TOSHIHIRO WADA

THE "VERBAL ROOT CHAPTER" (DHĀTUVĀDA) OF GANGEŚA'S *TATTVACINTĀMAŅI*

1. Introduction

Navya-Nyāya has contributed a great deal not only to Indian epistemology and logic, but also to Sanskrit semantics. Gangeśa, who consolidated the system of Navya-Nyāya in the fourteenth century,¹ influenced the semantic arguments made by later scholars of the Mīmāmsā and Vyākaraņa schools. The "Book on Language" (Śabdakhanda) of Gangeśa's Tattvacintāmani (TC) represents such arguments. We have a translation of the whole "Book on Language" (Sabdakhanda) by Bhatta [2005],² where he also provides a summary of each chapter of the Book. In order to carry out research on the early stage of Navya-nyāya philosophy of language, I set about translating the "Verbal Suffix Chapter" (Ākhyātavāda) of that Book with annotation around 2001. Since Bhatta's work was not available at that time, I could not refer to his translation and summary when dealing with the beginning part of the chapter. While his translation and summary greatly help us understand the

¹ Since I regard Udayana as the founder of Navya-nyāya, early Navya-nyāya covers the period of Udayana up to Gangeśa. On the founder of Navya-nyāya, see Wada [2007b: 9-23], which includes Wada [1999] [2001] [2004].

² Potter and Bhattacharyya [1993: 239-312] give a summary of the "Chapter on Language." (They render *khanda* as 'chapter'.) Of its sections, the Apūrvavāda and the Vidhivāda have been translated by Jha [1986] and [1988] respectively, and the Śabdaprāmānyavāda by Mohanty [1966].

differing semantic arguments among the Navya-nyāya, Mimamsa, and Vyākaraṇa schools, it is also true that there are many points which need further clarification in his translation and explanation of the "Verbal Suffix Chapter" and the "Verbal Root Chapter" (Dhātuvāda),³ which immediately follows it in the *TC*. The "Verbal Suffix Chapter" is translated with annotation by Wada [2007a] [2012] [2013] [2014b]. The present paper is a translation of the "Verbal Root Chapter" with annotation.

2. Text, Commentary, and Contents

In translating the "Verbal Suffix Chapter", I have used the Sanskrit text included in:

Tattvacintāmaņi of Gangeśa Upādhyāya, 4 Volumes, edited with the *Āloka* of Jayadeva Miśra and the *Rahasya* of Mathurānātha, by Kāmākhyānātha Tarkavāgīśa, Vrajajivan Prachyabharati Granthamala 47, Delhi: Chaukhamba Sanskrit Pratishtan, 1990.

In this book, the "Verbal Root Chapter" is accompanied by Jayadeva's $\overline{A}loka$, and not by the *Rahasya*. I have consulted the $\overline{A}loka$.

The argument presented in the "Verbal Root Chapter" can be divided as follows. Numbers in brackets refer to page and line numbers of the *Tattvacintāmaņi of Gangeśa Upādhyāya*, 4th Volume, 2nd Part.⁴

³ For Bhatta's summary, translation, and explanation of the "Verbal Suffix Chapter" and the "Verbal Root Chapter", see Bhatta [2005: 95-102, 882-907] and [2005: 102-107, 908-915] respectively.

⁴ The Sanskrit text of the \bar{A} khyātavāda is divided according to the Parts of the translation. The divided texts are provided in the footnotes to those corresponding Parts with the following alterations: $\bar{a}c\bar{a}ryya \rightarrow \bar{a}c\bar{a}rya$, the same treatment for its declensions; *varttamāna* \rightarrow *vartamāna*, the same treatment for its declensions; *varttate* \rightarrow *vartate*; *vyāvarttya* \rightarrow *vyāvartya*, the same treatment for its declensions.

- A. Mandana's View (pp. 847,1-848,12)
 - A1: The meanings of the roots *pac*, *gam*, *pat*, *tyaj*, *han*, *yaj*, *hu*, and *dā*. (p. 847,2-10)
 - A2: An explanation of the relation between the root meaning and tense. (p. 847,10-15)
 - A3: The meanings of roots *gam*, *pat*, and *tyaj*, whose result occurs in a substance such as space ($\bar{a}k\bar{a}\dot{s}a$) but which cannot be used with reference to space. (pp. 847,15-848,2)
 - A4: A discussion of how to identify the object (*karman*) of the operation denoted by a root. (pp. 848,2-848,9)
 - A5: The meanings of the roots *jñā*, *iṣ*, *yat*, *vid*, and *sthā*. (p. 848,9-12)
- B. Gangeśa's View (pp. 848,13-853)
 - B1: The first alternative of the final view of the root meaning: operation conducive to the result (*phalānukūlavyāpāra*). (pp. 848,13-849,5)
 - B2: The second alternative of the final view of the root meaning: only operation (*vyāpāra*). (pp. 849,6-850,2)
 - B3: The result of the operation in the case of the second alternative. (pp. 850,2-851,2)
 - B4: The relation between the operation and its result in the case of the second alternative. (pp. 851,2-852,1)
 - B5: The meanings of the roots *gam*, *tyaj*, and *pat* in non-Vedic usage, and the roots *yaj*, $d\bar{a}$, and *hu* in Vedic rituals in the case of the second alternative. (pp. 852,2-853,5)

3. Basic Concepts⁵

(a) *dhātu* (verbal root)⁶

To understand the meaning of a verbal root, it is necessary to first refer to the Grammarians', or Vyākaraņa, tradition. Kātyāyana (3rd century B.C.) provides two major categories of the definitions of verbal root: formal and semantic definitions. He semantically defines a verbal root in terms of krivā or bhāva. The former term, commonly translated as 'action', is used to define verbal roots such as *pac* (to cook), *path* (to read), *kr* (to make), etc., and the latter is used to define ones such as $bh\bar{u}$ (to be, become), vid (to exist), etc. Patañjali (2nd century B.C.) interprets *bhāva* as that which is brought about or as that which comes into being. He defines kriyā with regard to time issues, as time is understood only in association with action (krivā). Later Grammarians such as Kaunda Bhatta (17th century), who is sometimes regarded as a Navya-vaiyākaraņa, hold that a verbal root denotes result (*phala*) and action (*krivā*).⁷ This double meaning of the root can be traced back to Patañjali's suggestion on P1.4.49,8 but more precisely, this meaning is asserted by Helārāja (10th century) in his commentary on Bhartrhari (5th century).

In the Nyāya tradition Udayana, who greatly influenced Gangeśa, claims in his Nyāyakusumāñjali (*NKu*) that a verbal root denotes action (*kriyā*) and result (*phala*), but he does not make clear the relation between both.⁹ In his "Verbal Root

⁵ This section except (a) *dhātu* (verbal root) is based upon Wada [2013: Basic Concepts].

⁶ This subsection is based upon Wada [2016a: 49-58] [2016b: 36-36], in which the explanation of Kātyāyana's and Patañjali' views is based upon Diaconescu [2012: 200-215]. On the issue of *kriyā* and *bhāva*, see also Joshi [1993(1960): 19-22].

⁷ On Kaunda Bhatta's and Nāgeša's views, see also Joshi [1993(1960): 17]; Rao [1969: 106-110].

⁸ P1.4.49: *kartuh īpsitamaņ karma.* (Trans. by Vasu [1977(1891): 186]: That which it is intended should be most affected by the act of the agent is called the object or karma. But my translation is: that which is most desired by the agent is called the object or *karman.*)

⁹ *NKu*, p. 533,2: *dhātūnām kriyāphalamātrābhidhāyitvāt*. Dravid [1996: 445] translates this as "as it is the nature of verbs to mean only that which results from an activity". Dravid inserts the relation between result and action into his translation. There is the possibility that Dravid is influenced by the later Nyāya tradition, in drawing attention to this relation.

Chapter" (Dhātuvāda) Gangeśa inherits and revises the meaning given by Udayana.

At the beginning of the "Verbal Root Chapter" Gangeśa introduces Mandana Miśra's view of the meaning of a verbal root that the root denotes only result (*phala*). For example, the verbal root *pac* (to cook) denotes the softening (*viklitti*) of the cooking-object, such as rice, and not the operation of heating below, and so forth which brings about that result. Gangeśa does not deal with the views of other Mīmāmsakas, which implies that Mandana's view may be more extreme than theirs.¹⁰ In this paper the term *dhātu* is rendered as 'verbal root', or simply 'root' when this does not cause an inconvenience.

(b) *ākhyāta*

The word $\bar{a}khy\bar{a}ta$ has two meanings: the finite verb and the personal ending of the finite verb ($ti\dot{N}$ suffix).¹¹ Gangeśa's argument with the Mīmāmsā and Grammarian schools is confined to an analysis of the second of these two meanings. Unless otherwise specified, the suffixes he discusses are those used in the active voice and the present tense. He discusses the meaning of verbal suffixes used in the passive voice in Parts F and G of the "Verbal Suffix Chapter".

Navya-naiyāyikas, including Gangeśa, hold that a verbal suffix denotes effort, while Mīmāmsakas of the Bhatta School¹² hold that it denotes operation ($vy\bar{a}p\bar{a}ra$), whether internal or

¹⁰ Rao [1969: 110], after introducing Mandana's view in his book, says "Some Mīmāmsakas and many other thinkers of other schools of Philosophy are at variance with regard to this meaning of the root as expressed by Mandana". Rao [1969: 114-116] elucidates the view of Khandadeva (ca. 17th century) and concludes, at the end of the section designated as "The Mīmāmsaka's View", that, according to Khandadeva, the verbal suffix denotes operation or effort in general (*vyāpārasāmānya*) and that the verbal root denotes its particular form (*vyāpāraviśeşa*).

¹¹ On these two meanings, see Joshi [1993(1960): 22]. He reports that the $M\bar{i}m\bar{a}ms\bar{a}$ nyāyaprakāśa (MNP), which was written in the seventeenth century, uses the word in the second sense listed above. But the *TC* shows an earlier use of the word in this sense. On *ti* \dot{N} suffixes, see Pāṇini's Aṣtādhyāyī (P)3.4.78; Abhyankar and Shukla [1977: 197].

 $^{^{12}}$ The view of the Prābhākara School is briefly referred to and refuted at the end of Part C.

external.¹³ Internal operation, which Navya-naiyāyikas regard as effort, occurs in the soul ($\bar{a}tman$). External operation, which occurs in the body and things, is perceived by the sense organs. Navya-naiyāyikas generally call this operation action ($kriy\bar{a}$). The Grammarians ($p\bar{a}nin\bar{n}ya$) argue that a verbal suffix denotes an agent, an object, or action itself.¹⁴ Navya-naiyāyikas and Mīmāmsakas accept Panini's grammar in general, but when they disagree with the Grammarians, and with one another, they attempt to prove their own views by analyzing common linguistic usage, in this case the usage of the finite verb. It should be noted that these schools do not differ in holding that the suffix of a finite verb denotes a particular tense and number. In the present paper, when I need to refer to the suffixes of finite verbs, I will simply mention 'verbal suffix'.

(c) Effort (yatna, prayatna)

Effort, which is regarded as the meaning of a finite verbal suffix by Navya-naiyāyikas, is one of twenty-four kinds of qualities (guna), and we know of its existence in the soul through inference. Nyāya holds that knowledge or cognition (jnāna) causes desire (*icchā*), which produces effort, which in

¹³ The operation of Vedic injunctions is not discussed here. However, since the Mīmāmsakas' method of interpreting sentences in common usage is based on their exegesis of Vedic sentences, we have to consider this exegesis in order to follow their arguments as presented in the "Verbal Suffix Chapter". On their exegesis, see Edgerton [1929]. The verbal suffixes of Vedic injunctions denote the word-efficient-force ($\frac{s}{a}bd\bar{i}bh\bar{a}van\bar{a}$) which resides in the injunctions themselves. On the 'word-efficient-force', see *MNP*, no. 4 and Edgerton [1929: 40]. Diaconescu [2012: 47] points out the differences among the Mīmāmsakas' views on what the term *bhāvanā* means. According to him, Kumārila and Pārthasārathi use it in the sense of operation (*vyāpāra*) or action (*kriyā*), Maņdanamiśra and Umbekabhatța in the sense of operation and effort (*krti*), and Someśvara or Khandadeva in the sense of effort. (Diaconescu renders *krti* as effort, while I have rendered as 'resolution'. Effort is a rendering of *yatna*, which is used as a synonym for *krti* in the Nyāya discussion of the meaning of verbal suffixes. Based upon this, Diaconescu seems to render *krti* as 'effort'.)

¹⁴ On these three meanings, see *P.3.4.69: laḥ karmaṇi ca bhāve cākarmakebhyaḥ*. Vasu [1977(1891): 584] translates this *sūtra* as follows: "The tense-affixes called *la* are used in denoting the object and the agent; and after intransitive verbs, they denote the action as well as the agent". This means that when transitive verbs are used in the active voice, the suffixes denote the agent; when these verbs are used in the passive, the suffixes denote the object. On this issue, see also Cardona [1975: 266].

turn brings about action.¹⁵ To understand the relation among cognition, desire, and effort, let us consider the case in which we quench our thirst with water. First, we must know that water can remove our thirst and recognize that there is some water within our reach. Second, we must have the desire to take and drink some water. If we have no desire, action does not take place. However, due to certain reasons we do not always take action immediately after we have such a desire. For instance, there may be dead insects in the water, and so on. Hence, we can infer that there must be an intervening factor which is produced by the preceding desire and which brings about the action of drinking. That factor is effort.

Note that effort is often designated as resolution (*krti*) in the Navya-nyāya discussion on the meaning of a verbal suffix. Udayana states in his *Nyāyakusumāñjali* (*NKu*) that resolution is nothing more than effort.¹⁶ Udayana's statement is quoted by Gangeśa in the "Verbal Suffix Chapter" (Part B2) of his *TC*.¹⁷

(d) The signifying function (*vrtti*)

Any meaningful linguistic unit, or morpheme, as well as any word possesses the signifying function and thus can mean something. Navya-nyāya accepts only two kinds of signifying function: the denotative function (*sakti*) and the indicative function (*lakṣaṇā*).¹⁸ For instance, when we hear the word

¹⁵ For the causal relationship among these four, Marui [1987: 145-146 and notes 24, 26] gives two Sanskrit references and their explanations. One is from Udayana's *Nyāyakusumāňjali (NKu)* 5.7: *pravŗttiḥ kṛtir evātra sā cecchāto yataś ca sā / taj jňānam*... //, and the other from *Nyāyasiddhāntadīpa* (p. 74,1-4): *pravŗttiparavākyaśravanāntaram prayojyasya tattadarthasambandhavyāpārānukūlām ceştām paśyams tatasthaḥ svacesţāyām kṛteḥ kṛtau ca cikīrṣāyāś cikīrṣāyām samānādhikarana samānaviṣayakajňā-nasyaivāvadhṛtakāraṇabhāva iti prayojyasyāpi tatkāranībhūtam jňānam anumāya tasya jňānasya vākyajanyatāpravṛttau janayitavyāyām śabdavyāpāratvam cāvadhārayati.* For a translation of the former passage, see Cowell [1980: 71] and N. Dravid [1996: 433].

¹⁶ NKu k. 5.9:

krtākrtavibhāgena kartrrūpavyavasthayā |

yatna eva kṛtiḥ pūrvā parasmin saiva bhāvanā ||.

For a translation of this kārikā, see Cowell [1980: 74] and N. Dravid [1996: 439].

¹⁷ Gangeśa has the Naiyāyika object to the Mīmāmsakā and quote Udayana's $k\bar{a}rik\bar{a}$ referred to by the above footnote. On this, see Wada [2007a: 421]

¹⁸ Cf. Nyāyasiddhāntamuktāvalī (NSM), p. 292,3: vŗttiś ca śaktilakṣanānyataraḥ sambandhaḥ. See also Matilal [1968: 25]. The indicative function is defined as the relation

'*śaśin*' (the moon) at night, this word first reminds us of the moon in the sky; furthermore it reminds us of a rabbit (*śaśa*). In this case the moon is the direct meaning of the word, and the function pointing to this meaning is called denotative. A rabbit is the indirect meaning of the word, and the function pointing to it is called indicative.

(e) Verbal understanding (*śābdabodha*, *śābdajñāna*)

The concept of verbal understanding is quite often utilized in analyzing the meaning of language units, e.g., a root $(dh\bar{a}tu)$, suffix (pratyaya), nominal base $(pr\bar{a}tipadika)$, case-ending (sUP), and so on. Since we cannot determine the meaning of an isolated verbal suffix such as -ti, we have to deal with a complete word, such as 'pacati' ("[He] cooks''). From pacati we obtain a verbal understanding which has some content or structure. Gangeśa and his opponents presuppose that all of this understanding is generated only by the word pacati; they attempt to find the correspondence between the constituents of the understanding we obtain on hearing pacati and the linguistic constituents, such as the verbal suffix, which make up this word.

There are three competing views of verbal understanding which identify different elements in a sentence as being predominent. According to the first view, the meaning of the noun in the nominative case is predominant (*prathamāntārthamukhyaviśeṣyakaśābdabodha*); according to the second view, the meaning of the verbal suffix is predominant (*ākhyātārthamukhyaviśeṣyakaśābdabodha*); according to the third view the meaning of the root is predominant (*dhātvarthamukhyaviśeṣyakaśābdabodha*).¹⁹ The Nyāya school upholds the first view; the Mīmāmsā school the second; and the

with the denoted object/meaning (*NSM* k. 82ab: *lakşanā śakyasambandhas* ... /). To explain this definition, when word A denotes meaning B and further indicates the meaning C, the indicative function of A reaches C through B. This function also represents the relation between A and C. The relation between A and B is expressed by 'the denoted object' in the definition; the relation between B and C by 'the relation' in the definition.

¹⁹ Cf. Rao [1969: 4-34]. The expression of verbal understanding may appear to represent its structure, but this is not accepted by some schools of Indian philosophy, i.e., those schools subsumed under the term 'Indian Realism', such as Nyāya, Vaišeşika, and Mīmāņsā. This point will be referred to later on under (f).

Grammarian school the third.

Take the sentence *caitrah pacati* as an example. Let us see what Navya-nyāya regards as the verbal understanding brought about through hearing this sentence. The word *caitra* denotes a person called Caitra; the case-ending -h (*sU*) denotes the number of Caitras; the root *pac* denotes the action of cooking (*pāka*); the suffix *-ti* denotes effort. Effort generates the action of cooking. This relation between effort and cooking is not denoted by any meaningful unit of the sentence, but it is understood from the juxtaposition of the two units, *pac* and *-ti*. Similarly, the relation of the effort and Caitra is understood; he (i.e., his *ātman*) possesses effort. Finally, the sentence generates the understanding "Caitra is the possessor of effort conducive to cooking" (*pākānukūlaprayatnavān caitaḥ*).²⁰

Mīmāmsakas, on the other hand, present the following verbal understanding as generated by the same sentence: "There is productive operation conducive to cooking and residing in Caitra" (*caitraniṣṭhā pākānukūlā bhāvanā*). Grammarians give the following analysis: "There is operation conducive to the softening of the cooked substance and occurring in Caitra" (*caitrāśrayakaḥ viklittyanukūlo vyāpāraḥ*). Here I have only briefly illustrated how the three schools analyze verbal understanding.²¹

²⁰ This type of verbal understanding is presented as Udayana's view in *NKu*, p. 531,4: *pākānukūlavartamānaprayatnavān*.

²¹ For example, it has not been illustrated how tense and mood are expressed, what the suffix -*a* inserted between *pac* and -*ti* denotes, and so forth. For a general illustration of verbal understanding, see Rao [1969:4-34] and Joshi [1993: 29-36]. Cardona [1975] discusses whether or not paraphrase and the analysis of verbal understanding decisively serve to assign partial meanings to the constituents of a sentence or word, such as a root and a suffix. Cardona [1975: 272] remarks that the different schools assign meanings in different ways, based on their particular backgrounds, premises, and aims. Diaconescu [2012: 30, 35, 37] points out a difference between the Nyāya view and the Mīmāmsā and Grammarians views. The former view takes a preceding meaning element placed in the expression of verbal understanding as the qualifier (*viśeṣaṇa*), and the following element as the qualificand, as stated above. The latter views, on the other hand, respectively take productive operation and operation (or, action) as the qualificands, and all the other meaning elements as their (direct or indirect) qualifiers.

(f) Meaning (*artha*)

Finally, I would like to call the reader's attention to the word 'meaning', which appears throughout my translation. This word does not always stand for 'mental representation' in the Indian context. Nyāya, Vaiśeşika, and Mīmāmsā hold the view that knowledge or cognition (jñana) has no content in itself (nirākāravāda) and that recognizing an object means that a cognitive relation occurs between the cognition and the object (grāhyagrāhakabhāva). For example, when for these three schools the meaning of the root *pac* is said to be the action of cooking, this does not refer to the understanding of cooking or the concept of cooking but rather to the physical action of cooking which takes place in the outer world. Even the expression of verbal understanding (sābdabodha) does not represent the structure of understanding or cognition itself but the structure of part of the outer world.

By contrast, the Grammarian school maintains that knowledge has content.²² For this school the expression of verbal understanding represents the structure of the understanding. This expression also represents the structure of a phenomenon in the outer world as long as the understanding corresponds to this phenomenon. When I am referring to this sense of "meaning" in the course of my translation, I have provided a footnote.

 $^{^{22}}$ The Vijñānavāda school of Buddhism also takes this position. Gangeśa does not debate with the followers of this school or other Sākāravādins in the "Verbal Suffix Chapter".

4. A Translation with Annotation of the Dhātuvāda of the *Tattvacintāmaņi*

A. Maṇḍana's View

A1:²³ Mandana Miśra [argues] that the meaning of a root is result. To explain, the meaning of [the root] pac (to cook) is softening (viklitti) [of cooking material], because [this meaning is] simple $(l\bar{a}ghava)$;²⁴ and [the meaning] is not operation (*vyāpāra*) producing that result (softening), i.e., heating from below, and so forth, because [this meaning is] cumbersome. [Similarly the meaning of the root] gam (to go) is the contact with [the ground in] front; [that of the root] pat (to fall) is the contact with the lower [portion]; [that of the root] tyaj (to abandon) is separation. And [the meaning of those roots] is not movement (spanda) which produces their result. Similarly [the meaning of the root] han (to kill) is death, and not operation producing that result, such as a strike with an axe-weapon, for [this meaning is] cumbersome (gaurava). Similarly [the meaning of the root] *vaj* (to make an oblation to) is nothing more than the termination of ownership belonging to oneself, which (termination) is the result of abandonment aimed towards the deities. [The meaning of the root] hu (to offer as oblation to fire) is [the action of] pouring, which is the result of

²³ TC, Vol. 4/2, p. 847,2-10: dhātvarthah phalam iti mandanācāryyāh⁽¹⁾, tathā hi pacyartho viklittir lāghavān na tu tatphalako vyāpāro 'dhahsantāpanādir gauravāt gamer uttarasamyogah pater adhahsamyogah tyajer vibhāgo 'rtho na tu tatphalajanakah spandah. hanter api maranam arthah na tu tatphalajanako vyāpārah khadgābhighātādih gauravāt. yajatyartho 'pi devatoddeśyakatyāgaphalam svasvatvadhvamsa eva. juhotyarthas tyāgaphalam prakşepah. dadātyarthah sampradānasvīkārapūrvakatyāgaphalam svasya svatvadhvamsah parasvatvam vā na tu tattatphalakatyāgo gauravāt. (⁽¹⁾ TC, p. 389,2 reads mandunācāryyāh, which seems to be a mistake.)

²⁴ Simplicity or cumbersomeness (*gaurava*) depends upon the concept of the delimitor of the state of being denoted (*śakyatāvacchedaka*) or of the ground for using the word (*pravŗttinimitta*). On this, see Wada [2006a]. The view which takes a universal (*jāti*) for the delimitor or the ground is simpler than the view which takes an imposed property ($up\bar{a}dhi$) for either of them. In this connection softeningness (*viklittitva*) is a universal, and the sate of being operation producing the result (*tatphalakavyāpāratva*) is an imposed property. Maņdana did not make use of the former concept; so if the delimitor is taken into consideration in the present context, it turns out that it is his followers who claim simplicity or cumbersomeness.

abandonment. [The meaning of the root] $d\bar{a}$ (to give) is the result of abandonment on condition of the receiver's acceptance, being either the termination of ownership belonging to oneself or [the establishment of] ownership belonging to others, and [the meaning] is not abandonment producing each result because [this meaning is] cumbersome.

A2:²⁵ It should not be argued: Suppose the above is accepted; when operation has ended and [its] result has come into existence, there would be the usage of *pacati* ("[He] cooks"), *gacchati* ("[He] goes"), *dadāti* ("[He] gives"), etc.,²⁶ and not [the usage of] *apakṣīt* ("[He] cooked"); ²⁷ moreover, when operation [takes place], the usage of *pacati* ("[He] cooks") would not be possible.²⁸ [The reason for this is as follows:] the meaning of the verbal suffix [-*ti*] ²⁹ is the present time of operation [takes place], the usage of *pacati* ("[He] cooks") is available; [this usage] is not [available] when operation has ended.

²⁵ TC, Vol. 4/2, p. 847,10-15: na caivam vyāpāravigame phaladašāyām pacatigacchati-dadātītyādiprayogah syān na tv apākşīd ityādih vyāpārakāle ca pacatītyādi na syād iti vācyam. dhātvarthānūkula⁽¹⁾-vyāpāravarttamānatvam ākhyātārthah tena vyāpārakāle pacatītyādi bhavati na tu vyāpāravigame. (⁽¹⁾ TC, p. 389,13 reads dhātvarthānukula, which seems to be a mistake.)

²⁶ For example, if the root *gam* denotes the result of arriving, for example, at a village, it would be the case that when the person has arrived at the village, the usage of *gacchati* would be possible. It follows from this that before his / her arrival such a usage is impossible although he /she walks to the village.

²⁷ This sentence of the anticipated objection means that if the root denotes the result, the past tense of the verb would be impossible even in the case where the operation in question has ended.

²⁸ This objection means that when some operation has ended and its result has been produced, the present tense of the verb could be used, and when some operation continues before the production of its result, the present tense of the verb could not be used.

²⁹ On the meaning of the suffixes of finite verbs, see Basic Concepts: (b) ākhyāta.

 $^{^{30}}$ This is the Bhātta view of the meaning of the verbal suffix. On this, see Wada [2007a: 420, B1].

A3:³¹ It should not be argued: Since [space is] the support $(\bar{a}\dot{s}raya)^{32}$ of contact (samyoga) and separation $(vibh\bar{a}ga)$ produced by movement, the usage of $\bar{a}k\bar{a}\dot{s}o$ gacchati patati tyajati ("Space goes", "[Space] falls", or "[Space] departs") would be possible; ³³ moreover, when action (karman) is vanishing [without producing its result, the usages of those verbs would] not [be] possible because contact, separation, and so on have ceased to exist.³⁴ The reason [for this] is that the verbal suffix is used when operation takes place through [an animate or inanimate being] possessing operation.

A4.1: ³⁵ [Someone objects:] Suppose the above answer is appropriate; result, which is the meaning of a root, [would] be action (*kriyā*); therefore, in the cases of *taṇḍulaṃ pacati* ("[He] cooks rice grain"), and so forth, rice grain, etc., would not possess even objectness (*karmatā*), because [rice grain, etc., possess] no state of possessing result produced by action, which (result) is nothing more than softening, etc.³⁶

³¹ TC, Vol. 4/2, pp. 847,15-848,2: na ca spandajanyasamyogavibhāgāśrayatvenākāśo gacchati patati tyajatīti syāt vinaśyadavasthe karmaņi ca na syāt samyoga-vibhāgādyabhāvād iti vācyam. vyāpāravati vyāpārakāle ākhyātaprayogāt.

³² The concept of support (\bar{a} śraya) subsumes those of container (\bar{a} dh \bar{a} ra) and locus (*adhikara*na). Here in Part A3 the term support is used in the sense of container. Gangeśa uses the concept of support to present the Nyāya objection to the Mīmāmsā view of an agent (*kartr*) and an action generator (*kāraka*) in his Ākhyātavada. On his use of the concepts, see Wada [2007a: 423]. On the Vaiśeşika concept of *ā*śraya, see Hirano [2015: 882-883].

³³ The anticipated objection is as follows. Space is an omnipresent substance (*dravya*), which can simultaneously possess contact with and separation from a substance. When a person walks, his separation from the back portion and his contact with the ground in front take place. This separation and contact is produced by the person's walk and is the result of this walk; this result takes place in space also. As a result, though the person walks, we could say $\bar{a}k\bar{a}so$ gacchati ("Space goes"), which is inappropriate.

³⁴ Suppose that a person wants to go to a village but that the person has stopped to take rest along the way. Because the person's separation from the ground in back and contact with the ground in front have ceased, we could not say *puruso grāmam gacchati* ("He goes to the village"). However, this usage is possible even when the person takes rest.

³⁵ TC, Vol. 4/2, p. 848,2-5: nanv evam dhātvarthatvena phalam kriyā tathā ca tandulam pacatītyādau tandulādeh karmatāpi na syād viklittyādirūpakriyājanya- phalaśālitvābhāvād iti cet.

³⁶ The objection purports that if there is no linguistic unit which denotes the result, i.e., the softening of rice grain, we cannot identify the object of the action of cooking. The object must be the locus of the result.

A4.2:³⁷ [The followers of Mandana answer: The above view is] not correct. [The reason for this is as follows.] Objectness (*karmatva*) is the state of possessing result [produced by] operation inhering in the other; ³⁸ moreover, the operation [referred to in the above definition] is the meaning of the root or of the verbal suffix; in both cases rice grain, etc., possessing result [produced by] operation inhering in the other, possess objectness; when softening does not take place but operation takes place, the usage of *pāko vartate* ("Cooking takes place") [can be made]; in this case the word *pāka* (cooking) possesses indicative function (*lakṣaṇā*)³⁹ with reference to operation, because softening is the denoted meaning⁴⁰ [of the root *pac* (to cook)] due to simplicity.

A5:⁴¹ In the cases of *jānāti* ("[The person] knows), *icchati* ("[The person] desires), *yatate* ("[The person] makes an effort"), *vidyate* ("[It] exists"), *tiṣṭhati* ("[The person] stays), and so on, the meanings of those roots are cognition, desire, effort, existence, and termination of going [respectively]. [The meanings of those roots are] neither results of cognition, etc., nor operations conducive to cognition, etc., because only the state of possessing cognition, etc., is understood [in hearing those verbs].

³⁷ TC, Vol. 4/2, p. 848,5-9: na, parasamavetavyāpāraphalaśālitvam karmatvam sa ca vyāpāro dhātvartha akhyātārtho vetyubhayathāpi parasamavetavyāpāraphalaśālinas tandulādeh karmatvam viklittyanutpāde vyāpārakāle pāko varttata ity atra pākapade vyāpāralakṣanā lāghavena viklitteh śakyatvāt.

 $^{^{38}}$ This definition of objectness appears as Gangeśa's in the "Verbal Suffix Chapter" (Ākhyātavāda) of his *TC* too. On this, see Wada [2014b: 205].

³⁹ This is one of the two kinds of signifying function (*vrtti*) according to the Nyāya school; the other function is called denotative (*śakti*). On these two functions, see Basic Concepts: (d) The signifying function (*vrtti*).

⁴⁰ Denoted meaning is the meaning obtained by denotative function (*śakti*). On this see Basic Concepts: (d) The signifying function (*vṛtti*).

⁴¹ TC, Vol. 4/2, p. 848,9-12: jānātīcchati-yatate-vidyate-tisthatītyādau jñānecchāprayatnasattā-gatinivrttir eva dhātvarthaḥ, na jñānādiphalam na vā jñānādyanukūlovyāpāraḥ jñānādimattvamātrapratīter iti.

B. Gangeśa's View⁴²

B1:⁴³ On this point [the following] is answered [by Gangeśa]. In the case of *odanakāmaḥ paceta* ("One who desires rice gruel should cook"), the state of being to be accomplished by resolution and the state of being the means for accomplishing what is desired are understood from the optative suffix⁴⁴ in order to induce [the hearer of the sentence] to [perform] the meaning⁴⁵ of the root. The state of being the means for [attaining] rice gruel does not exist in the result which is softening, etc.⁴⁶ Nor is the activity (*pravrtti*)⁴⁷ [of the hearer] to obtain [this] result is possible. The reason [for this] is that not having taken recourse to the means (*upāya*), resolution ⁴⁸ (*krti*) cannot directly accomplish the result. That is because result is nothing more than what is to be accomplished by resolution which has the means [for attaining its object], and not what is to be

⁴² Gangeśa's final view is given in the form of two alternatives: the first one appears in Part B1, and the second, in Part B3.

⁴³ TC, Vol. 4/2, pp. 848,13-849,5: atrocyate. odanakāmaḥ pacetety atra vidhipratyayena dhātvarthe pravrttyartham krtisādhyatvam istasādhanatvañ ca bodhyate. na ca phale viklittyādāv⁽¹⁾ odanasādhanatvam na vā phale pravrttiḥ sambhavati, upāyam akrtvā phalasya sāksāt krtyā sādhayitum asakyatvāt upāyakrtisādhyam eva hi phalam na tu tadanyakrtisādhyam upāyakrtita eva tatsiddher adhaḥsantāpanādeḥ krtisādhyeṣtasādhanatvam vinā viklittyartham apravrtteś ca. upāya evādhaḥsantāpanādir vyāpāraḥ pravrttiviṣayatvāt krtisādhyatveneṣtasādhanatvena ca vidhipratyayena bodhyata iti phalānukūlo vyāpāra eva dhātvarthaḥ. (⁽¹⁾ TC, p. 389,1 reads viklityādāv, which seems to be a mistake.)

⁴⁴ Gangeśa mentions two of the three meanings of the optative suffix (*vidhilin*), which (three meanings) are traditionally maintained in Navya-nyāya. Marui [1987: 146-147] [1988: 128-129] elucidates those three presented in the $K\bar{A}$, kk. 146-150; *NSM*, pp. 472,7-490,6: the state of being to be accomplished by resolution (*krtisādhyatva*), the state of being the means for attaining the desired thing (*isţasādhanatva*), and the state of being not connected with great harm (*balavadanisţānanubandhitva*). *MK* (p. 76,3) also presents those three meanings. Gangeśa's "Injunction Section" (Vidhivāda) is translated by Jha [1987].

⁴⁵ Here 'meaning' does not represent a conceptual one, but a physical result or operation. On this, see Basic Concepts: (f) Meaning (*artha*).

⁴⁶ The causal relationship among the entities referred to in the process of attaining rice gruel is as follows: the person first possesses resolution (or effort) for heating from below; then the action of heating from below takes place; after this action the result of softening takes place turning rice into gruel.

⁴⁷ The term is used in the sense of effort (or resolution) or commencement of action.

⁴⁸ On the relation between resolution and effort (yatna, prayatna), see Basic Concepts: (c) Effort (*yatna, prayatna*).

accomplished by resolution which has something other than that [means for attaining its object]. The reasons [for this] are that that [result] is accomplished only by resolution which has the means [for attaining its object], and that unless heating from below, and so forth⁴⁹ are [known] to be accomplished by resolution and to be the means for what is desired (i.e., softening), there [can] be no activity [of the hearer] to attain softening. Heating from below, etc., which are operation, and which are nothing more than the means [for attaining rice grue]], due to being the object of activity [for cooking], are understood from the optative suffix as that to be accomplished by resolution and to be the means for [attaining] what is desired. Therefore, only operation conducive to the result is the meaning of a root.⁵⁰

B2.1:⁵¹ If [the Mīmāmsaka, i.e., the follower of Mandana, argues] as follows: it is true that the knowledge that the means is to be accomplished by resolution induces [the hearer of the sentence] to perform; but the state of being to be accomplished by resolution for [attaining] that means is implied by the state of being to be accomplished by resolution for [obtaining] the result, which (latter state) is caused to be understood by the optative suffix; the reason [for this] is that without the [former] state, the [latter] state is impossible,⁵² then [Gangeśa answers as follows].

⁴⁹ Other operations are putting the cooking pot on the fire (*adhiśrayana*), pouring water into the pot (*udakāsecana*), putting rice grain in the pot (*tandulāvapana*) and stoking fuel in the fire (*edhopakarṣaṇa*) and the like. Cf. *Mahābhāṣya*, Vol. 2, p. 28,15-16: *yadi apy ekā sāmānyakriyā. avayavakriyās tu bahavaḥ. adhiśrayanodakāsecanatandulāvapanaidhopakarṣaṇakriyāḥ.*

 $^{^{50}}$ This meaning is also advocated by Udayana. On this, see Introduction: Basic Concepts: (a) $dh\bar{a}tu$ (verbal root).

⁵¹ TC, Vol. 4/2, p. 849,6-8: athopäyasya kṛtisādhyatvajñānam pravarttakam iti satyam kin tu vidhibodhitaphalakṛtisādhyatvena tadupāyakṛtisādhyatvam ākşipyate tena vinā tadanupapatter iti cet,

⁵² The Mīmāmsaka insists that the meaning of the root is only the effect, and considers that the root with the suffix denotes the state of being to be accomplished by resolution for [attaining] the result. Since this denoted meaning implies Gangeśa's view that the means is to be accomplished by resolution, according to the Mīmāmsaka, it is not required to accept Gangeśa's view. Here 'implication' means assumption (*arthāpatti*).

B2.2:⁵³ [This view is] not correct. The reson [for this] is that because on the basis of behavior the denotative function (*śakti*) of the optative suffix is grasped in the understanding which induces [the hearer of the sentence to perform], ⁵⁴ [the opponent's] postulation has the object (i.e., the means for attaining the result)⁵⁵ of a direct producer (*upapādaka*) (i.e., the verbal understanding of the means for attaining the result) of the sentence].⁵⁶ Thus, even the roots *yaj* (to make an oblation to), *gam* (to go), *pac* (to cook), *hu* (to offer an oblation to fire), and $d\bar{a}$ (to give) [would] denote only operation,⁵⁷ for activity [leading directly] to the result is not possible.

⁵³ TC, Vol. 4/2, pp. 849,8-850,2: na, vyavahārāt pravŗttijanake jñāne vidhi- pratyayasya śaktigrahāt pravŗttisākṣādupapādakaviṣayatvāt kalpanāyāh. evam yaji-gami-paci-juhotidadātīnām api vyāpāra eva vācyaḥ phale pravŗttyasambhavāt.

⁵⁴ According to Gangeśa, the hearer understands that the optative suffix denotes the state of being to be accomplished by resolution for attaining the means and the state of being the means for attaining what is desired. Hence, it is not required to acknowledge the opponent's implication.

⁵⁵ This is nothing more than operation, knowledge of which causes a person to take action. Gangeśa holds that such operation should be understood from the root, because it is not understood from the verbal suffix in the implication referred to by the opponent.

 $^{^{56}}$ The opponent's explanation, by means of implication, of how the injunctive sentence induces the hearer of the sentence to perform is more complicated than Gangeśa's view that the root denotes operation, which is regarded as a cause of inducing the hearer to operate / act.

⁵⁷ It appears strange that Gaigeśa claims that some roots denote only operation, since he has concluded in Part B1 that roots denote operation conducive to its result and also since he provides, for example, the result of the operation denoted by the root pac (to cook) in the following Part B3 and the result in the cases of the roots yaj (to make an oblation to), $d\bar{a}$ (to give), and hu (to offer as oblation to fire) in Part B5.2. His intention in the last sentence of Part B2.2 may be as follows. The Mīmāmsaka's implication or assumption in Part B2.1 presupposes that the knowledge that the means (i.e., operation for attaining the result) is to be accomplished by resolution *directly* induces the hearer of the sentence to begin action. Since the state of being to be accomplished by resolution is understood from the suffix, it turns out that the means (i.e., operation) should be understood from the root. Hence, as far as we accept the validity of the Mīmāmsaka's implication, we cannot but accept that roots denote operation. On the other hand, even when the result of some operation does not take place, we can actually use the verb. Thus, Gangeśa may claim that even if we accept the validity of the Mīmāmsaka's implication, roots denote operation and not its mere result. We will next see a case in which operation takes place and no result is accomplished and still we use the verb. For example, when we say devadatto grāmam gacchati ("Devadatta goes to the village"), he begins to walk or to take a vehicle or an animal and it is not the case that he immediately accomplishes arriving at the village. Even if he stops to take rest on the way to

B3:⁵⁸ In that case, ⁵⁹ the meaning of [the root] *pac* is only heating from below, and that [heating] is invariably concomitant with the result which is the change of color, taste, smell, and touch. A particular universal (*jāti*) existing in heating from below is necessarily said to be the delimitor (*avacchedaka*) of the state of producing the change of color, and so forth.⁶⁰ This is because otherwise [the hearer of the sentence] would not be induced to do heating from below in order to attain the result. [The reason why such heating possesses the universal is that] even if operation is denoted by the verbal suffix [as the Mīmāmsaka argues], particularity (*viśeṣa*) is necessarily denoted [by the root].⁶¹

B4.1:⁶² Moreover, the result [of cooking] is neither the qualifier (*viśesana*) nor indicator (*upalaksana*) [of operation such as

the village, we can use the same sentence with reference to his behavior. This means that even if the operation does not produce its result, we can use the verbs referring to the same operation. On the meaning of roots, the *Manikana* (p. 84,11), whose title appears to faithfully represent Gangeśa's view, says that roots possess the denotative function with reference to operation qualified by its result or both result and operation (*dhātūnaṃ phalāvacchinne vyāpāre phalavyāpārayor vā śakti*ħ).

⁵⁸ TC, Vol. 4/2, pp. 850,2-851,2: tatra pacyartho 'dhaḥsantāpanam eva tat ca rūparasa-gandha-sparšaparāvṛttiphalāvinābhūtam, adhaḥsantāpane ca jātiviśeşo rūpādi-parāvṛttijanakatāvacchedako 'vaśyam vācyaḥ. anyathā phalārtham adhaḥsantāpane 'pravṛtteḥ vyāpārasyākhyātavācyatve 'pi viśeşasyāvaśyam vācyatvāt.

⁵⁹ That is, the case in which a root denotes only operation and in which the purpose of cooking is unkown.

⁶⁰ In other words, a particular action of heating from below generates a particular result, i.e., a particular change of those qualities. All those actions including heating from below possess the state of producing the change of them. According to Navya-nyāya, a universal residing only in all such actions is considered to confine that state to them, and thus this universal is the delimitor of the state. On the concept of delimitor, see Wada [1990: 81-98] [2007a: 33-34].

⁶¹ Even the Mīmāmsaka would understand that the verb *pacati*, i.e., the root plus the verbal suffix, denotes a particular operation of heating from below, etc. Since the operation is denoted by the suffix, particularity possessed by this operation should be denoted by a linguistic unit other than the suffix, i.e., the root. Gangesa holds that both particularity and operation should be denoted one and the same linguistic unit.

⁶² TC, Vol. 4/2, p. 851,2-5: pacyarthe ca phalam na viseşanam na vopalakşanam loke 'dhahsantāpanaviseşasya rūpādiparāvrttyavyabhicāreņa vyāvarttyābhāvāt. vede 'dhahsantāpanamātram pākapadārthah krşnalam śrapayed ityādau phalābhāvāt.

heating below] in the meaning of [the root] *pac* (to cook).⁶³ The reason [for this] is that since a particular heating from below is invariably concomitant with the change of color, etc., in common experience (*loka*), nothing to be distinguished [by the result] remains.⁶⁴ In Vedic usage only heating from below is the meaning of the linguistic unit $p\bar{a}ka$ (cooking) [which denotes the meaning of the root of *śrapayati* (to cook)], for [one can obtain] no result in the case of *kṛṣṇalaṃ śrapayet* ("One should cook small golden pieces"), and so forth.⁶⁵

B4.2: ⁶⁶ Alternatively [the result of cooking] should be the indicator [of the operation in the meaning of the root *pac* (to cook)];⁶⁷ 'heating from below' capable of changing color, etc., is the meaning of the linguistic unit *pāka* (to cook) [which is denoted by the root *pac* (to cook)]; capability of heating exists in [the case of] the golden pieces as well.

B5.1:⁶⁸ Only a particular movement is the denoted [meaning] of [the root] *gam* (to go); movement which produces the contact with [the ground in] front is not denoted [by that root]. The

⁶³ Gangeśa states in Part B.3 that the meaning of *pac* (to cook) is only the operation of heating below, and that its result is the change of color, taste, smell, and touch. Here in Part B4.1 he discusses the relaton between the operation and the result.

⁶⁴ Both qualifier and indicator distinguish the entities from others. The difference etween them is that the former exists in those entities, and the latter does not exist in them. On this, see Wada [1990: 46-47]. Gangeśa intends that when the two entities are always connected with one another, either entity does not need to distinguish the other from other entities and cannot be its qualifier or indicator.

⁶⁵ Even if one heats golden pieces in the ordinary way in the Vedic ritual, one cannot obtain the result of softening of those pieces.

⁶⁶ *TC*, Vol. 4/2, pp. 851,5-852,1: *astu vopalakşanam rūpādiparāvŗttiyogyādha*, *santāpanam pākapadārtha*, *yogyatā*⁽¹⁾ *ca santāpane kṛṣnalādāv apy asti*. (⁽¹⁾ *TC*, p. 389,1 reads *yāgyatā*, which seems to be a mistake.)

⁶⁷ When the result has not yet come into being, it cannot be the qualifier of the operation. The possibility of other distinguishing factors is said to be an indicator.

⁶⁸ TC, Vol. 4/2, p. 852,2-10: gameļi spandavišeşa eva vācyo na tūttaradešasamyogajanakatvena spandasya vācyatā sarvaspandānām tathātvena vyāvartyābhāvāt. spande ca višeşaļi samyogavibhāgajanakatāvacchedakaļi sarvasiddha eva. tyaješ ca karmamātram šakyam na tu pūrvadešavibhāgaphalakakarmatvena šakyatvam sarvakarmaņām tathātvena vyāvartyābhāvat. tyajatītiprayoge ca tadbuddhir nimittam. patatyartho 'pi karmavišeşa eva gurutvāsamavāyikāraņaprayojyādhaļisamyogaphalajanakaļi, phalan tu karmavišeşaparicāyakamātram.

reason [for this] is that because all movement is like that, nothing to be distinguished [by the result, i.e., the contact] remains.⁶⁹ The particularity residing in [a particular] movement is the delimitor of the state of producing of contact and separation, which is indeed established by all [people]. Action (karman) in general is the denoted [meaning] of [the root] tyaj (to abandon); [action] which has for its result the separation from the back portion is not denoted [by that root]. The reason [for this] is that since all action is like that, nothing to be distinguished [by the result, i.e., the separation] remains. However, the knowledge of that [separation] is the ground for the usage of [the root] tyaj (to depart/abandon). Only a particular action is also the meaning of [the root] pat (to fall), which produces the result, i.e., the contact with the below [portion] caused by the non-inherent-cause (asamavāyikārana) [of falling], i.e., gravity (gurutva),⁷⁰ while the result [of falling] is only the pointer $(paricavaka)^{71}$ to a particular action.

B5.2:⁷² [In the Vedic usage] only abandonment preceded by individual declarations (*sankalpa*) of *idam na mama* ("This is

⁶⁹ In other words, whenever any conjugation of the root *gam* (to go) is used, one and the same result would be brought about. Moreover, if *gam* denotes one and the same movement, we cannot distinguish movement of person A from that of person B. In thst case, the two persons would go in the same manner.

⁷⁰ Praśastapāda says in his *Padārthadharmasamgraha* (# 297) that gravity is the cause of the action of falling: *gurutvam jalabhūmiyoh patanakarmakāraņam*. The *Tarkasamgraha* (p. 20,2) says that gravity is the non-inherent-cause of initial falling: *ādyapatanāsama-vāyikāraņam gurutvam*.

⁷¹ According to the *Nyāyakośa* (p. 478), the term *paricāyakam* has two meanings: (1) that which causes one to understand a particular meaning of a word which does not need to form the whole expression (*tadaghatakatve saty arthaviseşajñāpakan. yathā sabdaguna-katvarūpākāsalakṣane guṇaḥ paricāyakaḥ.*) and (2) an indicator (*upalakṣaṇam iti kecid vadanti*). In Part 5.1 this term, which I have rendered as 'pointer', appears to be used in the second sense. But it is also possible to interpret the term as used in the first sense, since the denoted meaning of the root part includes the result.

⁷² TC, Vol. 4/2, pp. 852,10-853,7: yajati-dadāti-juhotīnām idam na mametyāditattatsankalpavišeşapūrvas tyāga eva vācyah sankalpe ca višeşas tu⁽¹⁾ tattadvišeşakrtas tattatphalavišeşajanakatāvacchedako mānasapratyakşasiddha eva na tu tattatphalajanakasankalpavišeşe śaktih gauravāt. devatoddeśyakasvasvatvadhvamsaphalakatyāgatvam sampradānasvīkaranapūrvakasvatvadhvamsaparasvatvāpattiphalajanakatyāgatvam devatoddeśyakaprakşepaphalakatyāgatvañ ca tattatsankalpaviśeşaparicāyakamā-tram iti. iti

not mine"),⁷³ and so forth, is the denoted [meaning] of [the roots] *yaj* (to make an oblation to), $d\bar{a}$ (to give), and *hu* (to offer as oblation to fire); and the particularity of declarations, which (particularity) is caused by each particular [declaration], is the delimitor of the state of producing each particular result [corresponding to each declaration], which is indeed established by mental perception. However, [those three roots] do not possess the denotative function with reference to a particular declaration producing each result, because [this view is] cumbersome.⁷⁴ (1) Abandonmentness (tyāgatva) [residing in abandonment] causing the result which is the termination of ownership belonging to oneself aimed towards the deities, (2) abandonmentness [residing in abandonment] causing the result which is [both] the termination of ownership belonging to oneself and the occurrence of ownership belonging to others on condition of the receiver's acceptance, and the (3) abandonmentness [residing in abandonment] causing the result which is a throwing [i.e., offering] aimed towards the deities are nothing more than the pointers to each particular declaration [in the cases of the three roots *yaj*, $d\bar{a}$, and *hu* respectively].⁷⁵

Here ends the "Verbal Root Chapter" (Dhātuvāda) of the Fourth Book (*khaņḍa*) named "Language" (Śabda) of the *Tattvacintāmaņi* composed by Revered Gangeśa Upādhyāya.

śrīmadgangeśopādhyāyaviracite tattvacintāmaņau śabdākhyaturīyakhande dhātuvādah. (⁽¹⁾ tu may be redundant.)

⁷³ Declaring *idam na mama* ("This is not mine"), etc., in the ritual, the priest or institutor of the ritual (*yajamāna*) makes an oblation of water, purified butter, etc., to the diety / dieties.

⁷⁴ In the beginning of text B5.2 Gangeśa states that those three roots denote abandonment preceded by individual declarations. But they do not respectively denote a particular declaration. In this case the delimitor of the denotedness of the roots or the ground for the usage of them is abandonmentness ($ty\bar{a}gatva$), which is a universal ($j\bar{a}ti$). If those roots denote individual declarations also, the delimitor or the ground is the state of being abandonment preceded by individual declarations, which state is not a universal. It is more cumbersome to say that the delimitor or the ground is not a universal.

⁷⁵ Those three roots denote a common operation, i.e., abandonment, but they differ as to their result. Here Gangeśa points out how particular declarations are connected with operations which possess different results. According to him, those operations respectively point the priest(s) to (i.e., inform him / them of) the declarations corresponding to them.

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ABBREVIATIONS AND BIBLIOGRAPHY

1) Primary sources

Kārikāvalī (KĀ)

Mahābhāşya of Patanjali, in *The Vyākaraņa-mahābhāşya of Patanjali*,
3 vols., edited by F. Kielhorn, Poona: Bhandarkar Oriental Research Institute, 1965(1883).

Maņikaņa (MK), edited in Sarma [1977].

- Nyāyakośa or Dictionary of Technical Terms of Indian Philosophy, edited by Jhalakīkar Bhīmācārya, Bombay Sanskrit and Prakrit Series 49, Poona: Bhandarkar Oriental Research Institute (revised and reedited by V.S. Abhyankar), 1978.
- Tattvacintāmaņi (TC) of Gangeśa, included in Tattvacintāmaņi of Gangeśa Upādhyāya, 4 Volumes, edited with the Āloka of Jayadeva Miśra and the Rahasya of Mathurānātha, by Kāmākhyānātha Tarkavāgīśa, Vrajajivan Prachyabharati Granthamala 47, Delhi: Chaukhamba Saskrit Pratishtan, 1990.
- *Mīmāņsānyāyaprakāśa (MNP)* of Āpadevī, edited by Edgerton [1929].
- Nyāyakusumāñjali in The (NKu) of Udayana, included Nvāyakusumāñjali of Śrī Udayanāchārya with Four Commentaries: the Bodhanī of Varadarāja, the Prakāśa of Vardhamāna, the Prakāśikā of Mecha Thakkura, and the Makaranda of Rucidatta, edited by Padmaprasada Upadhyaya and Dhundhiraja Shastri, Kashi Sanskrit Series 30, Varanasi: Chowkhamba Sanskrit Series Office, 1957.

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Nyāyasiddhāntamuktāvalī (NSM) of Viśvanātha Pañcānana, edited with the *Kiraņāvalī* of Kriśnavallabhācārya, by Narayancharan Shastri and Swetvaikuntha Shastri, Kashi Sanskrit Series 212, Varanasi: Chowkhamba Sanskrit Series Office, 1972.

Pāņinisūtra or Astādhyāyī (P) of Pāņini, edited in Vasu [1977(1891)].

- Padārthadharmasamgraha or Praśastapādabhāşya, in Bronkhorst and Ramseier [1994].
- *Tarkasamgraha* of Annambhatta, edited by Yashwant Vasudev Athalye and Mahadev Rajaram Bodas with the author's Dīpikā and Govardhana's Nyāyabodhinī, Bombay Sanskrit Series 55, Poona: Bhandarkar Oriental Research Institute, 1974.

2) Secondary sources

- Abhyankar, Kashinath Vasudev and J.M. Shukla
 - 1977 *A Dictionary of Sanskrit Grammar*, Gaekwad's Oriental Series 134, Baroda: Oriental Institute.

Bhatta, V.P.

- 2005 *Word: The Śabdakhanda of the Tattvacintāmani*, 2 vols., Delhi: Eastern Book Linkers.
- Bronkhorst, Johannes and Yves Ramseier
 - 1994 Word Index to the Praśastapādabhāşya: a complete word index to the printed editions of the Praśastapādabhaşya, Delhi: Motilal Banrsidass.

Cardona, George

1975 "Paraphrase and Sentence Analysis: Some Indian Views", Journal of Indian Philosophy 3: 259-281.

Cowell, E.B.

1980 The Kusumāñjali, or Hindu Proof of the Existence of a Supreme Being, by Udayana Āchārya, with the Commentary of Hari Dāsa Bhattācharya, Varanasi.

Diaconescu, Bogdan

2012 Debating Verbal Cognition: The Theory of the Principal Qualificand (mukhyaviśeşya) in Classical Indian Thought, Delhi: Motilal Banarsidass.

Dravid, N.S.

- 1996 *Nyāyakusumāñjali of Udayana*, vol. 1, New Delhi: Indian Council of Philosophical Research. Edgerton, Franklin
- 1929 The Mīmānsā Nyāya Prakāśa or Āpadevī: A Treatise of the Mīmānsā System by Āpadeva, New Haven/London: Yale University Press.
- Hirano, Katsunori
 - 2015 "Padārthasamgraha to sono Chūshakusho niokeru Naizoku to Ketsugō no Kankeikō (sambandhin) nitsuite" (On Relata (sambandhin) of Inherence and Conjunction in the Padārthasamgraha and Its Commentaries), Journal of Indian and Buddhist Studies 63(2): 880-885. (in Japanese)
- Jha, V.N.
 - 1986 *The Logic of the Intermediate Causal Link* [Containing the Sanskrit Text of the Apūrvavāda of the Śabdakhanđa of the *Tattvacintāmaņi* of Gangeśa with English Translation and Introduction]. Delhi.
 - 1987 The Philosophy of Injunction, Delhi: Pratibha Prakashan.
 - 1988 *The Philosophy of Injunctions* [Containing the Sanskrit Text of the Vidhivāda of the *Tattvacintāmaņi* with its English Rendering and a Detailed Introduction]. Delhi.
 - 1992 "Śabdakhanda of the Nyāyasiddhāntamuktāvalī," Nagoya Studies in Indian Culture and Buddhism: Sambhāşā 13: 1-41.
- Joshi, S.D.
 - 1993 (1960) "Kaund Bhatta on the Meaning of Sanskrit Verbs (1)." Nagoya Studies in Indian Culture and Buddhism: Sambhāşā 14: 1-39. (Reproduction of the author's Ph.D. dissertation submitted to Harvard University in 1960)
- Marui, Hiroshi
 - 1987 "Meireibun no Imi wo Tou Giron" (The Meaning of Injunctions: the Navya-nyāya Argument), In: Indian and Buddhist Studies: Prof. Jikido Takasaki Felicitation Volume, Tokyo, pp. 139-154. (in Japanese)
 - 1988 "Meirei Kinou no Ronriteki Kaimei" (Logical Analysis of the Function of the Vedic *Vidhi*: With Special reference to the Nyāya Theories of *Vidhi*), *Tōhōgaku* (Eastern Studies) 76: 123-134. (in Japanese)

T. Wada, The "Verbal Root Chapter" (Dhātuvāda) of Gangeśa's Tattvacintāmaņi 217

Matilal, Bimal Krishna

- 1968 *The Navya-Nyāya Doctrine of Negation*, Cambridge, Mass.: Harvard University Press.
- Mohanty, Jitendranath
 - 1966 *Gangeśa's Theory of Truth*, Santiniketan: Centre of Advanced Study in Philosophy Viśva-bharati.
- Potter, Karl H. and Sibajiban Bhattacharyya
 - 1993 Encyclopedia of Indian Philosophies. Vol. 7: Indian Philosophical Analysis: Nyāya-Vaiśeśika from Gangeśa to Raghunātha Śiromaņi. Delhi.
- Rao, Veluri Subba
 - 1969 *The Philosophy of a Sentence and Its Parts*, New Delhi: Munshiram Manoharlal.
- Sarma, Sreekrishna
 - 1977 *Maņikaņa: A Navya-Nyāya Manual*, The Adyar Library Series 88, Madras: The Adyar Library and Research Centre.

Vasu, Śrīśa Chandra

1977 (1891) *The Aṣṭādhyāyī of Pāṇini*, 2 vols., Delhi / Varanasi / Patna: Motilal Banarsidass.

Wada, Toshihiro

- 1990 *Invariable Concomitance in Navya-Nyāya*, Delhi: Sri Satguru Publications.
- 2001 "The Analytical Method of Navya-Nyāya", *Journal of Indian Philosophy* 29: 519-530.
- 2004 "The Origin of Navya-nyāya and Its Place within the History of Indian Logic", in S. Hino and T. Wada (eds.), *Three Mountains and Seven Rivers: Professor Musashi Tachikawa's Felicitation Volume*, Delhi: Motilal Banarsidass, pp. 439-462.
- 2006a "A Navya-nyāya Presupposition in Determining the Meaning of Words", in M. Hattori (ed.), *Acta Asiatica: Bulletin of the Institute of Eastern Culture (Word and Meaning in Indian Philosophy)* 90: 71-91.
- 2006b "A Rule of Substitution in Navya-nyāya: *x-vat-tva* and *x*", in M. Banerjee, U. Jha, T. Wada, N. Kulkarni, and A. Mishra (eds.), *Nyāya-Vaśiśtha: Felicitation Volume of*

Prof. V.N. Jha, Kolkata: Sanskrit Pustak Bhandar, pp. 356-369.

- 2007a "Gangeśa on the Meaning of Verbal Suffixes (1)", in K. Preisendanz (ed.), *Expanding and Merging Horizons: Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Vienna: the Austrian Academy of Sciences, pp. 415-429.
- 2007b *The Analytical Method of Navya-nyāya*, Groningen: Egbert Forsten Publishing. (Including Wada [2001] [2004])
- 2012 "Gangeśa on the Meaning of Verbal Suffixes (2)", in C. Watanabe, M. Desmarais, and Y. Honda (eds.), Samskrita-Sādhutā: Goodness of Sanskrit: Studies in Honour of Professor Ashok N. Aklujkar, New Delhi: D.K. Printworld, pp. 528-544.
- 2013 "Gangeśa on the Meaning of Verbal Suffixes (3)", *Nagoya Studies in Indian Culture and Buddhism: Sambhāṣā* 30: 1-14.
- 2014a "Gangeśa's Theory on the Meaning of Verbal Suffixes", in K. Bhattacharya (ed.), *Papers from* the 15th World Sanskrit Conference: Nagoya Studies in Indian Culture and Buddhism: Sambhāṣā 31: 61-75.
- 2014b "Gangeśa on the Meaning of Verbal Suffixes", Sanskrit Studies 3: 178-209.
- 2015 "The 'Discourse on Verbal Suffixes' (*Ākhyātavāda*) of Raghunātha Śiromani (1)", *Nagoya Studies in Indian Culture and Buddhism: Sambhāsā* 32: 35-45.
- 2016a "The 'Discourse on Verbal Roots Suffxes (*Ākhyātavāda*) of Raghunātha Śiromani (2)", *Nagoya Studies in Indian Culture and Buddhism: Sambhāsā* 33: 47-72.
- 2016b "Gangeśa on the Meaning of Verbal Roots (dhātu)", Journal of University Alliance Foundation for Indological Studies: K.H. Potter's Festschrift, vol. 2: 35-50.