

The Vicissitudes of Memory and Early Buddhist Oral Transmission

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Abstract:

With the present paper, I attempt to develop a new perspective on the dynamics behind oral transmission in early Buddhism, in order to account for its two chief aspects of variation and similarity. For that purpose, I examine the early Buddhist oral transmission against its Vedic background and then turn to the findings of modern psychological research on the functioning and short-comings of memory, in order to apply these findings to the case of early Buddhism.

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Introduction

In a recent paper, Gethin (2007: 383 note 25) makes the following pertinent comment: "we still lack a convincing model for the oral composition and transmission of early Buddhist texts that can explain the kinds of difference *and* correspondence that we find between versions of material in Pāli, Sanskrit, and Chinese and Tibetan translations".

With the present paper I would like to move a step forward in the direction of finding an answer to the point raised by Gethin. This step comes as the concluding part of a triad of articles in the Canadian Journal of Buddhist Studies, in the first two of which I explored oral characteristics of the early discourses and investigated the degree of similarity-cum-difference that can be found in two parallel versions of a discourse transmitted by different reciter lineages with the help of a case study.¹

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Just to summarize the relevant points from the previous two papers: Formal elements found in the early discourses – such as sound similarities, the principle of waxing syllables, and the frequent use of repetition and pericopes – give the distinct impression that the early Buddhist oral transmission aimed at accurate memorization. On the other hand, a comparison of parallel versions of a discourse transmitted by different Buddhist schools shows considerable variations.

Now, if accurate memorization was characteristic of the early Buddhist oral transmission, why do we find variations? Yet, if oral transmission in early Buddhism did not aim at precision and accuracy, but rather allowed for some degree of improvisation, how is it then that parallel versions are nevertheless so similar?

The Vedic Model

In fact, neither the similarity of parallel versions, nor the circumstantial evidence that can be gleaned from the discourses would support the assumption that improvisation was characteristic for the transmission of early Buddhist canonical discourse.² If the early Buddhist reciters did attempt a precise transmission of textual material by oral means, which seems highly probable, they would have had the Vedic oral tradition as their model.³ Since ancient times, the oral transmission of the Vedas appears to have acquired an impressive degree of precision. This was made possible by systematically training reciters from their early youth onwards.

Young Brahmins would engage in learning the texts by rote already when they were about eight years old. Only after completing this task, after years of memorization, would they begin to study the meaning of what they had learned.⁴ The early age at which such training was begun is reflected in the *Assalāyana-sutta* and the *Caṅkī-sutta*, which refer to Brahmin youths who were already accomplished in knowledge of the Vedas at the age of sixteen.⁵

What is particularly remarkable about such knowledge acquired by Vedic reciters in their early youth is the prevalent emphasis on at first simply memorizing the text and only later apprehending its meaning. Kane (1974: 358) explains that "from very ancient times the Veda was only committed to memory and most men learned in the Veda never cared to know its meaning".⁶ The same pattern seems to have been a continuous trait even in later times, as according to Alberuni's history of India, Sachau (1910/2005: 125), "the Brahmins recite the Veda without un-

derstanding its meaning, and in the same way they learn it by heart ... only few of them learn its explanation".

Rocher (1994: 1) records a modern case that confirms the same pattern, where during a visit to a friend's house in Poona he was able to witness the latter's son, a boy about five or six years old, reciting the *Bhagavad-gītā* from memory. He reports that "the boy's Sanskrit was perfect. It was as clear as that of any Indian grown-up I ever heard ... with the right intonations". Since the boy had not yet learned to read, he must have been trained in memorizing the text in the traditional oral way. Rocher (1994: 2) reports that "when I asked the father whether his son understood what he had been saying, the answer was an emphatic 'no', 'the meaning of the text I will explain to him later'". Rocher concludes that "the young Indian boy was being trained to memorize endless series of what, for him, were nothing more than nonsense syllables".

Though the early Buddhist oral tradition undoubtedly inherited some of the features of the Vedic oral tradition, it also differed in other respects.

A basic difference in attitude is that while for the Vedic tradition correct wording was of crucial importance, from a Buddhist perspective the content of a discourse was more important than its form.⁷ This is neatly exemplified in the *Sajjhāya-sutta* of the *Samyutta-nikāya*, the "discourse on recitation". In agreement with its two *Samyukta-āgama* parallels, the *Sajjhāya-sutta* describes a monk who used to practise recitation regularly, but who at some point suddenly stopped with this practice. A *deva* had witnessed this change and inquired from the monk about the reason for his abandoning of his former practice. In reply, the monk explained that in the meantime he had reached liberation, hence there was no need for him to keep on reciting.⁸

Besides this different attitude regarding the importance of recitation, the Vedic and the early Buddhist oral traditions also differed in the way in which someone was prepared for this task. In contrast to the Brahmin reciters, who were trained in memorizing skills from their earliest childhood, most of the early Buddhist reciters would have started participating in oral transmission only at a mature age.⁹ Moreover, unlike Brahmin youths who memorized text without understanding their meaning, the Buddhist reciters would have learnt material by heart whose meaning they did understand.¹⁰

The Vicissitudes of Memory

These differences acquire considerable significance in the light of the research undertaken in the field of modern psychology on textual memory. To appreciate this significance requires a survey of the relevant research.

Now in the case of the average human being – leaving aside for now the case of those who have received training in memorization skills, such as the Vedic reciters – textual memory does not work in a way comparable to a copy machine or a tape recorder, faithfully producing an exact replica of the original words read or heard.¹¹ Far from being merely reproductive, memory is rather of a constructive nature. According to the pioneer in this field of research, Bartlett (1932: 205), "remembering appears to be far more decisively an affair of construction, rather than one of mere reproduction". He explains (1932: 207) that "when a subject is being asked to remember, very often the first thing that emerges is something of the nature of an attitude. The recall is then a construction, made largely on the basis of this attitude". This led Bartlett (1932: 213) to conclude that "remembering ... is an imaginative reconstruction ... [and] is thus hardly ever really exact, even in the most rudimentary cases of rote recapitulation". That is, at the time of trying to remember the information the mind constructs it anew, and this act of constructing or reconstructing will determine what is actually recalled.

Anderson (1978) reports an experiment where subjects were given the task of remembering the description of a house from the perspective of a prospective burglar or a prospective buyer of the house. After a first recall, some subjects were asked to shift perspective (e.g. "buyer" instead of "burglar") and consequently were able to recall details they earlier had been unable to remember, whereas a control group that did not change perspective did not show a similar increase in the ability to recall additional details on the second occasion. Anderson (1978: 10) concludes that these experiments show how one's attitude during information retrieval influences the way things are remembered.

A complementary perspective on how memory can be influenced has been investigated by Goff (1998: 28), who devised experiments that were able to show how "imagining actions led subjects to remember that they had actually performed the actions when in fact they had not". This effect "increased with the number of imaginings, as did subjects' confidence about their erroneous responses", a rather disconcerting finding about the reliability of human memory.

Problems can arise not only at the time of trying to remember something that took place in the past. Information tends to be imperfectly taken in already at the time when something is heard or read that is to be memorized. This is because the information is stored in the mind together with inferences made by the reader or listener. The drawing of inferences is in fact a necessary aspect of comprehension, since without drawing inferences a text will not be understood.¹²

The ability to recall is based on the successful drawing of inferences,¹³ and the degree to which a text is remembered stands in close relationship to the degree to which inferences are drawn. As a general rule, a text that is so easy to understand that it requires only a minimum of inferences, and a text that is so difficult to understand that attempts to draw inferences fail to produce a coherent result, are both less well remembered than a text that requires the drawing of an average amount of inferences in order to be understood.

Mason (2004: 1-2) notes that "memory for the text is best for events that are related by a moderate degree of causal relatedness and is poorer for events with low and high relatedness". He explains the results of his experiments to be that "the reading of ... moderately related sentence pairs was accompanied by both the generation and the integration of causal inferences. In the [case of] highly related sentences, this inferencing process was unnecessary, resulting in faster reading times and more sparse text representations. In contrast, the distantly related sentences had slower reading times, presumably as a result of a liberal generation of possible inferences to connect them, but lower recall, as a result of lack of success in integrating any inference". Myers (1990: 166-167) notes that "the low recall at the high-related level ... is not due to lack of attention paid". He suggests that the comparatively better performance in the case of the moderately related level is probably due to the fact that "recall is facilitated when the reader has stored an elaborative inference with the sentence ... in memory".

Thus, as a general rule, memory is at its best when accompanied by some degree of mental digestion of the material, so to say, through drawing inferences. There is, however, an exception to this general pattern.

A particularly intriguing recent finding shows that someone who is given a text that he or she does not understand at all may nevertheless be able to remember this text with more precision than someone who has understood the text well. The experiment in question presented texts with instructions about the use of Microsoft Word and Microsoft Excel to three groups of readers, asking them to remember the text. Subsequently the

participants' memory was tested through a recognition task in which they had to decide if a particular statement had been made in the original text. Of these participants, the first group had no experience with computer software, while the second group had some experience and the third group had advanced knowledge of computer software.

Caillies (2002: 284) describes a surprising result of this experiment, where "contrary to our expectations, the beginner participants recognized true targets faster than the other two groups ... Our interpretation is that the answers of the beginners were based mainly upon the surface features of the text".

That is, if someone is given the task of remembering a text that he or she does not understand, a memory representation will be generated without inferences, as attempts to draw inferences will be unsuccessful. Such a memory representation without inferences can result in a more accurate reflection of the original text than memory representations that involve the drawing of inferences.

This finding helps to clarify the effects and consequences of the basic difference between the oral transmission of the Vedas and the early Buddhist texts. From the perspective of psychological research into textual memory, the Vedic reciters were unable to draw inferences while storing text in their memory, as they did not understand what they were learning by heart. Since they had been trained from early childhood onwards to use this type of memory, they had developed the ability to recall texts precisely even after long periods of time.¹⁴ The reason this worked so well was not in spite of their lack of comprehension, but, as the above-mentioned psychological research suggests, very much because they did not understand what they were learning. That is, the fact that they were not taught comprehension of the texts they were memorizing appears to be an integral aspect of their training and can be understood to be an important factor of their success at verbatim recall. Had they understood what they were learning by heart, the inference-drawing level of textual comprehension would have been activated and would have influenced the way in which the text was stored in their memory.

The early Buddhist reciters, in contrast, would have understood most if not all of what they were memorizing. In fact, while the Vedic oral transmission was esoteric, in the sense that it was intended only for a restricted circle of initiates, the Buddhist discourses were meant for public preaching. Thus, in the case of the Buddhist reciters, the storing of information was neither done only by reciters who had been trained from their early youth onward in memorization, nor was the information to be

remembered of such a type that it would automatically prevent the drawing of inferences. In view of this it would only be natural if in the case of the early Buddhist reciters the process of drawing inferences were to leave marks on the way the material was transmitted.

The need to counterbalance the effects of this reconstructing activity of textual memory may well be why the early Buddhist texts employ repetition and other mnemonic aids to a greater extent than Vedic texts.¹⁵ In terms of modern psychological research on textual memory, then, it seems that the early Buddhist reciters involved in the transmission of the discourses "drew inferences". Because they drew inferences, the material was stored together with those inferences and on retrieval was "re-constructed". Obviously, it is also possible to memorize precisely a text one has understood, but chances are that the constructing and reconstructing tendency of the mind will influence the results of such memorization.

Given that in the case of the early Buddhist reciters information would probably have been stored in the mind together with inferences made while listening, another factor to be taken into account is that the drawing of inferences often takes place without being consciously noticed. Bransford (1973: 391) explains that the "processes of making inferences ... occur quite frequently in the normal course of comprehending. Generally, we may not be aware of them". Eysenck (1992/2005: 377) adds that "it is so natural for us to draw inferences that we are often unaware that we are doing so".

As a result, inferences are stored in memory together with the original material and on recall one is often unable to distinguish between what was originally read or heard, and what was only inferred. Harley (1995/1996: 234) clarifies that "inferences are confused with original material because the propositions created as a result of inferences are stored along with explicitly presented propositions, and the two sorts of propositions are indistinguishable." According to Rosenberg (1987: 83), "inferences are stored, and when recalled, often mistaken for ... the original sentence. A major source of confusion is people's inclination to integrate new information ... before storing, [so that] at recall it is often difficult to remember which pieces of information were acquired when. All known facts regarding a single entity are clustered around a 'single point' and that organization controls recall".

That is, what is remembered is a mixture of the original data and the elaborations added by the recipient. Kintsch (1994: 732) sums up: "the mental representation of a text contains not only information derived from the text, but also ... elaborations from the reader's long term mem-

ory". This evidently leaves considerable room for the the recipient's knowledge and attitude to exert an influence on the remembered information. In fact Sanford (1994: 717) has been able to show that "if a text statement fits well with a piece of pre-established knowledge" it is remembered from this perspective "even if there are details of a local nature which are inconsistent with that interpretation". Thus "processing in the service of cohesion establishment is both selective and incomplete".

Not only is it on recall often no longer possible to draw a clear line between the original data and what has only been imagined,¹⁶ but memory of something that was only imagined may turn out to be so vivid that it is taken to be real beyond any doubt. Roediger (1996: 85) notes that "subjects apparently experience the recollection of ... events that never happened as quite real, as real as the recall of ... events that actually had occurred. 'False memories' may be a misnomer, at least from the subject's viewpoint, because the experience of recollecting ... non-presented words appears as real to the subjects as their recollections of the presented words". Thus, when remembering, it is often difficult and at times even impossible to distinguish the original from the inference.

Conclusion

The perspectives that can be gleaned from the findings of modern psychological research on the working mechanics of memory offer significant clues towards a better understanding of the dynamics of early Buddhist oral transmission, in which an impressive degree of similarity found between discourses that have been handed down by different reciter traditions over long periods and distances stands side by side with considerable variations. Both aspects clearly have their roots in the determining features of early Buddhist oral tradition as an attempt at accurate memorization that was undertaken by reciters who had not been trained in memorizing skills from their early youth onwards in a way comparable to the Vedic reciters.

Given this lack of systematic training for their efforts to preserve the meaning of something they had understood, the Buddhist reciters were bound to fall prey to the vicissitudes of memory. They were bound to draw inferences while attempting to keep in mind texts that they understood or were trying to understand. Such inferences, then, stood a good chance of influencing or even becoming part of the remembered text. Thus endeavours to transmit a discourse correctly over consecutive generations of reciters, during the several centuries that the early Buddhist discourses were passed on by oral means, should result in a considerable

degree of similarity between parallel versions, but at the same time manifest recurrent minor variations. This is precisely what we find when comparing parallel versions of a discourse.

In sum, though the present paper can only offer a humble first step in the rather demanding task of developing a "convincing model for the oral composition and transmission of early Buddhist texts", I believe that in any such attempt we need to take into account the working mechanics of memory, as revealed by modern psychological research. The "kinds of difference *and* correspondence that we find between versions of material in Pāli, Sanskrit, and Chinese and Tibetan translations" may in good part be due to the interaction between the natural failings of memory and an attempt at accurate transmission as two prominent factors influencing early Buddhist oral transmission.

ABBREVIATIONS

MĀ	<i>Madhyama-āgama</i> (T 26)
MN	<i>Majjhima-nikāya</i>
SĀ	<i>Samyukta-āgama</i> (T 99)
SĀ ²	partial <i>Samyukta-āgama</i> (T 100)
SN	<i>Samyutta-nikāya</i>
T	Taishō

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NOTES

¹ Anālayo 2007 and 2008. The present article is based on extracts from habilitation thesis, a Comparative Study of the *Majjhima-nikāya*, at the University of Marburg, which I hope to get ready for publication in the near future.

² For a critical examination of the assumption that improvisation was characteristic of early Buddhist oral transmission cf. Wynne 2004.

³ Cf. e.g. Gombrich 1990b: 23; Lévi 1915: 441; von Hinüber 1991: 123.

⁴ Kane 1974: 274 explains that the age at which Brahmin youths would begin training in oral recitation was usually "in the eighth year from birth or from conception", but it could already begin with the fifth year (p. 275) and once they were sixteen years old the time had passed for them to start undertaking this type of training (p. 376).

⁵ MN 93 at MN II 147,10 specifies that its learned young Brahmin protagonist Assalāyana was only sixteen years old, *soḷasavassuddesiko jātiyā*, according to its parallel T 71 at T I 876c10 he was only fifteen, 年十五六 (another parallel, MĀ 151 at T I 663c86, does not mention the young Brahmin's age). MN 95 at MN II 168,18 indicates that another learned young Brahmin by the name of Kāpaṭhika was similarly sixteen years old.

⁶ Cf. also von Hinüber 1989: 67 and Smith 1986: 78.

⁷ Lopez 1995: 37 comments that "the śrotriyas were concerned with the precise preservation of the sounds of the Vedas while the śrāvakas were concerned with the preservation of the meaning of the Buddha's word in the vernacular"; cf. also Gamage 2003: 209.

⁸ SN 9.10 at SN I 203, 1; SĀ 1337 at T II 369a5 and SĀ² 357 at T II 490c4. Pali-hawadana 1997: 497 comments that "this shows the original significance that the *svādhyāya* method had for Buddhist monks".

⁹ Von Hinüber 1989: 67-68 points out that while Brahmins were trained from their childhood onwards in memorizing, training as a reciter in the early Buddhist tradition would only begin after ordination, which usually took place at a considerably later age; cf. also Frauwallner 1956: 173-175 and Gombrich 1990a: 6-7. Given that the Buddhist monastic order appears to have recruited members from various sections and strata of ancient Indian society, many monastics would not have been trained in memorizing skills previous to their entry into the Saṅgha; on the composition of the monastic order cf. the survey in Chakravarti 1996: 198-220 and Nakamura 2000: 360-362, and the figures given in Gokhale 1980: 74.

¹⁰ Later Buddhist traditions seem to have oriented themselves closer on the Vedic model. According to Xuanzang's (玄奘) travel records, reciters of the Sarvāstivāda tradition were able to recite the whole Tripiṭaka from memory, without, however, understanding the meaning of what they were reciting; cf. T 2087 at T LI 942c20, translated in Beal 1884/2001: 307. According to the 出三藏記集, T 2145 at T LV 100b7, Kumārajīva started training in recitation at the age of

seven. After he had successfully memorized an impressive amount of material, he was taught the meaning of what he had learned, 從師受經口誦 ... 誦 ... 既過, 師受其義, 即自通解. An outstanding feat of memory is also reported for Buddha-yaśa, who apparently managed to memorize a Chinese medical text comprising 50,000 characters within a few days (obviously a text he did not understand), cf. T 2034 at T XLIX 80b9; T 2059 at T L 334b17 (trsl. in Shih 1968: 89); T 2064 at T L 959b21; T 2095 at T LI 1041b15; T 2145 at T LV 102c11; T 2149 at T LV 254b6; Bagchi 1927: 203 and Demiřville 1951: 245 note 1.

¹¹ Becker-Carus 2004: 412. For a survey of the different failings of memory cf. Schacter 1999.

¹² Carrol 1986/1999: 168 clarifies that "inferences are not mere recall errors, nor are they random, spurious contributions by imaginative readers. Inferences are intrinsic to discourse structure. [In fact] authors leave out information that they think readers will be able to figure out", thereby obviously taking the inferencing process for granted. Thus, as noted by Eysenck 1992/2005: 377, "comprehension of discourse would be impossible without the process of drawing inferences".

¹³ Van den Broek 1994: 580 explains that "inferential processes during reading form the basis for a stable memory representation of the text". Harley 1995/1996: 224 points out that "comprehension is to some extent a constructive process: we build a model of what we are processing ... we make inferences to maintain coherence".

¹⁴ Bransford 1973: 399 suggests that although the "activities related to comprehending may also be those most conducive to learning prose materials", "it should be possible to train subjects in better memorizing strategies", which appears to have been indeed the case with the Vedic reciters.

¹⁵ Allon 1997: 363 notes that the "early Vedic prose texts, despite incorporating many forms of repetition, do not exhibit such gross repetitiveness" as the early Buddhist texts, a difference he attributes to the circumstance that "Brahmanical literature was transmitted by individuals who had undertaken long periods of specialised training", unlike the Buddhist monastic reciters. "Repetition was, then, the vehicle chosen by the early Buddhists to ensure the successful transmission of the Buddha's teaching by individuals of mixed social and educational backgrounds"; cf. also Oldenberg 1967: 452-456; von Simson 1977: 479-480, and von Hinüber 1994: 6.

¹⁶ Regarding the inability to distinguish between originally perceived information and mental imaginations, Johnson 1979: 239 comes to the conclusion that a confusion between original data and mental imagination appears to occur more easily in the case of words to be remembered, as opposed to memory of more complex phenomena such as pictures.