

## The Concept of Time and its relationship to change in Kundakunda's philosophy

Ana Bajzelj Bevelacqua\*

---

---

The following article deals with the topic of time in the broader framework of Kundakunda's ontology of change<sup>1</sup>. Kundakunda was chosen as a representative of the Jaina philosophers who pronounced time as a substance that occasions change in other substances. After an introduction into the Jaina ontology of dynamic realism, various aspects of Kundakunda's view on time are laid out. Several problems, proposed solutions and directions for further research are considered.

The following paper sets out to study a small section of the broader topic of change (*bheda* or *pariṇāma*) in Jaina philosophy, this area of interest being the notion of time (*kāla*) in relation to change in Kundakunda's philosophy. However, the study is presented in a broader context of Jaina philosophical proposals that seek to answer the question of time. By nature this will include various other views on the topic addressed. There are four main reasons why *kāla* was chosen as the central topic of concern of this short academic research. Firstly, the study of Jaina conceptions of time, being often somewhat problematic, as will be shown below, exposes many intriguing philosophical quandaries. Secondly, the topic has been marginalized, in Jaina study circles as well as in comparative or contrastive studies of Indian philosophies in general. Thirdly, it is precisely theories of time that illustrate how philosophers have tried to understand the universal experience of change. Solutions to queries that originate from observing change<sup>2</sup> always interact with the corresponding ontology of time which usually fits into a broader philosophical system of a certain

---

\* Department of Philosophy, University of Ljubljana

tradition. Jaina post-canonical texts often refer to *kāla* as the underlying foundation of change. Therefore, the concept of time proves to be an essential foundation for the Jaina dynamic ontology, since modification is - according to many Jaina philosophers - occasioned by it. Jains found themselves divided concerning the question of whether time exists independently of other substances or not. Kundakunda was chosen for this paper as a notable representative of the former view on time. Lastly, Jainism radicalized the notion of change by applying it to all the substances, including time itself. By doing so, despite it leading to several problems, Jaina philosophy distinguished itself from other Indian philosophical systems.

The reason why Jaina philosophers in many cases accepted a robust theory of time is their presupposed ontology of change, i.e. the fact that they propounded change as being as equally real as identity. It is upon this underlying foundation that this paper rests. This idea is briefly introduced before Kundakunda's theory of time is presented. Jainism introduces an approach to reality that can be described as dynamic realism. It proposes an identity-in-difference model of reality that coordinates rather than subordinates its essential elements of permanence (*dhrauvya*, *dhruvatva* or *anvaya*) and change (*bheda* or *pariyāya*), meaning that neither identity nor difference prevails in their understanding of reality. Both elements of being<sup>3</sup> and becoming<sup>4</sup> are interrelated and form a coordinated relationship. Kundakunda stated that the substances "though manifesting themselves diversely, maintain their permanency." (*Pañcāstikāyasāra*-6). Similarly also the "Six *Dravyas* though mutually interpenetrating, and accommodating one another, and though getting mixed up in view of occupying the same space, yet they always maintain their identical nature without losing their respective qualities, general as well as special" (*Pañcāstikāyasāra*-7).

The *gāthā* 8 of *Pañcāstikāyasāra* in which Kundakunda introduced the basic elements of reality is one of the most significant *gāthās* for the understanding of Jaina ontology as an identity-in-difference system of reality (*arthasāmānya*). "Substance is one (as a class). It is

the inherent existence of all things. It manifests itself through diverse forms. It undergoes infinite modifications. It has the triple characteristics of creation, destruction and permanence. It also has the antithetical qualities, that is, it may be described by the opposites." (*Pañcāstikāyasāra*-8) The coordinated relationship of permanence and impermanence is implicit in the grammatical structure of the *gāthā*. The word compound that introduces elements of reality (*bhaṅgotpadadhrauvyātmika*) does not subordinate either concept. "That which, whilst it does not forsake its innate nature, is connected with origination, annihilation and stability and which possesses qualities and modifications, they call a substance." (*Pravacanasāra*- II.2)

Kundakunda insisted that identity cannot be the only real and developed many arguments against this presumption. This began with the basic knowledge of experiential reality which consistently disproves any dominating ontological interpretation. The above mentioned *gāthās* introduce reality as many-sided and suggest *anekāntavāda*, the philosophy of manifold aspects, as an ontological stand in the light of which difference is never subordinated to identity. Reality is one and many. Therefore, substances or *dravyas* incorporate identity as well as difference. The word *dravya* stems from the root *dru*, meaning "to flow" and the very etymology of the noun implies the existential persistence in the context of perpetual change, just as water persists in the river flow. The *dhrauvya* element of a substance is the element of identity, generality, permanence, persistence, continuous existence (*sthiti*)<sup>5</sup>. *Dravyas* are furthermore identified as having intrinsic/essential qualities or attributes (*guṇa*) and extrinsic/accidental qualities or modes (*pariyāya* or *bhāva*), the difference being that intrinsic qualities (*guṇas*) are constant and co-exist with the substances whereas extrinsic qualities, (*pariyāyas*) are temporal in character and are constantly changing in a momentary succession. Therefore, in a *dravya* persistence is always accompanied by origination (*utpāda*) and disappearance/destruction (*vyaya* or *bhaṅga*) and these two happen in the extrinsic attributes or modes. "Whatever has

substantiality, has the dialectical triad of birth, death and permanence, and is the substratum of qualities and modes is *Dravya*." (*Pañcāstikāyasāra*-10)

The extrinsic attributes or *paryāyas* in fact exist in both the *dravyas*, i.e. substances, and the *guṇas*, i.e. the intrinsic qualities of *dravyas*. Furthermore, is important to note that Āgamas actually refer to both *guṇas* and *paryāyas* as *paryāyas*. Therefore, *dravya*, *guṇa* and *paryāya* are not three different and completely separate entities but they are rather three objective aspects of the same reality, three elements that characterize one reality<sup>6</sup>.

As long as the substance remains, so long the qualities will also remain and without them the substance would cease to be the substance that it is and *vice versa*. "There is no coming-into-existence without destruction; there is no destruction devoid of origination; neither origination nor destruction can truly be without stability." (*Pravacanasāra*- II.8)

If we take the example of the soul (*jīva*) as a *dravya*, consciousness is one of its intrinsic qualities, i.e. *guṇas*, and different forms of sentiency (hellish, animal, human or divine) are its extrinsic qualities, i.e. *paryāyas*. In the case of matter (*pudgala*), colour is one of its intrinsic qualities and yellow is one of its extrinsic qualities. According to the Jaina ontological theory there is an infinite amount of substances, however, they can be grouped into five<sup>7</sup> or six categories. They are soul (*jīva*), matter (*pudgala*), medium of motion (dharma), medium of rest (adharma), space (*ākāśa*) and time (*kāla*)<sup>8</sup>, (*Pañcāstikāyasāra*-6). Of these, the latter five belong to the category of *ajīva*.

The first five (all substances apart from *kāla*) are generally referred to as *astikāyas* (*atthikāyas*). "*Asti*" or "*atthi*" means "exists" whereas "*kāya*" means "a body", "an extensive magnitude" or "a conglomerate". An *astikāya* is therefore a substance that firstly, exists and secondly, has a bodily extension, so it is an existent that has an extensive magnitude, an ability to occupy space<sup>10</sup>. As a conglomerate<sup>9</sup> an *astikāya* consists of small indivisible units, namely *pradeśas*. "Extensive substances occupy many spatial units,

as mentioned in the Jaina scriptures." (*Niyamasāra*- 34). These spatial units are not separate and can therefore be combined. The fact that an *astikāya* is extensive means that its particles are not units of exclusively one series but are at the same time units of another or multiple series of elements. (Kundakunda, 2001, xxxix). This gives *astikāyas* a multiple dimension (*tiryakpracaya*). The *astikāyas* are eternal and fill all the three worlds, *ūrdhva* (upper), *madhyama* (middle) and *adhah* (lower).

Kundakunda does not consider time to be an extensive substance and therefore does not categorize it under *astikāyas* for reasons that will be further clarified below. "Souls, material-aggregates, *dharma*, *adharma* and space possess innumerable infinitesimal-spacial-units; but in time these are absent." (*Pravacanasāra*- II.43) "Excepting Time, (the other five) of these substances (are known) as 'Extensive substances' (*Astikāya*)" (*Niyamasāra* -34).

If we look at the Āgamic works<sup>11</sup>, the *Āvaśyaka-cūrṇi* refers to three different views on time: firstly, time as a quality;<sup>12</sup> secondly, time as modes of substances; and thirdly, time as an independent substance. The Digambaras accept *kāla* as an independent substance whereas the Śvetāmbara tradition remains divided regarding the topic. The Śvetāmbaras that do not agree with the substantialist theory of time understand time as a modal modification of the other five substances, meaning that time is not different from the changing object and does not have an independent existence<sup>13</sup>. According to this view the changes that substances undergo originate from substances themselves. Therefore modification is inherent to a substance and does not need an independent underlying support to take place.

Kundakunda introduced the substance of time and its function in various works. *Pravacanasāra* (II. 42) states that the "quality of time is the rolling on (of events) (*vartana*)." It is similarly said in the *Niyamasāra*. "That by the help of which, all substances, soul etc., are altered in their own modifications, is 'Time'. The four substances, the medium of motion, (the medium of rest, space and time) have (only) their own natural attributes and modifications."

(*Niyamasāra* 33) It is likewise said in the *gāthā* 23 of *Pañcāstikāya-sāra*: "That on account of which these existences, the *Jīvas*, material bodies, the *Dharma* and *Adharma* undergo changes is called real time or *Kāla-Dravya*." The description continues in the next *gāthā*. "What is without the five colours, and the five tastes, without the two smells, and eight contacts; what is neither heavy nor light and has the character of introducing changes in other things is time" (*Pañcāstikāyasāra* 24). Time is thus characterized as immaterial and presented as a support for modal modifications that happen in substances<sup>14</sup>.

Furthermore, the above mentioned *gāthā* 23 introduces not merely the notion of time but describes time as being real. In fact many Jaina philosophers that accepted time as a substance distinguished between two levels of time, this being real on the one hand and conventional on the other<sup>15</sup>. It must be immediately pointed out, though, that Jainism has not proposed a dualist theory of time and this theory of two levels of time seems to be a way of trying to subsume various aspects and experiences of time under a single temporal model.

Initially we will expand the idea of real time. The real, ideal, ascertained, elementary, underlying or absolute time (*niścaya-kāla*, *mukhya-kāla*, *paramārtha-kāla* or *dravya kāla*) is considered to be an unconditional, independent substance. The word *niścaya* refers to a viewpoint that considers entities from the perspective of a *dravya*. The function of *niścaya-kāla* is, as has been implied above, to allow change, to support the origination and decay, the oldness and newness of substances<sup>16</sup> brought about through the changing succession of *pariyāyas*<sup>17</sup>. In that sense it can be said that real time is potent and acts as an assisting agent in modal changes of substances despite the fact that it is technically a non-active substance. *Kāla* is therefore some sort of an efficient, auxiliary or instrumental cause of modal modifications (*pariṇāma*). This instrumental account for change was perhaps the main reason for Jains to introduce time as a substance; the underlying logic being that if change is real, then time also must be real and not only conventional. However, Chatterjee

points out that, in fact, *kāla* is a causal condition of a special kind. It is an instrumental cause of change, however, it is a very indirect and passive instrumental cause, like a potter's wheel is an instrumental cause of a pot. (Chatterjee, 1954, 102) Time merely acts as foundation for change whereas it cannot cause a thing to bear change.

It has already been pointed out that Kundakunda conceived time as a non-extensive substance (*akāya-dravya*) which does not contain *pradeśas*. "The infinitesimal-particles contained by substances are either one, two, many, or transcending number, or endless (in number). But in the case of time the moments are so." (*Pañcāstikāyasāra*-49) However, that does not mean it is devoid of elements. On the contrary, Kundakunda's notion of time as an independent substance is atomic. "(Time-points) which are packed full in the universe, are (called the real 'Time')." (*Niyamasāra* 32) This sort of a time theory seems to be an attempt to try to fit an ontology of time in an otherwise spatially understood reality. For a broader picture of the Jaina cosmos reveals the following basic elements: instants as the smallest units of *kāla*, space-points (*pradeśas*) as the smallest units of *ākāśa* and atoms (*paramāṇus*) as the smallest units of *pudgala*.

The time atoms that Kundakunda introduced are known as *kalāṇus* or instants<sup>18</sup> each one of which is a substance. They are simple, discrete, dimensionless and eternal. They do not possess physical qualities like material atoms. Consequently we cannot perceive them or measure them. They also generally differ from the particles of *astikāyas*. Since they are motionless, they occupy one space-point only. Therefore they are separated and distinct and can never be combined. Consequently, they do not form aggregates like material atoms, nor do they unite into a unified whole like space-points. Therefore time has no body or spatial extension (*tiryakpracaya*). "Time, space, *dharma* and *adharmā*, matter and *jīva*: these things are called *dravyas*. Of these to time alone there is no *kāyatva* (body-ness)" (*Pañcāstikāyasāra*-102). Instead, particles of time are elements of one series only which is a continuous one-dimensional

(*ūrdhvapracaya*) linear sequence of distinct units. Since this sequence consists of discrete, independent units that are eternal, it is itself eternal, and notions of past, present and future do not pertain to it. To conclude, Kundakunda distinguished between two different conglomerations, a multidimensional or transverse on the one hand and a vertical on the other. The former one does not apply to the substance of time, as *kāla* possesses one *pradeśa* only whereas the other substances have conglomerations in multiple directions, including the vertical. To further embellish on this point let us look at the Amṛtacandra's commentary to *Pravacanasāra* II.49. "The vertical conglomeration is not excluded from any substance, since the occurrence of all substances, in its connection with the three aspects (*koṭī*) (of time), possesses parts. But there is this difference: the vertical conglomeration of the substances other (than time) is a conglomeration whose occurrence is characterized by the time-moments; but the vertical conglomeration of time is a conglomeration of the time-moments themselves. For the occurrence of the other substances, being something else than the moment (*samaya*), has qualification by the moment; but the occurrence of time, being identical with the moment, has not that." (Kundakunda, 1935, 116)

As has been stated, one atom of time is located in each space-point of the cosmos and since spatial points in the universe are innumerable, atoms of time are also innumerable, filling the entire cosmos. Hence for Kundakunda time exists in the whole of *lokākāśa*. "Space is in the universe and in the beyond; *dharma*, *adharmā* are stretched over the world; so is time, in dependence upon the remaining substances; these remaining substances are the souls and material-components." (*Pravacanasāra* II.44) The "dependence" refers to modal modifications of time that will be further examined below. However *kālāṇus* do not exist in the *alokākāśa*. This results in a problem when regarding *alokākāśa* as a substance. Since time occasions change, how can *alokākāśa* be considered a substance if time does not exist there and therefore does not allow change which is one of the elements defining substance<sup>19</sup>?

A further problem, which is one of the main philosophical arguments against the concept of a real time, is the seeming contradiction between temporal continuity and infinity on the one hand and the idea of discrete time units (*kalāṇus*) on the other. This is a problem that pertains to space and matter as well since they all also consist of individual units. However, it seems that the paradox is somewhat greater when it comes to time since the Jaina theory of substances specifically points out that *kalāṇus* are discrete and therefore, can not even be combined<sup>20</sup> unlike other particles. Chakravarti Nayanar points to the contemporary solutions to the problem by Cantor, Peano, Frege etc, (Kundakunda, 2001, 86) which will not be addressed here due to the limited scope of this article.

Another problem refers to the modifications of modes, which occur in *kalāṇus* as substances since *kāla* as a substance must by definition undergo change like all other substances. This question is of immense importance and is touched upon in the above-mentioned *gāthā* 116 of the *Pravacanasāra*. Primary time has been defined as a support that occasions change in other substances in the Digambara as well as partly in the Śvetāmbara tradition. As it is itself a substance and therefore by definition also undergoes change via the modification of its modes, there seems to be a missing factor, this being an underlying support for change that occurs in time as a substance and allows the modification of its own *paryāyas*. However, the solution is not that straightforward as setting another foundation would again need its own support and so on into infinity. Therefore, some Jaina *ācāryas* have simply discarded the concept of primary time due to its problematic nature and denied it the status of a substance, describing it as a mode of other substances. A different solution has been proposed by some Digambara *ācāryas* positing that changing modes of time are not discrete and that *kāla* in fact has temporal extension through which it pervades its modes. This proposal is based on the idea that time-atoms are unlike other substances since they do not need a support that occasions their modal modifications. Instead they generate their own changes.

However, the same logic could be applied to other substances. (Shah, 2001, 1292)

Kundakunda responded to this problem with a proposition that in the case of a time-atom, origination, permanence and destruction are simultaneous and therefore happen at the same moment, this being an occurrence part of a time-object<sup>21</sup>. "In one moment exist the things (*arthas*) which are called origination, permanence and disappearance of time (*samaya*); at all times, therefore, this forms the existence (*sadbhāva*) of the time-atom." (*Pravacanasāra* II.51) Similarly, "The substance is inhered in at one and the same moment (*samaya*) by objects (i.e. objective relations, *arthas*), called its arising, remaining and annihilation. Therefore, this threefold set is the substance." (*Pravacanasāra* II.10) So change theoretically does not require temporal extension. Moreover, *Pravacanasāra* reads: "If origination and annihilation within one moment are found in any *samaya*, then that *samaya* (time-object) stands fast in its own nature." (*Pravacanasāra* II.50) Therefore it is precisely the fact that origination as well as annihilation belong to the occurrence part of the time-object that an existence of a time-object is inferred. In the commentary *Tattva-dīpikā*, Amṛtacandra Sūri expands on this point. "The moment, indeed, is the occurrence-part of the time-object (*samaya-padārtha*); in this moment we necessarily find the origination and annihilation of something; because, as arising though the traversing (*vyatipāta*) of a material-atom, it is preceded by a cause. Should these two belong to the occurrence-part, does this then happen simultaneously or successively? If simultaneously, there is no simultaneity, because two contradictory qualities of one thing cannot occur together. And, if successively, there is no succession, since there is no division (*vibhaga*) in the occurrence-part, owing to its fineness (*sūkṣmatva*). Therefore, we must necessarily search for something that has the occurrence (*vṛttimat*); and this is the time-object." (Kundakunda, 1935, 117) With the application of multiple viewpoints<sup>22</sup>, simultaneity of origination and annihilation is possible<sup>23</sup>. "If thus origination and annihilation occur in the one occurrence-part, how is there absence of identity in the

time-object? For, even though, as qualified by the precedent and subsequent occurrence-parts, it simultaneously acquires annihilation and origination, why should it not possess permanence owing to its not being annihilated or produced in innate nature? So we have proved that origination, annihilation and permanence belong to the time-object in one occurrence-part." (*Ibid.*)

In order to clarify the logic behind this argument, it is necessary to expound Kundakunda's understanding of relative time. It is also referred to as conventional, apparent, derivative, secondary or relative time (*vyavahāra-kāla*)<sup>24</sup>. It is related to the third *naya*, namely the *vyavahāra-naya*<sup>25</sup> (of the seven *mūla-nayas*), which refers to the empirical, everyday knowledge of a particular present object and in the framework of which entities are considered from the perspective of *paryāyas*.

*Pañcāstikāyasāra* explains: "Relative time is determined by changes or motions of things. These changes themselves are the effect of time absolute. The former time is ephemeral (having beginning and end). The latter is eternal, such are the characteristics of the two" (*Pañcāstikāyasāra*- 100). The practical, secondary time is based on the absolute time and is not eternal. It has a beginning and an end. In Kundakunda's understanding of time, relative time is in fact modification of the modes (which are infinite in number) of time-atoms, this being modal changes of real time (*vyāvahārika paryāyas*).

The recently quoted *gāthā* additionally mentions that relative time is determined by changes or motions of things. It refers to different divisions and periods of *vyavāhara-kāla*, a long list of which is put forward in *Pañcāstikāyasāra*- 25. "*Samaya, Nimiṣa, Kaṇha, Kāla, Nali*, then (*Muhūrta*), day, month, season, *Ayana*, and, *Sarivatsara* and other periods of Time are all *Vyavāhāra* or conventional time. These are determined by other objects." All these periods divide the otherwise undivided series of *kālāṇus* of real time. These units of measurement are therefore not absolute, intrinsic, and independent but are conditioned (*parayatta*) by the external factors, i.e. changes in the physical world, like movements of the astral world (celestial

bodies) etc. In order to work with these units of time we must necessarily rely on convention, which takes as its foundation different motions and changes in the world, such as the movements of the sun, the moon, the wink of an eye, etc. Relative time is then a modal modification of the real time. In that sense it is as real as the permanent element of the substance of time and thus participates in its independent existence. Despite that it is said that *vyavahāra kāla* is determined by other objects or dependent on them (*parayatta*). On account of this double perspective, Nayanar proposed a phrase "somewhat conditioned" (*kathañcit parayatta*) to describe conventional time.

Furthermore, the changes and motions of things that determine and measure relative time are, as has been shown above, themselves occasioned by primary time. To sum up, on the one hand we have real time and on the other hand the relative time as its modal modification. The latter is measured by conventions or standards that are based on the motions and changes of objects in the world. "Duration of time either long or short is impossible apart from a standard of measurement. The standard of measurement also has no meaning apart from material objects. Hence conventional or relative time is brought about by extraneous conditions" (*Pañcāstikāyasāra* 26).

Let us examine in more detail the individual units of conventional time that were put forward above. The smallest unit of conventional time that is measurable is called a *samaya*<sup>26</sup>, translated as a moment. Innumerable *samayas* compose the next measuring unit, a *nimiṣa*, fifteen of which compose a *kaṇha*, thirty of which compose a *kaṇa*, a little over twenty of which compose a *nali*, two of which compose a *muhūrta*, thirty of which compose day and night, thirty days compose a month, two months compose a season, three seasons half a year or *ayana*, and two *ayanas* compose a year or *saṁvatsara*.

The definition of the smallest unit or a *samaya* is the time it takes an atom to move from one space-point to the nearest space-point<sup>27</sup>. "The moment (*samaya*) lacks infinitesimal-spacial-units; it occurs (*vartate*), while a material substance (*dravya-jata*) which covers only

one infinitesimal-space-unit traverses an infinitesimal-unit of the space-substance" (*Pravacanasāra* II.46). "A moment (*samaya*) is what is equal to the (movement) of (an ultimate material-atom) traversing a particle. The object (*artha*) which is before and after that (moment) is time. The moment is 'originated' (*utpanna*) and subject to annihilation." (*Pravacanasāra* II.47) As the motion of a material atom is present throughout the entire *loka*, the concept of *samaya* pertains to the whole of *loka* as well. However, Shah points out that the divisions of time are limited to the abode of human beings. (Shah, 2001, 1292) The cosmographical border beyond which time cannot be measured, as there are no planetary movements (there being no planets, suns, stars etc.), is called *samaya-khetta* (Viy 164b). In that sense it can be said that outside of the human realm, time stands still. However, this only refers to relative, secondary time whereas primary time as a substance exists in the entire *loka*. Moreover, if time has modifications in the entire *loka* this means that relative time must also be everywhere. Therefore, the idea of immeasurable time simply refers to the impossibility of the construction of a human measuring convention used to divide relative time. This is due to the absence of planetary movements. If there is a difference between relative time as an actual modification of a substance and a perceiver's convention to measure it, then the simultaneous appreciation of the impossibility of temporal measurement and the existence of relative time is not paradoxical. One of the most interesting premises for further research inspired by the early Jaina definitions of time, like Kundakunda's, is the application of the definition of a substance as a changing entity to *kāla*. The theory of *kāla* being, like the other five substances, subject to change, is perhaps a pioneering theory in Indian philosophy. The Nyāya and Vaiśeṣika schools, for example, also accepted time as a substance, but in their ontologies *kāla* is immutable, comparable to god, space and other eternal non-changing substances. Jainism on the other hand retains a formal relationship between all the substances, be it a soul (even liberated), matter or time, as they share a similar ontological structure consisting of elements of identity and

change. With this distinction Jainism retains its uniqueness within Indian philosophical understandings of time.

References:

1. The author would like to thank the organizers of the ISSJS for making the publication of this paper and the research leading up to it during the ISSJS 2010 possible. Newly gained insights will be incorporated into studies carried out by the research project *Philosophical Relevance of Death and Dying* funded by the Ministry of Higher Education, Science and Technology of the Republic of Slovenia.
2. Is time independent of a changing entity? Is time independent of the observer? Does only present time exist? Is there continuity? Is time finite or infinite?
3. Y. J. Padmarajah numbers several names that are used to refer to the identity component. Beside those already introduced, several others should be mentioned: substratum, non-difference, continuity, continuance, unity, oneness, the continuant, statism, endurance, persistence. (Padmarajah, 1963, 127, f.n. 2)
4. Other terms that are sometimes used for change are: modification, discreetness, plurality, manyness, manifoldness, the occurrent and dynamism. *Ibid.*
5. Nathmal Tatia suggests that it is better to use the term persistency rather than staticity for the Jaina concept of substance, since that allows a distinction between a persistent flow of the former and the inability to change of the latter. (Tatia, 1951, 24)
6. Let us take an example of a definition of the existent as “*sat dravyalakṣaṇam*” by Ācārya Umāsvāti (Umāsvāmi) in *Tattvārtha sūtra* V.29. The commentaries imply two different interpretations. Firstly, if the compound is taken as a *tatpuruṣa*, the meaning indicates that existence is a characteristic of *dravya* (*saḍ eva dravyasya lakṣaṇam*). Secondly, if the compound is taken as a *bahuvrīhi*, the meaning implies that existence has a characteristic that is substance (*yasya dravyam lakṣaṇam tad dravyalakṣaṇam. tasmāt sat lakṣaṇam dravyam*). A. Chakravarti Nayanar’s commentary to Kundakunda’s *Pañcāsatikāyasāra*- 9 gives an important note regarding the topic. He recognizes that Kundakunda distinguished between *sattā* and *dravya*, however he also attributed the same characteristics to them and stated that they are in fact not different. “*Sattā* or substance is distinguished from *Dravya*. *Dravya*

means that which flows or changes. While changing through its different qualities and modifications its essential nature persists. But such development is also the characteristic of a substance. Hence according to Jaina attitude *Dravya* is not entirely different from *Sattā* or substance.” Drawing parallels with Hegel’s philosophy, the commentator adds “*Dravya* refers to facts of experience. *Sattā* refers to existence or reality. One may be abstracted from the other but it is not different from the other as a fact.” (Kundakunda, 2001- 6). For convenience this paper refers to *dravya* as a substance. See also: *Pravacanasāra* II.17-18.

7. Some Śvetāmbara Jains do not accept time as a substance.
8. The Prakrit names for the substances are *jīva*, *poggala*, *dhamma*, *adhamma*, *āgāsa* and *kāla*.
9. Walther Schubring translated *atthikāya* as a “mass of all that is”. (Schubring, 1962, 126)
10. *Jīva* might seem like a problematic substance to fit this category. A. Chakravarti Nayanar in a commentary to *Pañcāstikāyasāra* explains that the “soul is also considered to be an *Astikāya* because of its organic nature. *Jīva* exists as an organism and as such it is related to body and hence the spatial quality.” (Kundakunda, 2001, 3). Chatterjee similarly states that: “Though [the soul] it has no form (*mūrti*), it acquires like a light the size and form of the body wherein it lives. It is in this sense that a *jīva*, though formless, is said to occupy space or possess extension.” (Chatterjee, 1954, 95). Naturally this leads to the question of whether a liberated soul (*siddha-jīva*) can still be considered an *astikāya*.
11. The canonical texts (e.g *Bhag.* 201) refer to time as *addhā-kāla* (the eternal time), listed alongside the civil time measure, the amount of life-time and the time of death.
12. Nagin J. Shah states that he could not find any references to such a view in Jaina literature. (Shah, 2001, 1289)
13. One of the arguments for the independent existence of time states that if *kāla* is to be rejected as an independent substance, the same logic would also discredit *dharma* and *adharmā* as independent substances as they perform as efficient causes (for motion and rest). However, it can be argued that motion and rest are unlike time as they are only temporary and it is possible to observe the transitions between the two which implies an underlying support for motion and inertia. Conversely, modal changes that time is supposed to occasion are eternal and have no beginning. Therefore there is no

- reason to introduce a new causal substance for it. (Shah, 2001, 1290)
14. “The perduration is defined as the assisting cause in the transformation of modes of the various realities.” (Jnanmati Mataji, 2007, 137).
  15. See also: “*Kāla* is of two kinds: namely primary and practical.” (*Tattvārtha-sūtra*-IV.14)
  16. Additional to the characterization of time as a substratum for change, it should be considered as a support for identity as well, since duration and continuation of an entity also presume a temporal momentary succession.
  17. See also: “*Kāla* has the functions of “setting in motion” (*vartanā*), “change” (*pariṇāma*), “motion” (*kriyā*), and “the before-and-after” (*paratvāparatve*)” (*Tattvārtha-sūtra* 5.22).
  18. Barend Faddegon translated *kālāṇu* as a time-stream which gives it a different connotation. (Kundakunda, 1935, 117, f.n. 1)
  19. The commentary to *Tattvārtha-sūtra* offers an explanation though, positing an argument that *ākāśa* as a substance is one indivisible continuum. “Therefore the transformation going on in cosmos due to the existence of time there should be considered as that in transcosmos also.” (*Tattvārtha-sūtra* V.9.5)
  20. For a further illustration of the discreteness of time-units see *Dravyasaṃgraha* 22: “All those which in each and every space point of the world space remain one by one (i.e. distinct) like a heap of jewels, (are) atoms of time. They are innumerable substances.”
  21. It must be noted that *Pravacanasāra* sometimes uses the expressions *kāla* and *samaya* interchangeably.
  22. See also: “Every substance is, according as one chooses the point-of-view-of-modification (*pariyāyārthikena*) or the point-of-view-of-substance (*dravyārthikena*), other and not other; for during a certain time it possesses a certain nature.” (*Pravacanasāra* II.22)
  23. that same which,  
in regard to something, which has occurrence  
is, in its occurrence-part,  
as qualified by that occurrence-part, origination  
is for the same object which has occurrence,  
in its occurrence-part,  
as particularized by the precedent occurrence-part, annihilation.  
(Kundakunda, 1935, 117)
  24. Prakrit: *vavahāra*. The term *vyavahāra* is otherwise older and does not necessarily appear in a pair with *nīścaya*.

25. For a detailed study on the terms *nīścaya* and *vyavahāra*, see: Johnson, 1995.
26. A *samaya* is cognizable only to an omniscient being.
27. It is important to point out here the difference between modal (*paryāya*) change and activity (*kriyā*), the former being origination and decay and the latter movement from one space-point to the other.

### **Bibliography:**

1. Kundakunda, *Pañcāstikāyasāra*. Translated and edited by A. Chakravarti Nayanar, New Delhi: Bharatiya Jnanpith, 2001.
2. *Samayasāra*, Translated and edited by A. Chakravarti. Benares: Bharatiya Jnanapitha Kashi, 1950.
3. *Niyamasāra*. Translated by Uggar Sain, New Delhi: Bharatiya Jnanpith, 2006. (Ns)
4. The *Pravacana-sāra* of Kundakunda together with the commentary, *Tattva-dīpikā*, by Amṛtacandra Sūri. Translated by Barend Faddegon, Cambridge: Cambridge University Press, 1935. (Ps)
5. Ācārya Nemicaṇḍra, *Dravyasaṅgraha*, Translated by Nalini Balbir, Mumbai: Hindi Granth Karyalay, 2010.
6. Ācārya Umāswāmi, *Tattvārthasūtra*, in *The Key to Reality*. Translated and edited by Shugan C. Jain. Hastinapur: Meerut, Digambara Jaina Triloka Śodha Sansthāna, 2010. (Ts)
7. Balslev, A. N. *A Study of Time in Indian Philosophy*, Delhi: Motilal Banarsidass, 2009.
8. Chatterjee, S. and Datta, D. *An Introduction to Indian Philosophy*. Calcutta: Calcutta University Press, 1954.
9. Emmrich, C. "How many times? Monism and Pluralism in Early Jaina Temporal Description." *Essays in Jaina Philosophy and Religion*. Edited by Piotr Balcerowicz. Delhi: Motilal Banarsidass, 2003.
10. Jaini, P. S., *The Jaina Path of Purification*, Delhi: Motilal Banarsidass, 2001.
11. Johnson, W. J., *Harmless Souls*. Delhi: Motilal Banarsidass, 1995.
12. Padmarajah, Y. J., *A Comparative Study of the Jaina Theories of Reality and Knowledge*, Bombay: Jain Sahitya Vikas Mandal, 1963.
13. Schubring, W. *The Doctrine of the Jainas*. Translated by Wolfgang Beurlen. Delhi: Motilal Banarsidass, 1962.
14. Shah, N. J. "Conception of Space and Time," *Encyclopedia of Jainism*, Edited by Nagendra Kr. Singh, Vol. 5. New Delhi: Anmol

Publications Pvt. Ltd., 2001.

15. Sri Jnanamati Mataji, *Jaina Bharati*, Hastinapura: Digambara Jaina Institute of Cosmographic Research, 2007.
16. Tatia, Nathmal, *Studies in Jaina Philosophy*. Calcutta: The Modern Art Press, 1951.
17. *Viyāhapaṇṇatti (Bhagavaī)*. Edited by Jozef Deleu. Delhi: Motilal Banarsidass, 1996.

\*