

The Proof of the Existence of Time in the Vaiśeṣika School

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1. Introduction In the Vaiśeṣika school, time (*kāla*) is defined as a single, eternal, and all-pervading substance, as is space (*dīś*). According to the theory of the school represented by *Padārthadharmasamgraha* (PDhS), time is not recognized by direct perception. Therefore, in order to confirm the existence of time, Vaiśeṣika scholars must rely on logical reasoning (*anumāna*).¹⁾²⁾ Praśastapāda, the author of PDhS, argued that the existence of time is proved by temporal perceptions. In contrast, the Naiyāyika scholar Bhāsarvajña denies the attributes (*guṇa*) of remoteness (*paratva*) and nearness (*aparatva*) that Praśastapāda utilized to prove the existence of time. Remoteness and nearness are the basis of temporal perspective recognition, that is, the recognition of old and young. Bhāsarvajña stated that remoteness and nearness do not exist, and that the recognition of old and young depends on the duration of time such as a “day.” He also argued that there time can not exist as a single entity that the Vaiśeṣika school envisioned, and that there is only a divided lapse of time. In response, Śrīdhara attempted to refute this argument in his *Nyāyakandalī* (NK), introducing views similar to those of Bhāsarvajña; however, his statement was so concise that it was not adequate as a counterargument. Interestingly, Śrīdhara’s argument was passed on to Udayana. Udayana’s elaborate refutation is a good example of the Vaiśeṣika school refining its theory through dialog with other schools.

2. Arguments in PDhS and NBhūṣ The definition of time in PDhS is as follows:

[The existence of] Time is [indirectly] known from the recognitions such as “alternation of remote and near,” “simultaneity,” “asynchrony,” “slow,” and “fast.” Because there is no other cause [other than *kāla*] for the occurrence of those [recognitions], with regards to the some object, that differ from the previous recognitions, the cause in this case is time. (PDhS, 13.2-4)³⁾

Recognition as evidence for the existence of time is listed here. Of these recognitions, the

alternation of remote and near is a concept peculiar to the Vaiṣeṣika school. First, there are attributes (*guṇa*) called remoteness (*paratva*) and nearness (*aparatva*) representing spatial and temporal perspectives. Of these, the spatial attribute arises from space and represents the perspective of the distance from a certain point. The temporal one arises from time, and represents the ages of the two persons. The alternation of remote and near implies that when a person is spatially more distant from an observer than another by comparison, but younger than the comparison, the observer's recognitions that "the man is separated (in space)" and "the same man is close (in time)" occur. From these recognitions, both spatial remoteness and temporal nearness occur on the younger man at the same time.⁴⁾ When the observer recognizes these two attributes, the observer's recognition that "the man is remote (in space)" and "the same man is near (in time)" occurs. These are special recognitions related to time as well as simultaneity. Therefore, time must exist as a cause for their occurrence. This is Praśastapāda's reasoning.

The concept of remoteness and nearness has been a subject of criticism in posterity. There are two main reasons. The first is the distinction between the recognitions of "remote" and "near" from the recognitions of "being separated" and "being near." Second, it is unnatural to think of spatial or temporal distance, which is a relative concept that depends on the relationship between an observer and a comparison object, as a momentary attribute that exists in the external world. Bhāsarvajña pursued these two issues. He did not agree that the meanings of "remote" and "being separated" are different, and that the former implies recognition of the attribute called remoteness. Instead, he argued that "numerosity of connections of points on the ground from an observer to an object" is the meaning of "spatially remote," and that "born earlier" is the meaning of "temporary remote." He also did not accept with the existence of an attribute called remoteness. In Vaiṣeṣika theory, remoteness and its recognition occur in the following order: ① recognition of "being separated," ② generation of remoteness, and ③ recognition of remoteness. According to Bhāsarvajña, this scheme is illustrated by the following: ① recognition of jar ② generation of pot ③ recognition of pot. Needless to say, jars and pots refer to the same thing. He ironically criticized the Vaiṣeṣika theory for its irrationality like a pot generated by the recognition of a jar. In conclusion, he negated the existence of remoteness and nearness. He also negated the existence of time as a single, eternal, and all-pervading entity. He only accepted a divided lapse of time such as

“moment” (*kṣaṇa*) and “day and night” (*ahorātra*), and stated that the verbal expressions of “remote” and “near” is caused by them.⁵⁾

3. Defense by commentators of PDhS Śrīdhara, a commentator of PDhS, introduced an opinion similar to Bhāsarvajña’s argument as “someone’s opinion” in his *Nyāya-kandālī*.

Someone said that the relationship with the numerosity or exiguousness of the rotation of the sun is the cause of the verbal expressions “remote” and “near” for a young man and an old man, but this is not valid. There is no relationship between the rotation of the sun and the young man or the old man. And if something unrelated is the cause [of the expressions], it ends up with the inconvenient consequence called over-application. (NK, 166.1–3)⁶⁾

Since the rotation of the sun causes the transition between day and night, this opinion appears to be quite similar to Bhāsarvajña’s. Śrīdhara offers a brief counterargument against this. He insisted on the necessity of a relationship between the object of expressions and their causes.⁷⁾ However, it is uncertain what kind of relationship is meant here.

Unlike Śrīdhara, Udayana does not directly introduce an opinion similar to Bhāsarvajña’s, but continues NK’s argument.⁸⁾ Udayana stated that the rotation of the sun and the old man are related by the conjunction between the old man and an all-pervading substance that is qualified by the rotation of the sun. This substance is a noninherent cause of remoteness. However, the all-pervading substances contain not only time, but also space, ether, and self. Of these, why do ether and self not create remoteness in conjunction with the old man? Udayana points out that it is not enough that both he and the sun are connected to the substance by conjunctions. In addition, the old man and the rotation of the sun must approach each other through an intermediary substance that has a special ability. Udayana provides an example of sound produced from a drum. First, there is drum A in a certain place, and when it is connected to a drumstick by conjunction, a sound is produced. At this time, drum A is connected to ether by conjunction, while ether is also connected with drum B. If ether has the unique ability to make the property (*dharma*) of drum A (i.e., conjunction with a drumstick) approaching drum B via its conjunctions with two drums, the sound will also be produced from drum B. However, this is not the case. Therefore, Udayana insisted that there was no such effect in ether. Instead, time is said to have the ability to make the property of a substance like the sun approaching another substance like the old man, but Udayana does not specifically

explain what kind of situation it implies. However, we can infer this to some extent by examining his description. The rotation of the sun, which is a qualifier of the time, divides the essentially singular time into days or seasons that represent the passage of time. As time elapses equally everywhere, the passage of time, such as a day, is also meaningful for the old man who is far from the sun. Thus, time's ability to make the property of the substance approaching another should be considered to be based on isochronism.

4. Conclusion PDhS listed the recognition of “alternation of remote and near” as evidence of the existence of time. In contrast, the Naiyāyika scholar, Bhāsarvajña, stated that remoteness and nearness, which is said to cause the phenomenon of “alternation of remote and near,” is unnecessary, and that time as the single, eternal, and all-pervading substance proved by the phenomenon also does not exist. He insisted that there are only some divided lapses of time, such as a “moment.” A commentator of PDhS, Śrīdhara, cited a statement similar to Bhāsarvajña and objected to it; however, his argument is too concise to refute an opponent perfectly. Following this, another commentator, Udayana, amplified Śrīdhara's argument. He insisted that time is the only substance that can make the rotation of the sun approaching the old man, in whom remoteness arises by this approach. I infer that this argument reflects the characteristics of time, called isochronism.

Notes

1) Exceptionally in the Vaiśeṣika school, Vyomaśiva widely discusses the theory that the existence of time as a substance is known by perception in his *Vyomavatī*. I examined some parts of the argument in Watanabe (2016).

2) Bhaduri (1946, 183–192) is a pioneering study on the proof of the existence of time in Vaiśeṣika school. His work deals with Udayana's *Kiraṇāvalī*, which is the latest of the three major annotations of PDhS, and Vallabha's *Nyāyalīlāvatī*, which is a later text than that. In this paper, we mainly consider the influence of the works before *Kiraṇāvalī* on Udayana's discussion.

3) PDhS, 13.2–4: *kālaḥ parāparavyatikarayaugapadyāyugapadyacirakṣiprapratyayaliṅgaḥ / teṣāṃ viṣayeṣu pūrvapratyayavilakṣaṇānām utpattāv anyanimittābhāvād yad atra nimittaṃ sa kālaḥ /*

4) Miyamoto (2008, 42) translates *parāparavyatikara* as “before,” “after,” and “mixed.” He explains that “mixed” means “B is before C, but after A.” However, as I pointed out in Watanabe (2015, 23), it seems to be better to interpret *parāparavyatikara* as “reversal of temporal and spatial perspectives” according to some later texts such as *Nyāyamañjarī*.

5) Vyomaśiva's *Vyomavatī*, that is said to precede NBhūṣ, also presents the relevant statement as a counterargument. The opponent states that the process of arising remoteness does not require time because a remoteness arises only from the perception of “being temporarily separated” based on the number of revolutions of the sun (i.e., the number of days elapsed from one's birth). This statement does not perfectly accord with Bhāsarvajña's for the reason that Bhāsarvajña does not accept

remoteness itself. Though I can not decide the causal relationship between the two arguments, there seems to be some similarities. (cf. Vy. 2.121.6–17)

6) NK, 166.1–3: ādityaparivartanālpīyastvabhūyastvanibandhano yuvasthavirayor parāparavya-vahāra ity eke, tad ayuktam, ādityaparivartanasya yuvasthavirayoḥ sambandhābhāvād asambaddhasya nimittatve cātiprasaṅgāt /

7) Immediately after this sentence, Śrīdhara cites the view that simultaneity is “co-occurrence” (*sahabhāva*) as the opinion of other people. According to Siderits and Katsura (2013, 68), this view is found in *Mūlamadhyamakakārikā*. Therefore, the other people are likely to mean Madhyamaka. (cf. NK, 166.4–7)

8) Cf. Ki, 76.12–77.10.

Abbreviations

- Ki *The Praśastapāda Bhāṣya: With the Commentary Kiraṇāvalī of Udayanācārya*. Ed. J. S. Jetly. Geakwad’s Oriental Series, no. 154. Vadodara: Oriental Institute, 1991.
- NBhūṣ *Nyāyabhūṣaṇa*. Ed. Svāmī Yogīndrānanda. Varanasi: Saḍdarśana Prakāśana Pratiṣṭhānam, 1968.
- NK *Nyāyakandalī: Being a Commentary on Praśastapādabhāṣya with Three Sub-Commentaries*. Ed. J. S. Jetly and Vasant G. Parikh. Geakwad’s Oriental Series, no. 174. Vadodara: Oriental Institute, 1991.
- PDhS *Word Index to the Praśastapādabhāṣya: A Complete Word Index to the Printed Editions of the Praśastapādabhāṣya*. Ed. Johannes Bronkhorst and Yves Ramseier. Delhi: Motilal Banarsidass Publishers, 1994.
- Vy *Vyomavatī of Vyomaśivācārya*. Part 1 and 2. Ed. Gaurinath Sastri. M. M. Śivakumāraśāstri Granthamālā, vol. 6. Varanasi: Sampurnanand Sanskrit University, 1983–1984.

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