections were often inaccurate, none of what Dean said was false, since, if it were, he would have been convicted of perjury, which he was not. On the whole, Neisser’s study revealed “that Dean recalls the ‘gist’ of some conversations and not of others,” despite his confidence that his memory is entirely accurate.

So what went wrong? Why did Dean’s memory alter the account of what happened in the way that it did? Likewise, why did he get some things more or less right? In the first place, as already noted, many of the transformations in Dean’s recollections serve to elevate his importance in the affair and to signal the president’s personal approval of him. I think it is safe to say that he is not the only one whose memory frequently operates in this manner. All of us tend to remember our past in a fashion that makes us look good and important. Yet Dean’s memories also seem to reflect the influence of certain memory scripts. That is, Dean was remembering his meetings with the president by filling in the gaps using a general memory pattern of what one would expect when meeting with the president in the Oval Office. Such mental schemata are stored and regularly employed by the mind for understanding and remembering many common events. Accordingly, in many instances, Dean’s testimony relies on his memory of the sort of things that are typically said when one is in the Oval Office with the president. He has reconstructed the memory from bits and pieces, in the manner that Bartlett identified, filling in gaps in an “imaginative reconstruction, or construction, built out of the relation of our attitude towards a whole active mass of organised past reactions or experience.”

Yet in the end, even if Dean was not able to remember the gist of his conversations with Nixon, Neisser emphasizes that he was in fact telling the truth about what happened. As

he writes, “John Dean did not misrepresent this theme [i.e., Nixon’s corruption] in his testimony; he just dramatized it. In memory experiments, subjects often recall the gist of a sentence but express it in different words. Dean’s consistency was deeper; he recalled the theme of a whole series of conversations and expressed it in different events.” In the broader sense of the “gist,” then, which we suggested above, it would seem that Dean was able to accurately remember the gist of what happened, even if he could not remember the gist of the particular words that either he or Nixon actually said.

What can this study of John Dean’s tell us more generally about how human memory works? Well, here we have a highly educated and intelligent individual, whose career had trained him to have a keen memory: his position, as White House counsel, demanded that he have a good memory for both the law and all the workings of a presidential administration. In the Senate hearings, he was charged with remembering several crucial and momentous personal conversations with the president—an auspicious occasion—at a distance of only three to nine months, having time to prepare a carefully recollected statement that he knew would be delivered before the senators. And yet, his memory failed on many levels to recall what happened and what was said, even as he remembered the broader themes of his interactions with the president as well as things he had presumably memorized in advance for their conversations. We find in Dean a fine-tuned memory working relatively well to recall the broader themes from past experience, while failing to remember even the gist of what was said and also misattributing certain conversations to incorrect circumstances.

All things considered, this is not bad at all, and it seems to be about as much as we can expect of human memory without the aid of written materials, even if many of us—mistakenly—believe that our memories and those of others are more capable than this. Accordingly, if such were the limits of Dean’s memory in these conditions, it bears asking, what should we expect of more ordinary people, whose training and profession have not developed their memories to the same extent as Dean? Are we able to remember the gist of a conversation that we had two years ago, or even three months ago, with a colleague, a student, a health professional? Possibly. How about the general themes of the conversation? More likely. And what about a word-for-word account of what was discussed? Not a chance.

Even if some people may believe they have such capacities, they do not. What about something that someone else told you about a conversation that a third person had some time ago? Would this reproduce what was said word for word? Certainly not. Let us go even further still: “what about a report written by someone who had heard about the conversation from someone who was friends with a man whose brother’s wife had a cousin who happened to be there—a report written, say, several decades after the fact? Is it likely to record the exact words? In fact, is it likely to remember precisely even the gist? Or the topics?” At best, in such cases we would be lucky if the gist of the topics discussed maintained some basic level of accuracy. More than that seems extremely improbable in the absence of written transmission.

It is of course possible to train the memory to accomplish remarkable feats, such as remembering a sequence of a thousand random numbers or the order of ten shuffled decks of cards. It is true that some people, thirty-six to be precise, have trained their memory and developed tricks to make such feats possible, at least for the short term.⁵⁴ Their memories are not supernatural, just trained: much in the same way that a body builder exercises regularly to bulk up, so these athletes of the mind regularly train to develop their memories. Anyone who committed to such training could theoretically attain

the same capabilities. Yet one must note that the exploits of these memory champions, who indeed engage in competitions, involve short-term memorization of a very different sort from the long-term verbatim recall that would be necessary to remember conversations or lectures word for word or events from daily life with detailed accuracy.

It is true, however, that there are individuals who, unlike these memory masters, are simply born with the ability to remember just about everything they experience in excruciating detail. Yet this capacity is extremely rare—it is literally preternatural, and thus it cannot be taken as evidence that Muhammad's followers would have similarly been able to remember the text of the Qur'an word for word after hearing it from Muhammad. Moreover, this ability tends to be much more of a curse than a blessing for those extremely few individuals who possess it. As noted above, our forgetfulness is an adaptive quality that makes our memories functionally useful in the day-to-day affairs of our life. Without the ability to forget most of what we experience, it turns out to be very difficult to get through the day. As Schacter notes, “if all events were registered in elaborate detail” in our memory, “the result would be a potentially overwhelming clutter of useless details.”

Such was the case for the famous mnemonist Solomon Shereshevski, whom the Russian neuropsychologist Alexander Luria studied over three decades beginning in the 1920s. Shereshevski could recall lists of words, numbers, even nonsense syllables exactly still more than a decade after hearing them spoken once. As Luria concluded of his subject, “Shereshevski formed and retained highly detailed memories of virtually everything that happened to him—both the important and the trivial. *Yet he was unable to function at an abstract level because he was inundated with unimportant details of his experiences—details that are best denied entry to the system in the first place.*” Shereshevski’s unique condition enabled him to remember almost everything that he experienced, yet this ability was debilitating: “The main problem for ‘S’ [Shereshevski] seemed to be that new information (such as idle talk from other people) set off an uncontrollable train of distracting memory associations for him. Eventually, ‘S’ could not even hold a conversation, let alone function as a journalist,” his original profession. Shereshevski possessed a truly supernatural memory, with abilities unknown in other human beings, capabilities that eventually made him dysfunctional, incapable of even making conversation.

Accordingly, this singularly exceptional individual cannot validate a belief that Muhammad's followers could remember the Qur'an verbatim for decades after hearing it from him. Even in the entirely improbable case that one among Muhammad's followers may have had such a memory, Shereshevski's example shows that such a person would be effectively useless for the rest of the community, unable to even have a conversation with other members of the group. There is another recently identified memory condition known as hyperthymesia or highly superior autobiographical memory, which was only identified in 2006. Individuals with hyperthymesia are able to remember dates and events from their lives with extraordinary accuracy, reaching back over decades. It is an extremely rare condition, which has only been identified in around sixty or so individuals in the world. But these individuals show extraordinary recall of personal experiences: often if you ask them what happened on a certain day, they can tell you what they had for lunch on that day as well as significant personal experiences or public events with incredible accuracy. What they remember and what they do not is seemingly random, but in almost all cases the things that are remembered are very personal, rather than shared, experiences. For instance, in the first case that was discovered, the individual, after being interviewed by two people for hours the day before, could not remember when asked

what her interviewers had been wearing. Nevertheless, again, while it seems highly implausible to assume that such an individual was among Muhammad's entourage, even if by some remarkable chance there were, this still could not guarantee the words of the Qur'an. Moreover, and more importantly, although hyperthymesiacs frequently can remember their personal past with stunning detail and exactitude, they are just as often likely to remember things incorrectly; indeed, studies have shown that they are no less likely to do so than individuals who do not have this mnemonic ability. They are equally susceptible to all the influences and mechanisms that regularly distort or introduce false memories. things that only they would know or the dates of certain major events, memories that are not prone to divergent accounts or interpretations. Nor, as it turns out, are they particularly good at remembering texts and poetry in particular. Accordingly, it seems unreasonable to postulate that this extremely rare memory condition, with all its attendant weaknesses, could possibly somehow guarantee that the Qur'an preserves verbatim accounts of what Muhammad taught.

Angelika Neuwirth similarly maintains that the Qur'an must be understood as a "transcript" of Muhammad's "prophetic communications." Such pronouncements regarding the fidelity of the Qur'anic text to what Muhammad taught are not at all uncommon, and ultimately they would all appear to harken back to Nöldeke, who long ago proclaimed that "the Qur'an contains only authentic matter. Nevertheless, in light of what we have just seen about the limitations of human memory, is there any reason to imagine that such judgments could possibly be warranted, despite their prevalence, in critical scholarship on the Qur'an and early Islam? If we assume Muhammad's early followers to have been ordinary human beings without mnemonic superpowers, then we must accept that their memories of the words Muhammad spoke to them do not preserve "what Muhammad taught, and is expressed in his own words."

Such accuracy is altogether impossible, no matter how many times it may be asserted in the scholarly literature, unless someone were taking dictation in the moment. Within hours of hearing him speak, the listeners would already have forgotten most of the specific words he said, as the Ebbinghaus forgetting curve, a pillar of memory science, clearly indicates. When they later sought to retrieve memories of what they had heard, they would not have simply called up a faithful transcript from the archives of their memories. Instead, such recall involves the imaginative reconstruction and recomposition of the memory anew, based on some fragments that managed to make it into storage. But these fragments leave large gaps and must be supplemented by information drawn from "the relation of our attitude towards a whole active mass of organised past reactions or experience."

Perhaps a few months or years after hearing Muhammad say something, one of his companions could recall a few scraps of the gist of what he said, but most of the memory would consist of supplemental filler provided from the relevant experiences amassed by this individual. The same holds no less true of Muhammad himself, whose ability to remember words that he had spoken months or years in the past would be similarly limited and prone to considerable omission and alteration. Here Neisser's observation that our memories work with fragments in the same way that paleontologists work with bones is particularly apt: given a few bits to work with, our memories have to reconstruct the whole animal, as it were. Accordingly, what we have is not Muhammad's words, but a recomposition of them inspired by some gist memories that, like the paleontologist's bone fragments, have been highly reconstructed and expanded based on expected patterns in order to complete the whole.

Even if we assume that Muhammad existed and that he had followers, this does not mean that they were accurate eyewitnesses. As we have also seen, eyewitness memories are highly fallible, no less so than any other kind of memory. Perhaps the fact that there would have been multiple eyewitnesses to confirm one another's memories can buy some reassurance? Not at all, and actually the opposite seems to be true. Memory science has learned that eyewitness memories are more often than not corrupted by influence from the accounts of others. Indeed, scientific study of "group memory" has demonstrated that the collaborative memory of several individuals working together generally amounts to less than the sum of its parts. For instance, given a dozen individuals who witnessed a particular event, if one interviews them individually, one will garner more information and greater accuracy than if the group is consulted as a whole. So, sharing memories among individuals seems to degrade, rather than strengthen them, a point that leads to the topics of the next chapter: oral transmission and collective memory. Therefore, we should hardly expect Muhammad's followers to have remembered his sayings word for word.

Instead, in the absence of a written record, the best we might hope for is something along the lines of John Dean's capacity: the recall of the general patterns of thought that Muhammad expressed, along with a number of his key phrases and other things that were frequently repeated, perhaps with the occasional recollection of the gist of what he might have said, restated using different words. In effect, then, Muhammad's followers, and Muhammad himself for that matter, would be recomposing his words anew each time they remembered them, on the basis of bits and pieces of gist memory that may have survived. His companions would have to supplement these fragments heavily by adding new compositions fashioned on the basis of general memories of Muhammad and the broad patterns of his teachings that they could recall, as well as their present circumstances. *This does not mean these individuals were lying or engaged in some sort of conspiracy to hide the true nature of Islamic origins*, as again some scholars of early Islam like to insist is the only possible alternative to the absolute fidelity and credibility of the traditional accounts. Rather, like John Dean, they were telling the truth as best they could, based on what their memories could provide them, notwithstanding the errors and imaginations of their recollections.

Once we move beyond the original generation of eyewitness, such memories would only become more removed from what actually happened or was said, having been recomposed multiple times with each recollection and each transmission to another individual. **Only their commitment to writing can obviate these realities of human memory,** which is no doubt why many scholars will insist—without much evidence—that Muhammad's revelations must have been written soon after he spoke them and under his supervision. Otherwise, once human memory intervenes, we are no longer dealing with Muhammad's teachings in the words that he spoke them, but with multiple recompositions of his teachings under a range of individual, communal, and external influences as they passed through time and from individual to individual. This is all the more so once we recognize, as Nicolai Sinai again reminds us, "that during the age of the conquests the majority of converts were not sufficiently preoccupied with the interpretation of the Quran in community's order for the prophetic understanding of it to be fully preserved. As a result, later Muslims needed to rediscover and hermeneutically reinvent their scripture." Indeed, once we factor in the process of oral transmission, the topic to which we next turn, the teachings ascribed to Muhammad become even more remote from what he may have actually said. At this stage, the memories of his words were being shaped by the nature of the community that he founded as it continued to

develop its collective and individual needs, as well as the new contexts in which the memories are transmitted.

IS ORAL TRADITION RELIABLE FOR WORD FOR WORD TRANSMISSION?

(Source: 'Creating the Quran' Shoemaker, 2022)0

Studies of oral cultures confirm that while oral tradition is very good at passing on the 'gist' of stories or poems, the details are quite unstable changes based on the audience. The basic process is as follows:

- F. Each transmitter works with a basic skeleton of a story eg key figures and events that stays the same
- G. They forget parts of the story they have heard and add their own details based on their own unique experiences, often with a great deal of liberty and creativity.
- H. The result is in effect a NEW story or poem that has the same basic skeleton as the first but different details.
- I. Again the palaeontology example is a good analogy.
- J. They confirm that you only have 'verbatim' transmission with a written text.

Qur'an and its early history. Not surprisingly, however, perspectives gained from the study of oral cultures have much to contribute to understanding the Qur'an's oral transmission and its eventual transition to writing, particularly given the profoundly oral nature of the Qur'an as a text in the Islamic tradition up until the present day. Oral transmission, as we will see, is characterized by a high level of omission and alteration, and, with only a matter of a few repetitions, a tradition will change significantly from the "original," even if in some instances something of the original gist is maintained.

Therefore, we may not simply assume, once again, that what eventually came to be written down in the Qur'an is identical with what Muhammad taught, any more than we can assume that the canonical gospels preserve the words that Jesus taught his earliest followers. At the outset, one must note the existence of a widespread belief, often embraced by scholars no less than the broader public, that people in oral cultures have developed remarkable capacities for accurate memory that we, the children of a written culture, can barely even comprehend. Since these cultures lacked writing as a means to accurately preserve the culture and history of their community, individuals must have worked especially hard, so it is assumed, to increase the faculties of their memory. Likewise, they must have taken intense care to remember with great precision what they had heard and to pass it along without change from one person to the next.

Yet, despite these frequently presumed qualities of memory and transmission in oral cultures, decades of scientific study of oral cultures have now shown that such assumptions are not only unwarranted; they are demonstrably false. It is true, of course, that *literate cultures rely on memory differently from nonliterate ones, with the consequence that in literate cultures "our minds are freed to do much deeper and sophisticated work.* Thus, it is no accident that advances in science, technology, engineering, and math have always happened in highly literate cultures." **But the lack of a literate culture simply does not make human memories more capacious or accurate in oral societies. In fact, scientific studies have shown the opposite to be true: that the acquisition of literacy significantly improves and strengthens verbal and visual memory, whereas the condition of illiteracy impairs these abilities.** Accordingly,

despite what is often assumed, it seems that people in literate cultures actually have better memories than those in nonliterate cultures.

The influence of the present as the context in which we inevitably produce all our memories brings us to the second topic of this chapter—that is, another kind of social memory known as “cultural memory,” or as I prefer to call it, “collective memory.” Memory is not something that belongs to individuals alone, but there is also a different sort of memory that is shared and shaped together by the members of a particular community or society. As Bart Ehrman writes of this phenomenon, “Society itself cannot function without a memory of the people and events that have bound and continue to bind it together. As a society we have to remember our origins, our history, our wars, our economic crises, our mistakes, and our successes. Without a recollection of our past we cannot live in the present or look forward to a future.” Such cultural or collective memories are therefore essential to defining and maintaining a social group’s identity and its cohesion.

Collective memory generally will consist of a corpus of shared stories and symbols and interpretations of those stories and symbols that provide meaning and purpose for members of the community. The memory of a community’s foundation and formation are often essential components of its collective memory, as are the biographies of its founders and great leaders, as well as the stories of its most detested villains and enemies. Certain events, symbols, and figures may remain persistent in a group’s collective memory over long periods of time. Nevertheless, it is inherent to the nature of collective memory that the shared reminiscence and interpretation of the objects of collective memory will change across time and place—often very significantly. The memories of Muhammad and the origins of Islam recorded in the early Sunni historical tradition are prime examples of such collective memories.

As such, these sources remember their community’s founding prophet and the formation of their faith not with perfect fidelity to what actually happened in the early seventh century. By the time these accounts came to be written down, most of what happened and what was then said would have been forgotten, simply as a consequence of the frailty of human memory. But many things from this past were also “forgotten” because they were no longer relevant to the faith of Sunni Muslims in the Abbasid Empire of the later eighth century. The Muslims of this age remembered the origins of their community and the life and teachings of their prophet in a manner that was suited particularly to their contemporary circumstances, which were quite different from those of early seventh-century Mecca and Yathrib. Likewise, these collective memories of the period of origins have been shaped so that they would exemplify and validate the religious beliefs and practice of eighth-century Islam, which seem to have been significantly different from those of Muhammad’s earliest followers. Such transformations are typical of collective memory,

Accordingly, there can be little question that Believers’ faith and collective identity continued to develop during their intensive encounter with the full wealth of the Abrahamic tradition in the new context of that very tradition’s most sacred lands, Mesopotamia and Syro-Palestine. And one should further note that at this point any knowledge they had of what Muhammad had taught ultimately depended entirely on the memories of no more than a few dozen illiterate villagers who followed him in Mecca and perhaps a few hundred in Medina. By the time these memories of Muhammad’s revelations were recorded and formally canonized into a new sacred scripture, seemingly at the turn of the eighth century, there is every reason to suspect that their contents

would have changed considerably from what Muhammad had originally taught. The context of their early transmission within the diverse “sectarian milieu” of the late ancient Near East is certain to have shaped how Muhammad’s followers remembered his words.

There is strong consensus among scholars who have studied oral cultures that people living in them do not in fact have better memories than those of us in written cultures, and that people who live in oral cultures “generally forget about as much as other people. A key difference between written and oral cultures, however, is that when something is forgotten in an oral culture, it is obviously gone for good. For those of us in written cultures, we can always go back to a written text and look up what we have forgotten. *Likewise, when a tradition changes in an oral culture, the original version vanishes, so that “Oral tradition destroys at least parts of earlier versions as it replaces them.”*

In a written culture, we can look back at past versions, at least if they were committed to writing. We can also check the accuracy of a memory of a text or a tradition by going to the written authority. In such a way, only in a written culture, ironically, can texts be truly memorized: repeated comparison with the written exemplar allows for regular correction and eventual mastery of the text in a way that simply is not possible in an oral culture.

Jack Goody, one of the most preeminent experts on oral tradition and cultures, describes the relation between writing and memorization as follows: It is rather in literate societies that verbatim memory flourishes. Partly because the existence of a fixed original makes it much easier; partly because of the elaboration of spatially oriented memory techniques; partly because of the school situation which has to encourage “decontextualized” memory tasks since it has removed learning from doing and has redefined the corpus of knowledge. Verbatim memorizing is the equivalent of exact copying, which is intrinsic to the transmission of scribal culture, indeed manuscript cultures generally.

Oral traditions, by comparison, have been shown to change quickly, often, and substantially over the course of their transmission. It is a medium that, despite what many people may believe in ignorance of the scholarship on this topic, is inherently unstable and highly productive of alterations, omissions, and additions. Dependence on memory in oral cultures simply does not provide members of these societies with a preternatural ability to remember that is absent in written cultures. Quite to the contrary, “***the human accomplishment of lengthy verbatim recall***—that is, the verbatim recall of a sequence of fifty or more words—occurs only when there is already “***a written text and does not arise in cultural settings where text is unknown***. The assumption that nonliterate cultures encourage lengthy verbatim recall is the mistaken projection by literates of text-dependent frames of reference.” Oral cultures also lack mnemotechnical devices of the sort studied by Frances Yates in her famous book *The Art of Memory*. Such memory techniques, frequently used by the Greeks and Romans and in the Middle Ages, as well as by modern “memory champions,” were invented by and belong to literate societies and are unknown in oral cultures. If anything, then, it seems that memories are more capable in written cultures than they are in oral settings, as studies of nonliterate societies have repeatedly confirmed.

It turns out that just as our memories are at their best when recalling the gist of an experience, so oral tradition also excels at transmitting the gist of a story or a poem. The actual content and details of the text change—significantly and often immensely—with every recitation and transmission, but the basic structure of the tale remains stable and is

pretty much the same each time. Like our memories, oral cultures have adapted to embrace a significant amount of useful forgetting, since in most instances “the product of exact recall may be less useful, less valuable than the product of inexact remembering.”¹⁹ Each time a tradition is passed along in an oral culture, it is recomposed anew in the same way that our memories create a reminiscence from mere disconnected fragments of an experience, piecing them together by filling in large gaps with information drawn from general knowledge or an accumulation of other similar experiences. In each instance, the raconteur has ready a bare outline of the tradition, including certain key figures, events, tropes, and so on that must be included for the story to be the same. But in telling the tale or recalling a proverb or a proclamation, the narrator exercises a great deal of creativity and liberty in fashioning the story into a new form, suited to the immediate circumstances and audience—just like our memories adapt in the same ways in response to the specific conditions of the moment in which we remember.

One of the main conclusions to emerge from Parry and Lord’s fieldwork is that oral and written cultures have radically different ideas of what it means for an iteration of a text or tradition to be the same or accurate in relation to previous versions of the same cultural material. For most of us, in written cultures, an accurate transmission of a text or tradition is one in which there is no variation from its earlier exemplars. This simply is not so, Lord and Parry discovered, in oral cultures. The reason for this difference seems to be that in literate cultures one can check the written exemplars for variations in their oral recollections, an option not available in an oral context.

Given the significant limitations inherent in the nature of the human memory, as seen in the previous chapter, in a nonliterate culture, no one would have the mnemonic ability to even detect such differences with any accuracy, let alone correct them. As Goody observes, “A detailed comparison of successive verbal inputs of this length and rapidity is quite beyond the capability of the long-term memory of individuals in oral societies.” Therefore, while we might demand verbatim reproduction of a text in order to consider it accurate and the same as its preceding exemplars, oral cultures do not and simply cannot have a similar standard. Indeed, such verbatim repetition is not only impossible; it is not even the ideal in oral cultures. In these societies, a new version of a poem will be considered identical with its predecessors, even if significant changes are introduced in the performance.

Parry and Lord also discovered that the very same poet will regularly tell the same story in radically different fashion on different occasions, even as the performer will himself insist that in each case the tales were exactly the same.

He builds his performance, or song in our sense, on the stable skeleton of narrative.” The very idea of a verbatim reiteration is foreign to this context; the oral poet stands removed “from any understanding of verbal accuracy in our sense” and “is psychologically incapable of grasping the abstract concept.” For the bard, such rote repetition is not even an ideal to be sought after. Rather, the goal is, on the contrary, to adapt the text to meet the present context and audience, so that, as Goody notes, “oral singers are often pushed toward variation, by their own ingenuity, by their particular audiences, or by the wider social situation.” Creativity and adaptation are prized qualities in a performance, so that the reciter is as much a composer as a transmitter of poem. Poets are therefore encouraged to elaborate on the text in their recitations, and this “elaboration inevitably involves some contraction unless the recitation is to proliferate continuously. ***The result is continual change, so that “the whole concept of an original is out of place.***

In each instance, however, as the study of oral cultures has progressed to encompass a range of different societies from around the globe, the basic conclusions of Parry and Lord regarding the instabilities of oral tradition and its transmission have been repeatedly confirmed. With each reiteration, oral traditions will immediately and inevitably change, often substantially; and while the gist of the original tradition will sometimes survive a series of retellings, not infrequently, it turns out, even this gist will quickly be lost. More than any other figure from the later twentieth century, Jack Goody led the vanguard in the study of oral cultures, and his prolific publications on this topic have largely defined the field.

As noted above, Goody observed that in the absence of a written text or a recording, it is not possible either to judge if two versions of an oral tradition are identical or to memorize a text verbatim. Without such a fixed, material standard, it is simply impossible to maintain textual stability; only recourse to such documentation can correct any errors or changes introduced through the process of oral replication. We are quite fortunate in our case that **Goody** had occasion to consider the significance of these findings particularly as they relate to the Qur'anic text. “Indeed in oral cultures,” he remarks, “it would be virtually impossible to remember a long work like the Qur’ān.” Only with the introduction of writing “as a tool to develop oral memory” is there any “possibility of a canonized text that has consistency over time and place,” since “with a written text you could look back at it again and again and get it absolutely right.” Given the circumstances of a predominately nonliterate culture at the beginnings of Islam, then, we must assume that major changes were introduced to the traditions taught by Muhammad as they were remembered in the decades after his death, if not even already during his lifetime. Only the establishment of an authoritative and invariable written version could bring such constant change to an end.

Goody's findings concerning the volatility and persistent transformation of texts in an oral culture have since been verified in any number of anthropological studies. At the same time, no study of either memory or an oral culture has emerged that would challenge these findings. There is simply no evidence that oral transmission, in the absence of a written document, can relay cultural material with any degree of accuracy beyond the most basic gist level of information.

There is, of course, one must note, the oft-repeated claim that the Indian Vedic traditions were transmitted orally and without any written exemplars for centuries with verbatim accuracy. Somehow, we are expected to believe, the Vedic tradition poses a singular exception to the limitations of oral tradition and human memory as repeatedly verified by both memory science and anthropological study. In the main it is scholars of ancient South Asian languages who have advanced this position, no doubt because they wish to date the text of the Vedas as it has come down to us as early as possible. In this way, they can imagine that its contents directly reveal the religious culture of the Indian subcontinent over two thousand years ago. One should note that not even all Indologists are convinced that this could be possible, and some—Louis Renou, for instance—have instead recognized that “the organisation of the Vedic canon is hardly conceivable without the help of writing,” and furthermore that most likely from early on “the recitation of religious texts was accompanied by the use of manuscripts as an accessory.” One should also perhaps note that specialists on the closely related Avestan corpus of the Zoroastrian tradition, which also long circulated in oral transmission, are in general highly

skeptical—as they should be—that such transmission could faithfully preserve a text without significant change over generations.

Nevertheless, the opinion that the Vedas were transmitted verbatim in the absence of any written version remains strongly held in some sectors of South Asian studies, even as it flies in the face of all evidence otherwise indicating its impossibility. Indeed, one of the most influential scholars of early India, Frits Staal, defended the Vedas' verbatim oral transmission by arguing—astonishingly—that we simply must set aside our cultural “prejudice that writing is more reliable and therefore better than memory.” Nevertheless, as we have seen, this is no mere cultural prejudice of the West; one thinks, for instance, of the Chinese proverb, “The faintest ink is better than the best memory.”

Belief in the verbatim transmission of the Vedas over dozens of centuries with no written exemplars is simply an Indian cultural myth that certain scholars have chosen to believe without any sufficient evidence because it serves their research interests. Scholarly assent to this cultural tradition is the real cultural prejudice in play in these debates, and it regularly defies and ignores compelling evidence to the contrary from other disciplines. Indeed, as Goody remarks, our prejudices in this matter seem to run in a direction counter to the one that Staal imagines: “As members of a written culture we tend to read back our own memory procedures onto oral cultures. We look at oral cultures through literate eyes, whereas we need to look at orality from within.” Goody has most directly and definitively addressed the effective impossibility of verbatim oral transmission of the Vedas in the absence of a written version, although many other experts on oral cultures appear to have unanimously reached the same judgment. Goody catalogs a number of features inherent to the Vedas that are generally hallmarks of production within a written culture. Likewise, as noted above, *he identifies the kind of specific memory techniques that the Brahmins today use to memorize their texts as belonging to literate, rather than nonliterate cultures*, as is also the impulse to commit texts to verbatim memory itself, which seems to arise only with literacy. For these reasons and others as well, it is all but certain that the ancient Vedas were in fact “a written tradition being passed on largely by oral means.”

Walter Ong, perhaps the most influential modern theorist of orality and literacy, also notes the fundamental improbability of these assertions that the Vedas were transmitted orally verbatim for centuries in the absence of writing. In particular, Ong notes the complete failure of those making such claims to engage at all with the findings of Parry and Lord in regard to oral “memorizations.” To this we should also add the decisive ethnographic evidence compiled by Goody, Vansina, Finnegan, and others. Ong helpfully summarizes the issues involved as follows: In the wake of the recent studies of oral memory, however, questions arise as to the ways in which memory of the Vedas actually worked in a purely oral setting—if there ever was such a setting for the Vedas totally independent of texts. Without a text, how could a given hymn—not to mention the totality of hymns in the collections—be stabilized word for word, and that over many generations? . . . Mere assertions, frequently made by literates, that such lengthy texts were retained verbatim over generations in a totally oral society can no longer be taken at face value without verification. . . . In point of fact, the Vedic texts—on which we base knowledge of the Vedas today—have a complex history and many variants, facts which seem to suggest that they hardly originated from an absolutely verbatim oral tradition.

As noted above, memory science has demonstrated that lengthy verbatim recall of a text of fifty or more words in the absence of writing is effectively impossible and has never

once been documented. Ever. Rather, such verbatim memorization “arises as an adaptation to written text and does not arise in cultural settings where text is unknown.”

Thus, it would seem that, despite the wishful thinking of many South Asianists, this matter is effectively settled. ***Verbatim recall of a text of more than fifty words is beyond the capacity of the human memory, absent a written text.*** The burden of proof now falls on any Indologists who would persist in this claim about the Vedas to demonstrate that it is in fact possible. The same conclusion applies no less to any suggestion that the Qur'an could have been orally transmitted verbatim prior to the establishment of its canonical, written form: this hypothesis is simply an impossibility.

Collective memory and Islam

We have already drawn attention to the considerable influence that the immediate context and audience will exercise on an individual's recollection of a tradition in an oral setting. As we begin to move further in this direction, away from the functions and limitations of individual memory and toward the influence of the community on memory, we quickly begin to approach the very closely related phenomenon of cultural, social, or collective memory. Cultural memory consists of the memories shared by members of a group about their collective history: it is, as Jan Assmann succinctly defines it, “the handing down of meaning.” For the most part, these memories were not experienced directly by individual members of the group themselves, but instead they are remembered by the community and imparted to its members. These collective memories give a group—a family, a tribe, a nation, an empire—cohesion, demarcating and reinforcing its self-identity, core beliefs, and values.

Collective memories are thus communally shaped memories of the past whose function is primarily to present an account of history that serves the social and cultural needs of a group in the present. Not surprisingly, religious beliefs in particular—a community's religious history and sacred memory—are regularly a vital part of a group's cultural memory. As a group progresses through time, its collective memory determines what is remembered, how it is remembered, and how memories of the past will change over time—often significantly. What individuals remember, then, is highly determined in advance by the collective memories that they have acquired from the various groups to which they belong. Yet a group's collective memory is largely, although not entirely, governed by the community's concerns and self-understanding in the present. Of course, one must acknowledge that much of a community's cultural memory has been determined by things that actually did happen in the past: it is not entirely a collective mythology grounded purely in the present.

Nevertheless, despite this concession, the influence of present concerns looms exceedingly large in both collective and individual memories. As Halbwachs explains, “If, as we believe, collective memory is essentially a reconstruction of the past, if it adapts the image of ancient facts to the beliefs and spiritual needs of the present, then knowledge of the original circumstances must be secondary, if not altogether useless, for the reality of the past is no longer in the past.” What is considered memorable in the present, and thus what is remembered, is not determined by what actually happened, but instead predominantly according to how the group has come to understand and represent itself: “In other words, historical events are worth remembering only when the contemporary society is motivated to define them as such.” And as Halbwachs highlights here, a group's religious convictions at any given moment will play a particularly active role in

shaping its collective memory, so that as beliefs may change, memories of the past will readily change to meet them.

Collective memory is no less a feature of literate cultures than it is of nonliterate ones, and the powerful control that present concerns and conditions exert on the dynamics of a group's cultural memory is not hindered by the presence of the written word. Indeed, even with widespread literacy and easy access to the written word dramatic changes in collective memories of the past can take place. Perhaps one of the most famous examples concerns the memory of President Abraham Lincoln in the United States. Today Lincoln is remembered as the greatest of American presidents, by a wide margin. Yet Lincoln's contemporaries hardly considered him great in any way. As Barry Schwartz observes in his landmark study, *Abraham Lincoln and the Forge of National Identity*, "When Abraham Lincoln awoke on the last day of his life, almost everyone could find something about him to dislike."

Perhaps the best example comes from nineteenth-century England, in the **Luddite movement**. Between 1811 and 1817 there were a number of uprisings across England, occasioned by the introduction of new weaving technology that would make many jobs redundant. Although these insurrections were only loosely connected in their organization, they were united in protesting in the name of a certain "**Ned Ludd**," whence they drew their name. As the movement grew, Ludd became increasingly central to its identity, and the protesters drew inspiration from his actions and his angry letters expressing outrage at the workers' exploitation. Songs and poems were written about him, valorizing him as an army captain who became a general and was eventually proclaimed king: he even had a heroic son who fought in the United States during the War of 1812. All of this, and yet there is no record of any Ned (or Edward) Ludd ever existing at this time!

The collective memory completely imagined him, his life, and even his writings into existence in order to give meaning and coherence to their rebellion. This all happened, one should note, in a society with widespread printing and literacy levels approaching 50 percent. There is an important lesson here for scholars of early Islam who would insist that the only alternative to accepting the accuracy of the early Islamic historical tradition at more or less face value is to posit a massive, coordinated conspiracy to distort and disguise the actual facts of Islamic origins. Such arguments stand in total ignorance of how collective memory works. The examples above, and particularly the case of Ned Ludd, alert us to the creative and shifting nature of collective memories, even to the extent of inventing a person who never existed at all and composing writings in his name.

There is simply no reason whatsoever to assume that the memories of Muhammad's earliest followers would have operated any differently. Many scholars now raise doubts as to whether the 'Muhammad' of the Standard Islamic Narrative existed. If he did however then as in the case of Ned Ludd, we must recognize that his followers also would have rather "naturally" adjusted their memories of him and the foundation of their community, often quite radically, in order to meet new, changing circumstances. Just as other communities across the globe and the ages have adjusted the memories of their founders over time, Muhammad's followers surely ascribed to him deeds and words that he never said or did as their collective memory developed. No conspiracy required, only entirely ordinary and expected development in the group's collective memory. Such changes are all the more to be expected given the nonliterate culture of Muhammad's earliest followers. In contrast to Lincoln, for instance, there is no written archive to search for evidence of how Muhammad was actually remembered during his lifetime. We have

instead only the highly malleable collective memories formed by his earliest followers and passed down among them for decades in oral transmission. In oral cultures, collective memory is especially active in shaping and controlling what will be remembered.

Beginning even with the very first transmission, as we already noted, an informant will attempt to tailor his telling of a tradition to suit his audience, so that “some subjects will be glossed over, and mention will only be made of things which would have the approval of everyone present.” If some event or detail does not connect with the values or collective memory of the group, it either will not be remembered or will be spontaneously transformed into something more relevant for the group. The group will remember what it needs to remember in the way that it needs to be remembered, and with no written records, once a memory has been changed in its retelling, in an oral culture, all earlier versions vanish into oblivion.

Indeed, “collective forgetting” is no less an essential part of any group’s collective memory than remembering. In some cases, such collective forgetting can take the form of a “repressive erasure,” in which the state takes action to ensure that something is forgotten. In the case of early Islam, the deliberate destruction of the different early versions of the Qur’an constitutes a perfect example of this sort of forgetting. Likewise, there is a sort of collective forgetting that involves the repression and eventual elimination of memories of a community’s past that are too embarrassing or shameful to remember.

Again, in the case of early Islam, one may consider the degree to which liberal Muslims, especially in the contemporary West, are determined to forget the enormous violence and the aggressive colonialism that was an integral part of the foundation of Islam. Yet for our purposes, the most relevant form of collective forgetting is what Paul Connerton names “forgetting that is constitutive in the formation of a new identity.” We witness this sort of forgetting frequently in the later Islamic tradition’s memory of its origins: for instance, in regard to the troubling diversity of the early Qur’anic text in the community, the initial inclusion of Jews as Jews by the Constitution of Medina, the likely inclusion of some Christians as Christians within the community of the Believers, and the centrality of Jerusalem and its Temple for the early tradition. All these were aspects of Muhammad’s new religious movement that his later followers have sought to forget—in these particular cases with less success than in many others, presumably. Their elimination was essential in the formation of a new Islamic sectarian identity separate from Judaism and Christianity, focused on an Arab identity, the Arabic language, an Arabic scripture, and an Arabian sacred geography.

Nevertheless, during the period in question, the middle of the seventh century, “Islamic” collective identity was still very much in the process of formation and constant reformation as the nature of the community and the circumstances that it inhabited were themselves rapidly changing. The main repositories of existing Abrahamic cultural memory available to members of the early community of the Believers would have come primarily from contemporary Judaisms and Christianities. Perhaps there were also collective memories, among the earliest followers at least, that had formed in the Hijaz on the basis of local cultural traditions before the expansion of the movement to encompass the Roman and Sasanian Near East. Yet the main collective memories that would have been active in shaping their new form of Abrahamic monotheism and its content would have come from these religious ancestors: there is no clear evidence of a generic, non-Jewish or Christian Abrahamic monotheism that was present in the seventh-century Hijaz that could have filled this role instead. Accordingly, we must recognize that the religious

collective memory of the community of the Believers during much of its first century would have been profoundly determined by the traditions of Judaism and Christianity.

Moreover, during this period Muhammad's followers were at a cultural stage where the living memory of the community and its collective memory were not yet entirely differentiated, which would only make the latter even more volatile than it is in other more established communities. As both Halbwachs and Assmann note, a community's living memory, which Assmann terms its "communicative memory" (following Vansina), is very short lived and subject to rapid changes. And as Vansina demonstrated, a group's communicative or living memory can at best recall about eighty years into the past, growing weaker the further back one goes from the present moment. Beyond this point, even the "gist" of what happened has become lost and extremely little at all can be recalled.

In a well-established community then, the group's memory of events that took place over a century effectively evaporates. This memory loss is not a matter of accuracy or alteration; rather, the group has simply forgotten what happened that long ago, and, after eighty years, "one finds either a hiatus or just one or a few names, given with some hesitation." Nevertheless, when it comes to remembering the period of its origins, the community's memory, its collective memory in this case, becomes remarkably clear and detailed—not that it is accurate, but that it preserves a remarkably clear and detailed version of the memory of these events as they formed at a certain later point in time. Thus, as Vansina concludes, "Historical consciousness works on only two registers: time of origin [i.e., collective memory] and recent times [communicative memory]," with "recent times" including no more than the past eighty years.

In the seventh century, Muhammad's followers had not been around long enough for a sharp differentiation to emerge between their living memory and the collective memory, so that the latter could have attained a degree of relative stability. Instead, as the Believers' living memory was constantly changing and adapting to new circumstances from moment to moment and place to place, their collective memory would also have been rapidly shifting and evolving. For most of the seventh century, then, Muhammad's followers had a memory that was still immersed in the social and cultural milieux of the late ancient Near East, from which they had yet to clearly differentiate themselves. They eventually would do this in large part by developing a distinctive collective memory for their group, different from those inherited from Judaism and Christianity, a process that was no doubt delayed by their fervent belief that the world would soon come to an end, making such an endeavor rather pointless for a time.

Only as the end continued to remain in abeyance, and the community's living memory grew ever distant from the time of origins did they develop a collective memory of their own. Yet, as Islamic collective memory began to evolve, one imagines that it initially took different shapes within the various pockets of Believers that were scattered across their empire. The basic elements of this nascent collective memory were, as Halbwachs says of the early Christians, "still dispersed among a multitude of spatially separated small communities. These communities were neither astonished, anxious, nor scandalized that the beliefs of one community differed from those of another and that the community of today was not exactly the same as that of yesterday." Thus, we should expect to find a significant degree of diversity in religious faith and memory among the different early communities of the Believers, scattered and outnumbered as they were among the Jews and Christians of their burgeoning empire. Only with 'Abd al-Malik's program of Arabization and Islamicization was a new, distinctively Islamic collective memory and

identity concretized and established for this new religious community. It was a collective identity that was formed from the top down and imposed, at the expense of any other alternative collective memories, with the full power and backing of the imperial state.

CONCLUSIONS

(Source: 'Creating the Quran' by Stephen Shoemaker, 2022)

- Based on this detailed analysis, we can conclude that several things are **HIGHLY UNLIKELY**.
- K. IF Muhammad gave any recitations, it is **HIGHLY UNLIKELY** that anyone listening would have remembered them verbatim ie word for word
- L. If anyone wrote them down, they would only have recorded the basic story. It is therefore **HIGHLY UNLIKELY** that they would have recorded his revelation verbatim.
- M. If they tried to tell others about these revelations it is **HIGHLY UNLIKELY** that whatever they transmitted was a verbatim transmission. There would have been much variation.
- N. If we repeat this process over 250-300 years it is **HIGHLY UNLIKELY** that the end result would have anything remotely resembling what was originally said.
- O. Therefore it is **HIGHLY UNLIKELY** that the SIN claim about the accuracy of its oral transmission is correct.
- IF we are going to examine whether the SIN claims are historical, we will therefore need to dispense with the 9th and 10 century Islamic sources and focus only on 7th century material. This would include Archaeological evidence and 7th century written sources only.

The Qur'an that we have is therefore not to be simplistically identified with what Muhammad taught his followers in Mecca and Medina, as so many modern scholars have been wont to assert. Given the conditions in which memories of his teachings circulated among his followers for decades, it is not possible that his exact words have been preserved.

In light of what we have seen in this analysis, we must assume that as Muhammad's followers were remembering and transmitting what he had taught them, these traditions would have been subject to alteration on a massive scale. They would have been recalled each time only as fragments of what had been heard in the previous instance, and the gaps in these fragments would need to be filled in with information drawn from general knowledge or an accumulation of other similar experiences. In each iteration, the transmitter must complete these lacunae in the memory according to his or her own predispositions and prejudices as well as the expectations of the audience. The concerns of the present circumstance, of both the speaker and the audience, would determine how certain details are recalled—if they are at all. As Werner Kelber nicely sums it up, "What is transmitted orally, therefore, is never all of the information available, but only the kind of data that are orally pliable and retrievable. What lives on in memory, moreover, is what is necessary for present life. Neither oral composition nor oral transmission can ever escape the influence of audience and social circumstances."

At best we can expect to find in the Qur'an some of the basic gist of what Muhammad taught his followers, as these teachings were remembered and retold again and again by his followers within the sectarian milieu of the late ancient Near East. This gist would include, presumably, monotheism, eschatological fervor, divine revelation through prophecy, piety before God, personal morality within the community of the Believers, concern to prepare for the final judgment, expansion of the community through conquest, Abrahamic identity, and embrace of the collective memory of the Abrahamic traditions (at least in parts). Muhammad's initial followers likely received this general religious framework from his teaching and were able to preserve an emphasis on these broad points, even as Muhammad's words and deeds became ever more faint, forgotten, and reimagined. The bearers of these oral traditions would have exercised immense freedom and creativity in their reproduction, giving little heed to the exact words or much at all beyond the basic outline of the gist and perhaps certain tropes and formulas, filling in huge gaps each time along the way. In very many instances, even the gist of what Muhammad had taught would quickly dissolve, falling victim to the fallibility of the human memory and the edits of oral tradition.

The realities of the human memory and its limitations, on the one hand, and of oral transmission in all its variation and adaptation on the other, can only lead us to the following conclusion about the text of the Qur'an. The Qur'an, as we have it, was simply not composed by Muhammad in Mecca and Medina. Rather, his early followers composed it while living in the newly occupied territories. In reality, the text of the Qur'an was continually recomposed, again and again, many times and in multiple circumstances by multiple individuals for multiple audiences as it was transmitted orally in the early decades of the Believers' movement. In each instance, the tradition being relayed would change to meet the moment, after having been already reshaped by the workings of the transmitter's memory and those coming before him or her. Then the memories of those who heard the tradition would reshuffle the tradition, and when each of them retold it to another audience, there would be still more alteration.

After a few such transmissions, we would be lucky if even the bare gist were retained. Bartlett's scientific studies of serial reproduction indicate that we should be extremely skeptical that much of the original tradition would remain intact in such circumstances. Anthropological studies have confirmed that the patterns and limitations identified by memory science directly impact the oral transmission of culture in exactly the expected ways. Oral transmission is indeed extremely unstable in the absence of writing and remains so even with the introduction of limited efforts to take notes or record traditions in writing. So long as the primary medium of transmission remains oral, change will remain constant and considerable. Therefore, Muhammad's words would have been quickly lost, and even the general content of his teaching would have been substantially altered by his followers—in most cases without any intent or even awareness on their part — after just a few reminiscences and transmissions. What we have in the Qur'anic text today must be recognized, to borrow the words of Alan Kirk, "as the artifact of memory, the artifact of the continual negotiation and semantic engagement between a community's present realities and its memorialized past, with neither factor swallowed up by or made epiphenomenal of the other."

Accordingly, we must recognize the very high probability that some significant parts of the Qur'an are likely not rooted directly in the revelations that Muhammad shared with his followers; instead, they were added only after coming into contact with the traditions of the Jews and Christians in Mesopotamia and the eastern Mediterranean. For instance,

such would seem to be the case particularly with the Qur'anic traditions of Jesus's Nativity and of Alexander the Great, among others. It seems highly improbable that the herdsmen of Mecca would have been familiar with the particular sources of these traditions, inasmuch as they did not circulate widely even among the Christians of the late ancient Near East. Thus, it would appear that in the end John Wansbrough was basically correct in his hypothesis that the traditions of the Qur'an were formed largely in the "sectarian milieu" of Syro-Palestine and Mesopotamia. Even if we must set aside his impossibly late date for the Qur'an's final composition, once we reframe things a little, he seems to have been largely right about the context of the Qur'an's genesis. This would also mean, as Wansbrough additionally suggested, that the origins of Islam as the distinctive new form of Abrahamic monotheism that has come down to us today are similarly the result of religious developments that took place among Muhammad's early followers within this Near Eastern milieu, rather than in the relative isolation of the Hijaz. It was also in this context that the earliest collective memory of their community's history formed, their "salvation history," as Wansbrough calls it, a term for religious collective memory that he borrows from biblical studies.

The tradition of 'Uthmān's collection of the Qur'an is therefore not only weak; given the unreliability of oral transmission, as well as the historical improbability in general that 'Uthmān could have accomplished what is attributed to him, it is highly suspect. The same is not true, however, of the tradition that 'Abd al-Malik and al-Hajjāj supervised the composition of the Qur'an into its canonical form around the turn of the eighth century. Not only were the historical circumstances highly favorable for 'Abd al-Malik to accomplish the publication of a canonical version of the Qur'an, but we find external confirmation of this tradition in multiple sources close to the events in question. These qualities, in stark contrast to the 'Uthmānic tradition, make for a historically credible report that can be relied on as transmitting information with a high degree of historical probability. Before moving to the next chapter, however, it is also worth emphasizing that the limitations of oral transmission apply even more so to the extra-Qur'anic teachings of Muhammad, the hadith, as well as to his early biographies. The traditions in these collections circulated orally from memory for at least a century before they finally began to be written down sometime around the middle of the eighth century. By this time, these memories would have departed profoundly from the original events and experiences that inspired them, regularly introducing substantial changes to earlier accounts as they were transmitted and also adding new information to the accumulated tradition along the way.

In her *Slaves on Horses*, Patricia Crone draws our attention to an exceptional instance in which we are able to compare written and oral transmission of the same tradition side by side. As Crone compares the two, she observes that Whereas written transmission exposed the document to a certain amount of weathering which it withstood extremely well, oral transmission resulted in the disintegration of the text, the loss of the context and a shift of the general meaning: the document which marked the foundation of the Prophet's polity has been reduced to a point about the special knowledge of the Prophet's cousin. A problematic tradition from the early community regarding the inclusion of Jews was thus effectively erased in the process of oral transmission and remembered according to the patterns of collective memory. The lesson could not be clearer, confirming in effect everything that we have seen in this chapter: oral transmission from memory quickly distorts and changes the content of traditions, omitting and adding material in the process to conform with collective memory, with the result that, after a number of years, the original tradition has been so altered that it is often unrecognizable.

