

## II-9. Who Was Bhadrabahu I?

If you ask unconscious to give you information in your dreams it will oblige you. It is really amazing how the unconscious longs for ways to get in touch with us.

- S. Grafton

After the death of Mahaveer in 527 BCE the tradition was carried forward by Gandhar entrusted to mentor and guide people to their best. As the first two Gandhar of the Original Group, Gautam (607-515 BCE) and Sudharm (580-490 BCE) organized the available knowledge in twelve parts (ang) to facilitate oral transmission and further development (Table II-2 and II-3). The group remained in Patliputr for the next 180 years. At that time the eighth Gandhar (during 360 to 331 BCE) Bhadrabahu I (392-329) made the decision to move the group away from Patliputr. He is also known for the use of *syad* concepts in his first debate with the Vedantic scholars. He later developed the Spatbhangi syllogism of Vacch Nay. As mentioned in *Titthogati* he was the last to have had a complete knowledge of the 12 Ang organized earlier. His insight and reasoning is shown by the fact that instead of denying validity of "miracles," or calling these as impossible he characterized miracles "as events that may happen once in several eons" (see III-24). Bhadrabahu I is mentioned as an astronomer, mathematician and logician.

*Bhadrabahu Charit* by Ratn Nandi and also other sources (Harishen, Raidhu and Ramchadr Mumukchu between 1000-1600 BCE) have an anecdote about how Bhadrabahu was spotted as a potential leader. It is mentioned that a monk saw a child playing on a street corner who was trying to balance 14 spherical balls on

the top of each other. The monk was the 7<sup>th</sup> Gandhar. He was so impressed with the play that he asked the parents to give the custody of the child for further education by the group. On his education he was returned to the parents. Only then he was free to decide his own future course. In one of his first debate as an independent scholar he successfully used the syad nay. Although successful, he could not find meaning in his existence. So he returned to his teacher.

Note the allegory of balancing the 14 spheres in relation to the 14 *margana* (#A4) and also the 14 states of perception (*Gunasthan* in #A9-22). With time Bhadrabahu (Bhadrabahu) became the 8<sup>th</sup> Gandhar. During his tenure of 29 years he made several important decisions. It is said that he was *nimitt-gyani*, i.e. he understood the role of causality in making decisions (*niryukti-kar*). Certainly his foresight and decisions averted destruction of the thought while creating a viable basis for the long term preservation of the tradition. Since that crucial historical juncture of the tradition Bhadrabahu I had a strong influence on virtually everything we know about the earlier works and traditions.

**A Bottle-neck:** Bhadrabahu I was the last leader of the Original group (*Mool Sangh*) in Patliputr. He made several critical decisions including the fateful decision to move away from Patliputr. During his leadership Bhadrabahu traveled to Nepal in the North and to Ujjain and farther south and west. During this period North India was in political and economic turmoil. First indication of the impending trouble came when a tax was instituted on the citizens of Patliputr who gave food to monks. As the Nand dynasty began to lose grip on the affairs of the Magadh Empire, the intellectual and political climate in Patliputr deteriorated. Around -345c Bhadrabahu asked the group of 40,000

monks and layman in and around Patliputr to disperse away to distant parts of India. It was a timely call for safe exodus. A group that remained behind had to leave a decade later under the leadership of Sthulbhadr.

**Living on date-palm.** Challenges facing the monks are not trivial.

In a modern ceremony for the monkhood my father gave the following advice to a prospective monk: "Being a monk is like living on a tree of palm date (*khajoor*). It has only one trunk extending upto 50 feet from ground with no branches. If you climb to the top you live between thorny leaves on soft fruits with hard seed. If you fall, there is nothing between you and the ground." Such challenges have always acted as deterrent against monks that are not suitably trained.

It is said that Sthulbhadr was the likely successor of Bhadrabahu. Sthulbhadr had learnt the first 11 ang when Bhadrabahu left Patliputr. While he was developing his own 12<sup>th</sup> ang Bhadrabahu was put off by Sthulbhadr's *demonstration of power of his knowledge*. After Bhadrabahu moved South, Sthulbhadr remained in Patliputr. By the time moved to Ujjain Bhadrabahu had already gone south. During the famine (ca -335c), over the matter of adopting *a relaxed code of conduct for survival* three of Sthulbhadr's pupils killed him. It is said that for several generations in this line of monks the successors took power by force.

Balancing and conserving the progressive personal and social values is key to intellectual creativity for developing shared knowledge. An ex-president of an US university system recently observed "*I love the academy, the teaching profession, the interaction with students and colleagues, the opportunity to think deeply, and those rare instances when ragtag notions suddenly come together into an*

*exciting theory. I relish the dialectic of academic life: discussing the material with critical-minded colleagues, and reconstructing the same ideas into a meaningful learning experience for all."*

Around 340 BC Bhadrabahu took residence in Ujjain. As the agriculture production in the countryside deteriorated due to draught, Bhadrabahu once again asked the group to move farther South. Soon thereafter the entire region came in the grips of a 12 year (ca. -335c) drought, famine and epidemic. The young king of Avanti (Ujjain as the capital) Chandrgupti also moved with Bhadrabahu. Within a decade, the group of 1200 monks reached Shravanbelgola under the leadership of Vishakhacharya. He died on the katavapra or kalvappu hill now known as Chandrgiri. The migration is recorded in Sri Sailamahatmyam of Mallikharjun temple. An excellent archaeological history of the area is compiled by S. Settar (*Inviting Death* (1986), and his other works).

Apparently other regions did not prove as hospitable, including the modern centers of Jain pilgrimage North and East of Patliputr near Darbhanga and Madhuban to the foothills of Himalay, or father east to Bengal. Evidence of migration from Patliputr to Orissa and farther south is found in inscriptions in Udaigiri where army of King Kharvel was decimated by Ashok the grandson of Chandrgupt Maurrya. After seeing the battle scene Ashok quit warfare. It is said that Ashok took back some relics from Udaigiri to Patliputr. Monks in Udaigiri who depended on Kharvel dispersed to Andhr Pradesh and farther south where they remained active for several centuries.

The group that remained in Ujjain did not find a very hospitable environment. Rather than visiting the royal court for favors, in this tradition the royalty visited the monks for insights.

By 60 BCE most of the monks had moved away from Ujjain to the South and West. Although the reign of Vikramaditya I (Vikramaditya) was tolerant of different points of view, the institution of the royal court was not conducive to the code of conduct of the monks. Also Kalidasa, the literary courtier of Vikramaditya who wrote in Sanskrit, was openly hostile to Prakrits, the native languages. In his plays Prakrit is spoken only by the lower-class.

### **What happened to Chandragupti?**

By some accounts Bhadrabahu never reached Shravanbelgola. On the way, seeing his end near, Bhadrabahu remained behind with Chandragupti at his side. It is not clear what happened to Chandragupti after the death of his preceptor. Here is a plausible reconstructed scenario.

It is a historical fact that in 326 BCE the Nand dynasty collapsed and Chandragupta Maurya came to power in Pataliputra. Origins of Chandragupta Maurya are not known. The term "Maurya" relates to the peacock-throne as the royal seat of the Nand dynasty is known. It is said that around 330 BCE the Nand Court insulted Chanakya Kautilya when he sat on the throne while waiting for the royal audience. After being insulted Chanakya apparently decided to put a commoner on the throne. Chanakya *discovered Chandragupt as a frustrated horseman with manners of a royal upbringing*. It is tempting to speculate that after the death of Bhadrabahu (ca -329c) Chandragupti had gone to Pataliputra. After the overthrow of the Nand Dynasty Chanakya was the Chief Minister of Emperor Chandragupta Maurya. Was he the Chandragupti?

Ancient accounts mention that after relinquishing his throne in 298 BCE Chandragupta Maurya came to Shravanbelgola

with *the footprints of Bhadrabahu*. Note that Chandrgupt and his descendents did not annex regions south of Siddhpura and Brahmngiri into the Maurrya empire (see Figure II-2).

### **Away from the whims of calamity and political upheaval.**

Looking back the move of a part of the Mool Sangh from Patliputr, and then again from Ujjain, was significant in a many ways. It has been a critical factor in preserving the tradition and its intellectual legacy, albeit in scattered forms. I believe that in preparation for the inevitable move away from Patliputr, during his early years, Bhadrabahu initiated reorganization of the orally transmitted material. With him at least a part of the 12th Ang material reached Shravanbelgola. This region of South India, away from the turmoil and invasions in the North, remained a major if not the only center of learning and scholarship for the next 2000 years.

The move contributed to the long-term viability of the tradition with the monks and layman scattered to different regions of India. The distance from Patliputr to Ujjain is well over 1000 kilometers, and Shravanbelgola is about the same distance to the South. The dislocation must have occurred over a period of several decades if not centuries. A probable migration route can be reconstructed from the considerations relevant to the period. The migration route was probably along the trade route that connected towns along the rivers and circumvented the hills and dry regions. In the absence of bridges, major roads, maps, viable currency, or places to stay, the primary means of transportation was on-foot or bullock-cart. The monks do not use boats, nor do they cross waters that are more than knee-deep. It is likely that the smaller groups moved and settled in different places over a longer period of time. As layman and sympathizers settled along

the way they facilitated the movement of monks. The tradition still continues.

Considering the demographic and geographic constraints a likely migration route could have been along the banks of interconnected rivers with suitable crossing points:

- (a) Patliputr to Prayag (Allahabad) via Arrah, Sarnath, Varanasi, Kosumbi, along the southern bank of Ganga and Jamuna.
- (b) Along Jamuna to Hamirpur.
- (c) Along Betwa to Bhopal and Ujjain via Orai, Moth, Devgarh, Basoda, Sanchi (Vidisha) and Kekanda.
- (d) Crossing Khipra at Ujjain to Mahissati.
- (e) Crossing Narmada at Siddhvarkot and Sanawat to Pattithana, Tagora, Nasik.
- (f) To Akola via Khandwa, Jalgaon, Ajanta, Ellora for crossing Tapti and two branches of Godavari.
- (g) To Sholapur via Karanja, Hongo, Nanded and Gangakheri for crossing branches of Krishna and Godavari.
- (h) To Shravanbelgola via Gulberga, Bijapur, Vijaynagar, Hospet, Bellery, Anantpur, Tadpatri, Pavagiri, Madhugiri and Mysore.
- (i) From this region Kaveri flows East to the Tamil region.

Additional work is needed to explore viability of this route reconstructed from scattered stories, accounts, legends and anecdotes, as well as the locations of the current places of Jain pilgrimages. It appears that this route was in use since the ancient times. This is the route taken by the hero of the Ramayan epic during his 12-year exile. Apparently Gautam, the first Gandhar of Mahaveer, also died (Uchchakalp) in Unchera (ahichhetra or ahichcherapur) between Prayag and Katni that is about 600 mile west of Patliputr. Many of the modern centers of Jain culture and pilgrimage lie along this route to the south and west from Patliputr.

**Intellectual contributions of Bhadrabahu I.** As one of the most influential logician and mathematician of his time Bhadrabahu understood that innovation is little more than a new combination of those images previously gathered and deposited in the memory. It is said that he used stars for navigation during his extensive travels. He interpreted concerns behind dreams and events. Instead of denying the possibility of miracles he said that such events occur so rarely that *they are not worth study, and can not be relied on for decision-making or to chart a course of actions.* He is extensively mentioned in the *Ardhmagdhi* and *Prakrit* literature. He is also quoted in The Dhavla. Although none of his complete work has survived in the original form. Two mentioned in ancient Sanskrit texts from the Brahmin tradition are most likely the works of Bhadrabahu II (ca 500 CE).

- (1). Surya Pragyapti as interpretations by Malaygiri (1150 CE) and by Bhattotpal (966 CE).
- (2). Bhadrabahu Samhita as interpretations by Barahmihir (505 CE) and by Bhattotpal (966 CE).

**Humility in the face of persistent great unknowns is the true philosophy:** J. B. S. Haldane wrote (ca. 1930): "The search for truth by the scientific method does not lead to complete certainty. Still less does it lead to complete uncertainty? Hence any logical system that allows of conclusions intermediate between certainty and uncertainty should interest scientists. The earliest such system known to me is the *Syadvad* system of the Jain philosopher Bhadrabahu."

**People can't be telling lies?** Probably, the most remarkable intellectual contribution of Bhadrabahu is in the field of logic of assertion or the *vacch-nay* (See Nay Sction on this site a complete



account). The key criterion is to identify the attributes of the content and the meaning of an assertion. An assertion can not be evaluated without such scrutiny of the content and the context. This is the basis for the use of term *sia* (in #A79 of *jeevatthan*). Here doubt emerges as we use defined criteria to understand the unobserved (say Dev or Narki) in terms of their assigned attributes. Thus the word assertions are based on the assigned attributes evaluated by the stated criteria. Thus all that that satisfies this condition can be asserted. Further validation is required not only by independent evidence but also by ruling out the alternatives.

Bhadrbahu is said to have had a "cultural shock" when it became apparent to him that the Ary migrants to the Ganga Valley were not interested in the reality nor in validity. Their faith seemed to be driven by their own versions of wishful or assumed truths. To deal with the situation, he assumed that nobody knowingly denies reality. Therefore, denial of logically consistent reality-based inference by individuals is an area worth investigation as a realm of augmented perceptions. However, there is more to it. If one believes that the denial is a part of the ignorance, it should be possible to deal with this state through reasoning based on logical interferences. Bhadrabahu explored the problem further.

It is the kind of careful thinking that underlies all great discoveries. The whole issue could have been dismissed as ignorance, or worse. However, through his analysis of the problem Bhadrabahu set the foundations of *Saptbhangi vacch-nay*. It is concerned with how and why people say certain things, and if recognizable contradictions and inconsistencies can be identified. He refused to entertain the possibility that people would not tell truth knowingly (see III-13 and 14). Utterances to hide reality

amount to wishful thinking (#A48-51) to be exposed sooner or later. With this insight Bhadrabahu set in motion the process that crystallized 400 years later as the full-fledged *Syad* and *Saptbhanganay* (Essays III-22 to 26, and also the Nay works on this site). The outcome of the intellectual inquiry about wishful utterances (assertions) through which people deal with doubt and uncertainty turned out to be an absolutely critical intellectual defense against the claims of omniscience. According to the syllogism outlined below such claims are contradictory and therefore not worthy of intellectual discourse.

It was a night of splitting universes. In one universe the New Age became older and its adherents departed, overwhelmed by doubt that much of what they thought they knew was now ... In another universe they reacted with righteousness and denial that anything said by the authors could be correct, and they fought to the last paradigm. In a third they argued that it was all interpretation and everyone is entitled to his opinion. In a fourth, a doctor pronounced a man dead and had the orderlies remove the body from the emergency room. As the orderlies carried him to the morgue, the man suddenly sat up on the stretcher and said, "But I'm not dead yet." "Who knows better," the orderlies replied, "you or the doctor?"

Roth and Sudarshan, 1998.

**Tarki or Logical Conundrum.** Formal methods of reasoning on the basis of identified assumptions, evidence, and assertions are useful devices to identify inconsistency and contradiction. Bhadrabahu realized that improper use of reverse implication to arrive at an inference often leads to logical conundrum. Consider

the following two part logical argument from ca. 400 BCE between the Buddhist and Upanishadic scholars.

Q: Is the soul known in the sense of a real thing? (assertion A)

A: Yes (A+).

Q: Is the soul known in the way a real thing is known? (assertion B)

A. No, that can not be said (B-).

**Conclusion.** A+ is inconsistent with B- because:

(i) A+ implies B+ i.e. if the soul is known in the sense of a real thing, then one should also be able to say that soul is known in the way a real thing is known.

(ii) A- implies B-, i.e. if the soul is not known in the sense of a real thing, then one can say that the soul is not known in the way of a real thing.

(iii) Also B- can not imply A+.

(iv) Also A+ can not imply A-.

**Now consider the rejoinder:**

Q. Is the soul not known in the sense a real thing is known?

(assertion C)

A. No it is not (C-).

Q. Is the soul not known in the way a real thing is not known?

(assertion D)

A. No, that cannot be said (D-).

**Conclusion:** C- is inconsistent with D- because:

(v) C+ implies D-, i.e. if soul is not known in the sense a real thing is known, one can also say that no soul is not known in the way a real thing is unknown.

(vi) C- implies D+, i.e. if soul is known in the sense of a real thing, it is not known in the way real thing is not known.

(vii) Similarly C- is inconsistent with D+

(viii) Similarly, C+ is inconsistent with D-.

Clearly, something has to give because these two apparently logical conclusions are not reconcilable with each. The conceptual breakthrough to resolve the impasse of this conundrum was developed by Bhadrabahu I in the form of saptbhangi syllogism that pinpoints the source of inconsistency and contradiction.

Table. The Saptbhangi states of a three part assertion

State	A (Does it exist?)	B (Does it not exist?)	C (Is it undecidable?)
1	+	-	+
2	-	+	+
3	-	-	+
4	-	-	-
5	+	-	-
6	-	+	-
7	+	+	+
<b>8</b>	+	+	-

**Saptbhangi syllogism.** Take the classical example of three orthogonal assertions about an unknown entity: *A, it exists*; *B, it does not exist*; and *C, it is un-describable*. On the basis of the affirmation by independently available positive evidence for each, there are seven plausible assertions that provide some understanding (or have truth value) of the existence of the entity:

(1) *syad asti*: Its existence is affirmed, its non-existence is not negated, and it is not un-describable. [A+,B-,C+]

(2) *syad nasti*: Its existence is not affirmed, its non-existence is negated, and it is un-describable. [A-,B+,C+]

(3) *syad asti va, nasti va*: Its existence is not affirmed, its non-existence is not negated, and it is un-describable [A-,B-,C+].

- (4) *syad avaktavy*: Its existence not affirmed, its non-existence is not affirmed, and it is not un-describable [A-,B-,C-].
- (5) *syad asti, avaktavy*: Its existence affirmed, its non-existence is not affirmed, and it is not un-describable [A+,B-,C-].
- (6) *syad nasti, avaktavy*: Its existence not affirmed, its non-existence is affirmed, and it is not un-describable[A-,B+,C-].
- (7) *syad asti, nasti, avaktavy*: Its existence is affirmed, its non-existence is affirmed, **and** it is un-describable [A+,B+,C+].

**The eighth inference:** As outlined in the Table above, eight possible constructs are possible from the outcome of three orthogonal questions A, B and C affirmed by independent evidence. The seven states with partial truth-values are called the Saptbhangi states. The **eighth** ( $A+,B+,C-$ ) is: "Its existence is affirmed, its non-existence is affirmed, and it not un-describable" (*syad asti, nasti, vaktavya*). It has no truth-value because it is a contradiction to reality because existence of an entity can not affirmed and not-existence can not be affirmed, and described as such in the same space and time. Almost everybody realizes the contradiction here.

The Saptbhangi Nay reasoning is the basis for representation or Satprarupana (#A2-8). Such analyses of a word representation influence all aspects of intellectual discourse. On scrutiny sooner or later virtually all claims of omniscience fall in this eighth trap as contradiction. Such arguments are un-real and not worthy of discourse. Through such reasoning monks and scholars were able to keep at bay all such claims out of intellectual discussions. In effect, the only logical advice for the proponents of such a contradiction is that if they wish to entertain coexistence of "is-so **and** is-not-so," it should be done without uttering a thing about it!

**Confusion in published literature.** Some scholars have interpreted the seven syllogistic outcomes as the seven states of the same reality. It is a contradiction because such orthogonal states can not co-exist in the same time and space. Some scholars also entertain these states as the alternatives based on the changing context for the same content. This is also a contradiction. Also rhetoric is beyond the scope of any syllogism designed to analyze the truth values of a particular state of defined content and context. Moreover rhetoric is not the purpose of *anekant* as a *nay* device. The alternative states of the same context have different contexts. These are addressed through the operators such as and, or, not. A set of such operators fix a particular syllogistic state. In the ancient and Prakrit writing, and more so in Sanskrit, use of **and** (*ch*) and **or** (*va*) is often implicit or places at the end of the statement. Also the **not** operator is included with an a- prefix which is invariably lost in the compound constructs in Sanskrit. Also the ancient texts do not use commas and other devices to separate the clauses of a complex sentence. In my reading, virtually all the modern textbooks have entirely missed these key features of the syad and saptbhangi syllogisms for identifying the logically consistent state based on the available positive evidence.

In order to avoid such detours it is necessary to pay careful attention to the parts of a syllogistic schema. Often the underlying assumptions and relations are to be explicitly defined by suitable operators with the full realization that the nay reasoning does not entertain implied negation. Negation is entertained only as the non-affirmation by positive evidence.

**There is more to word constructs.** The three orthogonal assertions entertained by saptbhangi syllogism pertain to the existence of only one state of reality. A valid inference about it follows from the evidence based analysis (evaluation) of a compound assertion. It is not as much a deduction as the validation in parts by direct positive evidence. More than affirmation, the value of this empirical search lies in identifying contradictions and inconsistencies. It calls for additional assertions that can be affirmed by independent evidence (III-23). Negation by implications is not permitted. Deeper mathematical structure of the syad and saptbhangi is developed in the Nay series on this site.

For the future, it will be interesting to consider and explore whether the syad and saptbhangi syllogistic states somehow mimic or track the states of perceptions. For example, differing perceptions for the grasp of a complex situation with many plausible assertions would result with differing inputs or emphases on the facts. Of course, some of these may point to inconsistencies, but the reality-based inputs do not ever lead to contradiction.

One the subject of social discourse, the concern of Mahaveer about the nature of ignorance is developed as *vacch-nay* to identify the origins of what we know, what we do not know but exists, and what does not exist. Such concerns have prevented undue reliance on perceived "truths" that cannot be logically uttered and therefore verified. Is this good for anything?

I believe the Aristotelian two-valued logic went wrong with the implication that *not-yes* is necessarily *no*, and vice versa. Consider a recent foreign policy assertion by the US President: "not-being-with-US means being-against-US." Dogmatic followers of all stripes put forward similar reasoning when they assert that

if something is not in line with their brand of "truth," it is necessarily "false." Such illogic of ignorance has fueled series of wars, inquisition, and suffering (III-16, -30, 31; Diamond, 1997).

To recapitulate, as for the word communication in the words of Berner Lee: *We have to be prepared to that the "absolute" truth we had been so comfortable with within one group is suddenly challenged when we meet another. Human communication scales up only if we can be tolerant of the differences while we work with partial understanding. We learn by crossing boundaries. It has to enable me to keep the frameworks I already have, and relate them to new ones. People will have to get used to viewing as communication rather than argument the discussions and challenges that are a necessary part of this process of shared understanding. When we fail, we will have to figure out whether one framework or another is broken, or whether we just aren't smart enough yet to relate to them.*



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