The wheel of time: How abstract concepts emerge (a study based on early Sanskrit texts)

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The aim of the paper is to show how conceptual metonymy, metaphor and blending, as discussed in cognitive linguistics, can be used in the investigation on the beginning of abstraction in philosophical thinking. The analysis is based on selected stanzas from the *Rgveda* (ca. 13^{th} BC), the *Atharvaveda* (ca. $10-9^{th}$ BC) and the *Mahābhārata* (ca. 4^{th} BC - 4^{th} AD) composed in Sanskrit. I discuss how the notion of *riding in a chariot*, used in the earliest texts for expressing ontological, epistemological and ritual issues, is transformed into an abstract concept of the *wheel* to express the concept of time. The use of cognitive models allows showing the conscious and rational nature of this transformation performed by the early Indian thinkers, and thus qualifies as a form of philosophy.

Keywords: conceptual metaphor, conceptual metonymy, conceptual blending, abstract concepts, Indian philosophy, time, oral literature

1. Introduction

Lakoff and Johnson (1999) have argued that many abstract concepts of European philosophy are motivated by metaphors, which, in turn, emerge from embodied experience (for a more detailed discussion on *embodiment* see Zlatev, 1997, 2007 and Kimmel, 2013). The two main authors of conceptual metaphor theory (CMT) provide analyses of concepts such as *time*, *causality*, *mind*, *self* and *morality* on the basis of everyday language, as well as on philosophical texts. On this basis, Lakoff and Johnson have claimed that those concepts are mostly metaphorical and conceived in terms of simple frames formed in our interaction with the world and society, showing how much a metaphysical system may depends on (mostly unconscious) assumptions about the world and conceptualized in metaphorical frames.

As a scholar of ancient Indian thinking, I was surprised to find the same kind of metaphorical processes in the history of the ancient Indian thought (Jurewicz, 2016/2018). In this paper, I discuss how the notion of *riding in a chariot* was transformed in order to express fundamental cosmogonic, cosmological, and even existential issues. Further, I discuss how the experientially rich notion of the chariot has in later texts come to have the abstract meaning of *time*. This process of gradual abstraction involves both selection and suppression of more and less salient elements. Thus, I argue that in this process we may see one of the first manifestations of philosophical thinking.

Providing a definition of philosophy is a difficult matter, especially in reference to thinking that did not appear in Greek culture, where the term itself was created. For present purposes it could be defined as *conscious mental activity, the aim of which is an attempt to answer the most basic questions concerning the world and human being.* The outcomes of this activity should be expressed in a coherent set of concepts and propositions. I would argue that such an activity can already be seen in the most ancient Indian text (the *Rgveda*), in contrast to most histories of Indian philosophy, which treat the earliest texts as an example of mythological thinking and ritualistic speculations (e.g. Dasgupta, 1951-1955; Frauwallner, 1990[1953]; Kumar, 1991; King, 1999; Gupta, 2012). Arguably, this latter view is the result of a specific bias in the thinking of many scholars, which narrows down the meaning of philosophy to one kind of activity. True, if we were to define philosophy as a discipline performed with the aid of strict rules of bivalent logic, the best example of which are modern Western analytic inquiries, there is no philosophy attested in the Indian earliest texts. Such investigations appear only with the beginning of the six classical philosophical schools, called *Darśanas* (literally, "seeing,

observing, looking" and then "view, doctrine, philosophical system"), in the first half of the first millennium BC (Potter, 1963; Potter et al., 1981-2015).

However, the earlier Indian tradition preserves multiple testimonies that provide us with the possibility of tracing back through time human endeavours for understanding the world and ourselves. The conceptual basis of the *Darśanas* lies in over a thousand years of the earlier efforts; the later philosophers inherited the basic concepts and ways of thinking, which they could transform and redefine under the strict rules of reasoning. Thus seen, the vast repository of Indian sources opens the way to the beginnings of human philosophical thinking in general.¹ The fact that earlier thinkers used in their expositions metonymic and metaphoric expressions does not exclude their rationality. Lakoff and Johnson (1980, p.235) used the notion *imaginative rationality* to express the fact that metaphorical thinking is not opposed to rational thinking (for imagination as the activity of reason see also Popper, 1993 [1962]). I here argue, with the help of tools from cognitive linguistics, that the careful examination of the early Indian texts shows that the metonymic vehicles, the source domains of metaphors and the input spaces of the blends were rationally chosen, profiled and elaborated in order to express the target concepts in a precise way.

The most ancient Indian text is the *Rgveda* (henceforth RV) the earliest hymns of which were probably composed around 1500 BC (Witzel, 1995, p.98; Oberlies, 1998, p.155-156). Its final codification took place possibly around the 7th century BC. In the Atharvaveda (henceforth AV), the first mention of iron appears, which allows us to date this text to ca. 12th BC (Witzel, 1997, p.280).² The early Indian texts were composed and transmitted orally in the priestly families (Brahmins) with such an accuracy and fidelity that a large part of them survived till our times (Staal, 1986, 2008; Pollock, 2009, 2011). Their composers were not so much interested in meticulously telling the mythological stories, but rather in the redefinition of concepts of gods and their activities in order to use them as the components of metaphors which expressed ontological, epistemological and ritualistic issues.³ For example, the concept of the god Indra who kills the snake called Vrtra ('encloser') reflects the earlier Indo-European stories of a male god who conquers a snake/dragon (Ivanov and Toporov, 1970). In the RV, the story is reinterpreted to explain cosmic processes and the human condition in its ontological, epistemological and ritual dimensions. In the later texts, the concept of Indra becomes even more abstract to denote the breath activated in the beginning of liberating cognition (Jurewicz, 2016/2018). The early Indian texts attest the same process of elaboration of the earlier Indo-European tradition in order to create a more abstract way of describing cosmos and man, not unlike the Pre-Socratic philosophers elaborated the cultural heritage expressed by Homer and Hesiod (Havelock, 1983). While myths contain stories, early philosophical thinking chooses its elements and uses them together in a different way, which allows the composer to think and speak not about concrete heroes and their deeds, but about agents and processes in a more general way. My diachronic research about the riding-in-a-chariot metaphor is only one of many indications that confirm the present analysis.

In Section 3, I present examples from early Sanskrit texts in which the riding-in-achariot metaphor is used to present cosmogony, cosmology and the human condition. My last example comes from the *Mahābhārata* (henceforth MBh), a great epic composed ca. 4^{th} BC –

¹ If we take into account that the Pre-Socratic philosophy came to our times only in short, not original fragments are presented according to the views of the later philosophers (Kirk, Raven, Schofield, 1983), we would appreciate ancient Indian evidence even more.

² The whole corpus of the sacred texts was composed ca. $13^{\text{th}} - 3^{\text{rd}}$ centuries BC. This includes: four Vedas (*Rg-, Yajur-, Sāma-, Atharva-*), the Brāhmaņas – the great corpus of commentaries of the Vedas, the Āraņyakas and Upanişads which are more concentrated on liberating practice and its implications for human condition. Between the 4^{th} BC and the 4^{th} AD, the two great epics were composed (*Mahābhārata* and *Rāmayāna*). For a survey, see Witzel (2003) and Brockington (2003).

³ Ritual was seen, already in the RV, as the model of the Absolute identical with Absolute itself. Thanks to being able to represent Absolute "on a small scale", human beings could influence the processes of cosmos.

4th AD, which also includes some philosophical chapters. It is here where the metaphor TIME IS A WHEEL is finally codified to be used in the later Hindu and Buddhist traditions, like the Sun Temple in Konarak (ca. 13th century AD) or the popular image of the *bhavacakra* ('the wheel of being'), presented in the Tibetan Buddhist *thangkas*. But before that, in Section 2, I provide some background concerning theoretical notions from cognitive linguistics, and as well as some historical context.

2. Theoretical background

2.1 Tools from cognitive linguistics

In order to reconstruct the way the early Indian thinkers conceived and described their views, I rely on concepts and methods from cognitive linguistics (e.g. Johnson, 1987; Lakoff, 1987; Zlatev, 1997; Fauconnier and Turner, 2003; Evans, 2004; Feldman, 2005). According to this approach, meaning is embodied and situated, motivated by biological, physical and cultural experience. Meaning is seen as a process rather than a discrete "thing that can be 'packaged' by language" (Evans, Bergen and Zinken, 2007, p. 9).

Imaginative processes such as conceptual metonymy, conceptual metaphor and conceptual blending influence the creation of meaning and its understanding. Conceptual metonymy is a form of thinking which gives us access to one concept *via* another, closely connected with it on the basis of experience or categorization (Lakoff and Johnson, 1980; Lakoff and Turner, 1989; Panther and Radden, 1999). For example, we see smoke and think of fire. Or to give a more culturally loaded example, we may see two crossed sticks and think about Jesus, and his death on the cross.

According to conceptual metaphor theory, we can think of something abstract (called *target domain*) in terms of a mapping to a *source domain*, which is usually more concrete than the target (Lakoff and Johnson, 1980, 1999; Lakoff and Turner, 1989). For example, we see as image of an old man with long white beard in a Catholic church and understand that this represents God the Father (Sweetser and DesCamp, 2005).

Conceptual blending (Fauconnier and Turner, 2003) is a somewhat more complex process, where a concept fuses different aspects of at least two different concepts (called *input spaces*), which have something in common, to create a new meaning. For example, the concept *angel* is a blend as it fuses aspects of bird (wings and ability to fly) with aspects of a human being (the overall shape and intellectual/emotional abilities). The shared feature of bird and man is that they are both capable of self-propelled movement, and, in the blend, angel is able of such a movement too.

Concepts that are built through these conceptual strategies, often concerning prototypical aspects of human experience (objects, persons, actions, states) are called *idealized cognitive models* (ICMs) According to Lakoff (1987), we store such ICMs in long-term memory and activate them without effort in order to perform mental operations with their aid. Hence, according to the theoretical approach adopted in this paper, reconstruction of meaning involves reconstruction of the conceptual strategies just described and of the ICMs that they constitute.

2.2. Early Indian metaphysics and the invention of chariots

The early Indian thinkers postulated the existence of a unique absolute ultimate source of everything, called "The One" (RV 10.129), which cannot be cognized and named as such. However, in a sublime creative act, this Absolute changes an aspect of itself in such a way that it becomes manifest, with the movement of the sun marking the border between the Absolute and the manifest (see Figure 1). The motivation behind creation is epistemological: the Absolute wants to cognize itself in its perceptible manifestations and through its perceptible agents (Jurewicz, 2010, 2016/2018).



Figure 1. The ontology of the *Rgveda* (RV)

The cognitive desire of the Absolute is realized in its first creative change and in the earliest text (RV) this movement is portrayed as the first sunrise. Since it was believed that at night the nocturnal sky lies upon earth and in the morning it is lifted by the rising sun, the result of the creative movement is the creation of space. In this respect, cognition is primary in relation to being in ancient Indian thinking, and therefore the concept of time was considered primary in relation to the concept of space. The cognitive nature of the first movement in reflected in the way the sun was conceived in terms of an eye through which the Absolute watched itself in its temporal and spatial aspect (Jurewicz, 2010). As shown in Figure 1, the daily movement of the sun marked the borderline sphere between the Absolute and its manifest aspects.

In the next phase of creation, the first men, called "the Seers" (Mitchiner, 1982), were created within the manifest aspect. They were conceived of as the cognitive agents of the Absolute and continued the process of creation. Their activity had two dimensions. On the ontological dimension, they repeated the first sunrise. On the cognitive dimension, they gained the supernatural overall vision of the manifest aspect and of themselves (Jurewicz, 2010). It was believed that they rose together with the sun rising in the morning and reached the region of the borderline sphere marked by the sun at zenith. There, the faculty of divine vision was imparted to them. Here we find the roots of the later concepts of ultimate freedom gained thanks to liberating cognition.

The creative activity of the Seers was supposed to be repeated by other men. It was codified in ritual rules, simple at the beginning and more complex later, but their basic scenario and ultimate aim was always the same: thanks to ritual activity, man could realize supernatural cognition and liberation from any constraints. Similar to the activity of the Seers, ritual cognitive activity was understood in terms of movement upwards (Jurewicz, 2016/2018), see Figure 2. This basic schema of liberating cognition was also preserved in the later Indian tradition, which developed the systematic practice of the mind-body techniques called *yoga*. The yogin mentally climbed across the spheres of cosmos while his mystic energy went up along his backbone to reach the head.



Figure 2. Human action and cognition in *Rgveda* (RV)

The invention of a spoke-wheel chariot was one of the greatest achievements of Indo-Europeans, which allowed them to move very quickly for long distances across the Eurasian steppes. A typical chariot had two wheels, and was driven by one charioteer as one warrior sat in the back. Typically there were at least two horses. The art of riding a chariot at high speed must have been very difficult, especially since there were no roads in those times, and even if they were, they must have been bumpy and difficult to ride on. In brief, the chariot was a lifechanging cultural artefact for the Indo-Europeans (Sparreboom, 1985; Mallory 1991; Anthony, 2007; Parpola, 2005a, 2005b, 2015; Kuznetsov, 2017).⁴

In early Indian thought, things were not taken out from their experiential contexts. The Sanskrit notion of the chariot includes the whole scenario of riding in it. We could say that movement is an essential feature of chariots — who would need a chariot that cannot move? And if it moves, it means that it must have wheels, it must be harnessed to horses and be driven by men. Hence, wheels thanks to which a chariot can move are, metonymically, the most salient feature of the Idealized Cognitive Model (ICM) of the chariot. As I argue in the following section, this ICM will be used in the development of Indian philosophy.

3. The emergence of abstract concepts in Indian thought

The main aim of the analysis presented in this section is to show the rationality of the early Indian thinking and the way how the concrete domain of chariot-riding was transformed into a conventionalized, abstract and general concept of the revolving wheel, expressing the concept of time without any reference to everyday life experience. I proceed chronologically (see Section 1).

⁴ In Ancient Greece as well the chariot served as an important source domain used in poetry and philosophy (Forte and Smith, 2016; Magnone, 2016; Schlieter, 2016).

3.1 The *Rgveda*

In (1) the composer creates the image of a chariot harnessed by seven charioteers who are evoked metonymically by the adjective *saptá*, 'seven'. The chariot is presented as having one wheel with three naves. Thus, the logic of experience is violated and the recipient is triggered to look for other meanings of the stanza than everyday journey.

 saptá yuñjanti rátham ékacakram éko ásvo vahati saptánāmā | trinābhi cakrám ajáram anarvám yátremā vísvā bhúvanādhi tasthúh || (RV 1.164.2) The seven harness the chariot with a single wheel.⁵ A single horse with seven names draws it.

Triple-naved⁶ is the unaging, unassailable wheel, on which all these living beings rest.⁷

Within the frames of metaphor created by the composer, the horse serves as the representation for the invisible energy that made the world to revolve *in illo tempore* and constantly imparts its energy to (the manifest) cosmos (CREATIVE ENERGY IS A HORSE HARNESSED TO A CHARIOT).⁸ The chariot itself represents for the rising sun pulled everyday up by that invisible energy (THE SUN IS A CHARIOT). The manifest cosmos (as opposed to the non-manifest Absolute, see Section 2.2) is conceived of in terms of a single wheel of the chariot with living beings resting on its spokes, possibly its ornamental elements.⁹ This implies the metaphors COSMOS IS A CHARIOT'S WHEEL and LIVING BEINGS ARE SPOKES, as shown in Figure 3, which is a natural extension from the conception represented in Figure 2.

⁵ The translators (Jamison and Brereton, 2014) add "[=the sun]".

⁶ Jamison and Brereton (2014) add: "[=with three seasons?]".

⁷ Translations of the RV are from Holland and van Nooten (1994).

⁸ The same idea of the first energy that made cosmos to move is expressed in the concept of $rt\dot{a}$ which means 'truth, order, cosmos', formally the past participle of the verb r-, "to go". Within the frames of this conceptualization, cosmos is composed of the footprints left by a cow (in terms of which speech was conceived), which has gone away and now the sun and men follow them (Jurewicz, 2016).

RV 2.35.5, in its description of the sun's chariot, presents it as covered with pearls (abhīvrtam krśanair).



Figure 3. The TIME IS A HORSE metaphor, emerging from projecting the chariot as a source domain onto the basic ontology (see Figures 2 and 3)

In (1) the wheel is qualified as "unaging" (*ajára*). In this way, it is implied that beyond the moving cosmos lies the non-manifest Absolute, free from the influence of time. This only apparently contradictory idea of Being subjected to time and simultaneously free of it is expressed in another stanza of the hymn in (2).

(2) páñcāre cakré parivártamāne tásminn ā tasthur bhúvanāni vísvā | tásya nāksas tapyate bhūribhārah sanād evá ná sīryate sánābhih || (RV 1.164.13)

In the five-spoked wheel¹⁰ that rolls round - on that do all living beings take their stand. Its axle does not become hot, though its load is heavy. From of old it, along with its nave, does not break apart.

Here, cosmos is conceived of in the same way: as the revolving wheel of a chariot. The audience is again expected to violate the logic of everyday life experience, because we are told that although the chariot has a very heavy burden and its way is very long, its axle never overheats and never breaks. In this way, we may perhaps grasp the nature of the Absolute, which manifests itself as finite and temporal, but is ultimately non-manifest and free of any constraints.¹¹

The "seven" who harness the chariot are the first Seers (THE FIRST SEERS ARE THE CHARIOTEERS). As stated in Section 2, their creative activity was conceived of in terms of sunrise. In (1), this is metaphorically extended in terms of riding in a chariot. The Seers have reached the borderline sphere on the rising sun and remained there forever.

In order to fully understand the content of (1), the audience must create a complex conceptual blend that consists of the following input spaces: (a) men riding upward in a chariot,

¹⁰ Jamison and Brereton (2014) add: "[=the year]".

¹¹ This impossible concept is also expressed by the formula "from there flows what does not flow" (*tátaḥ kṣarati ákṣaram*, Jurewicz, 2012).

(b) the primeval creative movement of the Absolute, (c) the ritual activity of the Seers who reenact creative movement, (d) the concept of sunrise. These are united by the "generic space" of movement. In this blend, the wheel of the chariot is cosmos, the chariot is the sun that goes around the sky pulled by the invisible creative force (the horse) harnessed by the first Seers. Living beings appear in this metaphor as resting on the spokes of the wheel (see Figure 3).

However, in another stanza of the hymn (1.164.11), the spokes are 720 and thus represent 360 days and 360 nights. In this metonymic way, the temporal nature of cosmos is expressed (360 DAYS AND 360 NIGHTS FOR A YEAR, YEAR FOR TIME). The Seers are again conceived of as the charioteers. The logic of everyday experience implies that they are independent of temporal cosmos since they have some power over it and, maybe, even over the invisible energy which sets the time on. Moreover, since the activity of the Seers is repeated by those who perform the ritual, it follows that some men can mount the chariot itself. The Seers in the sun reach the borderline sphere where they achieve omniscience and realize the state of freedom over time. Within the frames of the blend, those who may perform the rituals also become the charioteers, similarly to the first Seers. A later text (*Śatapatha Brāhmaņa* 2.3.3.12, composed ca. 8th century BC) presents such men as standing in a chariot and perceiving the days and nights conceived in terms of the chariot's wheels revolving below them. On the contrary, those who are not allowed to perform the ritual (e.g. women or animals) will always revolve with the spokes of the wheel, subjected to the power of time. In this way, the concept of riding in a chariot is a general concept that can simultaneously express cosmic and human processes.

3.2 The Atharvaveda

In (3), the composer elaborates the riding-in-a-chariot metaphor.

 kāló áśvo vahati saptáraśmih sahasrāksó ajáro bhúriretāh | tám á rohanti kaváyo vipaścítas tásya cakrá bhúvanāni vísvā ||(AV 19.53.1)

Time drives (as) a steed with seven reins (rays), thousand-eyed, unaging, of abundant seed.

Him mount the poets that know holy hymns; his wheels are all worlds (or beings).¹²

The input spaces of the blend created in this stanza are the same as in the RV, as shown in (1) and (2). Cosmos is again conceived of in terms of the chariot's wheels, and the sun is a chariot with "the poets that know holy hymns". They could be either the first Seers or men who can perform the ritual. The main difference between this description and that of the RV is that the invisible energy that moves cosmos, conceived in terms of a horse, is explicitly defined: it is time, $k\bar{a}l\dot{a}$. The metaphor is further elaborated in (4).

(4) aşţācakram vartata ékanemi sahásrākṣaram prá puró ní paścā | ardhéna vísvam bhúvanam jajāna yád asyārdhám katamáh sá ketúh ||(AV 11.4.22)

It rolls with eight wheels, a single rim, a thousand sounds (or syllables), up in the east, down in the west.

With a half it created the whole world; its (other) half, what is the distinguishing mark (thereof)?¹³

The first hemistich of the stanza creates an impossible image. The first verse refers to something with eight wheels and a single rim. The immediate association is a chariot. However, the word *rátha* ('chariot') in Sanskrit is masculine and the subject of the sentence is neuter. The logic of

¹² Quotations of the AV: Atharvaveda-Samhita (1996.) Translation by Edgerton (1965).

¹³ Translation by Edgerton (1965).

experience is also violated, because eight wheels cannot have one rim. Most probably, the audience is prompted to a dynamic understanding that is facilitated by the oral realization of the stanza: firstly, we are expected to imagine a riding chariot (having heard the compound astácakram, 'with eight wheels'). But then, immediately, we are expected to focus on its wheels (cakrá is neuter) and, finally, on their one rim. Thus the impossible image of a revolving rim of the eight wheels is created.

The rim is presented as going "up in the east, down in the west".¹⁴ Thus understood, it is the source domain for the daily movement of the sun, which could be conceived of as a shining ornament¹⁵ fixed on the invisible rim of the wheels. Thus, the half of the rim, which rises up and down, corresponds to diurnal route of the sun and metonymically to day (DIURNAL ROUTE OF THE SUN FOR DAY). The second half corresponds to night (DAY IS HALF OF A REVOLVING RIM, NIGHT IS HALF OF A REVOLVING RIM, COSMOS IS A FULL REVOLVING RIM).¹⁶

In the third verse of stanza (4), the verb jajana (literally 'gave birth to') is used to express the creation of cosmos. Now the cosmos is only half of the space outlined by the rim. In the last verse, the composer asks if there is any sign of the second half of the rim. The concept of sign $(ket\hat{u})$ is an extremely important concept in the early Indian cosmogonies. Since the creation of cosmos is understood as the appearance of cognition, it is also presented as the creation of signs. We could assume that the sign of the upper part of the rim is the sun, which disperses the nocturnal state of lack of cognition (Jurewicz 2010: 107-111).

Moreover, in an important cosmogony (RV 10.129) questions appear in the stanzas that present either the Absolute in its pre-creative state, or cosmos in the beginnings of its creation, when it is only outlined and is still devoid of any sign that could facilitate cognition (Jurewicz 2010: 44-58). Thus understood, the second half of the rim becomes the borderline sphere and the whole Absolute would be conceived of in terms of an invisible chariot.¹

The input spaces of the blend created in this stanza are as follows: (a) a riding chariot, (b) sunrise, (c) creation of the world. The generic space is again movement. However, the composer construes his description in such a way that in the blend, the audience is expected to reduce the ICM of the chariot to its revolving rim. This reduction is metonymic (REVOLVING WHEEL FOR A CHARIOT). In the blend, it is not necessary to activate the concept of the whole chariot in order to understand the meaning of the stanza. Even if the audience thinks about the non-manifest aspect of the Absolute in terms of the chariot, they will only understand it as the power that makes the cosmos round. There is only one feature of the chariot that has to be transferred into the blend: it is its movement. The logic of experience is again broken, because normally the wheels separated from the chariot do not move. Living beings remain within the space marked by the half of the rim, revolving in accordance to daily movement of the sun that metonymically evokes the concept of time (MOVEMENT OF THE SUN FOR TIME). In examples (1) and (3), which use the whole scenario of chariot-riding as the main source domain, the relationship between man and time was different. The logic of everyday experience implies that as charioteers have power over horses harnessed to a chariot, human beings (conceived in terms of charioteers) have power over time (conceived in terms of a horse). Now, (4), once the concept of chariot is hidden, the possibility to express the man's power over time is lost.

¹⁴ For the interpretation of epithet "with a thousand sounds (or syllables)", sahásrākṣara, cf. Jurewicz 2012, 2016/2018: 283-284).

¹⁵ The sun is conceived of in terms of a precious stone already in the RV 7.63.4, 10.45.8, 5.47.3 (Jurewicz, 2010: 73-76). 16 According to Kuiper (1964), the idea is that in the evening the sun merged in the western ocean that is below the

earth in order to emerge from it in the east in the morning.

¹⁷ As it happens when a chariot gets stuck in the mud. In the RV, the concept of mud (*salilá*) is another important source domain of the pre-creative state of cosmos, it is evoked in AV 11.4.22 by the compound sahásrāksara which activates the image of a female-buffalo stamping in the mud (RV 1.164.41-42). This female-buffalo is the Creator and mud is the substance of which she makes words and world (Jurewicz, 2012, 2016/2018). The later famous Indian motive of the beautiful lotus, which grows from mud has its roots also here.

3.3. The Mahābhārata

Stanza (5) elaborates the metaphor TIME IS A REVOLVING WHEEL:

 (5) kālacakram anādyantam bhāvābhāvasvalakṣanam | trailokyam sarvabhūteṣu cakravat parivartate || (MBh 12.203.11)
The wheel of time has neither beginning nor end, it is characterized by both existence and non-existence. It is¹⁸ the three worlds and revolves, like a wheel, within all the beings.¹⁹

The first expression, $k\bar{a}lacakram$ ('the wheel of time'), activates the metonymic vehicle of the chariot, namely, its wheel (*cakra*), which represents time (*kala*) (TIME IS A REVOLVING WHEEL). The wheel, however, is qualified in such a way that the recipient is prompted to think about other aspects of the Absolute. It is also important to note that the ontology proposed in the RV, is still preserved (see Figure 1).

The first qualification of the wheel is "having neither beginning nor end" (*anādyanta*) which triggers the recipient to think about the Absolute in its non-manifest aspect as the eternal source of cosmos; in the same way, as it is called *ajara*, ('unaging'), in both the RV and AV. Next, the wheel is qualified as "characterized by both existence and non-existence" (*bhāvābhāvasvalakṣaṇa*). Thus, it is implied that the borderline sphere between two aspects of the Absolute is also conceived of in terms of the wheel (THE BORDERLINE BETWEEN TWO ASPECTS IS A REVOLVING WHEEL). The borderline sphere is this mysterious sphere what is non-manifest (*abhava*) becomes manifest (*bhava*), although it is simultaneously remain non-manifest (Absolute). The next qualification is *trailokya*, which means "three worlds" and refers to the cosmos. It is also understood in terms of a wheel (COSMOS IS A REVOLVING WHEEL). Finally, the composer states that the wheel revolves "within all the beings" (*sarvabhūteşu*). In these terms, the soul of all beings is conceived of (SOUL IS A REVOLVING WHEEL). This concept is new in comparison with the RV and AV (Jurewicz, 2016/2018).

The input spaces of the blend created in the stanza are various aspects of the Absolute: (a) the Absolute in its non-manifest aspect, (b) the Absolute at the borderline sphere, (c) the Absolute in its manifest aspect (=cosmos) and (d) the Absolute as the soul of sentient beings. The generic space is circular movement evoked by verse d ("revolves, like a wheel", *cakravat parivartate*). In the blend, the audience is expected to imagine a homocentric structure where the soul is the most internal circle, then come cosmos and the borderline sphere, beyond which lies the Absolute in its non-manifest. The masterly qualifications of the wheel are such that the wheel can be the general source domain for the three aspects of the Absolute (borderline sphere, cosmos, soul). Importantly, they are explicitly identified with time. It is important to add that within the frames of the revolving-wheel-metaphor, the Absolute as the soul of sentient beings and cosmos is conceived of in terms of the nave of a wheel, an empty space that makes movement possible (e.g. AV 10.2.32, MBh 12.74.26). As empty, it cannot be perceived with everyday cognition and needs a liberating insight.

The concept of the single revolving wheel is a highly abstract concept. Although its movement is the result of metonymic transfer from the concept of the chariot, I would argue that in times of the MBh this transfer was already conventionalized and that in such contexts the wheel was understood as revolving by itself. Similarly to example (4), the use of the concept of wheel in reference to time implies the lack of human power over it.

¹⁸ The translator (Wynne, 2009) adds "encompasses". Quotations of the MBh: *Mahabharata: Santiparvan* (1999).

¹⁹ Cf. also MBh 2.8.28, 2.11.28, 3.134.12, 3.160.35, 4.47.2, 5.53.13, 7.6.20, 7.142.11, 8.13.7, 12.237.32, 14.42.53, 14.45.9-11 (after Hellwig, 1999).

Some scholars claim that such stanzas imply that time is the highest ontological reality and that they attest the so-called "doctrine of time" ($k\bar{a}lav\bar{a}da$) which contended with the main philosophical stream proposed by the Brahmins and is attested in the MBh.²⁰ However, the audience may also activate the whole ICM of the riding chariot, and, this would lead to a different interpretation. Notwithstanding, I would like to point out that the logic of the source domain allows us to incorporate such descriptions into the main philosophical stream. As a wheel is part of a chariot, in the same way, time is only aspect of the most mysterious, absolute reality.

4. Discussion

The early Indian thinkers used concepts connected to everyday experience for expressing a very sophisticated metaphysics. Their creative work can be seen in the way they violated the everyday logic implied by the concept of riding in a chariot and driving it, by creating the concept of a wheel that moves on its own, or of an axle which never overheats. Their imagination can also be seen in the way they profiled some aspects of concepts and hide others. The conceptual path towards an abstract concept of a revolving wheel, presented in the MBh, begins in the RV, as seen in (1-2) and the AV, as seen in (3), by elaborating the ICM of riding in a chariot. Meanwhile, in other parts of the AV, as (4), the ICM is reduced to an abstract concept of a revolving movement, attested in the MBh (5), highlighting the ontological primacy of time.

The way abstract concepts emerge can be explained with the use of cognitive models. The point of departure is the metaphorical conceptualization of an abstract concept in terms of the whole ICM (TIME IS A HORSE PULLING A CHARIOT, THE SUN IS A CHARIOT, COSMOS IS A WHEEL OF A CHARIOT). In the next step, the metonymic vehicle of the whole ICM of the moving chariot (WHEEL/RIM) becomes an independent concept, and the most salient feature of the ICM (movement) is projected onto the metonymic vehicle: wheel/rim is revolving, although there is no chariot. Conceived in this way, the metonymic vehicle becomes the source domain of a metaphor that expresses an abstract target domain (TIME IS A REVOLVING WHEEL). The final step is conceptual blending of the source domain (REVOLVING WHEEL) and the target domain (TIME) and the concept of the revolving wheel is identified with the concept of time in philosophical contexts.

Over this progression, not only the source domains are simplified, but also the target domains. The riding-in-a-chariot metaphor in the RV examples (1) and (2) and AV example (3) encapsulated the whole metaphysics of the composers with all its details. The concept of a revolving wheel in (5) becomes an abstract and general concept that expresses the relationship between time on one hand, and creation/existence of cosmos/sentient beings on the other. Within the frames of this conceptualization, the possible dependence of time on man is hidden. The wheel of time described in the MBh is beyond the range of human beings. Here, men are presented as helplessly subjected to the power of time.

In the early phases of the process of abstraction, the composers achieved violation of everyday life experience presented in the conventionalized ICMs and their metonymic forms (for other examples, see Jurewicz, 2010, 2012, 2016/18). This strategy not only warned the audience that the content of a stanza did not refer to anything connected with everyday life, but also requested to be understood in a way violating everyday logic. We all know that the axle of a wheel will finally heat up and break down when the burden dragged by a chariot is too heavy, like we today know that the engine of a car or plane needs oil to work. If something is conceived of in terms of which are against these facts, we can grasp some of their paradoxical, and thus abstract nature.

²⁰ Mallinar (1996), Vassilkov (1999). For analysis of concept of time in classical Indian culture see: Schayer (2012 [1938]), Thapar (1996), Mallinar (2007).

By the time of the MBh, the strategy of violating the logic of experience was less used. For example, the wheel in terms of which time is conceived was sometimes specified as a wheel of the machine which produces sesame oil in which living beings are squeezed by the merciless power of time (MBh 12.204.8-9). In this metaphor, the logic of the source domain is preserved in the target domain. The same was the case in classical philosophy, e.g. in the philosophy of Sāmkhya, where the power of time that allows the body of the liberated person to act is conceived of in terms of the wheel of a potter that still revolves, although the pot is finished and taken from it.

The changes in use of the source domains and their profiling were probably connected with changes in Indian culture. While in the time of the RV, the composers of the hymns, as the members of half-nomadic tribes, drove on chariots themselves, in times of the MBh, it was not so common: the Brahmins led sedentary lives in villages and did not like to travel. The concept of riding in a chariot was mostly used in times of the MBh to express liberating cognition. Moreover, other philosophical and religious strands appeared in the middle of the first century BC. The rather pessimistic vision of living beings subjected to the power of time presented in the MBh is also the result the Buddhist influence, although, as we have seen, the idea of some living beings being helpless against the power of time was implied already in the RV. But its composers and their audience were mainly those who were allowed to perform ritual, so naturally they were more concerned with "escaping" from time. The Buddha himself rejected rituals as the means of achievement of liberation, and then, the same idea began to develop in the Hindu tradition.

5. Conclusions

The beginnings of abstract thinking in European philosophy have been extensively studied. For example, Havelock (1983) argues that the words used by Homer in reference to concrete experience were consciously transformed by the Pre-Socratics in such a way that they could refer to something non-experiential and express abstract concepts of being, change, time, dimension and space, body, matter, etc. As I have tried to show in this paper, the early Indian texts, composed before the philosophical schools of Darśanas, attest the same kind of effort as the Pre-Socratic philosophers. However, contrary to the Greek beginnings of philosophy, in the Sanskrit tradition we are lucky to have many more first hand texts, due to their meticulous preservation and transmission. So it is rather surprising that they have not been investigated as thoroughly as the Greek tradition.

The use of cognitive linguistic tools such as conceptual metonymy, metaphor and blending uncovers the rational nature of the inquiry that led to answers to fundamental questions of interest to philosophers, be they Western or Indian. Due to complex nature of the early Indian ontologies, their composers could not express them more precisely than with use of metaphor and blends. At the same time, their "empirical" background came from the ICMs of everyday activities with their clear bivalent logic and predictable sequence of events. Thus, the early Indian thinkers could lead their audience along their way of reasoning towards more and more complex conceptual edifices. The logic of experience encoded in the ICMs, violated or not, was used to express something which was beyond that logic, but which could be grasped with the help of words, although not perfectly.

The oral character of the composition and transmission of the texts was an important factor for the development and elaboration of this kind of rationality. Oral cultures are much more immersed in experiential context than writing-based ones (Rubin, 1995), possibly because of the role of concrete images in memorizing (Paivio, 2007: 60 ff., Minchin, 2001, 2008). Although Havelock (1983, 2006 [1986], see also Goody (2012 [2010]) claims that rational

thinking appeared with writing, this is not true for the early Indian culture which was also able to orally compose sophisticated treaties on linguistic, astronomy, ritual science, mathematics and geometry,²¹ though these were expressed without the use of metaphors and blends like in the early philosophical texts analyzed in the paper. I would suggest that the composers consciously chose a non-literal way of exposition because they understood that philosophy could not be fully expressed literally, and that it is possible to create a metaphorical text in such a masterly way that the audience could be enlightened.

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²¹ These numerous treaties belonged to a branch of six disciplines called Vedānga (Rocher 2003). The earliest of them were probably composed ca $8^{th}-6^{th}$ BC., the latest ca 2^{nd} BC. Among them, the most famous in the West is the linguistic treaty *Aştādhyāyi* of Pāṇini, composed ca $5^{th}-4^{th}$ BC. For discussion with Havelock cf. Hobart, Schiffman, (2000: 19-30).

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