

# Nāgārjuna's Arguments on Motion Revisited

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**Abstract** This paper discusses a somewhat neglected reading of the second chapter of Nāgārjuna's *Mūlamadhyamakakārikā*, arguing that the main focus of a crucial part is a particular theory of properties and their relation to individuals they instantiate, rather than the refutation of specific assumptions about the nature of space and time. Some of Nāgārjuna's key arguments about motion should be understood as argument templates in which notions other than mover, motion, and so forth could be substituted. The remainder of the discussion of motion does not serve quasi-Zenonian purposes either but uses motion as a principal example of change and considers the soteriological problems of the subject moving (*gati*) through transmigratory existence (*saṃsāra*). I attempt to show how this interpretation coheres with Nāgārjuna's overall philosophical project.

**Keywords** Nāgārjuna · Madhyamaka · Mādhyamika · Time · Space · Motion · Change

## Abbreviations

- MMK Nāgārjuna's *Mūlamadhyamakakārikā*  
J.W. De Jong, Christian Lindtner (eds): *Nāgārjuna's Mūlamadhyamakakārikā Prajñā Nāma*. Adyar Library, Adyar, Chennai, 2004.
- PP Candrakīrti's *Prasannapadā*  
Louis de la Vallée Poussin (ed.): *Prasannapadā Mūlamadhyamakavṛttiḥ*. Bibliotheca Buddhica IV, St Petersburg, 1903–1913.  
J.W. De Jong: 'Textcritical notes on the *Prasannapadā*', *Indo-Iranian Journal*, 20, 1978, 25–59, 217–252. (Corrections of the above edition.)
- TSṬC Tsong kha pa's *rTsa she ṭik chen rTsa she ṭik chen rig pa'i rgya mtsho*, Sarnath, Legs bshad gter mdzod par khang, 1973.

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The second chapter of the *Mūlamadhyamakakārikā* (MMK) has attracted considerable attention in the contemporary commentarial literature, not least amongst scholars interested in a certain kind of cross-cultural comparison, setting out to compare Nāgārjuna's arguments with Zeno's paradoxes.<sup>1</sup> The ways in which the chapter has been understood are very diverse and it does not seem as if an interpretative consensus has yet been reached. This is hardly surprising, given that this chapter in particular brings out the difficulty of doing two things at the same time: understanding the internal structure of Nāgārjuna's arguments *and* placing them in the argumentative context of his philosophical enterprise.

The arguments about motion presented in this paper are often interpreted as being directed against very specific theories of the structure of time and space. This interpretation finds support in some of the Indian commentarial literature<sup>2</sup> and has also been defended in contemporary Western Madhyamaka scholarship.<sup>3</sup> Nevertheless, I think it is possible to read Nāgārjuna's arguments in the second chapter of the MMK without regarding them as concerned with the structure of space and time. Doing so has a number of advantages.

The first advantage is what we might call 'commentarial lightness'. Since nowhere in Nāgārjuna's extant writings we find any clear claims about the way space and time are structured<sup>4</sup> an interpretation which does not assume that he has such assumptions in mind has a certain minimalist aesthetic appeal.

Secondly, abstaining from the spatio-temporal reading of chapter two opens up the way for another, and, I think, more profitable reading, seeing Nāgārjuna as concerned with a general discussion of the nature of properties and the individuals instantiating them.

Finally this interpretation does justice to the place of the second chapter in the context of the MMK. The arguments developed there were meant to serve as *argument templates* employed throughout the remainder of the work. This means that they are examples of a pattern of argument in which notions other than mover, motion, and so forth could be substituted. The arguments in the second chapter function as templates in a variety of ways. On the one hand they serve as templates for arguments defending a particular view of individuals and properties. On the other hand they are also models for arguments about change, in particular the kind of change which is the motion of the subject transmigrating through cyclic existence (*gati*).

Contrary to what some ancient and modern commentators assert we can make a strong argument that it is not primarily problems of motion, and particularly not problems connected with the structure of space and time which lie at the heart of chapter two. The main focus of the chapter are rather issues connected with individuals and properties, as well as with the notion of change. Taking into account that chapter two provides some of the main templates which Nāgārjuna uses to discuss these matters it appears to be only a slight exaggeration to say that the second chapter

<sup>1</sup> Such as Siderits and O'Brien (1976), Mabbett (1984), Galloway (1987).

<sup>2</sup> For example in Candrakīrti's PP.

<sup>3</sup> Siderits and O'Brien (1976), Galloway (1987), Siderits and Katsura (2006), Siderits (2007).

<sup>4</sup> MMK 5 and 19 deal with time and space explicitly but do not consider the question of their structure.

of the MMK is no more specifically concerned with motion than a textbook presentation of a syllogism *modus barbara* is specifically concerned with mortality.

## The Problem

Throughout the whole of the second chapter of the MMK Nāgārjuna seems to be primarily concerned with the investigation of two questions: firstly 'Where is the *locus of motion*?', i.e. where is motion taking place,<sup>5</sup> and secondly 'What is the *object of motion*?', i.e. what is it that has the property of moving?.<sup>6</sup>

Suppose someone argued as follows: Imagine a car driving down a road, turning right at an intersection, then driving on. Where is it moving? We obviously do not want to locate motion anywhere where the car has just been, say twenty seconds ago, as this is not where motion is *presently* happening. Nor is a place where it has not been at all (say, turning left at the intersection) any better—not only is no motion presently taking place there, it has also not taken place there in the past. Neither the places the car has driven through in the past, nor those it has not are plausible candidates for locating its motion in the present moment.<sup>7</sup> The car is obviously moving in the space which it presently traverses, which constantly changes as what is present changes: for each moment the car is presently moving where it is moving when that moment is the present moment. The locus of motion must be the space which is presently being traversed.<sup>8</sup>

Secondly, what moves? One would suppose that it is not the car which is parked nearby and is stationary (*agantṛ*) but the one being presently driven. It is only the mover that moves.<sup>9</sup>

Now it appears that one of the main aims of Nāgārjuna in this chapter is to analyse both these commonsensical answers, that present motion happens in the presently traversed space, and that it is the mover which moves, in order to demonstrate that they are more problematic than they might initially seem. While this impression is largely correct, as we shall see matters are in fact a bit more complicated.

## Arguments Concerning Motion

The arguments presented in the second chapter of the MMK can be best understood if we divide its 25 verses into three groups. The first group (verses 1–6, 8–11, 15–16,

<sup>5</sup> MMK 2:1: 'As far as the place moved over does not move the place not moved over does not move either. Apart from the place moved over and the place not moved over the place presently traversed does not move' *gataṃ na gamyate tāvad agataṃ naiva gamyate / gatāgatavinirmuktaṃ gamyamānaṃ na gamyate*.

<sup>6</sup> MMK 2:8: 'As far as the mover does not move the non-mover does not mover either. What third thing other than the mover or the non-mover moves?' *gantā na gacchati tāvad agantā naiva gacchati / anyo gantur agantuś ca kas tṛtīyo 'tha gacchati*.

<sup>7</sup> 'As far as the place moved over does not move the place not moved over does not move either.' *gataṃ na gamyate tāvad agataṃ naiva gamyate*. MMK 2:1a.

<sup>8</sup> *gamyamāne gatis*. MMK 2:2b.

<sup>9</sup> *gantā gacchati*. MMK 2:10.

22–25) investigates the locus and the object of motion by two arguments which I call the *property-absence argument* and the *property-duplication argument*.<sup>10</sup> As I will argue later on these arguments are not specifically about motion. Nāgārjuna rather uses the example of motion to give an example of a *form* of argument which can be applied to a variety of subject-matters and is indeed referred to again and again in different contexts within the MMK.

The second group of verses (12–14, 17) discusses the interdependence of the concepts ‘beginning of motion’ and ‘end of motion’ and the triple division of the space and time where motion takes place. This is a division of space into a space not yet traversed, a space presently traversed and a space to be traversed, and a division of time into the times of past, present and future motion. Nāgārjuna’s aim in these verses is to establish that the concepts of beginning and end of motion and the triple division cannot exist independently of one another.

The third group (7, 18–21) considers the relation between mover and motion and sets out to establish that these two mutually depend on one another.

### The Property-Absence Argument

In the property-absence argument Nāgārjuna seems to assert that some individual can only be said to have a property if it is at least conceivable that it lacks that property. An apple can have the property ‘red’ because it is conceivable that it lacks redness and has some other property instead, such as being green. However,

how suitable is it to attribute motion to the space presently traversed, as far as attributing non-motion to it is not suitable? For whom motion is attributed to the space presently traversed, there should be such a space without motion—but ‘presently traversed space’ means ‘movement takes place there’.<sup>11</sup>

<sup>10</sup> There is also a further argument supposed to show that there can be no motion in the space presently traversed. This is the so-called ‘foot argument’ given by Candrakīrti in his commentary on verse 1. Candrakīrti presents this as a refutation of the opponent’s claim (supposedly implicit in verse 1) that motion takes place in the space presently traversed.

The argument attempts to show that the foot cannot be at the place presently traversed, since the foot is made up of atoms. But a place behind some atom at the front of the foot is already moved over, while some atom in front of some atom at the back is not yet moved over. There is some debate about how to interpret this argument (see for example Siderits and O’Brien (1976, p. 289) and Galloway (1987, pp. 81–85) for diverging accounts). Fortunately we do not have to settle this issue here, as this specific argument belongs more properly to the thought of Candrakīrti than to that of Nāgārjuna. I share Bhattacharya’s concern (1985, p. 8) about the mathematical gloss Candrakīrti’s commentary imposes on the reading of the first four verses of chapter two (see also Mabbett (1984, pp. 409–410)). For more discussion of the ‘spatio-temporal’ interpretation see the section of the same name below.

<sup>11</sup> *gamyamānasya gamanam katham nāmopapatsyate / gamyamānam vigamanam yadā naivopapadyate / gamyamānasya gamanam yasya tasya prasajyate / r̥te gater gamyamānam gamyamānam hi gamyate*. MMK 2:3–4. The reading *vigamanam* (non-motion) in verse 3 follows May (1959, p. 55, note 19). Candrakīrti’s *Prasannapadā* (PP) 94:7 has *dvigamanam* (double motion), Inada (1970, p. 44) has *hy agamanam*. See also De Jong (1978, p. 36). For some discussion of the varying philosophical interpretations suggested by these different readings see Siderits and O’Brien (1976, pp. 290–291).

How suitable is it to say 'a mover moves', as far as a mover without motion is certainly not suitable? For the one who holds the position that a mover moves, and who is looking for the motion of the mover there is a mover without motion.<sup>12</sup>

We might wonder why it is a problem to say that the mover moves, or that motion takes place in the place presently traversed. After all, these statements not only appear to be true, but necessarily so. Moreover, if 'the mover moves' is true, 'the mover does not move' is false. Yet Nāgārjuna asserts that if someone 'holds the position that a mover moves [...] there is a mover without motion.' How are we going to make sense of these statements?

What Nāgārjuna has in mind here is the difficulty of analysing the referents of statements like the above in terms of an ontology of mutually independent objects. If we consider the referent of a statement like 'the apple is red' it makes sense to regard the constituents of the state of affairs this refers to (namely the individual apple and the property red) as distinct objects. After all there are apples which are not red, and red things which are not apples. We rely here on the Humean principle that for things to be distinct we must be able to conceive of them independently of one another.<sup>13</sup>

For statements like 'the mover moves' or 'bachelors are unmarried', however, this does not hold: there are no movers which are stationary, nor moving objects which are at rest; there are no married bachelors, nor unmarried non-bachelors. Nāgārjuna argues that in order to ascribe the property of motion to the individual which is the presently traversed space, or to the mover, we have to be able to conceive of this individual while the property is absent, in the same way as we can conceive of an apple lacking the property of redness, because it is green.

But in the cases under consideration the individual depends<sup>14</sup> on the property it instantiates. We therefore cannot analyse the referent of propositions like 'the

<sup>12</sup> *gantā tāvad gacchafīti katham evopapatsyate / gamanena vinā gantā yadā naivopapadyate / pakṣo gantā gacchafīti yasya tasya prasajyate / gamanena vinā gantā gantur gamanam icchataḥ*. MMK 2:9–10. In order to understand the structure of the argument it is important to realize that 2:9–10 spell out the assertion made in 2:8, namely that neither the mover nor the non-mover moves. In fact Nāgārjuna only considers the first alternative, he does not specify why the non-mover does not move. But we can infer what he would say from 2:16, which elucidates 2:15, being just the mirror-image of 2:8. 2:15 claims that neither the mover nor the non-mover is not moving. Here Nāgārjuna only considers the alternative of the mover not moving, a presupposition which is contradictory and therefore to be discarded.

<sup>13</sup> 'We have observed, that whatever objects are different are distinguishable, and that whatever objects are distinguishable are separable by the thought and imagination. And we may here add, that these propositions are equally true in the inverse, and that whatever objects are separable are also distinguishable, and that whatever objects are distinguishable, are also different. [...] [A]ll ideas, which are different, are separable. For it follows from thence, that if the figure be different from the body, their ideas must be separable as well as distinguishable: if they be not different, their ideas can neither be separable nor distinguishable.' (Hume 1896, I, I, VII: 18, 24–25).

<sup>14</sup> The dependence of the individual on the property it instantiates may be notional or existential, depending on whether the individual has the property in question essentially. As nobody is essentially a bachelor a bachelor who marries would still continue to exist, but would no longer be *described* as a bachelor. But since ice is essentially frozen, when we heat up a block of ice to more than 30°C it is not just that we would not describe the result as a block of ice any more, the block of ice will have ceased to exist.

mover moves' in the same way as that of 'the apple is red'. Such an analysis would assume the existence of two distinct entities, a property and an individual, existing independently of one another (and therefore, as Nāgārjuna's opponent would put it, each existing by their own *svabhāva*) which come together in a state of affairs where one instantiates the other.

A much later Tibetan commentary, Tsong kha pa's *rTsa she ñik chen* also detects the property-absence argument in these passages. Commenting on MMK 2:4 Tsong kha pa notes that 'it is admissible to posit that agent and action are merely established by force of convention. However, it is impossible to assert that the action of going exists through its own characteristic.'<sup>15</sup> If we regard the individual which is the agent, the one moving, and the action of motion, which is the property it instantiates as capable of existing without each other 'through their own characteristics' like the apple and its redness we are unable to make sense of how motion and mover could 'fit together', since they cannot 'be taken apart'. But if we see them as two different ways of conceptualizing the same entity, as will be explained in more detail below, this difficulty does not arise.

### The Spatio-Temporal Interpretation

We should note that there is a different interpretation of the two passages under discussion which, unlike the interpretation just presented, regards them as an argument specifically concerned with motion, rather than more generally with the instantiation of properties.<sup>16</sup> This spatio-temporal interpretation<sup>17</sup> sees Nāgārjuna as concerned with refuting a particular conception of space and time by demonstrating that motion would not be possible under such presuppositions. These presuppositions are that space is infinitely divisible, but that time is not, and that it consists of a succession of temporal atoms of minimal duration. The argument then runs as follows. Let there be a moving object and consider the portion of space traversed by this object during one temporal atom. Even if this portion is very small, since space is infinitely divisible we can break it up into further portions of space. Now take some point within this portion of space. The moving object cannot have passed it during the course of its motion, since the time it would take to reach it would be a fraction of the temporal atom, and since atoms are indivisible no duration that short exists. So motion cannot happen in the space presently traversed, since all that happens is that the moving object is at the beginning of the portion of space before the temporal atom, and is at its end afterwards, without having moved through any of the points in between. We are thus dealing not with motion, but rather with a succession of rests. Because of this we (unsuitably) have to attribute non-motion to the space presently traversed. The same interpretation can be given to verses 9 and

<sup>15</sup> *bya byed tha snyad kyi dbang gis bzhas pa tsam du 'dod pa la de ltar bzhas pas chog kyang. 'gro ba'i bya ba lta bu rang gi mtshan nyid kyi grub par 'dod na me rung ngo.* TSṬC 98:6–8. For an English translation see Tsong Kha pa Blo bzang grags pa (2006).

<sup>16</sup> Siderits and O'Brien (1976, p. 291).

<sup>17</sup> Siderits and O'Brien (1976, p. 289) refer to it as a 'mathematical' interpretation.

10 of this chapter: a mover moving in an infinitely divisible space during a temporal atom would be a mover without motion (*gamanena vinā gantā*), because he does not traverse any of the infinitely many spatial points between the beginning and the end of the space traversed. Such a mover would be a mover at rest.

Commentarial support for the spatio-temporal interpretation is presented by Siderits and Katsura<sup>18</sup> based on the *Akutobhayā*'s comparing the fact that there is no presently traversed space apart from the space already moved over and the space not yet moved over to the case of 'a light and its illumination'.<sup>19</sup> They spell out the reference to the light and its illumination in terms of a passage from chapter nine of the *Abhidharmakośabhāṣya*<sup>20</sup> which says that a moving fire (as well as a moving person) is nothing but a collection of successive instantaneous moments which are regarded as one by the conceptualizing mind. But such a fire could not move in an atomic present moment, since change within a temporal atom indicates that the atom really has temporal parts. The present moment is like a razor's edge, dividing the temporally extended past from the temporally extended future without having any temporal thickness itself.

This support for the spatio-temporal reading does not appear to me to be very strong. First of all the *Akutobhayā* was in all likelihood not written by Nāgārjuna himself but by the later and somewhat obscure commentator \*Piṅgala.<sup>21</sup> Secondly, even if we assume it was written by Nāgārjuna why the rather cryptic reference to the 'light and its illumination' needs to be spelt out in terms of the considerably later *Abhidharmakośabhāṣya* remains unclear. One might have thought Nāgārjuna's autocommentary would have been a little bit more explicit in this regard, especially assuming that the idea 'that time and space are both infinitely divisible',<sup>22</sup> which is supposedly the presupposition of the example, provides the foundation for understanding 'many of the arguments',<sup>23</sup> that follow.

It seems to me that there is a much simpler way of understanding this verse which does not entail any reference to time and space. We can understand the course of the argument in the first three verses of the chapter as follows. In verse 1 Nāgārjuna asserts that the locus of motion is not what has just moved, or what will move in the future. It is also not, he adds, the presently traversed space. That the place where motion takes place is the presently traversed space is a natural assumption to make, and Nāgārjuna has not yet given an argument why motion should not take place here.<sup>24</sup> And, sure enough, the opponent points this out in verse 2, claiming that the locus of motion is the presently traversed space. It is only in the following verse that we get Nāgārjuna's response, backing up the claim made in verse 1, in terms of the

<sup>18</sup> Siderits and Katsura (2006, p. 140).

<sup>19</sup> *mar me dang snang*, P 95:41b.8. Pandeya (1988–1989, I:43) reconstructs to *dīpārcis*.

<sup>20</sup> Pradhan (1975, p. 404), Poussin (1988–1990, p. 1343).

<sup>21</sup> Amongst Western scholars Walleser (1911, iv) assumes it to be written by Nāgārjuna. This, however, is not the present consensus; Lindtner (1982, p. 15) regards it as 'most probably not genuine'. For supporting evidence see his note 33 on pages 15–16.

<sup>22</sup> Siderits (2007, p. 1984).

<sup>23</sup> Siderits and Katsura (2006, p. 140).

<sup>24</sup> Katsura (2000, pp. 208–209) gives a similar reading.

property-absence argument. And we can easily understand the comparison of the fact that there is no presently traversed space apart from the space already moved over and the space not yet moved over to ‘a light and its illumination’ by noting that the presently illuminating light cannot be said to illuminate, since the property of illumination cannot be ascribed to it. It cannot be ascribed to it because we could not conceive of its absence, since a light which does not illuminate is no light.

In the absence of more explicit commentarial backing I therefore do not see why we should interpret verse 1 as referring to a specific notion of time and space. In fact, I think, the argumentative structure of the beginning of this chapter becomes more transparent without such an assumption.<sup>25</sup>

I do not want to deny that the spatio-temporal reading allows us to give a consistent interpretation of the individual verses discussed, as well as of some later verses in the chapter<sup>26</sup> (of course always presupposing that Nāgārjuna really made these particular assumptions about the divisibility of space and time) and provides an interpretative framework many later commentators availed themselves of. Nevertheless I think that the interpretation in terms of properties and individuals has advantages which deserve to be brought out more clearly.

My main worry with the spatio-temporal interpretation (apart from a lack of explicit statements by Nāgārjuna concerning the views about space-time structure he supposedly has in mind) is that the various references to the arguments in chapter two throughout the MMK<sup>27</sup> are very hard to make sense of on the spatio-temporal interpretation. For example Nāgārjuna remarks in the discussion of fire and fuel in chapter 10 that the remaining points concerning these have been discussed in the treatment of the presently moving object, the moved and the non-moved.<sup>28</sup> If we follow Candrakīrti’s interpretation that this means we can substitute ‘what has burnt’ (*dagdha*) for ‘what has moved’ (*gata*), ‘what has not burnt’ (*adagdha*) for ‘what has not moved’ (*agata*), and ‘what is presently burning’ (*dahyamāna*) for ‘what is presently moving’ (*gamyamāna*) throughout the second chapter<sup>29</sup> it becomes evident that this makes much more sense if we read it as an argument about the relation between properties and individuals, rather than as an argument about the structure of space and time. For example, by substituting in MMK 2:3 we get something like the following:

How suitable is it to attribute burning to the presently burning fire, as far as attributing non-burning to it is not suitable? For whom burning is attributed to the presently burning fire, there should be such a fire without burning—but ‘burning fire’ means ‘burning takes place there’.

If this argument has essentially the same structure as MMK 2:3 we should also understand it according to the spatio-temporal interpretation ‘as an argument against

<sup>25</sup> For a different criticism of the spatio-temporal interpretation see Mabbett (1984, p. 412).

<sup>26</sup> See the discussion on page 26.

<sup>27</sup> In the dedication, as well as in 3:3, 7:14, 10:13, and 16:7.

<sup>28</sup> ‘In the place of ‘fire’ all the other cases can be expressed by ‘what is presently moving’, ‘what has moved’, ‘what has not moved’.’ *atrendhane śeṣam uktaṃ gamyamāna-gata-agataiḥ*. MMK 10:13b.

<sup>29</sup> PP 211:8–12.

the model of motion which presupposes discontinuous time but a spatial continuum'.<sup>30</sup> But this cannot be quite right, as the above passage does not refer to motion at all, so perhaps we should better say it is 'an argument against the model of *change* which presupposes discontinuous time but a spatial continuum'. This then faces the problem that not all change involves spatial displacement; a burning flame, for example, changes while staying where it is. Is it then to be understood just as 'an argument against the model of change which presupposes discontinuous time'? Of course there are some arguments in Nāgārjuna's writing which can be understood in just such a way, such as the various formulation of the *traikālyāsiddhi* argument<sup>31</sup> ('if we assume there are temporal atoms, nothing could change during the present since this would entail that the 'present' atom had temporal parts'), but the above argument is not of this kind.

If, on the other hand, we refrain from interpreting the above in spatio-temporal terms, things become more transparent. If read as an argument about the relation between properties and individuals we can see that Nāgārjuna makes the point that the fire and its property (i.e. burning) cannot be conceived of as mutually independent objects, like an apple and its redness, which come together in a state of affairs. For whereas it is possible for the apple and the property of redness to exist one without the other (if the apple is green, and redness is instantiated elsewhere) there cannot be an individual which is a fire and also not burning, nor can the property of burning be instantiated by something which is not a fire.<sup>32</sup>

The widespread use of the discussion of the mover, the non-mover, and the presently moving object throughout the MMK suggests, I think, (and this will become more evident in the following discussion) that this section of the second chapter was not meant to be a specific investigation of the problem of motion and the various structural properties of time and space. Rather it uses the discussion of motion as an example to illustrate an argumentative template which can be used in a variety of different contexts.<sup>33</sup> I would want to argue that the main issue addressed here is that of instantiation. The point Nāgārjuna wants to establish by investigating the notion of a mover and its motion in MMK 2–3 and 9–10 is that the standard analysis of instantiation in terms of independently existent individuals and properties is not universally applicable since a variety of predications (such as 'the mover moves', 'the fire burns' and so forth) cannot be analysed by it.

The use of the example of *motion* for the illustration of this template is explained by its centrality in the Buddhist world view. After all the term 'moving' (*gati*, 'gro ba

<sup>30</sup> Siderits and O'Brien (1976, p. 291).

<sup>31</sup> See Katsura (2000).

<sup>32</sup> See also Cheng (1980, pp. 233–234).

<sup>33</sup> This is fact is also noticed by Schayer (1929–1930, p. 44, note 26): 'It has to be stressed that the critique of the *gati* bears no direct relationship to the problem of motion. 'Going' is only used as an example to demonstrate the general impossibility of action (*kriyā*).', Walser (1998, p. 204): 'Nāgārjuna's root text indicates that there is something about the form of the argument in chapter 2 which should serve as a model or pattern for any subsequent argument.', and, interestingly enough, by Siderits and O'Brien themselves (at least concerning some verses of the second chapter): 'The attack is not against motion *per se* but against a certain attitude towards language, and so its basic point will have effect wherever noncritical metaphysics is practiced.' Siderits and O'Brien 1976, p. 294). See also Katsura (2000, p. 215).

does not just pick out objects moving in the everyday sense of the term, but more specifically refers to moving from one life to the next in transmigratory existence. In analysing the mistaken presuppositions behind statements like ‘the mover moves’ Nāgārjuna thereby attempts to clear away misconceptions likely to arise at the very core of the Buddhist view of human existence.

### The Property-Duplication Argument

The property-reduplication argument raises another difficulty with the statements ‘present motion happens in the presently traversed space’ and ‘a mover moves’. If motion is ascribed to the presently traversed space or to the mover we suddenly end up with two motions, rather than just one.

If there is motion in the presently traversed space this eventuates two motions, that by which it is a presently traversed space; and also the motion itself.<sup>34</sup>

Also, if the mover moves, two motions would be implied: that in virtue of which it is manifested as a mover, and, it being a mover, that [motion] with respect to which it moves.<sup>35</sup>

To understand this argument it is essential to note that Nāgārjuna regards both the presently moving object (*gamyamāna*) and the mover (*gantṛ*) as *thin individuals*. For an example of what I mean by a thin individual, consider the case of some object which is green, cubical, and heavy. When referring to such an object in language we will generally form the nominalization of one of the predicates denoting its properties, which we then take to denote the object which instantiates the other two properties. Calling the object a ‘green, heavy cube’ we have turned the predicate *cubical* into the common noun *cube* of which *green* and *heavy* are then predicated. According to the standard ontological interpretation of this expression we are thereby referring to an individual with two distinct monadic properties. Let us call the property which we turned into an individual by nominalizing the predicate the *constitutive property*, since it brings about or constitutes the individual referred to (in our example this is *being cubical*), and the other two *instantiated properties*, since they are instantiated by the individual thus constituted (*being green*, *being heavy*). Which properties we regard as constitutive and which as instantiated depends on our choice. With equal justification we could have chosen to speak of a ‘heavy, cubical green thing’ (so that *being green* is constitutive, *being*

<sup>34</sup> *gamyamānasya gamane prasaktam gamanadvayam / yena tad gamyamānaṃ ca yac cātra gamaṇaṃ punaḥ*. MMK 2:5.

<sup>35</sup> *gamane dve prasajyete gantā yady uta gacchati / ganteti cājyate yena gantā san yac ca gacchati*. MMK 2:11. La Vallée Poussin’s edition has the beginning of 11b as *ganteti cocyate*, ‘in virtue of which it is called a mover’ (99:6). This is one of several places (such as 99:7, 105:15, 106:11) in the second chapter of this edition where the root *vac* (‘to say’) instead of *añj* (‘to cause to appear’, ‘to manifest’) is used. The Tibetan translation as *mngon pa* supports the latter reading (see de Jong (1978, pp. 37–38), May (1959, p. 62, note 46)). The philosophical content of these passages is largely unaffected by this, apart from the fact that the reading with *añj* places less emphasis on the rôle of language in conceptualizing the mover as a mover.

heavy and being cubical instantiated) or a 'green, cubical heavy thing' (so that being heavy is constitutive, being green and being cubical instantiated). In each case we would have referred to a different individual with different properties.

Nāgārjuna distinguishes explicitly between constitutive and instantiated properties. The constitutive property of the presently moving object is that 'by which that is a presently moving object' (*yena tat gamyamānam*)<sup>36</sup>; the constitutive property of a mover is that 'in virtue of which it is manifested as a mover' (*gantā iti cājyate*)<sup>37</sup> or 'the motion by which the mover is manifested' (*gatyā yayājyate gantā*).<sup>38</sup> An instantiated property of a presently moving object is 'motion itself' (*yat [...] gamanam*)<sup>39</sup>; an instantiated property of the mover that '[motion] with respect to which it moves, it being a mover.' (*gantā san yac ca gacchati*).<sup>40</sup>

In the example of the green heavy cube we are dealing with a case where constitutive and instantiated properties are distinct; the cube is therefore a *thick individual*. A *thin individual*, on the other hand, is an object whose only instantiating properties are its constitutive property or properties entailed by its constitutive property.<sup>41</sup>

A good example of a thin individual is a clap of thunder. A clap of thunder is a particular sound-event caused by rapidly expanding air along an electric discharge known as lightning. The particular sound made is the constitutive property of the thunder-clap; it is what makes a thunder-clap a thunder-clap. Of course a clap of thunder does not just have the property of making the sound it makes, it also has a certain volume, goes on for a certain length of time, can only be heard in a particular area and so forth. But all of these properties are entailed by the thundering's constitutive property of making the thundering sound. A clap of thunder does not have any other properties apart from these.

Nāgārjuna argues that in the case of thin individuals the familiar analysis in terms of objects instantiating properties no longer works.<sup>42</sup> This is evident when we compare a statement about a thin individual, such as 'The thunder roars' with one about a thick one, such as 'Farinelli sings'. In the case of the latter it is clear that Farinelli existed before he started to sing, and at that time there was a silent Farinelli. But it would make little sense to apply this to the roaring thunder. There was no silent thunder present before it began to roar; it is the roaring as its constitutive property which brings the thunder about. We are therefore faced with essentially the same problem we already encountered when discussing the property-absence argument. As the thunder and the sound it makes are mutually dependent on one another for their existence we cannot analyse states of affairs in which they feature

<sup>36</sup> MK 2:5b.

<sup>37</sup> MK 2:11b.

<sup>38</sup> MK 2:22a, 23a.

<sup>39</sup> MK 2:5b.

<sup>40</sup> MMK 2:11b.

<sup>41</sup> This concept of a thin individual should not be confused with the concept of a thin *particular* familiar from the contemporary metaphysical discussion. This concept denotes the object which is left when all the non-relational properties are abstracted away. See Armstrong (1997, pp. 109–110, 123–126).

<sup>42</sup> Compare Bhāviveka's commentary on MMK 2:22 (Ames 1995, p. 330).

in the same way in which we analyse those involving a thick individual, namely as being constructed of various independently existing entities, like the cube, the property of being green and the property of being heavy.

If, however, we insist on conceiving of a thin object in the way in which we usually conceive of thick objects we will end up with a duplication of properties.<sup>43</sup> A thick individual has some properties which are logically independent of one another (in the case of Farinelli, for example, being a singer and having dark hair), and one of these can be used to constitute an object of which the other is then predicated as an instantiated property. But in the case of a thin object there is only the constitutive property and the properties this entails. If we think that every object is to be analysed like a thick object, that is by regarding it as a collection of at least two distinct properties, one of which is regarded as an individual to provide the metaphysical condensation nucleus which can instantiate the other property, we end up having to split up the single property into two: one which does the work of a constitutive property, the other that of an instantiated property.<sup>44</sup> Such a split is ontologically hard to make sense of, as we seem to be only dealing with one property seen in two different ways, and not with two distinct properties.

Tsong kha pa's commentary underlines this point when saying that

The action of moving the foot is the referent of both phrases 'the space which is being gone over' and 'going'. As there is not more than one action of going and it would be contradictory for the action of going to be the referent of both terms it is said that if either term was meaningful, the other would be devoid of meaning.<sup>45</sup>

Tsong kha pa notes here that the very same motion can be conceived of both as an individual (namely the place where motion takes place) and as a property (the moving which takes place there). There is of course nothing contradictory in that, but there would be a problem if we thought that something about the nature of the motion determined that it was 'really' an individual or a property. In this case one conceptualization would be objectively right in capturing the nature of motion, the other would be wrong. But both are equally feasible depending on our interests, and there is no possibility of deciding between the two in terms of some hard ontological distinction. It is a distinction which exists in our words and concepts, but not in some reality beyond these.

The fundamental problem Nāgārjuna is concerned with here is that the conceptualization of some situation in terms of an individual instantiating a property is purely a result of cognitive convenience. We conceptualize something which is green, heavy, and cubical as a green heavy *cube* if cubes are what most interests us in the present context. But it is mistaken to rest an ontological distinction on such an intrinsically pragmatic fact by assuming that our conceptualization corresponds to

<sup>43</sup> MK 2:5, 6, 23.

<sup>44</sup> Compare Siderits and O'Brien (1976, pp. 292–294).

<sup>45</sup> *des na rkang pa gyo ba'i bya ba de 'gro bzhin pa'i lam zhes pa dang 'gro 'o zhes pa'i tshig gnyis ka'i don du yod pa dang. 'gro ba'i bya ba gcig las med pa gnyis 'gal bas tshig gcig don dang bcas na cig shos don gnyis stong bar gsungs so.* TSTC 110:14–17.

the way reality itself if carved up, namely as consisting of an individual (the cube) instantiating some properties (greenness, heaviness). The examples of thin individuals and the resulting multiplication of properties show us where the problem lies. But it is important to realize that Nāgārjuna's arguments are not just directed against specific problems arising only for thin individuals.<sup>46</sup> It is rather that these present a particularly extreme case indicating difficulties with the assumption of a ready-made world sliced up into individuals and properties in general.

The same problem of property duplication also arises when we consider this argument against the background of the classical Indian theory of grammar going back to Pāṇini. As Nāgārjuna makes clear a duplication of the action of movement requires a duplication of its agent, and therefore two movers.<sup>47</sup> Candrakīrti's commentary on this presupposes Pāṇini's theory of *kāraḥas*, a theory of the semantic relations between noun and verb.<sup>48</sup> The underlying idea is that the various participants of an event described in a sentence occupy various participatory rôles relative to the action denoted by the verb, rôles which are generally marked by different grammatical cases.

Consider the following sample sentence:

In the palace the prince brings presents from the king to the queen on an elephant.

The event described here is one of bringing, as indicated by the verb, in which various entities participate: The prince is the agent (*karṭṛ*, generally marked by the nominative case in Sanskrit), the presents are the object (*karman*, in the accusative), the queen is the recipient (*saṃpradānam*, in the dative), the king is the point of departure (*apādāna*, in the ablative), the elephant is an instrument (*karaṇam*, in the instrumental) and the palace is the location or 'support' (*adhikaraṇam*, in the locative case). The theory of *kāraḥas* provides us with a general account of how the different thematic rôles the participants in an action might occupy can be expressed in Sanskrit by the various *vibhaktis* or cases.

Candrakīrti observes in his commentary on MMK 2:6 that the *kāraḥa* required by the verb *gamyate* 'is moved' is an agent (*karṭṛ*) which is the mover (*ganṭṛ*).<sup>49</sup> If the property of moving thus requires a mover, given the reduplication of motion discussed above we are faced with two distinct agents (one for each motion) rather than just one.

<sup>46</sup> Nor do Nāgārjuna's argument concerning motion refute an ontology of thin particulars which tries to account for our talk of 'individuals' and 'properties' in terms of some construction from these thin particulars, e.g. along the lines of trope theory. In fact an ontology which regarded only thin particulars each identical with its own *svabhāva* as ultimately real might be quite attractive for Nāgārjuna's Ābhidharmika opponent. Needless to say, a Mādhyamika would not accept such a theory. For some arguments why not, see Siderits (2003, pp. 122–123).

<sup>47</sup> *dvau ganṭārau prasajyete prasakte gamanadvaye*. MMK 2:6a.

<sup>48</sup> *Aṣṭādhyāyī* I.4.24–54; see Ganeri (1999, pp. 51–63).

<sup>49</sup> 'Since an action (*kriyā*) necessarily depends on a means of accomplishing it (*svasādhana*) [which is] either the object (*karman*) or the subject (*karṭṛ*) [of the action], the action of motion also involves an agent and therefore depends on an agent of motion.' *yasmād avāṣyam kriyā svasādhanam apeksate karma kartāraṃ vā | gamikriyā caivam kartāry avasthītā 'to ganṭāram apekṣate*. PP 96:8–9 Here *sādhana* is taken to be synonymous with *kāraḥa*.

We might argue at this place that on the face of it there seems to be no problem for a single agent being the means of bringing about two actions simultaneously, as for example in the case of someone simultaneously smoking and typing. This does not mean that there are in fact two persons sitting at the desk, a smoker and a typer, rather than a single one, a smoking typer. Multiplicity of actions does not always entail multiplicity of agents.<sup>50</sup>

To see where the problem lies here we have to have closer look at the various conceptions of the nature of the *kāraḥas* or participants of an event in Indian grammatical theory.<sup>51</sup> In his commentary Candrakīrti refers to Bhartṛhari's account when he claims that a *kāraḥa* is not to be understood as a substance (*dravya*) but as a power or capacity (*śakti*).<sup>52</sup> The reason for this is that if the *kāraḥa* denoted a substance, the same object could not function in different ways in different contexts, as an agent in one, an object in the next, or as an instrument in the third.<sup>53</sup> The *kāraḥa* therefore refers to the powers of an object to fill specific rôles in different contexts. The number of powers is diversified by the actions; the actions are not seen as properties of a single agent. For each action, such as smoking and typing we therefore assume a separate power which serves as its agent. The problem now arises if we assume that the different powers are differentiated due to the different natures of the actions performed, such as typing and smoking. The two motions, however, are actions of the same nature, and should therefore be regarded as being brought about by the same power as an agent.<sup>54</sup> Since the splitting of a single motion into two thus commits us to the unsuitable assumption of two different powers as agents of motions the splitting must be seen to rest on a deficient analysis of the situation at hand.

We therefore have to conclude that thin individuals cannot be analysed in the same way as thick individuals if we want to escape the methodologically distasteful consequences of splitting up a single property and a single agent into two, thereby multiplying entities beyond necessity.

## The Beginning of Motion

In verses 12–14 of the second chapter Nāgārjuna is concerned with the location of the point where motion begins (*gamanasya ārambha*). His argument can be best illustrated by considering the diagram in Fig. 1.

<sup>50</sup> Ganeri (1999, p. 58, note 12).

<sup>51</sup> Bhattacharya (1977, pp. 269–270), Bhattacharya (1980–1981, 1985, 1994–1995). See also Renou (1942) s. vv. *kāraḥa*, *śakti*, *sādhaka*, *sādhana*; Chakravarti (1930, p. 225).

<sup>52</sup> Bhattacharya (1980, p. 89). See also Bhattacharya (1977, pp. 269–270, note 21). That *kāraḥa* is a *dravya* is also denied by Patañjali in his *Mahābhāṣya* (Kielhorn 1880–1885, I, 442:23–26). Note that Bhāṣiveka in the *Prajñāpradīpa*, commenting on MMK 2:6, has the opponent assert that according to the grammarians (*sgra pa dag*, *śābdika*) the agent (*byed pa po*, *karṭṛ*) of the action of going is the goer. The opponent must conceive of the goer as some sort of substance, as Bhāṣiveka objects to this by pointing out that the goer is a mere collection of conditioned factors (*'du byed*, *saṃṣkāra*). See Ames (1995, p. 308).

<sup>53</sup> Bhattacharya (1980, p. 89).

<sup>54</sup> Bhattacharya (1980–1981, p. 38).

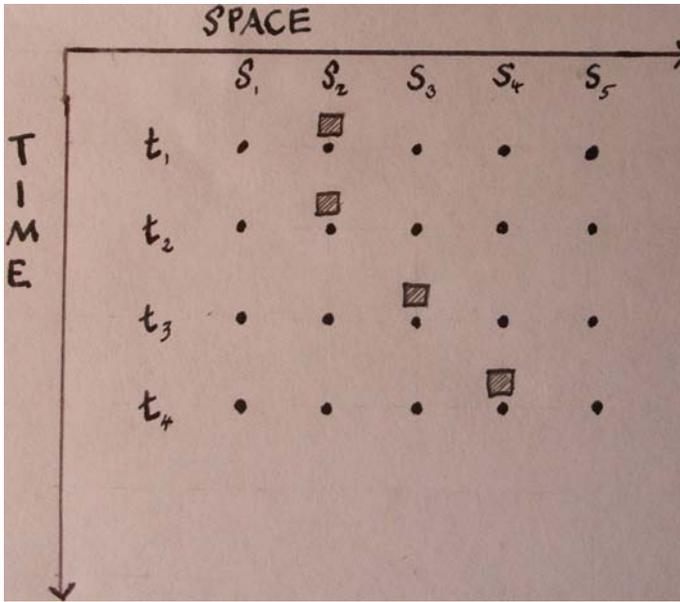


Fig. 1 The beginning of motion

For the sake of simplicity we consider both space and time to be discrete. There is a box which occupies different spatial points in succession: it starts off at point  $s_2$  at times  $t_1$  and  $t_2$  until it reaches point  $s_4$  at  $t_4$ . The diagram thus depicts the motion of a box from the left to the right. If we ask where the motion of the box begins, the answer is obvious: the box commences its move to the right at point  $s_2$ . To begin a motion at some point an object must first be stationary at this point (so that there are at least two successive moments of time in which the box remains at the same point of space), and at the immediately following moment it must be located at an adjacent point of space. At  $t_2$  the box is located at point  $s_2$ , at  $t_3$  at point  $s_3$ . So point  $s_2$  satisfies the condition for being the place where motion begins.

Given that there seems to be nothing inherently problematic about this, why does Nāgārjuna claim that the place where motion begins ‘is nowhere perceived’ (*adrśyamāna sarvathā*)? Nāgārjuna divides the space where motion takes place into three jointly exhaustive and mutually exclusive parts: the part already moved over (*gata*), the part presently traversed (*gamyamāna*), and the part to be moved over in the future (*agata*). To make things a bit more precise we can say that a place  $i$  is presently traversed by some moving object if the object is at a spatially adjacent place  $i - 1$  at the preceding moment  $t - 1$ , is at place  $i$  at  $t$  (which is the present moment), and at  $i + 1$  at  $t + 1$ . Similarly  $i$  is a place already moved over if  $t$  is some moment in the past, and a place to be moved over if  $t$  is in the future.

Now assume that the place where motion begins (let us call this  $b$ ) is one of the places already moved over. In this case the moving object would have to have come from some adjacent place  $b - 1$  at a moment before  $t$  (where  $t$  is in the past), reached  $b$  at  $t$  and moved to  $b + 1$  at  $t + 1$ . But it is obvious that this cannot be the

case, since if  $b$  is the place where motion *begins* the moving object cannot have got there from another place at the immediately preceding moment, because then  $b$  would just be one of the places moved over. Since a place already moved over must have been occupied by an object coming from the immediate vicinity at the immediately preceding moment,  $b$  cannot be one of these places.

If  $b$  was a place already moved over the moving object would have come from the immediately preceding point of space. So there would have to be motion from  $b - 1$  to  $b$ , i.e. motion *before* the beginning of motion. But  $b - 1$  can neither be taken to be a place already moved over, nor a presently traversed space, nor one yet to be moved over,<sup>55</sup> since all of these are to be found *after* the beginning of motion. Therefore  $b$  cannot be a place already moved over. Analogous arguments show that  $b$  also cannot be a presently traversed place or a place to be moved over in the future. It is evident that the same argument can be run concerning the place where motion *stops*; for the reason just given it cannot be located in any of the three parts of the space where motion takes place.<sup>56</sup>

A simple numerical model illustrates this point: if we define a set of numbers such that for every number in it that number's direct predecessor and direct successor must also be in the set it is clear that this set cannot have a smallest (or largest) element. For suppose  $x$  was this smallest element, then  $x$ 's predecessor would also have to be in the set, but this is smaller than  $x$ , so  $x$  cannot be the smallest.

A different interpretation of Nāgārjuna's argument for the unfindability of the beginning of motion is given by Siderits and O'Brien.<sup>57</sup> Their interpretation is based on the presupposition that Nāgārjuna assumes the infinite divisibility of time as a background to this argument in verses 12 to 13. Suppose some temporal interval consisted of some object first at rest, then later starting to move. Now take the moment of time  $t$  dividing the rest from motion. Now matter how short  $t$  is, it can always be divided further, subsuming its initial sub-moments under 'rest', its later sub-moments under 'motion'. Adding together 'rest' and 'motion' will then cover the entire duration of the temporal interval, without any place for  $t$ . On this 'knife-edge' view of  $t$  there is no moment where motion can begin, since  $t$  is just the dividing-line between rest and motion. It is not a temporal duration where anything can happen.

We might want to note that matters don't improve if we assume that time consists of discrete indivisible atoms. If we regarded  $t$  as an atomic moment between the last moment of rest  $t - 1$  and the first moment of motion  $t + 1$  we are again faced with the problem of where to locate  $t$  in the exhaustive division of the temporal duration into past, present, and future motion. Since the beginning of motion cannot be in the past or future, our best bet is the present motion. But then since  $t$  is atomic it cannot

<sup>55</sup> 'Neither the presently traversed [space] nor [the space] already moved over are before the beginning of movement. Where would motion begin? How could movement [begin] in the [space] yet to be moved over?' *na pūrvam gamyamānaṃ na vā gatam / yatrārabhyeta gamanaṃ agate gamanaṃ kutaḥ*. MMK 2:13.

<sup>56</sup> 'One does not stop after the presently traversed [space], after the [space] moved over, also not after the [space] to be traversed.' *na tiṣṭhati gamyamānān na gatān nāgatād api*. MMK 2:17a.

<sup>57</sup> Siderits and O'Brien (1976, pp. 295–296).

be the moment of present motion, as nothing moves during  $t$ : there can be no changes during an atomic moment of time.<sup>58</sup>

A third argument for the impossibility of locating the beginning of motion in the present motion is suggested by Candrakīrti's commentary on verse 12. Candrakīrti claims that the beginning of motion 'is also not in the present motion, since that does not exist and because it [absurdly] eventuates two actions and two agents'.<sup>59</sup> This obviously is a reference to the property-duplication argument mentioned in verses 5–6 and 11. In analogy with our interpretation of this argument given above we could here read Candrakīrti as trying to establish the impossibility of conceiving of the beginning of motion and its property of spatial location as independently existent objects. This point can then be generalized to apply to different examples of change and their respective locations.<sup>60</sup>

Unfortunately Nāgārjuna's verses do not allow us to decide which (if any) of the three arguments he had in mind. The enterprise of rational reconstruction can here only suggest plausible alternative arguments which the Mādhyamika might want to put forward. We cannot tell what the *argumentum ipsissimum* of Nāgārjuna might have been.

We shall therefore continue the discussion by assuming that it has been established by one of these arguments that the beginning of motion is not to be found anywhere within the three parts of the space where motion takes place. Nāgārjuna now points out that this entails a problem for the discrimination of these three parts of space.<sup>61</sup> That portion of the way which has been moved over in the past is just the collection of all the spatial points each of which is *gata*, that is for each of these points the moving object must have been located at this point at some past time  $t$ , and it must have been at a preceding point at  $t - 1$  and at a succeeding point at  $t + 1$ . But in order to know how many points to include in the collection we have to know where the motion begins. Otherwise we would not be able to distinguish those spatial points which have not been moved over from those which have. The same problem arises when ascertaining which collection of points forms the part of space yet to be moved over. Here we have to determine which point is the end of motion in order to distinguish the part which is yet to be moved over from that which is not.

It is now clear that in verses 12–14 Nāgārjuna is arguing for two conclusions. Firstly, given the conceptual resources of the triple division of the space where motion takes place into the space which has been moved over (i.e. a collection of spatial points each of which is *gata*), the presently traversed space (the point which is *gamyamāna*) and the space yet to be moved over (the points which are *agata*) it is not possible to define the spatial point where motion begins. This is due to the fact that to be in one of the three divisions a point must have had the moving object move to it at the preceding moment, whereas to be the beginning of motion a point cannot be such that something

<sup>58</sup> Compare Galloway (1987, pp. 81–82) who regards this argument as implicit in Candrakīrti's commentary on verse 1.

<sup>59</sup> *nāpi gamyamāne tadabhāvāt kriyādvayaprasaṅgāt kartrdvayaprasaṅgāc ca*. PP 100:8.

<sup>60</sup> See Mabbett (1984, pp. 414–415) for a defence of this interpretation.

<sup>61</sup> 'How are the [space] moved over, the presently traversed and the one yet to be moved over differentiated when the beginning of motion is indeed nowhere perceived?' *gataṃ kiṃ gamyamānaṃ kim agataṃ kiṃ vikalpyate / adṛśyamāna ārambhe gamanasyaiva sarvathā*. MMK 2:14.

has just moved there, since it would then just be one of the many points across which motion takes place.

But this passage is not just about the definition of concepts. Since the triple division of the space where motion takes place is seen to be exhaustive, and since the above argument shows that none of the points in the triple division can be the beginning of motion this implies that the beginning of motion cannot be anywhere within the space where motion takes place.<sup>62</sup> But this seems peculiar, since the beginning of motion is where motion takes place, not where it does not.

Secondly it is not possible to define two of the three divisions, namely the space which has been moved over and that which is yet to be moved over without reference to the point where motion begins and its dual, the point where motion stops. These two are essential cognitive resources for our understanding of motion. They must provide the dividing line between the space which has already been moved over and that which has not, as well as that between that which is yet to be moved over and that where no motion is going to take place in the future.

We are therefore faced with a paradox. The triple division of space where motion takes place presupposes the beginning of motion. The beginning of motion in turn presupposes the triple division of space in which this beginning is located. But the beginning is nowhere to be found within the space triply divided, nor would it make sense to say that it exists outside of that space. The beginning of motion therefore must both exist (since it is conceptually necessary given the triple division of space) and cannot exist (since we can demonstrate that it cannot exist at any location within this division).<sup>63</sup>

The paradox can be resolved by rejecting the assumption that the beginning of motion is findable. We thereby deny that it can be picked out by a set of properties it has independent of us, who conceive of the space where movement takes place, for example by saying that some point  $b$  qualifies as the beginning of motion if the moving object occupies it at time  $t$  but did not occupy the directly preceding spatial point at the immediately preceding moment, or by trying to squeeze  $b$  into the infinitesimal temporal moment between rest and motion. Since on such an understanding  $b$  turns out to be unfindable we must come up with another conception of  $b$ . The idea here is to deny that any point qualifies as the beginning of motion independently of us, but that it is rather our *decision* to regard it as such a point which makes it the beginning of motion. This does not mean that we could pick absolutely any point and take it to be the beginning of motion, but as long as certain boundary conditions are observed (e.g. that the beginning of motion must be temporally and spatially before the place presently traversed) we can pick an arbitrary point and declare it to be the beginning of motion. What this means is that we regard that part of an event which begins with the presence of the moving object at a given point and stretches up to its being located at the space presently traversed as a single event,

<sup>62</sup> It is not the case that Nāgārjuna just 'falsely assumes that what is characteristic of individuals must be characteristic of the group containing those individuals', as argued by Cheng (1980, p. 237). The argument should rather be understood as a proof by cases: if the place where motion begins is to be found anywhere then it should either be in the portion of space traversed in the past, in the one presently traversed or in the one not yet traversed. As each of these can be eliminated, the place where motion begins is nowhere to be found.

<sup>63</sup> Compare Siderits and O'Brien (1976, pp. 295–296).

regardless of whether the moving object occupied an adjacent point at the immediately preceding moment. By deciding to regard some moment as the beginning of motion we split up the flow of events according to our cognitive needs and regard everything between this and the similarly imposed end of motion as part of a single event of motion.

In this way the paradox disappears. We can still have the triple division of the space where motion takes place and have the beginning (and end) as boundaries of this. These two points are no longer unfindable since according to the present interpretation they are just where we draw the line between one event and another; they do not have to fulfill any additional conditions like the ones given above. As Nāgārjuna argued earlier, the triple division of space is conceptually dependent on the notion of the beginning of motion. This, however, does not mean that the beginning of motion has to have any existence apart from the cognizing subject; in fact it is precisely this assumption which leads to the problems described by Nāgārjuna in verses 12 to 14. The beginning of motion (as well as the beginning of events in general) is not something found out there in a ready-made world, but a boundary drawn by the mind in accordance with one's particular interests and needs. On the basis of such an imposed boundary we can then establish the triple division of space and time into where and when an event had already taken place, where and when it is presently taking place and where and when it will take place.

### The Interdependence of Mover and Motion

Nāgārjuna observes that the concepts mover (*gantṛ*) and movement (*gamanam*, *gati*) are existentially dependent on one another. The concept of a moving object requires that of a movement this object carries out, the concept of movement must be the movement of something, i.e. of the moving object.<sup>64</sup> This mutual dependence implies for Nāgārjuna that mover and movement can neither be regarded as identical nor as distinct objects.<sup>65</sup> To regard mover and motion as identical would imply that agent and action are considered to be one object (*ekībhāva*). This would mean that no agent could ever perform two distinct actions, since for this he would have to be identical with two distinct things. The agent must therefore vary with the action, for example by not being regarded as a substance (*dravya*) but as a power (*śakti*) to carry out a certain action, as done by Candrakīrti in his commentary on verse 6. As these powers come into and go out of existence this entails the problem that there

<sup>64</sup> MK 2:7: 'If the goer was removed, going would not be possible. While the going does not exist, where could a goer come from?' *gantāraṃ cet tiraskṛtya gamaṇaṃ nopapadyate / gamane 'sati gantātha kuta eva bhaviṣyati*.

<sup>65</sup> MK 2:18–21: 'It would not be suitable to say that motion and mover are the same, it would not be suitable to say that mover and motion are not the same. If motion and mover were the same agent and action would be one object. If motion and mover were conceived of as different there could be a motion without mover and a mover without motion. If the two are not established as the same or different, how are they established?' *yad eva gamaṇaṃ gantā sa eveti na yujyate / anya eva punar gantā gater iti na yujyate // yad eva gamaṇaṃ gantā sa eva hi bhaved yadi / ekībhāvah prasajyeta kartuḥ karmaṇa eva ca // anya eva punar gantā gater yadi vikalpyate / gamaṇaṃ syād ṛte gantur gantā syād gamaṇād ṛte // ekībhāvena vā siddhir nānābhāvena vā yayoḥ / na vidyate tayoh siddhiḥ kathaṃ nu khalu vidyate*.

would be no continuous existence of a single agent performing a sequence of actions over time. Since this point generalizes to individuals and their properties as a whole a theory which regarded these two as identical would have difficulties in explaining how we could ever regard such a sequence of distinct individuals and properties as a single unified temporally extended object.<sup>66</sup> A more specifically Buddhist difficulty would arise in connection with the concept of karma. If for every action there is a distinct agent, what reason is there for the karmic consequence of an action to apply to one agent rather than another? As *ex hypothesi* none of the later agents are identical with the original one there seems to be no justification for the karmic result to be reaped by one rather than another.<sup>67</sup>

Mover and motion also cannot be regarded as distinct. It is important to note that here, as well as in other contexts, Nāgārjuna uses the word ‘distinct’ to mean ‘independently existent’. If mover and motion exist independently, like a piece of cloth and a pot, as Candrakīrti puts it,<sup>68</sup> it would be possible for a stationary mover to exist, or for a movement to exist which was not the movement of any object. But since the two are existentially dependent on one another, neither of these is in fact possible.

While the identification of mover and motion led to problems with the continuity of an individual over time, as we have just seen, regarding them as existentially independent generates a different problem. Even if we adopt the more sensible position of interpreting independence here as meaning that motion could be instantiated in a different object from the one it is in fact instantiated in, and that the moving object could instantiate a different motion from the one it in fact instantiates we end up with having to postulate a thin particular, a substratum which remains once all the properties have been abstracted away. For if *any* property could just leave the individual and go instantiating somewhere else how are we to characterize the individual? Since any property can exist in principle without it it must be something which could in principle exist without any of its properties.<sup>69</sup>

The difficulty resulting from treating mover and motion as independently existent objects is also what is behind Nāgārjuna’s assertion in the final verses of chapter 2, claiming that neither an existent, nor a non-existent, nor a both existent and non-existent mover can carry out a triple movement.<sup>70</sup> It is easiest to fit this verse into the argumentative context of chapter 2 by regarding the ‘triple movement’ as not referring to movement in the past, present, and future,<sup>71</sup> but by following

<sup>66</sup> This is a familiar problem for theories which equate objects with sets of properties. As two sets are identical iff they have the same members an object could never lose a property and yet remain the same object. Compare Armstrong (1978, pp. 37–38).

<sup>67</sup> See TSTC 372. Kalupahana (1991, p. 128) interprets the identity of agent and action as the position of the Sarvāstivādins, who assume ‘identity (*sa eva*) on the basis on an eternal substance (*svabhāva*), thereby rendering the attribute (*lakṣaṇa*) an ephemeral (sic) or impermanent come-and-go entity’.

<sup>68</sup> PP 105:5.

<sup>69</sup> See Armstrong (1997, pp. 123–126).

<sup>70</sup> *sadbhūto gamanaṃ gantā triprakāraṃ na gacchati / nāsadbhūto ’pi gamanaṃ triprakāraṃ na gacchati / gamanaṃ sadasadbhūtaḥ triprakāraṃ na gacchati*. MMK 2:24–25a.

<sup>71</sup> Siderits and Katsura (2006, pp. 145–146). See also Garfield (1995, p. 133), who also translates the Tibetan of MMK 25a (*yin dang ma yin gyur pa yang / ’gro nam gsum du ’gro mi byed*) by ‘Neither an entity nor a nonentity moves in any of the three ways’, rather than as ‘An object which both exists and does not exist does not carry out a movement in any of the three ways’.

Candrakīrti's commentary.<sup>72</sup> According to this interpretation 'existent mover' here means one in which the activity of moving (*gamikrīyā*) inheres, a non-existent mover is one in which it does not inhere, while a mover which is both is an entity in which it both inheres and does not inhere. Saying that the movement, which is to be understood as the space gone over (*gamyata*)<sup>73</sup> is 'triple' equally means that either the activity of motion inheres in it, fails to inhere in it, or both inheres in it and fails to inhere in it.

On this interpretation we are left with nine distinct possibilities: that a mover in which the activity of motion inheres moves at a place in which this activity inheres also, that a mover in which the activity of motion inheres moves at a place in which this activity *does not* inhere; and so forth for the remaining possibilities. The philosophical idea behind this is straightforward. We should not assert that a mover in which the activity of motion inheres moves at a place in which this activity inheres also, if this is supposed to mean that the activity of motion inhering in the mover is *independent* of its inhering in the mover. This is due to the fact that one depends on the other: motion can only inhere in a mover if it moves at some place, a place can only be the locus of motion if something moves at it. Furthermore, it cannot be the case that a mover in which the activity of motion inheres moves at a place in which this activity does not inhere, since it would then not be a space gone over. It is obvious that the remaining examples are to be treated in a similar way. The 'contradictory' third alternative of both inherence and non-inherence seems to be given by Nāgārjuna merely for the sake of completeness, as supposing that some property both inheres and fails to inhere in some object is inconsistent.<sup>74</sup>

The bottom line<sup>75</sup> of the above arguments concerning the interdependence of mover and motion is that while the concepts of mover and motion (and, more generally, agent and action and individual and property) have to be regarded as non-identical, neither of them can be regarded as self-sufficient or existing from its own side, since the existence of each requires that of the other. It is therefore somewhat misleading to take Nāgārjuna as arguing that mover and motion are not real.<sup>76</sup> While it is certainly correct to say that Nāgārjuna thinks that mover and motion are illusory to the extent to which the way they appear (namely as independently existent entities) is not the way they really are, their lack of reality is quite different from that of other non-existent objects, such as hare's horns and present kings of France, which do not exist even at the level of conventional reality (*saṃvṛtisat*).

<sup>72</sup> PP 107:9–14. Candrakīrti explicitly refers to MMK 8 for the interpretation of 2:24–25, which indeed gives a more detailed version of the argument Nāgārjuna has in mind here. Note that Candrakīrti and Buddhapālita differ on their interpretation of 'triple' (*triprakāram*) (Pandeya 1988–1989, I:62). See also TSTC 110.

<sup>73</sup> *tatra gamyata iti gamanamihocyate*. PP 107:9.

<sup>74</sup> As Nāgārjuna asserts in MMK 8:7b: 'Since 'existence' and 'non-existence' are mutually contradictory how can they be unified?' *parasparaviruddham hi sac cāsac caikataḥ kutaḥ*.

<sup>75</sup> MMK 2:21.

<sup>76</sup> As claimed by Murti (1955, p. 183), see also pages 137 and 307. Note that Jacques May translates Candrakīrti concluding his commentary of MMK 2:21 in PP 105:11 with the words *nāsti ganṛgamanayoḥ siddhir ity abhiprāyaḥ* rather misleadingly as 'L'idée est que le mouvement et son agent sont dépourvus de réalité' (May, 1959, p. 71).

## The Second Chapter of the MMK in its Argumentative Context

The second chapter of the MMK must be understood as playing a double rôle in Nāgārjuna's philosophical enterprise. On the one hand it is part of the discussion of a variety of different entities (such as agent and action, suffering, time, nirvāṇa and so forth) attempting to show that none of them exists substantially, that is, by *svabhāva*. In this context the examination of motion deserves a particularly prominent place because of its centrality in the Buddhist world view. Firstly it is an obvious example of change and therefore intimately connected with the notion of impermanence. Secondly cyclic existence or *saṃsāra* is after all nothing but the moving about (*saṃsṛ*) in the various realms of rebirth. When Nāgārjuna argues that mover, motion and so forth are empty of *svabhāva* he uses the terms both in their everyday and in their soteriological sense, where the moving (*gati*) subject is what is to be reborn, and motion is the move from one life to the next.

It is in the context of this discussion that Nāgārjuna's arguments about the beginning of motion and the identity and difference of mover and motion have to be understood. If we accept Nāgārjuna's conclusion that the beginning (and end) of motion are nothing to be found 'out there' in the world, but rather a boundary established by the mind this also entails that the beginning and end of a particular motion in *saṃsāra*, that is a particular birth and a particular death have no objective existence either, but are merely conventional ways of cutting up the flow of cyclic existence into conceptually convenient bits. Seen the other way round the concepts of past, present, and future lives only arise once we have decided to mark particular places in the continuity of consciousness as 'birth' and 'death'. Read in this soteriological way Nāgārjuna's arguments in this section of chapter 2 of the MMK aim to establish that such central concepts like birth and death, past, present, and future lives are no objective features of reality but merely conventionally real boundaries drawn by the human mind. This is made more explicit by Nāgārjuna in chapter 11 of the MMK where he notes that

Where the earlier, the later, and the simultaneous do not appear, how [is there] a proliferation [of the concepts] 'birth', 'ageing' and 'death'?<sup>77</sup>

Given the cyclical nature of *saṃsāra* what is earlier and what is later is very much dependent on where we identify the starting-point. The hands of a clock will reach '3' before '5' if we start at '2', but they will reach '5' before '3' if we start at '4'. As Nāgārjuna has argued that the starting-point is not something 'out there', but a boundary drawn by us in order to accord with our specific cognitive concerns, it becomes evident that we cannot ascribe any objectively existing referents to such concepts as 'earlier' or 'later', 'birth' or 'death', and 'past life' and 'future life'.<sup>78</sup>

<sup>77</sup> *yatra na prabhavanty ete pūrva-apara-saha-kramāḥ / prapañcayanti tāṃ jātiṃ taj jarāmaraṇaṃ ca kiṃ*. MMK 11:6.

<sup>78</sup> Jay Garfield observes that 'to see particular entities as having determinate, nonconventional beginnings of existence and determinate, nonconventional termini and, hence, that there are distinct times at which there is a clear fact of the matter about whether or not they exist, independent of conventions for their individuation, is to see those entities as having necessary and sufficient characteristics for their identity, that is, as having essences [i.e. *svabhāva*]. [...] Once we see the world from the standpoint of emptiness of inherent existence, the history of any conventionally designated entity is but an arbitrary stage carved out of a vast continuum of interdependent phenomena.' Garfield (1995, p. 199).

The discussion of the identity and difference of mover and motion addresses another crucial issue which will be taken up again by Nāgārjuna,<sup>79</sup> namely the question of the status of the subject transmigrating through a succession of rebirths. Clearly the mover (the person in cyclic existence) cannot be identical with each different rebirth, since it would then be identical with a number of things which are taken to be distinct at the conventional level. But it can also not be distinct from them as anything resembling an *ātman*-like transmigrating substance is ruled out in the Buddhist view of persons. There is therefore something fundamentally mistaken with the view which sees the transmigrating person and his rebirths as two entities which could be related by identity and difference.

The relevance of the arguments in chapter two for refuting the idea of a transmigrating person is also stressed by Tsong kha pa:<sup>80</sup>

Then, when the notion of substance with regard to a person has been refuted, some think 'Since there exists an agent who comes from the previous life to this one, and then goes to the next life, and who performs virtuous and non-virtuous actions, this does not make sense.' To refute this [Nāgārjuna presents] the two [chapters] 'Examination of Motion' [MMK 2] and 'Examination of the Agent' [MMK 8].

While it thus appears that the arguments in the second (12–14, 17) and third (7, 18–21) group of verses of the second chapter are concerned with the investigation of the existence of *svabhāva* in various entities connected with motion and change in both the everyday as well as in the soteriological sense, the first group (1–6, 8–11, 15–16, 22–25) is intended to play a more general rôle. It is not just that the concepts of mover and motion have to be understood in more than one sense, but rather that they serve as placeholders for which a variety of other concepts denoting an individual and a property could be substituted. Nāgārjuna's aim in these verses is therefore primarily to establish an ontological conclusion about the relation between individuals and their properties. By considering predications involving thin individuals (such as 'the mover moves' or 'the fire burns') Nāgārjuna establishes that the standard analysis of predication into individuals and properties, which conceives of them as mutually independent entities combined in a state of affairs is not satisfactory as a general analysis. Statements referring to thin individuals cannot be analysed in this way. Furthermore, Nāgārjuna wants to argue that this problem generalizes to analyses involving thick individuals as well. Once we have accepted that talk of individuals and properties in the case of such statements as 'the mover moves' is nothing more than the projection of forms of language which are mistakenly given ontological weight we will be much more reluctant to take this analysis ontologically seriously in other contexts. We should rather conceive of this analysis as a reflection of what is

<sup>79</sup> In chapter 27 of the MMK.

<sup>80</sup> *de ltar gang zag la rang bzhin bkag pa na 'jig rten pha rol nas 'dir 'ong ba dang 'di nas pha rol tu 'gro ba po dang las dge mid dge'i byed pa po yod pas de mi thad do snyam pa 'gog pa la 'gro 'ong dang byed pa po briag pa gnyis so.* TSTC 34:15–17.

cognitively convenient for us, rather than as a structure of the world mirrored in our language.

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