

Buddhist epistemology and the liar paradox*

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Abstract

The liar paradox is still an open philosophical problem. Most contemporary answers to the paradox target the logical principles underlying the reasoning from the liar sentence to the paradoxical conclusion that the liar sentence is both true and false. In contrast to these answers, Buddhist epistemology offers resources to devise a distinctively epistemological approach to the liar paradox. In this paper, I mobilise these resources and argue that the liar sentence is what Buddhist epistemologists call *a contradiction with one's own words*. I situate my argument in the works of Dignāga and Dharmakīrti and show how Buddhist epistemology answers the paradox.

1 Introduction

According to one popular definition, a paradox is ‘an apparently unacceptable conclusion derived by apparently acceptable reasoning from apparently acceptable premises’ (Sainsbury 2009, 1). This definition of a paradox is widely accepted; at least, it is a definition that is hardly challenged.¹ According to this definition, the liar paradox is a product of *reasoning*. This reasoning starts with an apparently acceptable premise: the liar sentence ‘This sentence is false’. It then leads by inference to the apparently unacceptable conclusion that the liar sentence is both true and false.

Most contemporary approaches to the liar paradox target the *logical* principles underlying the paradoxical reasoning from the liar sentence to the

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¹There is a small number of people who disagree with this definition, however. See, for instance, (Rescher 2001; Lycan 2010; Paseau 2013).

conclusion that the liar sentence is both true and false. To see a difference between reasoning and logical principles, consider a distinction introduced by Gilbert Harman (1986). Harman distinguished between logic in the sense of ‘proof or argument’ and *reasoning* in the sense of a procedure for ‘reasoned change in view’ (Harman 1986: chs. 1–2). On the one hand, logic is a set of consequence relations. A proof or an argument is an ordered set of propositions beginning with premises and ending with a conclusion where each step in this argument is introduced by deference to some logical principle. For example:

1. There are no Cheerios in the cupboard.
2. If there are no Cheerios in the cupboard, then Elisabeth ate the Cheerios.
3. Elisabeth ate the Cheerios. (*modus ponens* from 1 and 2)

On the other hand, reasoning involves a series of cognitive states and is a process of transitioning these states. Reasoning can be illustrated with an example of Mary who sees that there are no Cheerios in the cupboard and *reasons* that Elisabeth ate them. Whether Mary knows that Elisabeth ate all the Cheerios because she sees the empty cupboard cannot be settled just by checking the logical validity of the argument about Cheerios. Rather, the question about Mary’s knowledge concerns her actual cognitive situation. In contrast, the question about the logical validity of the Cheerios argument abstracts entirely from Mary and what she knows.

The liar paradox has standardly been analysed as a logical argument. For example, paraconsistent approaches to the liar paradox reject the logical principle that every sentence is either true or false (or that every sentence is either true or its negation is true) and deny that the liar sentence is either true or false (or that it is either true or has a true negation) (for example, (Kripke 1975; Maudlin 2004; Field 2008; Rumfitt 2017)). Paraconsistent approaches accept that the liar sentence is both true and false and change logical principles to accommodate true contradictions by denying the principle that everything follows from a true contradiction (for example, (Priest 2006; Beall 2009; Weber 2021)).

Semantic approaches to the liar paradox also abstract from reasoning agents and their knowledge. For example, Tarski’s approach to the liar paradox limits the scope of the definition of truth that *s* is true iff *p*, where *p* is a sentence and *s* is a structural description—for example, a quotation name—of *p* (Tarski 1933). This definition of truth cannot be consistently expressed in a language that contains the truth predicate and structural descriptions of its own sentences and so, according to Tarski, this definition of truth is not applicable to sentences of all languages.

Even though these approaches represent only a small fragment of the complete landscape of contemporary study of the liar paradox, they illustrate the fact that most contemporary approaches focus on logical or semantic principles underlying the paradox as a logical argument abstracting from reasoning agents and their knowledge. More examples of this general approach to the liar paradox can be found in (Beall, Glanzberg, and Ripley 2017).

In contrast to most contemporary approaches, Buddhist epistemological tradition of Dignāga (5th/6th c. CE) and Dharmakīrti (7th c. CE) discusses liar-

like sentences—typical examples include ‘Everything said is false’ and ‘My mother was barren’—in the context of rational debate between cooperating agents. According to them, one of the main purposes of rational debate is to transfer knowledge between cooperating agents. From a point of view of Buddhist epistemology, the liar sentence cannot be a thesis in a knowledge-transferring debate because nothing can be learned from the liar sentence.

In this paper, I mobilise Buddhist epistemology to offer a distinctive solution to the liar paradox. From the point of view of Dignāga’s and Dharmakīrti’s epistemology, the liar sentence cannot be an acceptable premise in reasoning because it is a so-called contradiction with one’s own words and it does not increase the knowledge of any agent involved in a rational debate.

This position is not only different in kind from most contemporary approaches to the paradox but also fits better with the definition of a paradox with which we started our discussion as it targets *acceptability* of the *reasoning* about the liar sentence rather than the logical principles that underlie this reasoning. According to that definition, a paradox is an apparently unacceptable conclusion (that the liar sentence is both true and false) derived by apparently acceptable *reasoning* from an apparently acceptable premise (the liar sentence). Given this definition, to answer the liar paradox, we need to account for this reasoning. And it is in this context of reasoning that Buddhist philosophers discuss liar-like sentences. Thus, drawing on Buddhist philosophers to engage with the liar sentence provides distinctive resources to approach the liar *paradox*.

2 The Buddhist theory of knowledge

The Buddhist discussion of liar-like sentences takes place in the backdrop of their views about epistemology. In order to understand a Buddhist approach to the liar paradox, we need first to provide an analysis of some elements of Buddhist epistemology.

In this section, I discuss the distinction between invalidation and impediment as presented in Dharmakīrti’s *Pramāṇavārttika* 4.98-99. Before analysing this fragment, I will place it in a broader context of Dharmakīrti’s philosophical project.

According to Buddhist epistemologists Dignāga and Dharmakīrti, there are only two sources of knowledge or means of knowing: perception and inference. There are only two sources of knowledge because there are only two ways in which objects can be presented to cognising agents: as real particulars (*svalakṣaṇa*) or conceptual, fictional universals (*sāmānyalakṣaṇa*). Particulars are causally efficacious, impartite, and simple objects of perception. When we perceive something—for example, what we take to be a cow—we come into causal contact with particulars, for example, particular colours, shapes, sounds etc. When we think that some cows have brown dewlaps, for example, we use concepts like ‘cow’, ‘brown’ and ‘dewlap’ (PSV I.2; PV I.44; PVSV 26, l. 2–11; PV III.1–3, 63; Hattori 1968: 24; Kellner 2004; Franco and Notake 2014: 29–37, 149).² These concepts serve as universals in terms

²I will be using the following abbreviations for editions of Buddhist texts: NB, Dharmakīrti’s

of which collections of particulars can be categorised as ‘cow’, ‘brown’ and ‘dewlap’.

Dignāga and Dharmakīrti understand perception to be a causal process of imprinting the form of a perceived object—a collection of particulars—in the perceiver’s mind. For example, say that you see a column of smoke. Particles of smoke imprint simple representations of their form—colour, shape, smell etc.—in your mind. If this process is not obscured by any obstacles, it produces a cognition that corresponds with the perceived particulars (PSV II.4–5; PV III.45–47; NB I.6, II.14; Hattori 1968: 26–27; Franco and Notake 2014: 123–26).

The second source of knowledge is inference. According to Buddhist epistemologists, there are two kinds of inference. Firstly, there is an inference for the sake of oneself: a cognitive process that reliably produces knowledge by employing concepts. Whether an inference produces knowledge depends on whether the so-called inferential reason employed in the inference satisfies the threefold criterion: (i) the inferential reason is present in the case under consideration, (ii) it is present in similar cases, and (iii) it is absent in dissimilar cases (NB II.2–3; PSV II.1; PVin II.1; Steinkellner 1971; Katsura 1984; Tillemans 1999; Kellner 2004). If the threefold criterion is met, the property cognised and inferential reason are inseparable and there is a so-called pervasion (*vyāpti*) between them. Buddhist epistemologists distinguish two kinds of relationships guaranteeing the pervasion of inferential reason and property cognised in inference: (1) causal relationship and (2) categorical relationship.³ The inseparability of inferential reason and property cognised in the inference is best understood, and typically explained, by means of example.

(1) In the context of the causal relationship, say that you have learned that there is fire on the mountain because you inferred it from the perception of smoke. Your inference was a process of forming new knowledge based on your previous knowledge. The product of this inference—a cognition that there is fire on the mountain—is knowledge because the smoke you saw—your *reason* for knowing that there is fire on the mountain—meets the threefold criterion: (i) smoke is present on the mountain; (ii) smoke is present in similar places, for example, in the stove where there is fire and smoke; and (iii) smoke is absent in dissimilar places, for example, in the lake where both smoke and fire are absent. Because the reason (smoke) meets the threefold criterion, it is guaranteed that the reason and the property cognised in the inference (fire) are inseparable. The reason is necessarily connected with the property cognised (fire) because wherever there is smoke, there is fire (there is a pervasion between smoke and fire). Even though you do not perceive the object of your inference, you come to know that this object is present in a particular location and your inferential reason meets the threefold criterion (PVSV ad PV I.35–47; Dunne 2004: 335–38; Tillemans 2017).

(2) In the context of the categorical relationship, say that you infer that something is a tree (the property cognised) because it is an Indian rosewood

Nyāyabindu (Malvania 1971); PSV, Dignāga’s *Pramāṇasamuccayaṅgī* (Hattori 1968; Tillemans 2000); PV, Dharmakīrti’s *Pramāṇavārttika* (Pandeya 1989); PVin, Dharmakīrti’s *Pramāṇaviniścaya* (Vetter 1966; Steinkellner 1979a, 1979b; Hugon and Tomabeche 2011); PVSV, Dharmakīrti’s *Pramāṇavārttikasoṅgī* (Gnoli 1960); T, *Taishō shinshū daizōkyō*, 大正新脩大藏經, The Taishō New Edition of the Buddhist Canon.

³I would like to thank the anonymous referee for pressing this point.

(the inferential reason). Your inference produces knowledge because Indian rosewood is a type (subcategory) of a tree. The property cognised in the inference (being a tree) and the inferential reason (being an Indian rosewood) are inseparable because whenever something is not a tree, it is not an Indian rosewood and whatever causes something to be an Indian rosewood, it also causes this thing to be a tree (PVSV ad PV I.34–47; PV I.2cd; PVin II.46, ll. 25–30; Steinkellner 1971; 1991; 1996; Iwata 2003; Dunne 2004: 335–38; Tillemans 2017).

The fact that both kinds of inference—inference based on causal relationship and inference based on categorical relationship—are means of knowing depends on particulars cognised in inference. An inference produces knowledge only if there are particulars cognised in the inference. This existential commitment of Buddhist epistemology is clearly visible in Dharmakīrti's arguments that universals do not ultimately exist (PV I.152; Siderits, Tillemans, and Chakrabarti 2011) and his arguments that the object of a knowledge-producing inference cannot be merely imagined. For example, the object of an inference cannot be just a universal that is ungrounded in particulars (like rabbit's horns), or an object known only from scriptures (like Buddhist heavens). Instead, it must be a real entity (*vastubhūta*) (PV III.1cd; PV IV.13–14; Pandeya 1989: 418, l. 16; Tillemans 2000: 24–25).

Buddhist epistemologists maintain that there is a second kind of inference, called inference for the sake of others. This kind of inference is understood to be the verbal expression of an inference for the sake of oneself. Buddhist epistemologists analyse inference for the sake of others into three parts: (i) the statement of a thesis ('the mountain has fire'), (ii) the statement of a reason ('because of smoke'), and (iii) the statement of a pervasion communicating that the property designated in the thesis and the reason are inseparable ('whenever there is smoke, there is fire').

For example, say that you want to communicate to your friend that 'The mountain has fire because of smoke and whenever there is smoke, there is fire.' That utterance is an inference for your friend's sake. What you say expresses what you inferred for yourself. The words you utter give your friend enough information to produce their own inference and to thereby learn what you know.

An inference for the sake of others is called an inference only metaphorically (PS III.1; PSV I. 40b–12; NB III.1–2; PV IV.17; PVin II.1; Iwata 1995: 156 n. 21; Dunne 2004: 147) because, strictly speaking, inference is a process of producing new knowledge on the basis of previous knowledge whereas inference for the sake of others is mere speech and speech alone is not a source of knowledge (PVSV ad PV I.213–217; PV IV.48–108; Tillemans 1990: 24–35; 1999: chs. 1–3; 2000: 78; Eltschinger 2013). Merely hearing the words expressing an inference is not enough to produce knowledge for the receiver of these words. For this, the receiver must infer for themselves that there is fire on the mountain by employing the same concepts that were employed in the inference performed by the speaker and be either aware that the inferential reason given by the speaker fulfils the threefold criterion or that there is a categorical relationship between the cognised property and the reason. The purpose of the inference for the sake of others is to verbally demonstrate the inferential reason to another person so that they can perform an inference by

themselves (NB III.1; PVin III.1ab; Iwata 1995; Tillemans 1999: ch. 4).

3 Contradictions with one's own words

Dignāga's and Dharmakīrti's analysis of liar-like sentences unfolds against the backdrop of their theory of means of knowing. According to Buddhist epistemologists, liar-like sentences are fallacious theses in the context of inferences for the sake of others. Liar-like sentences are offered as examples of statements that commit the so-called fallacy of a contradiction with one's own words. For instance, Dignāga says:

[A thesis is fallacious] if it is invalidated by its own words that express a contrary state of affairs. For example, 'everything said is false.'⁴

Śāṅkarasvāmin (6th c. CE) in his *Nyāyapraveśa* provides another example of a contradiction with one's own words: 'My mother was barren' (Tachikawa 1971, 122).

Kuiji (窺基, 632-682), a Tang dynasty Chinese commentator on Dignāga's and Śāṅkarasvāmin's works, gives a helpful explanation of this type of fallacy. He explains that the utterance 'My mother was barren' presupposes two contradictory things. On the one hand, the uttered word 'mother' presupposes that the person referred to in this sentence has a child. On the other hand, the uttered words 'barren woman' presuppose that the person is childless. These two properties—having a child and being childless—contradict each other. Kuiji finishes with a rhetorical question: if one already contradicts oneself in one's own words, what thesis could one establish to which the opponent might respond?

Kuiji also comments on Dignāga's example: 'Everything said is false'. Kuiji says that when a non-Buddhist says: 'Everything said is false,' they want to say something true. But what they say runs against what the word 'everything' means. 'Everything' includes the non-Buddhist's own words and implies that they are false. For all we know, the non-Buddhist wants to say something true because they state it as a thesis in a rational debate. However, what they say implies that it is false and so what they say opposes their intention to say something true. Moreover, if what they say is false, then because some sentences are not false, they mistake what is not false for what is false (*Yinming ru zhengli lun shu* 因明入正理論疏 T44:1840.116b21–c4; Zamorski 2014).

As Dignāga claims in the passage above, the reason why the liar-like sentences are contradictions with one's own words is because they express contradictory states of affairs or objects (*artha*). He then reasons that because

⁴Skt. *yadi viruddhārthavācīnā svavacena bādhyate yathā sarvām uktam mṛṣeti*. This Sanskrit fragment comes from Prajñākaragupta's *Pramāṇavārttikabhāṣya*. Sāṅkṛtyāyana's edition of Prajñākaragupta's text has *viruddhārthavācīnām* instead of *viruddhārthavācīnā* (Sāṅkṛtyāyana 1943b, 526 line 19). Translation into English is by Tom Tillemans (private communication). This fragment was identified by Shōryū Katsura with the fragment of Chinese translation of Dignāga's **Nyāyamukha Yinming zhengli men lun* 因明正理門論 (Katsura 1977, 113) T32:1628.1a19-2.

contradictory objects cannot be real, contradictions with one's own words are fallacies.

But why are there no contradictory states of affairs or objects? Dharmakīrti analyses contradictions further in the *Nyāyabindu* III.72–75:

[Mutual] contradiction between objects is of two kinds. A contradiction arises when an entity whose cause is unimpaired ceases to exist when another entity comes into being just as [is the case] with [the sensation] of heat and cold. [A contradiction] also [arises] as a result of the nature [of two entities] being mutually exclusive, as [is the case] with the affirmation and negation [of the same entity].⁵ (Nemec 2017: 62–63)

Dharmakīrti talks about two ways in which a contradiction may arise or two kinds of contradictions. The first kind of contradiction, related to particular sensations of heat and cold, can be understood as referring to the impossibility of coexistence of particulars. For example, particular heat and particular coldness contradict each other because these two particular sensations cannot co-exist in a single location and at the same time. Dharmottara (8th c. CE) and Durveka Miśra (c. 10th c. CE) in their commentaries on the *Nyāyabindu* say that these two contradictory particular sensations impede each other's existence and that the particular with stronger causal force nullifies the weaker (Malvania 1971: 199, ll. 4–5, 203, ll. 18–22; Woo 2001: 424).

The second type of contradiction concerns universals that categorise or classify particulars. Dharmakīrti says that this type of contradiction arises when something is both affirmed and negated. Dharmottara in his commentary illustrates Dharmakīrti's definition with two examples. Firstly, there is a contradiction between affirmation and negation if, for example, someone says that something is both blue and not blue. Secondly, there is a contradiction between two affirmations if someone says that something is both blue and yellow (Malvania 1971: 203, l. 11–4, l. 3; Bandyopadhyay 1988; Kellner 1997).

How Dharmakīrti's analysis of contradictions fits into Buddhist epistemology? That we do not perceive a combination of some particulars in a single location—for example, that we do not sense both hot and cold or see both blue and yellow (even Priest (1999) agrees)—gives us a reason to think that these particulars cannot co-occur. That some particulars cannot co-occur together is often an empirical matter in this sense. The contradictory nature of affirmation and negation can be thus seen as a generalisation of this empirical fact: to affirm that some particular thing is yellow amounts to denying that this thing is blue and, consequently, to affirming that it is not blue. The impossibility of co-existence of contradictory particulars in a single location excludes the possibility of a conceptual cognition of contradictory properties grounded in any particulars. Even though something can be both affirmed and denied, this affirmation and this denial combined do not express knowledge.

⁵Skt. *divividho hi padārthānām virodhaḥ | avikalakāraṇasya bhavato 'nyabhāve 'bhāvād virodhagatiḥ | śītoṣṇasparśavat | parasparaparihārasthitalakṣaṇatayā vā bhāvābhāvavat.*

4 Invalidation and impediment

In order to understand Dharmakīrti's account of why contradictions do not express knowledge, we must examine the passage in his *Pramāṇavārttika* where he says that contradictions with one's own words are like a thesis contradicted by the words of an authoritative text:

Even for someone who accepts [an authoritative] text, however, there is no invalidation when he [i.e., the proponent of a thesis] states an opposing [property] with regard to an entity which does not depend on that [treatise]. Because the two [statements] have the same force, there would [just] be an impediment between them, just as in the case of own words. Now this [text] of the proponent is essentially the same as his own words at that time [i.e., when he states the opposing property]. Of the two [opposing statements: one in the text and another stated by the proponent], the one which has [i.e., is supported by] a valid means of cognition would invalidate the other.⁶

This dense fragment is a commentary on Dignāga's claim that a thesis of an inference for the sake of others should not be contradicted by the words of authority (PSV III.2cd; Tillemans 2000: 5–6). Dharmakīrti here explains why it is the case. Words are metaphorically a source of knowledge if they are used in an inference for the sake of others and express an inference for the sake of oneself. However, words are not a source of knowledge if they are not supported by any means of knowing, even if someone recognises these words as authoritative.

A thesis contradicts authoritative words if it denies some property while the authoritative words affirm this property (or the other way around). For example, if the proponent's thesis says that sound is not audible and some authoritative text says that sound is audible, then the proponent's words are contradicted by authority. Because 'sound is audible' is supported by perception—we hear sound—authoritative words invalidate what the proponent says (PV IV.131–133; Tillemans 2000: 189–91).

Dharmakīrti says that if words are supported by a valid means of cognition, they *invalidate* an opposing thesis. Importantly, invalidation is a three-place relation: for two sentences $s1$ and $s2$ and an agent A , $s1$ invalidates $s2$ for A iff (i) $s1$ and $s2$ contradict each other and (ii) $s1$ is supported by a valid means of cognition for A . For example, say that you tell me 'There's no fire on the mountain.' I answer, 'There's fire on the mountain because of smoke and whenever there's smoke, there is fire' as a way of expressing an inference I went through myself to gain knowledge about the mountain.

Now, what you told me and what I told you contradict: fire and no-fire cannot co-exist in a single location. My words invalidate yours because my words are supported by inference and yours are not. In such a situation,

⁶*śāstrīṇo 'py atadālambe viruddhoktau tu vastuni | na bādha pratibandhaḥ syāt tulyakakṣyatayā dvayoḥ | | yathā svavāci tac cāsyā tadā svavacanātmakam | tayoh pramāṇam yasyāsti tat syād anyasya bādhakam.* The translation of this fragment is based on (Tillemans 2000: 138). I have changed Tillemans's translation to match my terminology.

your words would not result in knowledge about the mountain because of the reason I gave you. This example makes it clear that invalidation is an agential notion because a sentence is supported by a valid means of cognition only if it expresses *someone's* knowledge. For example, (*s1*) 'Sound is audible' invalidates (*s2*) 'Sound is not audible' only for those who know *s1*.

However, consider a situation in which what I said is *not* supported by any valid means of cognition. I answer you that 'There's fire on the mountain', but I don't have any reason to think that. In such a situation, my words would not give you any knowledge because I gave you no reason to think that I'm right and you are wrong. Our words don't invalidate but they *impede* (*pratibandha[ka]*). Sentences *s1* and *s2* impede each other for an agent *A* iff (i) *s1* and *s2* contradict each other and (ii) neither *s1* nor *s2* is supported by valid means of cognition for *A*. We know that we cannot be both right because fire and no-fire cannot be both present in a single location. However, it's still an open question whether there's fire on the mountain, and simply saying things to each other wouldn't generate any knowledge.

Dharmakīrti uses concepts of invalidation and impediment to make three points in this fragment. (1) A thesis about *radially inaccessible objects* opposed by words of authority can only impede and cannot invalidate. (2) Contradictions with one's own words are like words of authority about radically inaccessible objects because they can only impede. (3) Impeding sentences have *the same force*. Let's discuss these points one by one.

(1) Sometimes neither a proponent's thesis nor authoritative words are supported by means of knowing. This occurs if the thesis and words of authority speak about so-called radically inaccessible objects. Radically inaccessible objects are objects about which the only information we have comes from authoritative texts. No statements about these objects can be supported by means of knowing. Examples of radically inaccessible objects include gods, the afterlife, and the details of karmic consequences (PVSV 109.1–12; PV IV.48–51; PVin III.9; Tillemans 2000: 78–80). Because no statements about radically inaccessible objects can be supported by means of knowing, opposing statements about these objects impede rather than invalidate each other.

(2) Dignāga chooses to illustrate his claim about opposing statements about radically inaccessible objects with an example of a contradiction with one's own words. This choice indicates that, according to Dignāga, contradictions with one's own words are also unsupported by means of knowing and thus they impede themselves. Dharmakīrti explains that Dignāga's example is a mere indication of the fallacious thesis opposed by the words of authority and a better example would be 'Morality does not bring happiness after one dies' because the afterlife is a radically inaccessible object (PV IV.96–97; Tillemans 2000: 136–38). Nevertheless, Dharmakīrti agrees with Dignāga that contradictions with one's own words impede themselves. According to Buddhist epistemologists, both theses about radically inaccessible objects contradicted by authority and contradictions with one's own words cannot be supported by means of knowing.

(3) Dharmakīrti says in this fragment that impeding sentences have the same force. According to Manorathanandin (11th c.) and Gyel-tsap (14–15th c.) who comment on the above fragment from Dharmakīrti's *Pramāṇavārttika*,

a contradiction with one's own words has the same force because it expresses a non-existent contradictory state of affairs and because opposing particulars cannot co-exist in a single location that is under consideration (Pandeya 1989: 447 ll. 9–18; Tillemans 2000: 139 n. 481). To use Śaṅkarasvāmin's example of a contradiction with one's own words 'My mother was barren', the person designated by the barren mother either had a child or was childless, but they could not both have a child and be childless because having a child and being childless cannot co-exist in a single location, like heat and coldness or blue and yellow. In this way, contradictions with one's own words impede themselves as they have the same 'force'.

Presented in this way, the notion of force and, thus, that of impediment appears to be metaphysical.⁷ Heat and coldness have the same 'force' in the sense that heat and coldness cancel each other by their nature: the presence of heat has a *causal* force to prevent coldness from appearing and *vice versa*. However, it is better to understand 'force' as the epistemic 'oomph' that underlies verbal expressions of a thought supported by a means of knowing. This oomph removes a possible doubt the receiver of the inference may have about the thesis of the inference. On the one hand, if *s1* invalidates *s2*, then *s1* has greater epistemic force than *s2* because *s1* is supported by a means of knowing while *s2* is not. On the other hand, if *s1* and *s2* impede, they are both unsupported by means of knowing and they have the same epistemic force.

This epistemological interpretation of 'force' adequately explains Dharmakīrti's example 'Morality does not bring happiness after one dies'. Because an afterlife is a radically inaccessible object, whatever we say about it will not be supported by a means of knowing. Consequently, the thesis 'Morality does not bring happiness after one dies' and the authoritative words 'Morality brings happiness after one dies' have the same force and so impede each other.

Impediment, as explained above, is a three place relation between two sentences and an agent. However, a contradiction with one's own words is a single sentence; for example, 'My mother was barren'. So the explanation of impediment needs to be extended to what I call 'self-impediments'. A sentence *s* self-impedes for an agent *A* iff (i) *s* implies two sentences *s1* and *s2* and (ii) *s1* and *s2* impede each other for *A*.⁸ Self-impediments can be analysed as implying or presupposing two impeding sentences. 'My mother was barren' self-impedes because it implies two contradictory sentences: (*s1*) 'This person

⁷Tom Tillemans suggests that 'the same force' might refer to a psychological force that prevents one from holding contradictory beliefs. This is in line with the non-Buddhist theory of so-called cognitive blockers according to which when an agent holds a belief, the presence of this belief in the agent's mind prevents the agent from holding the opposing belief (Tillemans 2000, 133). However, this suggestion seems to conflict with what Dharmakīrti says about contradiction concerning universals in the NB III.72–75. As discussed earlier, Dharmakīrti claims that something can be both affirmed and denied, for example, one can affirm and deny that something is blue, or one can commit a fallacy of a contradiction with one's own words and mistakenly state 'My mother was barren' as a thesis in a debate. It seems to follow that, at least in this sense, it is possible to hold the contradictory beliefs that underpin contradictory assertions and denials even though stating a contradiction is always a fallacy and constitutes losing the debate.

⁸Self-invalidating contradictions with one's own words are also possible. For example, 'There is and there is not fire on the mountain' self-invalidates if 'There is fire on the mountain' is supported by a means of knowing. Thanks to Alan Hájek for making this point.

had a child' and (s2) 'This person was childless', and these two sentences have the same epistemic force. If you were to tell me that 'My mother was barren', I will think that the person you are talking about had a child because you call them your mother and that the same person was childless because you said that they were barren. However, I will not learn whether the person you are talking about had a child or was childless on the basis of your speech.

Impediment, as explained above, is a three placed relationship between two sentences and an agent. However, a contradiction with one's own words is a single sentence; for example, 'My mother was barren'. So the explanation of impediment needs to be extended to what I call 'self-impediments'. A sentence *s* self-impedes for an agent *A* iff (i) *s* implies two sentences *s1* and *s2* and (ii) *s1* and *s2* impede each other for *A*.⁹ Self-impediments can be analysed as implying or presupposing two impeding sentences. 'My mother was barren' self-impedes because it implies two contradictory sentences: (*s1*) 'This person had a child' and (*s2*) 'This person was childless', and these two sentences have the same epistemic force. If you were to tell me that 'My mother was barren', I will think that the person you are talking about had a child because you call them your mother and that the same person was childless because you said that they were barren. However, I will not learn whether the person you are talking about had a child or was childless on the basis of your speech.

5 The liar sentence is a contradiction with one's own words

We are now in a position to understand the Buddhist epistemologists' view on the liar and liar-like sentences. Their view can be articulated in three steps. First, according to Buddhist epistemologists, contradictions with one's own words are fallacies. On the basis of generalised observation about the non-occurrence of co-existence of incompatible particulars, contradictions with one's own words designate contradictory states of affairs or objects that cannot be real. They assert and deny that something has some property. This assertion and the denial have the same epistemic force. This means that the assertion and the denial implied by a contradiction with one's own words have equal epistemic oomph and are not supported by means of knowing. Consequently, contradictions with one's own words are fallacious theses because they do not express an inference for the sake of oneself.

Second, the liar sentence is a contradiction with one's own words. Say that we are engaged in a rational debate about logic and truth. You utter the liar sentence: 'This sentence is false'. What you stated presupposes that it is true because it has been stated in a rational debate. In the context of a rational debate, the purpose of stating something is to make the receiver of the speech learn something known to the speaker. Using Buddhist terminology, we might say that the statement of a thesis must be a part of an inference for the sake of others expressing an inference for the sake of oneself. Only then can the

⁹Self-invalidating contradictions with one's own words are also possible. For example, 'There is and there is not fire on the mountain' self-invalidates if 'There is fire on the mountain' is supported by a valid means of cognition.

speaker guide the receiver in their own inferences so that they can learn what the speaker knows.

There is a problem with uttering the liar sentence, however. It says that what you said is false because that is what ‘This sentence is false’ says. At the same time, because you stated it as a thesis in our debate, your statement is supposed to be true and express an inference you made for yourself. As the receiver of your speech, I am in doubt whether your statement is supported by a means of knowing, and I have a serious problem in using your words to guide my own inference and to thereby learn anything. My problem is primarily epistemological. I have not gained anything epistemologically from your speech ‘This sentence is false’. I have a reason to think that what you said is true—because you said it—and I have a reason to think that what you said is false—because that is what the liar sentence says.

We can see that the liar sentence has all the properties of a self-impeding contradiction with one’s own words. The liar sentence implies two contradictory sentences: the assertion (‘The liar sentence is true’) and the denial (‘The liar sentence is false’) and this assertion and the denial have the same epistemic force.

Third, the liar sentence universally self-impedes.¹⁰ A sentence s universally self-impedes iff (i) s self-impedes and (ii) there is no agent who knows that $s1$ or $s2$. In the remaining of this section, I will argue that there is no agent for whom ‘The liar sentence is true’ or ‘The liar sentence is false’ is supported by a means of knowing. This is not something Buddhist epistemologists considered themselves but the implication of their views on means of knowing and impediment.

It should be noted that not all self-impeding sentences universally self-impede. For example, a sentence (p) ‘There is and is not a possum in the shed’ can self-impede without universally self-impeding. To see this, consider two agents: you and me. For you, p self-impedes because it implies contradictory sentences: ($p1$) ‘There is a possum in the shed’ and ($p2$) ‘There is not a possum in the shed’, and you do not know that $p1$ or $p2$. On the other hand, for me, p does not self-impede because I know that (say) $p1$. Hence, p does not universally self-impede because there is an agent (me) who knows one of the contradictory sentences implied by p . Whether a sentence self-impedes or universally self-impedes depends on whether there is an agent who has knowledge about the situation.

The point (ii) in the definition of the universal self-impediment can be understood in a weak or strong sense. In the weak sense, a universally self-impeding sentence *contingently* universally self-impedes: it just happens that, for some self-impeding s , no agent knows $s1$ or $s2$. For example, ‘There are and are not oil-eating bacteria outside the Marina Trench’ contingently universally self-impedes if no one knows whether there are such bacteria, even though it is possible to know this, and all we need to do is to learn more about marine life. In the strong sense, a universally self-impeding sentence *necessarily* universally self-impedes if there *cannot* be an agent who knows $s1$ or $s2$. If some s necessarily universally self-impedes, then $s1$ and $s2$ cannot be

¹⁰I am grateful to an anonymous referee for rising this point and to James Bernard Willoughby for suggesting the name ‘universal self-impediment’.

known.

In order to understand the universal self-impediment better, it is helpful to consider contradictory theses about radically inaccessible objects. According to Buddhist philosophers, these theses contingently universally self-impede because we are too far away in time and space from radically inaccessible objects to know anything about them. Classical examples of radically inaccessible objects include out-of-this-world deities. For example, deities living in the 'Nirmāṇarati heaven are believed to impregnate by mutual smile (瑜伽論 T30:1579.406a26). Hence, a sentence 'Nirmāṇarati deities impregnate and do not impregnate by mutual smile' contingently universally self-impedes because it self-impedes for us, but it does not self-impede for 'Nirmāṇarati deities (if there are such deities and they know how they impregnate). On the one hand, the universality of self-impediment is an *epistemological* notion relative to a particular world and what agents in this world know and can know in this world. On the other hand, the necessity of self-impediment is a *metaphysical* notion relative to all possible agents in all possible worlds.

The liar sentence universally self-impedes because it at least contingently universally self-impedes. To see this, consider the following two scenarios. First, consider Devadatta who says that he knows that the liar sentence is *true*. If he knows that, there are particulars grounding his thesis that 'The liar sentence is true'. The same particulars ground Devadatta's cognition of the liar sentence. However, the liar sentence is a contradiction with one's own words and expresses a contradictory state of affairs. For all we know, there cannot be particulars grounding the liar sentence because truth and falsity are opposing properties and cannot be present in a single location. They are opposing properties because, typically, a sentence is true only if it is not false. In this respect, truth and falsity are like coldness and heat or blue and yellow: one of these properties is present in a particular location only if the other property is absent in this location. Hence, Devadatta's thesis that the liar sentence is true is not grounded in any particulars and he does not know that the liar sentence is true.

Second, consider Revata who says that he knows that the liar sentence is *false*. If he knows that, there are particulars grounding his thesis that 'The liar sentence is false'. The same particulars ground his cognition of the liar sentence. Revata knows that the liar sentence is false only if there is the liar sentence and this sentence is false. However, the liar sentence is not grounded in any particulars, so no cognition of the liar sentence is grounded in particulars, including Revata's cognition that the liar sentence is false. Hence, Revata does not know that the liar sentence is false.

In both scenarios, the cognition of the liar sentence is ungrounded in particulars and so it cannot be knowledge. Hence, there is no agent who knows that the liar sentence is true or false and the liar sentence universally self-impedes.

Does the liar sentence *necessarily* universally self-impede? The liar sentence necessarily universally self-impedes if there are *no possible* agents who know that the liar sentence is true or false. Are there such agents? From the Buddhist epistemology point of view, the answer is that we do not know whether there are such agents and so we do not know whether the liar sentence necessarily

universally self-impedes. To see this, it is helpful to recall what Dignāga and Dharmakīrti say about knowledge of radically inaccessible objects. According to them, radically inaccessible objects are too far away in time and space from us to know anything about. Because we do not know anything about radically inaccessible objects, we do not know whether there are agents who know these objects and, hence, we do not know whether contradictions about these objects necessarily universally self-impede. Similarly, if there is a world in which there are particulars grounding cognition of the liar sentence, then this world is too far away in time and space from us to know anything about. This includes our knowledge about agents who know that the liar sentence is true or false in their world. All *we* know is that the liar sentence self-impedes for us in *our* world.

To summarise, insofar as the Buddhist conception of inference for the sake of others is concerned, the liar sentence is a fallacious thesis and does not express a knowledge producing inference anyone went through themselves. The liar sentence universally self-impedes and, as far as we know, no one could have gone through such an inference. Hence, stating the liar sentence in a rational debate between co-operating agents does not transfer knowledge from the speaker to the receiver of this speech. In this way, the liar sentence is a fallacious thesis and an unacceptable premise in reasoning.

6 Conclusion

There are two major commitments of the Buddhist way of analysing the liar sentence. First, this analysis is committed to a particular theory of knowledge that emphasises the inferential aspect of reasoning from the liar sentence to the paradoxical conclusion that the liar sentence is both true and false. Second, this analysis distinguishes inferential and logical properties of the liar sentence. The proposed answer to the paradox targets the inferential properties of the liar sentence by deferring to the Buddhist theory of means of knowing.

The plausibility of a Buddhist answer to the liar paradox depends on the overall plausibility of Buddhist epistemology. However, a Buddhist analysis of the liar sentence reveals more than that. It shows that an answer to the liar paradox need not focus on the logical (and semantic) rules in reasoning about the liar sentence. Instead, an answer to the paradox can focus on the inference that makes us think that the liar sentence is both true and false and we can analyse whether this inference can make us know anything. If it cannot, then we have a reason to think that reasoning about the liar sentence is unacceptable in our epistemic practices without revising seemingly acceptable rules of reasoning or accepting a seemingly unacceptable conclusion.

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