

**Ancient Indian Education and Mindfulness****Bhikkhu Anālayo**

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**Abstract**

Ancient Indian precedents for the notion of mindfulness in current usage are related to learning by rote. This appears to have been based on an intentional training in memorizing texts without drawing inferences, in order to avoid interfering with precise recall. Such absence of inferencing relates to the Buddhist notion of bare awareness, a modality of mindfulness that aims at staying with bare sensory experience without additional layers of associations and mental proliferations. The same basic mechanism appears to be relevant to understanding the potential of mindfulness to counter addictive behavior, such as smoking.

**Key words:**

Addiction; Bare Awareness; Education; Memory; Mindfulness; Smoking

**Introduction**

Recent research points to some degree of evidence, though not unequivocal, in support of the efficacy of mindfulness-based interventions for improving students' learning abilities (Zenner et al. 2014; Felver et al. 2016; Semple et al. 2017; Carsley et al. 2018; McKeering et al. 2018; see also Zoogman et al. 2015) as well as an overall tendency, despite some caveats, for improving teachers' performance and psychological health (Hwang et al. 2017).

By way of providing an ancient Indian perspective on such application, the present article explores the role of *sati* or *smṛti*, usually translated as “mindfulness”, in ancient Indian forms of education. The methods employed at those times differ substantially from most of their modern counterparts, as learning by rote was a core element of education. Nevertheless, a closer look at the role of *sati/smṛti* in such contexts, from the viewpoint of current research on memory, opens up the possibility of relating the dynamics of such rote learning to the Buddhist notion of bare awareness and to the current application of mindfulness for such purposes as, for example, smoking cessation.

**Learning by Rote in Ancient India**

Learning in ancient India took place in an oral setting, where memory of what one quite literally had “heard” was crucial. Without the use of writing for such educational purposes, the ability to remember with precision what one had previously heard was central for both teaching and learning. Memorization, which continued even when writing had been introduced, requires the

ability to repeat, by way of recitation, without loss of memory. This was of particular importance with sacred texts, such as the Vedas, the ancient sacred scriptures of Brahmanism.

Long before the time of the Buddha, the oral transmission of the Vedas had acquired a high degree of precision. This was achieved by systematically training students from their early youth onwards. Young brahmins would already begin memorizing the sacred texts by rote when they were about eight years old, and some began the training still earlier. Only after having completed this task successfully, following years of memorization, would they study the meaning of what they had memorized (Smith 1986; von Hinüber 1989).

The early Buddhist discourses reflect awareness of such a system. The *Assalāyana-sutta* and its Chinese *Āgama* parallels, for example, describe a young brahmin so accomplished in knowledge of the Vedas that he was highly respected by other brahmins and was asked to act as a speaker on behalf of the brahmin community (MN 93, MĀ 151, and T 71). The Pāli discourse specifies that he was only sixteen years old, an indication that finds support in one of the two Chinese

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parallels (a somewhat cryptic reference in T 71 appears to convey the sense that he was fifteen or sixteen years old).

### **Memorization in Early Youth**

The young age at which these brahmins started to memorize texts can be appreciated in the light of research on textual memory. In his pioneering research on memory, Bartlett (1932, p. 205) clarified that “remembering appears to be far more decisively an affair of construction, rather than one of mere reproduction ... elaboration and invention are common features of ordinary remembering.” Not only when trying to recall something that took place in the past, but already when hearing something that is to be memorized, information is stored in the mind together with inferences made by the listener. The drawing of inferences is an aspect of comprehension, since a text will not be fully understood without it.

As a general rule, both texts that are so easy to understand that they require only a minimum of inferences and texts that are so difficult to understand that attempts to draw inferences fail to produce a coherent result, are less well remembered. Better recalled are texts that require the drawing of an average number of inferences in order to be understood.

However, research on the effect of prior knowledge on memorization and comprehension of procedural texts has discovered an exception to this basic pattern. The experiment in question presented instructions on the use of Microsoft Word and Microsoft Excel to three groups of readers, asking them to remember the text of the instructions. Subsequently, memory was tested through a recognition task, in which the participants had to decide if a particular statement had been made in the original text. Of these participants, the first group had no experience with the software at all, the second group had some experience, and the third group had advanced knowledge of it. The results of the research by Caillies et al. (2002, p. 283f) showed that

the beginners did not establish a relation between the goal and the outcome during reading, and that, for the intermediate and advanced participants, the outcome was more available in memory ... the beginners spent more time reading the outcome sentence than the other two knowledge groups, which suggests that they tried to establish coherence by a search of information in memory ... intermediate and advanced participants elaborated during reading a teleological episodic structure which provides a retrieval structure to access relevant knowledge necessary for full understanding of the text ...

Contrary to our expectations, the beginner participants recognised true targets faster than the other two groups, the mean number of errors being equal for the three groups. Our interpretation is that the answers of the beginners were based mainly upon the surface features of the text, whereas the answers of both the intermediate and the advanced participants resulted in processing at a deeper semantic level. The analyses of the reading times and of the responses to the comprehension questions confirm this interpretation. Although the beginner participants were the fastest for recognition, they were the slowest for the reading times and for the accuracy percentage in the comprehension task.

For appreciating the dynamics of traditional Indian rote learning, it is particularly revealing that in this experiment those who had no experience with the software at all were more rapidly able to recognize sentences correctly than the other two groups. The implication seems to be that, 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 might result in a more accurate reflection of the original text, precisely because it does not involve the drawing of inferences.

This in turn would explain why brahmin reciters of the Vedas in ancient India were trained from such a young age in memorizing texts which they did not understand. These Vedic reciters were unable to draw inferences while storing the texts in their memory. Because they had been trained since early childhood to use this level of memory, they developed the ability to recall texts precisely, even after long intervening periods. The training required that they (at least at first) did not understand what they were memorizing. Had they understood from the outset, the inference-drawing level of textual comprehension would have been activated and would have influenced the way the text was stored in memory. After having trained sufficiently in this ability to memorize texts with precision, they would have been able to store in memory even texts they understood. By then, they would have learned to rein in the inference-drawing tendency of the mind so as to ensure precision of textual recall.

In fact, the ability to memorize with precision appears to have been more central to the task of Vedic reciters than comprehension. Carpenter (1992, p. 74) explained:

The enigma of the Veda, at least for a Western audience, is that the “informative efficiency” of its transmission can often be reduced to nil without this transmission losing its authority or justification. If we view the Veda as a literary text with a meaning that requires

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interpretation, then the Vedic tradition as it has continued to exist throughout most of the post-Vedic period in India proves truly enigmatic. Even today young boys devote years to memorizing the Veda word for word without the slightest knowledge of – or apparently, interest in – what these words mean. But if we consider the [ritualized oral] *form* of this transmission, as I have suggested here, the enigma vanishes. The transmission of the Veda from generation to generation is an integral part of the transmission of the legitimate Brahmanical social order and its importance in this regard is unaffected by the question of whether or not the texts transmitted are “meaningful.”

### Mindfulness and Memory

In Indian thought, the ability of brahmin reciters to remember sacred texts with precision stands in close relationship to the term we nowadays translate as “mindfulness”: Pāli *sati* and its Sanskrit counterpart *smṛti*. According to Monier-Williams (1899/1999, p. 1272), the Sanskrit *smṛti* can refer to

the whole body of sacred tradition of what is remembered by human teachers (in contradistinction to *śruti* or what is directly heard or revealed to the Rishis); in its widest acceptation this use of the term *Smṛiti* includes the 6 Vedāṅgas, the Sūtras both *śrauta* and *grihya*, the law-books of Manu &c.; the Itihāsas [e.g. the Mahābhārata and Rāmāyana], the Purāṇas and the Nītiśāstras.

A reference to such a body of sacred tradition can be found in the *Assalāyana-sutta*, the early Buddhist discourse mentioned above as an example reflecting the accomplishment of young brahmins in memorization. The description in this discourse includes the Vedas themselves (which are the *śruti* type of texts, considered to be authorless revelations) in addition to *smṛti* in the form of auxiliary disciplines for the study of the Vedas (such as phonology, etymology, and legends, *itihāsa*).

The relevant part of the *Assalāyana-sutta* describes the young brahmin in question in the following manner: “He is a master of the three Vedas with their vocabularies, liturgy, phonology, and etymology, and legends as fifth” (MN 93: *tiṇṇaṃ vedānaṃ pāragū sanighaṇḍukeṭubhānaṃ sākkharappabhedānaṃ itihāsapañcamānaṃ*). The *Madhyama-āgama* parallel offers similar indications, with the difference that it presents him as a master of the *four* Vedas (MĀ 151: 過四典經, 深達因, 緣, 正, 文, 戲五句說). This reflects a more evolved stage of Vedic literature that counts the *Atharvaveda* in addition to the *Rgveda*, the *Yajurveda*, and the *Sāmaveda*.

In this way, the learning of the young brahmin described in the *Assalāyana-sutta* and its *Madhyama-āgama* parallel combines *śruti* and *smṛti* in the form of a body of sacred tradition that he had memorized. For the purpose of accomplishing this feat, he would have undergone the traditional training in his early youth by learning texts that, at first, he did not understand.

This provides a background to appreciating the connotations the term *smṛti* carried in the ancient Indian setting, covering both what has been learned and how it has been acquired. The first of these two meanings does not carry over into its Buddhist usage. Gethin (1992, p. 36) explained:

Sanskrit *smṛti* can be both an act of “remembering” or “bearing in mind”, and also what is remembered — hence the brahmanical use of *smṛti* to characterize the body of received tradition as what has been remembered, as opposed to what has been directly heard (*śruti*) from the vedic seers. In Buddhist literature, however, it is the bare aspect of “remembering” or “having in mind” that is focused upon to the exclusion of other meanings: memory as the act of remembering, not what is remembered.

Here it is helpful to keep in mind the particular mode of learning employed at that time to enable precise memorization. Judging from modern research, this appears to involve training the mind to refrain from drawing inferences. Understood in this way, the task is to remain at the basic stage of simply hearing the text, just as it is, and make sure that what is stored in the mind is only what has been heard, without adding possible evaluations or associations.

This in turn helps to provide an additional perspective on the memory dimension of mindfulness (Anālayo 2016, 2018b, 2018c, 2018d, and 2019b). It enables relating the connotations carried by *sati/smṛti* in the ancient Indian setting to the cultivation of bare awareness.

### **Bare Awareness**

Refraining from drawing inferences in this way can to some degree be related to a dimension of the early Buddhist practice of mindfulness, *sati*, that is sometimes referred to as “bare awareness” (Anālayo 2018a and 2019a). Instructions in this particular modality of mindfulness require that one stays with the bare apperception of what is experienced through a sense-door. For the case of hearing, the relevant part of the instructions are as follows in the three discourse parallels:

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In the heard there shall be just what is heard! (SN 35.95: *sute sutamattaṃ bhavissati*).

Hear by way of being limited to hearing! (SĀ 312: 聞以聞為量).

As for hearing, merely hear! (Up 4086: *thos pa ni thos pa tsam*).

These instructions receive a detailed explanation in the body of the same discourses, which shows that mindfulness is a key aspect of such practice. Through establishing mindfulness in the form of such bare awareness it becomes possible just to hear, without immediately reacting and proliferating the information heard in various ways. Such bare hearing does not require a total abstention from concepts. But it requires total abstention from conceptual proliferation and other forms of associative thought.

### **Mindfulness and Smoking**

The idea of just mindfully staying with sensory input, at least for a short while, can be related to the current employment of mindfulness for smoking cessation. This potential of mindfulness has in recent years stimulated a steadily growing body of research (see, e.g., Bowen et al. 2009;

Brewer et al. 2011; Rogojanski et al. 2011; Davis et al. 2013; Elwafi et al. 2013; Singh et al. 2013; Westbrook et al. 2013; Davis et al. 2014a; Davis et al. 2014b; Singh et al. 2014; Ruscio et al. 2015; Vidrine et al. 2015; Vidrine et al. 2016; Davis et al. 2017, McClain 2017, Andreu et al. 2018, Garrison et al. 2018, Minami et al. 2018, Pino et al. 2018, Scarlett 2018). Brewer (2018, p. 117) reported:

we had individuals pay attention each time they smoked, so that they could really explore gratification to its end. Here's an example of what we found. One participant wrote, 'Mindful smoking: smells like stinky cheese and tastes like chemicals. YUCK.'

This is an example of tapping into the reward-based learning system and updating memory (with subsequent reduction in subjective bias) through simple and direct awareness. In paying attention, this person clearly saw that smoking didn't taste very good. Her memories of previous feeling tones (e.g. smoking feels good), and subsequently her subjective bias were both changed. She was no longer ignorant to the actual and direct experience of smoking. As a side note, we've had a number of people comment, in absolute disbelief, on how they had been smoking up to 20 cigarettes a day, for decades, and had never noticed the unpleasant qualities of smoking. They had been living under a veil of ignorance – their subjective bias had been laid down as memory, and never challenged or updated.

The description brings out clearly how a first moment of just bare awareness, in the sense of allowing the sensory data to come in without immediately reacting to it, was crucial for enabling a reassessment. Needless to say, such reassessment involves reactions and judgments. But to arrive at them there is a clear need to cultivate first the bare type of awareness in order to learn to experience what smoking actually tastes like.

By way of summing up, when explored within the context of the prevalent mode of learning among brahmins in the ancient Indian oral setting, the term *smṛti* can carry associations in line with the injunction that “in the heard there should be just what is heard.” In other words, in relation to what is heard there should be an absence of inferring or reacting in one way or another. Such absence can be seen to stand in continuity with the notion of bare awareness in early Buddhism, whose potential can be illustrated by the current employment of mindfulness for smoking cessation.

### **Limitations and Future Research**

Being a scholar of Buddhist studies, the author's acquaintance with relevant research in psychology is limited to the few selected publications cited in this article. Future research could improve on the understanding of ancient Indian orality by following up what, from the viewpoint of Indology, is a ground-breaking discovery by Caillies et al. (2002) on textual memory. Such research in turn could help us to understand better the ancient Indian antecedents to Buddhist mindfulness. In addition, the Vedic background to *smṛti* and its suggested relation to the Buddhist notion of bare awareness might stimulate further reflections on the dynamics underlying the potential of mindfulness for smoking cessation and for overcoming other types of addictive behavior.

## Compliance with Ethical Standards

Ethical Approval: This article does not contain any studies performed by the author with human participants or animals.

Conflict of Interest: The author declares that he has no conflict of interest.

## Abbreviations

MĀ, *Madhyama-āgama* (T 26); MN, *Majjhima-nikāya*; SĀ, *Samyukta-āgama* (T 99); SN, *Samyutta-nikāya*; T, Taishō edition; Up, *Abhidharmakośopāyikā-ṭīkā*.

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