

# Dharmakīrti on the role of causation in inference as presented in *Pramāṇavārttika Svopajñavṛtti* 11–38

Brendan S. Gillon and Richard P. Hayes

*Department of Linguistics, McGill University*

*Department of Philosophy, University of New Mexico*

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**Abstract.** In the *svārthānumāna* chapter of his *Pramāṇavārttika*, the Buddhist philosopher Dharmakīrti presented a defense of his claim that legitimate inference must rest on a metaphysical basis if it is to be immune from the risks ordinarily involved in inducing general principles from a finite number of observations. Even if one repeatedly observes that  $x$  occurs with  $y$  and never observes  $y$  in the absence of  $x$ , there is no guarantee, on the basis of observation alone, that one will never observe  $y$  in the absence of  $x$  at some point in the future. To provide such a guarantee, claims Dharmakīrti, one must know that there is a causal connection between  $x$  and  $y$  such that there is no possibility of  $y$  occurring in the absence of  $x$ . In the course of defending this central claim, Dharmakīrti ponders how one can know that there is a causal relationship of the kind necessary to guarantee a proposition of the form “Every  $y$  occurs with an  $x$ .” He also dismisses an interpretation of his predecessor Dignāga whereby Dignāga would be claiming non-observation of  $y$  in the absence of  $x$  is sufficient to warrant to the claim that no  $y$  occurs without  $x$ . The present article consists of a translation of *kārikās* 11–38 of *Pramāṇavārttikam*, *svārthānumānaparicchedaḥ* along with Dharmakīrti’s own prose commentary. The translators have also provided an English commentary, which includes a detailed introduction to the central issues in the translated text and their history in the literature before Dharmakīrti.

## 1. Introduction

This is the second installment of a translation of Dharmakīrti’s own prose commentary to one chapter of his most extensive work in verse, the *Pramāṇavārttika* (hereafter PV). The first installment of our translation of the *Pramāṇavārttika Svopajñavṛtti* (hereafter PVS), and our English commentary can be found in Hayes and Gillon (1991), where a general introduction to the text and its significance in Indian philosophy can be found.

As with the first installment of our translation, we have provided an English commentary in which we offer our interpretation of Dharmakīrti’s verses and his commentary. The structure of this presentation is as follows. We begin in section 2 with a translation of verses 11–38 of the PV. That is followed in section 3 with a translation of the PVS commentary to those *kārikās*. The subsections of section 3 are numbered **PV 11** and so on; the number in these subsections corresponds to the *kārikā* numbers of Gnoli’s edition. Following the subsection title of the form **PV 11** are page references to two Sanskrit editions and to one of the Tibetan translations of the PVS.



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So “**PV 11**,<sup>(G8.16; P177.13; D265a.8)</sup>” refers to *kārikā* 11, which is found on line 16 of page 8 of Gnoli’s edition, line 13 of page 177 of Pandeya’s edition, and line 8 of folio 265a of the Sde-dge edition of the Tibetan translation. Full information on the editions used can be found below beginning on page 73.

Section 4 contains our English commentary to the translation. The titles of the subsections refer back to subsection numbers in section 3 in what we trust is an obvious way. In the translation section, paragraphs to which we have written a commentary are indicated with a cross-reference to the subsection in which we have discussed the passage in question.

## 2. Translation of Dharmakīrti’s verses

11. But that effect which is inferred from an incomplete cause, such as the inference of passion from a body, is deficient because of [the cause’s] lack of capacity.
12. Cognition of a cause, like [the inference] from the act of speaking to [the speaker’s] being impassioned, is spurious knowledge when it comes from observing a general property of the effect through nothing more than its not being observed in a dissimilar subject.
13. And it is not that the [evidence’s] not being erratic is [established] through nothing more than its not being observed in a dissimilar subject, because its being erratic is possible like the cooking of rice in a cauldron.
14. That whose dissociation is shown through nothing more than non-observation is called deficient, because it is a cause of uncertainty.
15. Therefore, ascertainment of all three features is portrayed as an antidote to what is unattested, has an opposite conclusion or is erratic.
16. Then the statement of dissimilarity [would be of no use] as an antidote to erratic [evidence]. And if that [statement of dissimilarity] has the outcome of non-observation then that [non-observation] is known even if not stated.
17. And it is not that something is not present owing to the act of stating that it is not present so that, if the rule that it is not present is communicated, then it is known that it is not present.
18. If dissociation [of the evidence from dissimilar subjects] were due to non-observation, then why is a deficient [inference] erratic? For example, [one says] “this fruit is ripe or has the same flavor, because there is no difference in visible properties or because they originated on the same branch as those that were eaten.”

19. A property specific [to the subject] would be evidence of the separation [of permanence and impermanence from the subject], since [it] is not observed [with either of them]. It might be argued that one bit of knowledge counters another. In this case, it is not the case that absence [of the evidence in a dissimilar subject is ascertained] because of non-observation.
20. In the same manner in other cases as well, being countered by another piece of knowledge is possible. The disjunction owing to non-observation of actuals from what is seen would not be incompatible.
21. The potentials in things are observed to be different according to differences in location and so forth. It is not possible to be certain on the basis of observing one [thing with a given potential] in one location that it will be present elsewhere.
22. How can the same non-apprehension that is incapable of establishing the absence of a self and the absence of consciousness in clay establish the absence of the evidence [among non-possessors of the property requiring establishment]?
23. Because of that, a nature that is [naturally] connected only with that [nature being used as evidence] would rule out the nature itself. Or the cause would rule out the effect, owing to non-errancy.
24. Otherwise, how could there be the ruling out of one by the ruling out of the other? Given that a man is not an owner of horses, must he also not be an owner of cattle?
25. Similarly, how could there be proximity of one on the basis of proximity of the other? Given only that a man is an owner of cattle, must he also be an owner of horses?
26. Therefore, in these cases, it is not necessarily desired that the substratum [be mentioned] in [the statement of] dissimilarity, because knowledge of it arises also from the statement “when that [*scil.*, the property requiring establishment] is absent, then that [*scil.*, the evidential property] is not [present] as well.”
27. For being its nature and being a cause are communicated in the observed precedent to one who does not realize them. But for the experts, only the evidence itself need be stated.
28. For this very reason, when the relation is known through the statement of either one of the two, recollection of the second also arises through implication.

29. And therefore, the absence of a cause or a nature is evidence for the denial of something. Moreover, [so is] the non-apprehension of that for which apprehension is possible.
30. So, non-apprehension, even though said to be of three kinds, is of many kinds, because of the application of the distinction between non-awareness of something and awareness of what is incompatible with it and so forth.
31. The restriction of indispensability comes about from the restraint either of the relation of effect and cause or of a nature, not from either non-observation or observation.
32. Otherwise, in what consists the restriction of the one necessarily being present with the other, or when a property has another object as its causal condition, as in the case of the dye in clothing?
33. A property that has another object as its causal condition must be something else entirely. There is no being a cause, because it is present at a later time. Even if it were an effect, how [would it have] invariability?
34. Smoke is the effect of fire in compliance with the property of an effect. But that which exists in the absence of something must give up the state of having [that as] a cause.
35. That which has no cause has either permanent presence or permanent absence, because it has no dependence on anything else, for beings have occasional presence because of dependence.
36. If an anthill had the nature of fire, then it would be just fire. If it did not have the nature of fire, then how could smoke come into being there?
37. For fire, which has the nature of being a cause of smoke, has the characteristic of being a potential for it. If smoke were to come into existence from what is not the cause of smoke, then it would be without a cause.
38. That upon whose nature something is observed to be consequent, through association and dissociation [with another thing], has that [other thing] for its cause. Therefore, there is no coming into being from what is different.

### 3. Translation of Dharmakīrti's own commentary on his explanation of inference for one's own sake

**PV 11.** (G8.16; P177.13; D265a.8) *But that effect which is inferred from an incomplete cause, such as the inference of passion from a body, is deficient because of [the cause's] lack of capacity.*

*PVSV 11.1.* (G8.18; P177.15) For it is no less than all the causes that enable one to infer even as much as their aptitude, since the incomplete [cause] is quite lacking the capacity. Consider the inference of passion and so forth on the basis of the body, the sense-faculties and intellect. Passion and so forth are preceded by a fondness for oneself and one's possessions, because the arising of every vice is preceded by disorderly thinking. Even though bodies and so forth are causes, alone they lack the capacity, so even though there is no observation of the occurrence [of the evidence] in a subject dissimilar [from the subject of inference], there is uncertainty because the inference is deficient. (4.2.1)

**PV 12.** (G8.23; P178.01; D265b.3) *So cognition of a cause, like [the inference] from the act of speaking to [the speaker's] being impassioned, is spurious knowledge when it comes from observing a general property of the effect<sup>1</sup> through nothing more than its not being observed in a dissimilar subject.* (4.2.2)

*PVSV 12.1.* (G9.03; P178.04) For such things as movement [of the lips] and speaking are not the effect of such things as passion alone, because their general cause<sup>2</sup> is the desire to speak. (4.2.2)

*PVSV 12.2.* (G9.03; P178.04) It might be argued that that very [desire to speak] is a passion. Because it is accepted, nothing at all [that I have said] would be contradicted. They define passion as the mind's intense attachment, which is activated by belief in the permanent, in happiness, in oneself and in possessions, and the subject matter of which is a corrupted property. We shall show that compassion and so on are not like that, because they arise otherwise also. There is no knowing about this from the act of speaking alone, because a dispassionate person also speaks, as does an impassioned one. Nor is there knowing from a specific act of speaking, because [the speaker's] intention is difficult to discern, since all [acts of speaking] are erratic [*vyabhicārāt*] because behavior is complex. (4.2.3)

*PVSV 12.3.* (G9.10; P178.08) It might be argued that [a dispassionate person] would not speak, because he has no purpose. That is not the case, for [he

speaks] for the benefit of others. It might be argued that he is unable to, because he is free from passion. This is not so, because he can be activated by compassion as well. One might argue that compassion itself is passion. Agreed. It is not a vice, because it does not arise from misjudgment.<sup>3</sup> Even when one is not preoccupied with oneself, compassion is produced owing to the strength of habitual practice through nothing more than the observation of a specific instance of discontent. For instance, such things as friendliness are accepted as having sentient beings and virtue as their foundation. And these are activated by the same kind of habitual practice; they do not depend on passion. Such things as passion are not like this, because they are absent when misjudgment is absent. It might be argued that the undertaking of even a compassionate person is ineffective owing to the lack of misjudgment. This is not so, because the benefit of others is itself agreed to be the effect, because the effect is characterized by desire. This is unproblematic, because there is no attribution in any way of what is unreal. There is nothing at all with which we disagree in the argument for viciousness due to something other than that [passion]. It is a far-fetched conclusion<sup>4</sup> if one infers passion in someone else on the basis of observing it in oneself as a speaker. Given that there is no inference in other cases owing to [the evidence] being erratic, what ascertainment is there that it is not erratic in this case? The act of speaking can enable one to infer only qualities in the organ [of speech] and a desire to speak. It is said to be a far-fetched conclusion if one infers the aptitude to produce passion from the failure to observe speaking in one who lacks the aptitude to produce passion. If there is no need for passion, in what way is its potentiality needed? For if there were a need for [passion's] potentiality, then that [passion] itself would be needed, but it is said that that is not the case. (4.2.4)

*PVSV 12.4.* (G10.05; P178.19) Therefore, only an inseparable<sup>5</sup> effect enables the inference of a cause, because it is dependent on it.<sup>6</sup> The contrary kind [of effect] does not, even though there is no observation of it in the dissimilar subject. (4.2.5)

*PVSV 12.5.* (G10.06; P178.20) It is the failure only of one who sees everything to observe something that would make its absence in all places known, because even those things that are observed in a particular manner in one place are observed to be otherwise owing to a difference in location, time and preparation. For example, myrobalan trees become sweet-fruited by being sprinkled with milk, but they are not usually seen to be like this. (4.2.6)

*PVSV 12.6.* (G10.10; P178.22) So for that reason it would be correct to say “a speaker like me is impassioned,” provided that he is endowed with disorderly thinking in the form of belief in a self, which is the specific causal factor

through which passion arises. Even in that case, citing the example of the act of speaking is of no use; therefore, non-observation [of the evidence] in a dissimilar subject does not count as evidence.

**PV 13.** (G10.13; P179.1; D266b.2) *And it is not that the [evidence's] not being erratic is [established] through nothing more than its not being observed in a dissimilar subject, because its being erratic is possible like the cooking of rice in a cauldron. (4.2.7)*

*PVSV 13.1.* (G10.15; P179.3) For even if one observes that [the grains] are mostly cooked, it is not that the state of [their] being cooked is established by nothing more than [their] being inside the cauldron, because one does observe aberrations. But it may be that those [grains] having the same natures and having the same causes of cooking as these [observed grains] are cooked. But otherwise this inference, being deficient, is erratic. But why is this [inference] deficient?

**PV 14.** (G10.19; P179.7; D266b.4) *That whose dissociation is shown through nothing more than non-observation is called deficient, because it is a cause of uncertainty. (4.2.8)*

*PVSV 14.1.* (G10.21; P179.9; D266b.5) Since its dissociation is not ascertained, its residence in a dissimilar subject must be called into doubt, because the means of establishing dissociation that consists of nothing more than non-observation is a cause of uncertainty. For not every non-apprehension leads to knowledge. Therefore, one admitting the ruling out of one thing through the ruling out of another must also admit some natural connection between them. Otherwise, evidence would not lead to knowledge.

**PV 15.** (G10.26; P179.13; D266b.6) *Therefore, ascertainment of all three features is portrayed as an antidote to what is unattested, has an opposite conclusion or is erratic.*

*PVSV 15.1.* (G10.28; P179.15) For there is no ascertainment of association and dissociation when there is no connection. Therefore, pointing just that out, he mentioned ascertainment. Concerning that, ascertainment of association eliminates [evidence] that is incompatible and [evidence that is] similar thereto. [Ascertainment] of dissociation [eliminates] ambiguous [evidence] and such things as deficient [evidence that is] similar thereto. The expression “of both” is a denial of what is established by [only] one. The expression “well-established” [denies] deficient or unique [evidence that is] dubious concerning similar and dissimilar subjects. (4.2.9)

**[PV 16.** *Then the statement of dissimilarity [would be of no use] as an antidote to erratic [evidence]. And if that [statement of dissimilarity] has the outcome of non-observation then that [non-observation] is known even if not stated.*]

*PVSV 16.1.* (G11.05; P180.03; D267a.2) For otherwise, if dissociation [is established] through nothing more than non-observation, without a connection [between the evidence and what is established through it], *then the statement of dissimilarity [would be of no use] as an antidote to erratic [evidence]*, which [Dignāga] stated as follows: “First, the rule is that both should be stated as an antidote to incompatible and ambiguous [evidence],”<sup>7</sup> the statement of similarity as an antidote to [evidence] incompatible [with the conclusion], the statement of dissimilarity as an antidote to ambiguous [evidence].<sup>8</sup> (4.2.10)

*PVSV 16.2.* (G11.10; P180.7; D267a.3) *And if that [statement of dissimilarity] has the outcome of non-observation—that is, if non-observation in a dissimilar subject is communicated by it—then that [non-observation] is known even if not stated.* For there is no error from previous observation of it that might be averted by the statement [of dissimilarity]. (4.2.11)

*PVSV 16.3.* (G11.13; P180.10) It might be argued that recollection of the non-observation is triggered by the statement. Surely an observation that is not being noticed is not a factor, so in that case, evoking a memory is appropriate. But non-observation is the absence of observation. It is countered by observation. But since [the absence of observation] is already established in the absence of that [observation of the evidence in a dissimilar subject], a statement for the purpose of establishing that [absence of observation] is of no use. (4.2.12)

*PVSV 16.4.* (G12.04; P180.13) It might be argued that [a person], to the extent that he is not apprehending something, has no [ascertainment] that it is not present, so the statement is for his sake. (4.2.13)

**PV 17.** (G12.06; P180.14; D267a.5) *And it is not that something is not present owing to the statement that it is not present so that, if the rule that it is not present is communicated, then it is known that it is not present.*

*PVSV 17.1.* (G12.08; P180.16) If one who is not apprehending something does not believe that it is not present, then surely he will not believe it from a statement [to that effect] either; for it too communicates nothing but non-apprehension. And the non-apprehension of one thing does not establish the absence of something else, because that is far-fetched. Nor from his statement that it is not present does it become so, because that is far-fetched. (4.2.14)

*PVSV 17.2.* (G12.11; P181.01) In that case, how does the statement of dissimilarity eliminate ambiguous evidence? [It does not.] Therefore, one who acknowledges exclusion [of the evidence from dissimilar subjects] must state the rule because of which [the ascertainment] “it is excluded” arises. (4.2.15)

**[PV 18.** *If dissociation [of the evidence from dissimilar subjects] were due to non-observation, then why is a deficient [inference] erratic? For example, [one says] “this fruit is ripe or has the same flavor, because there is no difference in visible properties or because they originated on the same branch as those which were eaten.”]*

*PVSV 18.1.* (G12.14; P181.03) Is it not the case that, when something is absent, its exclusion is established from non-apprehension? *If dissociation [of the evidence from dissimilar subjects] were due to non-observation, then why is a deficient [inference] erratic? For example, [one says] “this fruit is ripe or has the same flavor, because there is no difference in visible properties or because they originated on the same branch as those which were eaten.”* In this case, too, when the entirety of what is intended is made the subject of an inference, there is non-apprehension of the evidence in the absence of the establishable [property], so how is there errancy? (4.2.16)

*PVSV 18.2.* (G12.19; P181.07) Some people say that errancy consists in doubt about being countered by sensation.<sup>9</sup> This is not so, because [being countered by sensation] is absent in the case of the subject matter that has been made the subject of inference.<sup>10</sup> (4.2.17)

*PVSV 18.3.* (G12.20; P181.07) It might be argued that it may arise at some time. In such a case when there is doubt there is a far-fetched conclusion, because there is no restriction of the absence [of sensations that counter the evidence] elsewhere. Actual knowledge is the means of countering. If the means of countering is through what is not actual, then there is no guarantee anywhere [that is, there is no certainty that any evidence yields knowledge].<sup>11</sup> (4.2.18)

*PVSV 18.4.* (G12.23; P181.10) But only a dissociation that is established is a means of establishing [something further]; therefore, one requires ascertainment that such is the case. But the errancy of defective [evidence] that lacks dissociation is due to uncertainty, since, even if absence is in some case established by means of non-apprehension, when that which has no [natural] connection [with the establishable property] is absent someplace, there is no establishing that it is absent in every case. (4.2.19)

*PVSV 18.5.* (G13.01; P181.12) Moreover, *even a negative property would be evidence*, [as in] “This living body is not lacking a self, since it is absurd

for a living body to be without breath.” Because breath, and so forth, is not observed in water-jugs and other things that lack a self, whether or not they are observed, there would be knowledge of a self [in a living body] through its contrast with that [absence of breath].<sup>12</sup> Given that there is no establishing an absence on the basis of non-apprehension of what is unobservable, there is no establishing that such things as water-jugs have no selves; therefore, there is no ruling out such things as breath. (4.2.20)

*PVSV 18.6.* (G13.05; P181.16) It might be argued that it is established as a result of being an accepted belief. In this case, how is a self established? Why is the establishment of not having a self not authoritative in another case as well? Moreover, one who uses his accepted beliefs to distinguish between what has a self and what lacks a self and declares something to lead to knowledge of it in virtue of absence must admit of the self that it is based on tradition, not that it is something that can be inferred. Therefore, since there is no establishing that the self is ruled out even when there is no observation of it, there is no ruling it out from anything.<sup>13</sup> Even though breath is denied in some cases when that [*scil.*, the self] is denied, there is no establishing that it is ruled out everywhere, because it has no connection [with the self]; therefore, it does not lead to knowledge. (4.2.21)

*PVSV 18.7.* (G13.12; P182.1; D268a.3) *The application of a disestablishment*, which [is explained] in a passage [of Dignāga’s *Nyāyamukha*] beginning thus: “it should be stated according to the occasion as in the passage that begins ‘present and absent in a similar subject,’ ” *cannot be said*, since there is uncertainty when there is mere non-apprehension, because that [uncertainty] is absent when there is apprehension. If one thinks that dissociation is due to non-apprehension, a dubious [dissociation] would be inevitable. (4.2.22)

*PVSV 18.8.* (G13.16; P182.05) It might be argued that it is certainly not avoided by the expression “according to circumstances.” This is not so, because there is the statement beginning “but only that which expresses [evidence that has three features] ascertained by both [association and dissociation is a means of establishing or a means of refutation].” Therefore, bearing in mind that even when there is non-apprehension [of something], there is, owing to uncertainty, no ruling it out, [Dignāga] denied [dubious dissociation as evidence].

[**PV 19.** *A property specific [to the subject] would be evidence of the separation [of permanence and impermanence from the subject], since [it] is not observed [with either of them]. It might be argued that one bit of knowledge counters another. In this case, it is not the case that absence [of the evidence in a dissimilar subject is known] because of non-observation.*]

**PV 19ab.** (G13.19; P182.07; D268a.5) *Moreover, a property specific [to the subject] would be evidence of the separation [of permanence and impermanence from the subject], since [it] is not observed [with either of them].*

*PVSV 19.1.* (G14.02; P182.09) Because audibility too is unobserved in both what is permanent and what is not impermanent, it is excluded [from them both]. Therefore it must be evidence for their separation [from the subject]. For audibility's exclusion from what is permanent and what is impermanent is nothing other than its separation from them. But there is no separation, because there is no ascertainment owing to mere exclusion from something. For [otherwise] an existent property that is ascertained not to be somewhere would make its absence [everywhere] known. (4.2.23)

**PV 19c.** (G14.06; P182.12; D268a.7) *It might be argued that one bit of knowledge counters another.*

*PVSV 19.2.* (G14.07; P182.13) Even should [what was said by you] be so, when there is separation from both, one of the two counters the other. Because, with respect to mutually separated things, the separation of one affirms the other, there is no denying [the one affirmed], since affirmation and denial are contradictory. (4.2.24)

**PV 19d.** (G14.10; P182.15) *In this case, it is not the case that absence [of the evidence in a dissimilar subject is ascertained] because of non-observation.*

*PVSV 19.3.* Thus non-observation is not a means of acquiring knowledge, because there is a possibility of its being countered.

**PV 20ab.** (G14.12; P182.17; D268b.1) *In the same manner in other cases as well, being countered by another bit of knowledge is possible.*

*PVSV 20.1.* (G14.13; P182.18) If it were possible for [a property] endowed with the defining characteristic [of evidence] to be countered, the defining characteristic itself would be refuted; therefore, there is no guarantee in any case [that evidence yields knowledge]. (4.2.25)

*PVSV 20.2.* (G14.14; P182.18) It might be argued that this entails that there is also no guarantee about the subject matter of inference, since it is observed that the incompatibility [of certain properties in sound is established] through sensation or inference. This is not so, because [incompatibility] is impossible

in [inference] as explained [by us], and because that which has the possibility [of incompatibility] does not have the defining characteristics of that [*scil.*, inference].<sup>14</sup> (4.2.26)

*PVSV 20.3.* (G14.16; P182.20) It might be argued that [there should be] no statement about that which is not erratic from what is incompatible. Because there is no statement [of this] about the subject matter of inference, we agree. And we shall show its subject matter. (4.2.27)

Moreover,

**PV 20cd.** (G14.19; P183.01; D268b.4) *The disjunction owing to non-observation of tactuals from what is seen would not be incompatible.*

*PVSV 20.4.* (G14.20; P183.03) For suppose an absence were established by means of non-apprehension. [Dignāga] said: “Perhaps denial [of tactuals] from things that are seen is by nothing more than non-observation. But this is also incorrect.” (4.2.28)

*PVSV 20.5.* (G15.01; P183.04) Why is that incorrect, since an absence is established through non-apprehension? Is it not the case that the denial of tactuals [in earth etc.] is indeed correct because of its meeting the conditions of apprehension? It is not correct, because it is not a denial [of tactuals] in nothing but that subject matter that is visible and has the nature thereof. This [Vaiśeṣika] person grasped earth and so forth in general and stated a denial. And in that case, because one observes a difference in the tactuals in such things as cotton bolls, stones and buds, even though it [*scil.* earth] is present, there must be doubt concerning the presence of that [tactual] in a given specific thing. (4.2.29)

*PVSV 20.6.* (G15.07; P183.07) So in every case denial through mere non-observation is incorrect. Therefore, a certain disciple of the teacher stating an absence owing to non-apprehension is censured in this way. (4.2.30)

**PV 21.** (G15.08; P183.09; D268b.7) *Moreover, the potentials in things are observed to be different according to differences in location and so forth. It is not possible to be certain on the basis of observing one [thing with a given potential] in one location that it will be present elsewhere.*

*PVSV 21.1.* (G15.11; P183.12) Suppose that even an unconnected property’s not being erratic from something [is established] merely through its not being observed in some way in the dissimilar subject. [That is not so.] Some things observed to be some way in one place are nevertheless observed to be otherwise elsewhere. For example, certain medicinal herbs have specific taste,

potency and effects in a specific field but not in another, as well as because of a difference of season and method of preparation. And it is not the case that, since [herbs] are observed to be some way by those in the region, all are established to be essentially the same way, because different qualities depend on different causes. (4.2.31)

*PVSV 21.2.* (G15.17; P183.15) But in the absence of a special cause, one must make an inference such as this: “A sentence, even if its author be unobserved, is preceded by a human being’s articulatory efforts<sup>15</sup>, because there is no difference among sentences,” because all kinds are observed to be made by human beings. (4.2.32)

*PVSV 21.3.* (G15.19; P183.18) In contrast, it is not the case that human beings have no such existing special cause by which it could be inferred from a similarity in only some aspects, such as speaking, that there is a similarity in all aspects. Because differences are observed in all [mental] qualities, since it is admitted that differences [in mentality] are due to differences in habit. [And] because there is the coming into being of other [mental qualities] also similar to that [habit]. And because in the inference of not coming into being there is no evidence ruling it out, because there is no observation of dispassion, and because there is no establishing a relation between a means of countering and what is to be countered through what is unobserved. And because there is no invariable effect of such things as passion. Because even when specific properties are present, it is impossible to observe them. And because it is not appropriate to dismiss such things.

*PVSV 21.4.* (G16.01; P184.01) Sentences are not that way, since they have observable differences. And because, even if [the difference] is not observable, it is incompatible with the assumption that those [Vedic sentences and ordinary sentences] that have unobserved differences are of a different class. Because their differences can be produced in the other [*scil.*, in the human sentences] as well. Because sensible sounds do not have the nature of what is insensible. Because there is no occasion for error, because there is no establishing that there is error given the absence of a means of countering. It is not parallel, because the observation of differences among human beings is the means of countering, and because the difference in sentences that constitutes a difference in nature is not that differentiating property.

Therefore, [the property of] being the work of human beings belongs to all, without any difference in nature, or to none.

**PV 22.** (G16.08; P184.06; D269b.2) Moreover, *how can the same non-apprehension that is incapable of establishing the absence of a self and the absence of consciousness in clay establish the absence of the evi-*

*dence [among non-possessors of the property requiring establishment]? (4.2.33)*

*PVSV 22.1.* (G16.11; P184.09) And the theory of a self on the part of him who makes non-apprehension a means of acquiring knowledge would be baseless, because, owing to the self's insensibleness, its effects cannot be established. (4.2.34)

*PVSV 22.2.* (G16.12; P184.10) But concerning the establishment of such things as the sense-faculties by establishing that their effect, sensory awareness, is occasional, it is said that it [*scil.*, sensory awareness] has dependence [upon some cause], but not that [the cause] has such and such a nature. In contrast, it is not the case that, because one accepts something to have a cause, an effect such as happiness shows some established thing [such as a permanent self to be its cause]. And this being so, there could be no apprehension of the self at all. How does one [who holds that the self exists] refute someone who, through its not being apprehended, rejects its existence? [He does so] by saying that non-apprehension [of the self] does not establish [that the self does not exist]. So, how could that which does not establish [an absence] establish a dissociation? (4.2.35)

*PVSV 22.3.* (G16.19; P184.14) But some people, while admitting that clay has sentience even while not being apprehended, assert the exclusion of things such as speaking on the grounds of its not being observed. And others, [while admitting that] there are such things as curds in such things as milk [even though it is not apprehended, assert] its dissociation in things that are not for the sake of something else on the grounds that being aggregated is not observed in them. (4.2.36)

*PVSV 22.4.* (G16.24; P184.18) For what is the restriction in this case whereby aggregated things must necessarily be for the sake of something else? In fact, there is an apprehension of such things as curds in such things as milk; it is an inference based on not arising from what has no potential. And what is this potential? Is it that very thing, or is it something else completely? If the potentiality were that very thing, then it would be apprehended in the very same manner, because there is no distinction. If it is something else, then how is it present when the other is present? But this would be nothing but metonymy. Such is their mutual contradiction. 4.2.37

**PV 23ac<sup>1</sup>.** (G16.28; P185.01; D270a.2) *Because of that, a nature, which depends on some thing, must [when the nature is ruled out,] rule out that very thing.*

*PVSV 23.1.* (G16.30; P185.03) For example, a tree [when ruled out rules out] a Shinshapa tree. Because something whose specific property is possession of branches and so forth is thus known, it [*scil.*, the tree] is its [*scil.*, the Shinshapa's] nature. And how can a thing be present after abandoning its own nature, given that the thing is that very nature? Therefore, owing to a natural connection, it is not erratic. (4.2.38)

**PV 23c<sup>2</sup>d.** (G17.04; P185.06) *Or the cause would rule out the effect, owing to non-errancy.*

*PVSV 23.2.* (G17.05; P185.07) A cause, when ruled out, rules out its effect. Otherwise, it would not be its effect. But the relation of effect and cause, when established, restricts the nature. Therefore, in either case [the process of] ruling out is due only to a natural connection. (4.2.39)

**PV 24.** (G17.07; P185.09; D270a.5) *Otherwise, how could there be the ruling out of one by the ruling out of the other? Given that a man is not an owner of horses, must he also not be an owner of cattle?*

**PV 25.** *Similarly, how could there be proximity of one on the basis of proximity of the other? Given only that a man is an owner of cattle, must he also be an owner of horses?*

*PVSV 25.1.* (G17.12; P185.13; D270a.6) Therefore it is only through a natural relation that evidence makes known what is establishable. And it is characterized either as being something or arising from something. (4.2.40)

*PVSV 26.1.* (G17.13, P185.14) The indispensability itself is shown by [the statements of] the two observed precedents.<sup>16</sup>

**PV 26.** (G17.15, P185.15, D270a.6) *Therefore, in these cases, it is not necessarily desired that the substratum [be mentioned] in [the statement of] dissimilarity, because knowledge of it arises also from the statement “when that [*scil.*, the property requiring establishment] is absent, then that [*scil.*, the evidential property] is not [present] as well.”*

**A.27ac<sup>1</sup>.** *Because: For [the statement of] the observed precedent communicates what something is or what its cause is to one who does not know [either].* (4.2.41)

*PVSV 27.1.* (G17.20; P186.04; D270a.7) For in [the statement of] the observed precedent the establishable property's being something is communicated as being that thing's nature through its dependence on nothing but that thing. The

knowledge that whatever produces a composite nature produces an impermanent nature is communicated by [the statement of] an observed precedent. Otherwise, there would be doubt about the establishing property's being erratic with respect to what must be established, because of the absence of a restriction that, because of the presence of one property, another too must also be present. And the fact that the establishable property has dependence on nothing more than that is communicated by [the statement of] that knowledge. A composite thing is born from its own cause to exist in such a way that it is perishable, [that is,] possessing the property of abiding [but] a moment, because of the exclusion of its being perishable from [causes] other [than those of composite things].

Alternatively, the causal relation of another thing is shown by [the statement of] the observed precedent [which says] "because [this] is present only when that is present."

*PVSV 27.2.* (G18.05; P186.09) Thus when either being something or being a cause [of something] is well-established, then the fact of being composite does not exist when there is an absence of impermanence, and smoke [does not exist] in the absence of fire. In other words, something is either something's nature or its cause. How could something exist without either its nature or its cause? Therefore, even without [the mention of] a substratum, dissociation is established in [the statement of] the example of dissimilarity.

**PV 27cd.** (G18.09; P186.12; D270b.4) *But for the experts, for whom the relation of being something or the relation of being a cause [of something] is well-established, surely only the evidence itself need be stated.*

*PVSV 27.3.* (G18.12; P186.14) The purpose for the sake of which [the statement of] the observed precedent is made has already been achieved, so what is the point of stating it in that case? Bearing in mind that even if it is shown, nothing is achieved by [the mention of] the substratum [in the statement] of the observed precedent of dissimilarity, he [*scil.*, Dignāga] rejected the [need to mention the] substratum.

**PV 28.** (G18.15; P187.01; D270b.5) *For this very reason, when the relation is known from either statement, a recollection of the other too arises through implication,*

*PVSV 28.1.* (G18.17; P187.03) which he [*scil.*, Dignāga] stated [by saying] "or because both are shown by either one through implication." There too, bearing in mind that [the statement of] an observed precedent shows [the relation of] being something or [the relation of] being a cause [of something], he

[*scil.*, Dignāga] stated that, by stating one, one establishes the second by implication. (4.2.42)

*PVSV* 28.2. (G18.19; P187.04) For instance, when it is said that something is not different from something, as in the statement that that which is complex is impermanent, then, for one who knows the former to be the latter, there arises, through implication, [the ascertainment] that being complex does not arise in the absence of impermanence, for he knows the former to be the latter because he has observed, through a means of acquiring knowledge, that the latter is the former's nature, which is dependent on nothing more than the former. For it is not the case that a thing is present in the absence of its nature, because there is no difference [between a thing and its nature]. Otherwise it would not be the case that something is present when its nature is. In the same manner, when it is stated that it is not present when that is absent, from that alone, one who knows the fact that something has that nature has recollection of association due to understanding the fact that one thing has the nature of another in this manner: "this is the nature of that since that is not present in the absence of this, because otherwise it would be impossible." (4.2.43)

*PVSV* 28.3. (G19.01; P187.10) In the same way, when it is stated that where there is smoke there is fire, [one understands that] smoke is the effect of fire, because of which if smoke is present fire is necessarily present. Otherwise, a being would have self-sufficiency, because of the absence of the restriction of another object's being dependent on it. Therefore, even in the one's absence, there would be no absence [of the other], because the [other's] nature is not defective. But when an effect is present, its cause is necessarily present. For the cause's condition of being a cause consists in just the fact that its nature is on hand in the presence of the other object [*scil.*, its effect]. And the effect's [being an effect consists in its] presence only when that [cause] is present. And that [*scil.*, fact of being present only when the cause is present] exists in smoke. Therefore, one to whom smoke's being an effect is known through association in the form "smoke is an effect" has, by implication, awareness of dissociation in the form "where there is no fire, there is no smoke." In the same manner, when it is stated "when fire is not present, smoke is not present," there is, by implication, awareness of association in the form "fire is necessarily present when there is smoke." For otherwise, why would it [*scil.*, smoke] not be present in its [*scil.*, fire's] absence?

*PVSV* 28.4. (G19.12; P187.17) Now suppose that even though aural cognition is not the effect of either permanent or impermanent things, nonetheless, when either is not [ascertained to] exist, it does not exist. It is not at all the case that it does not exist when either of them does not exist, only because from it [*scil.*, aural cognition] there is uncertainty about which of those two

[*scil.*, eternal or non-eternal] it is. Otherwise, owing to what is ascertained through their absence, how could there be uncertainty [about sound] through pondering their presence? But it is said that it [*scil.*, audibility] is not present only because of absence of ascertainment of its presence. (4.2.44)

*PVSV 28.5.* (G19.16; P187.20) But when the relation of cause and effect between fire and smoke is not shown by [the statement of] the observed precedent, then there would not be the very [ascertainment] that where there is smoke there is fire, because of the absence of [the ascertainment of] the relation. [Then,] how could there be establishment, by implication, of dissociation of the form “in the absence of fire there is no smoke”? In the same manner, how can there be recollection of association, since there is no establishing an absence by means of dissimilarity. Therefore, this aforementioned natural connection itself is shown through [the statement of] the observed precedent in order to establish the one in the presence of the other, because, when that [*scil.*, the natural connection] is absent, there is no possibility [of establishing the one when the other is present].

**PV 29ab.**G19.23; P187.24 D271b.2 *And therefore, the absence of a cause or of a nature is evidence for the denial of something.* (4.2.45)

*PVSV 29.1.* (G19.25; P187.26) For only these two, being ruled out, rule out that which is connected to them. Therefore, one who has a desire to establish the denial of some thing must state as evidence the ruling out of either its cause or its pervading nature. For, if there is no connection, how could the ruling out of one thing establish the ruling out of another?

**PV 29cd.** (G20.03; P188.03; D271b.3) *Moreover, the non-apprehension of that for which apprehension is possible*

*PVSV 29.2.* (G20.04; P188.04) is evidence for denying it. The cause of action of which the subject matter is a denial has been stated as evidence for it [*scil.*, denial], because the non-apprehension of that which is so [*scil.*, that the apprehension of which is possible] itself has denial as its nature. The non-apprehension of either a cause or a pervading property is evidence for both [*scil.*, denial and the action based thereon].

**PV 30.** (G20.07; P188.06; D271b.4) *So, non-apprehension, even though said to be of three kinds, is of many kinds, because of the application of the distinction between non-awareness of something and awareness of what is incompatible with it and so forth.*

*PVSV 30.1.* (G20.09; P188.08) For the evidence for denial is of only three kinds, namely, the non-apprehension of a cause, of a pervading property, and of

the thing itself, whose presence is apprehensible, when they have been ascertained to be that way. It [*scil.*, the evidence for denial] is said to be of many kinds by dint of application because of the application of the distinction between non-awareness of something and awareness of what is incompatible with it and so forth. As was explained above, [the many kinds occur] through the applications of distinctions, that is, [one can provide evidence for the denial of something] by non-awareness of it, by awareness of what is incompatible with it, by awareness of an effect of what is incompatible with it, and so forth.

**PV 31.** (G20.14; P188.11; D271b.6) *The restriction of indispensability comes about from the restraint either of the relation of effect and cause or of a nature, not from either non-observation or observation.*

**PV 32.** *Otherwise, in what consists the restriction of the one necessarily being present with the other, or when a property has another object as its causal condition, as in the case of the dye in clothing? (4.2.46)*

*PVSV 32.1.* These are transitional verses.

**PV 33ab.** (G20.18; P189.01; D272a.1) *Moreover, a property that has another object as its causal condition must be something else entirely.*

*PVSV 33.1.* (G20.20; P189.03) For, when something is produced, it is not possible that its nature is not produced or that its nature has a different cause [from the thing's cause]. Surely, the difference among things is just the possession of incompatible properties, and the cause of their difference is just a difference of causes. If these two were not differentiators, then there would be no difference of anything from anything. So everything would be the same thing. And because of this, there would be simultaneous arising and destruction, and everything would need everything. Otherwise, there would not be the very idea [that all things are] the same. Or there would be a name different [from the one it should have], because after arriving at the conclusion [that things are mutually distinct], one speaks thus [*viz.*, saying they are one]. (4.2.47)

*PVSV 33.2.* (G21.02; P189.07) Suppose it is argued that, even if impermanence does have the same causes [as its possessor], since there is no production of impermanence at the time of [the possessor's] coming to be, the fact of [that thing] not having that [impermanence] as its nature is the same. There would surely not arise at a later time something else called impermanence. For the very thing that has the characteristic of abiding for a moment is impermanence. We shall explain the grounds for the difference in expressions

as properties and property-possessors as well. Still, despite observing something's nature as having the characteristic of abiding for a moment, because of its arising that way from only its own cause, a dull-witted person, being deceived by his apprehension of its presence into the expectation of its always being that way, or being deceived by the arising of another similar thing, is not convinced. Because those who see the final moment [of something] understand that it does not abide on account of their not apprehending it after the ascertainment [of its final moment], they then, at the moment of their ascertainment [of its not abiding], determine [its] impermanence. In the same way, even as one observes a cause when its effect is unobserved, despite the cause's nature being the potential to produce an effect, one who is unaware that a cause had come to be is aware of it through the observation of its effect. (4.2.48)

*PVSV 33.3.* (G21.13; P189.13) Otherwise, if it had another causal condition or no causal condition, impermanence would be something else entirely. And in this way a thing would not possess it [*scil.*, impermanence], since there would be no need for it. Or, if there is a need, that which is the thing itself is impermanence, so what is gained by a further [impermanence], since, even if that which by nature does not change [*scil.*, a universal] has a connection with something else, [the unchanging thing] does not come about through the thing's coming to be. (4.2.49)

*PVSV 33.4.* (G21.17; P189.16) And that—namely, impermanence—or any other property, arising from another object, must be either a cause or an effect, since that which is neither a cause nor an effect has no relation, because in that case there is no possibility of an inference of its presence.

**PV 33cd.** (G21.20; P189.18; D272b.6) In that case [*scil.*, in the case of impermanence] *There is no being a cause, because it is present at a later time. Even if it were an effect, how [would it have] invariability?*

*PVSV 33.5.* (G21.21; P189.19) For how can that which comes into being from another object at a later time than a being that has been produced be its cause? Also, the effect is not necessarily present when the cause is, so the evidence for its presence is ambiguous. Therefore, it is not the case that a property whose causal condition is another object necessarily comes into being when [the other object is] present, so there is no inference. (4.2.50 )

*PVSV 33.6.* (G21.24; P190.01) If, then, observation and non-observation are not a basis for the knowledge of association and dissociation, how is it known that smoke is not erratic with respect to fire?<sup>17</sup>

**PV 34ab.** (G21.26; P190.02; D272b.4) Because, *smoke is the effect of fire in compliance with the property of an effect.*

*PVSV 34.1.* (G22.02; P190.04) That which, not having been apprehended, is apprehended, when its conditions have been apprehended, [but] is not apprehended, when even one of them is absent, is [ascertained to be] their effect.

**PV 34cd.** (G22.05; P190.06; D272b.5) *But that which exists in the absence of something must give up the state of having [that as] a cause.* 4.2.51

*PVSV 34.2.* (G22.06; P190.07) An effect is established because of being observed even once in that way, because, if it were not an effect, it would not arise even once from what is not its cause. And if an effect were present without its cause, then it would be entirely causeless. For it is not the case that that without which something is present is its cause. And if smoke were present without fire, then it would not have that as its cause. (4.2.52)

*PVSV 34.3.* (G22.10; P190.09) It might be argued that [smoke] is not causeless, because it has something else as its cause. Not so, because the same [is true] in this case, too, in that even when it [the other supposed cause] is absent, when there is fire, [smoke] is present. How could something [like smoke] come into being from that, or from something else, which does not have the nature of producing it [*scil.*, smoke]? It [*scil.*, smoke] would be causeless, because that which does not itself have that [*scil.*, producing smoke] as its nature would not produce it. 4.2.53

*PVSV 34.4.* (G22.13; P190.17) [Someone might argue as follows.] It is not at all the case that the very same thing comes to exist from things of the same kind. [But] how can smoke be of one kind, while coming into being from things of a different kind? For what comes into being from things of the same kind must be of the same kind. If something of the one kind were to come into being from something of another kind as well, then a difference in causes is not a differentiator [of effects], because there is no restriction of their potentials [*scil.*, of the potential of only firelike causes to produce smokelike effects and the potential of only unfirelike causes to produce unsmokelike effects]. Therefore, either the diversity of the totality of things would be without a cause, or anything would arise from anything. Therefore, the difference or non-difference of effects arises from the difference or non-difference of their causes. Therefore, it is not the case that smoke comes into being from a thing that has an observed appearance of a different kind [from that of fire], because that would entail [smoke's] causelessness. 4.2.54

**PV 35.** (G22.19; P190.17; D273a.4) *And so that which has no cause has either permanent presence or permanent absence, because it has no dependence on anything else, for things have occasional presence because of dependence.*

*PVSV 35.1.* (G22.22; P191.01) For the smoke would never not be present, because, being causeless, it would be independent, because of an absence of deficiency in its being present as is the case at the favorable time [*scil.*, the time that is favorable for smoke to arise because all its necessary conditions are present]. Or it [*scil.*, smoke] would not be present even then [at the time when it is observed], because there is no difference from the time when it is absent. For things, owing to dependence, are occasional, because the time of their presence is endowed with an aptitude for their coming into being and the time of their absence is endowed with an inaptitude for their coming into being. If a location and a time have the same [degree of] aptitude or inaptitude [for a thing to come into being], then they may possess either one [*scil.*, either its presence or its absence], because there is no possibility of a restriction [to either presence or absence]. (4.2.55)

*PVSV 35.2.* (G23.02; P191.05) And what is this aptitude if not the presence of a cause? Therefore, a thing that occurs in some location and time to the exclusion of another location and time is called dependent on them. In other words, the very fact of occurring that way [that is, occurring in one location to the exclusion another] is dependence, because that which is independent of the assistance provided by them [*scil.*, location and time] cannot be restricted to them. Therefore, because location and time are restricted, smoke's nature is the product of that where it is observed once but is no longer observed when there is a deficiency, because otherwise it would be absent even that once. How could that which is restricted to something come into being elsewhere? Or being [elsewhere], it would not be smoke. For a specific nature called smoke is produced by that [fire]. (4.2.56)

*PVSV 35.3.* (G23.10; P191.10) In the same manner the cause also has the nature of producing such an effect. If that [smoke] were to come into being also from something else [other than fire], then the nature [of producing an effect] would not belong to that [non-fire]. Therefore, that [non-fire] would not produce that [smoke] even once. Or else it would not be smoke, because it would come into being from that which does not have the nature of producing smoke. And if something has that nature [to produce smoke], then that itself is fire, so there is no errancy. (4.2.57)

**PV 36.** (G23.14; P191.13; D273a.4) *And so If an anthill had the nature of fire, then it would be just fire. If it did not have the nature of fire, then how could smoke come into being there?*

**PV 37.** (G23.16; P191.15) *For fire, which has the nature of being a cause of smoke, has the characteristic of being a potential for it. If smoke were to come into existence from what is not the cause of smoke, then it would be without a cause.*

*PVSV 37.1.* These are two summary verses.

*PVSV 37.2.* (G23.18; P191.18) Then how in this case does an effect arise from different coefficients? For example, how does sensory awareness arise from the eye and a visible property? There is no single thing having that nature that is productive. Rather, it is the totality having that nature that is productive. That [totality] alone is inferred. Just that totality is the basis of the presence of the effect's nature. For that very reason, the coefficients produce all at once, too. (4.2.58)

*PVSV 37.3.* (G23.22; P191.21) Even though one speaks in the same way about things observed coming into being from cow dung and other things, such as water-lilies, because they originate from their own seeds, they have distinct natures, because there is a difference in the nature of their causes. For example, the plaintain tree that arises from seeds and bulbs. Ordinary people clearly discriminate among such things because of differences in their appearances. (4.2.59)

*PVSV 37.4.* (G23.26; P191.24) Therefore, an effect the appearance of which is well discerned is not erratic with respect to its cause. (4.2.60)

**PV 38.** (G24.01; P192.01) *That upon whose nature something is observed to be consequent, through association and dissociation [with another thing], has that [other thing] for its cause. Therefore, there is no coming into being from what is different.* (4.2.61)

*PVSV 38.1.* This is a summary verse.

*PVSV 38.2.* (G24.03; P192.04) Therefore, because the relation between cause and effect is established by observation and non-observation just once, there is awareness of them because of that [relation]. Otherwise not, because [the ascertainment of] association and dissociation requires complete observation and non-observation, since, even though permanence is observed in some case of non-corporeality, observation is otherwise in other cases, and since also what is not observed in some case of the absence of permanence is nevertheless observed [in other cases of the absence of permanence].<sup>18</sup> So, let it be that indispensability of effect with respect to cause is due to the former's arising from the latter. (4.2.62)

#### 4. Comments by Gillon and Hayes on Dharmakīrti's commentary on his explanation of inference for one's own sake

##### 4.1. BACKGROUND INFORMATION

Though the use and study of the classical Indian inference, in all likelihood, dates back to before the beginning of the common era, the first thinker to have given it a formal characterization seems to have been the Buddhist philosopher Vasubandhu (fifth century CE). As noted by Katsura (1986b, 165), Vasubandhu held that the classical Indian inference has only three parts, a subject (*pakṣa*) and two properties, the property to be established (*sādhya*) in the subject and the evidential property (*hetu*). Exploiting an idea ascribed by his coreligionist Asaṅga in his *Shùn Zhèng Lùn* to an unknown school (thought by at least one scholar to be the Sāṃkhya school), he maintained that an evidential property in an inference is a proper one if, and only if, it satisfies three conditions—the so-called *trirūpahetu*, or the evidential property (*hetu*) having three features. The first feature is that the evidential property (*hetu*) (*H*) occur in the subject of an inference (*pakṣa*) (*p*). The second is that the evidential property (*H*) occur in things similar to the subject insofar as they have the property to be established (*sādhya*) (*S*). And third, the evidential property (*H*) not occur in things dissimilar from the subject insofar as they lack the property to be established (*S*).

In his *Vāda*, Vasubandhu makes clear that the relation, knowledge of which is necessary for inference, is not just any in a miscellany of material relations, but a formal relation, which he designates, in some places, as *avinābhāva*, or indispensability—literally, not being without (cp. the Latin expression *sine qua non*)—and in others, as *nāntarīyakatva*, or inseparability—literally, being unmediated (Katsura, 1986a, 5).

Then, Dignāga (late fifth century to early sixth century CE), building on the insights of his teacher, Vasubandhu, fully isolated the formal structure underlying the Indian syllogism (Steinkellner, 1993). First, distinguishing between inference for oneself (*svārthānumāna*) and inference for another (*parārthānumāna*), he made explicit what had previously been only implicit, namely, that inference, the cognitive process whereby one increases one's knowledge, and argument, the device of persuasion, are but two sides of a single coin. Indeed, according to Dignāga,<sup>19</sup> an argument gives expression to an inference so that the person who hears the argument can arrive at the same conclusion as the inferrer. Second, he changed the formulation of the statement of corroboration to make its logical character explicit. In particular, as Katsura (1986a, 11–12; 2004, 148) has noted, Dignāga replaced the existential statements that mention the evidential property and the property to be established with universal statements mentioning them.

We now turn to giving some background to this development. In some of his discussions of *anvaya* (association of the evidence with the property to be established through it) and *vyatireka* (dissociation of the evidence with the property to be established), Dignāga seems at first to have followed the grammarians' usage of those terms.<sup>20</sup>

The method of *anvaya* and *vyatireka* used to establish the meaningfulness of components and to ascribe individual meanings to components... consists in observing the concurrent occurrence (*anvaya*) of a certain meaning and a certain linguistic unit and the absence of a meaning and a unit. (Cardona, 68, 337)

If one follows the meaning of these terms as used by grammarians, as Oetke does, a statement of the association relation consists in a statement of the form *Some locus that possesses H also possesses S*. The statement of the dissociation relation, on the other hand, takes the form *No locus that possesses H fails to possess S*.<sup>21</sup> Since one cannot derive the association statement from the dissociation statement or vice versa,<sup>22</sup> the statement of an argument requires stating both association and dissociation. Stating the association assures that the evidence being adduced does not in fact establish the very opposite of the desired conclusion, while stating the dissociation assures against putative evidence that is in fact inconclusive because it sometimes occurs in the presence and sometimes in the absence of the property in need of proof. A more detailed discussion of these failures to be good evidence is to be found below in section 4.2.9. One of Dharmakīrti's worries, expressed in PVSV 12.4, is that one cannot warrant a universal proposition on the basis of observation of only part of the universe. Failing, in a limited region, to observe a locus in which the evidence occurs in the absence of the property to be established through it does not warrant the conclusion that there is no locus anywhere in which the evidence occurs in the absence of the property to be established. To make such a universal claim compelling, says Dharmakīrti, one must have some sort of natural connection (*svabhāvapratibandha*) between the evidence and the property to be established through it.

Katsura (2004) offers a helpful analysis of Dignāga's use of examples in the context of proofs for the benefit of others (*parārthānumāna*). It appears that Dignāga created a sort of universal proposition that could serve as the equivalent of a major premise in an Aristotelean Barbara-like syllogism; this major premise was made by adding the word "eva" to the statement of an example (*dr̥ṣṭāntavacana*). Thus the observation of an observed precedent, which takes the form of observing that there is a place where, for example, smoke occurs in a place—namely, a kitchen—where there is fire, can be transformed into a major premise of the form "Smoke occurs *only* in a place where there is fire." There are two serious problems that arise from this construal. First, it is inductively risky to move from the empirical observation that there is *some* place where there is both smoke and fire to the universal affirmative

proposition “Smoke occurs *only* in a place where there is fire.” In other words, there is no warrant for introducing the word “*eva*.” Second, the important distinction between a positive example and a negative example is lost. In his discussion of inference for oneself (*svārthānumāna*), Dignāga makes it clear that the positive example establishes that there is some place where the evidential property occurs with the property in need of being established. That is, the example of the kitchen establishes that there is a place where smoke is observed occurring with fire.

The coincidence of the presence of evidence and property to be established is known as *anvaya* (association). The negative example shows that there is a place where neither the evidential property nor the property to be established occurs. That is, the example of the lake establishes that there is a place where the absence of fire is observed occurring with the absence of smoke. The coincidence of the absence of evidence and absence of the property to be established is known as *vyatireka* (dissociation). Now when both kinds of example are converted into universal propositions, it turns out that *anvaya* and *vyatireka* become not distinct particular relations that have been observed in the induction domain<sup>23</sup> but rather two propositions that are logically equivalent by virtue of being contrapositives. In the new formulation, *anvaya* means in effect that *every* locus of the evidence is a locus of the property to be established, and *vyatireka* means in effect that *no* locus that does not have the property to be established has the evidential property. Now if *anvaya* and *vyatireka* are logically equivalent, there is no need for both. Nevertheless, observes Katsura, Dignāga

held to the necessity of the formulation of two examples in one proof. I take it that this attitude of Dignāga’s reflects the inductive nature of his system of logic. He wanted to have both similar and dissimilar examples in our world of experience (or the inductive domain) in order to induce the general proposition of pervasion (*vyāpti*). (Katsura, 2004, 169)

Earlier in the same article Katsura has this to say about the inductive nature of Dignāga’s inference schemata:

We should not ignore the fact that the word *dr̥ṣṭa* (observed) qualifies those apparently universal relations mentioned in the example statements. . . . Dignāga’s statement of pervasion does not necessarily imply a universal law but rather assumes a general law derived from our observations or experiences; in other words, it is a kind of hypothetical proposition derived by induction. In order to justify such an inductive process Dignāga needed to present both positive and negative examples in one set of a proof. Thus, I think that Dignāga’s presentation of example statements clearly indicate the inductive nature of his logic. (Katsura, 2004, 145)

What seems to follow from Katsura's observations is that while inference for oneself is essentially inductive in nature, reasoning presented to others is essentially deductive in nature. The problem of how Dignāga transforms fallible inductive claims to universal propositions capable of serving in a deductive proof remains unsolved. Also unsolved is the problem of why exactly Dignāga would insist on using two examples that are logically equivalent, thus making one of them redundant. This was a problem that Dharmakīrti inherited.

Dharmakīrti seems to have followed Dignāga's redefinition of the concepts of association (*anvaya*) and dissociation (*vyatireka*) in such a way that each was a universal proposition. The *anvayavacana* becomes a universal affirmative proposition of the form *Every locus that possesses H also possesses S*. This proposition becomes equivalent to the *vyatirekavacana*, namely, the universal negative proposition of the form *No locus that possesses H fails to possess S*. On the question of why Dignāga required both of two logically equivalent propositions, Dharmakīrti quotes Dignāga as saying "First, the rule is that both"—that is, both association and dissociation—"should be expressed as an antidote to incompatible and ambiguous [evidence]." Moreover, Dharmakīrti is aware that stating the contrapositive of a proposition is not stating anything new (PV 28 and his commentary thereto). Why, then, would Dignāga call for a redundancy? Dharmakīrti offers a possible answer to this question in PVSV 16.4 (p. 8): "It might be argued that [a person], to the extent that he is not apprehending something, has no [knowledge] that it is not present, so a statement is for his sake."

To see this point, it is useful to compare the canonical formulation of an argument by the non-Buddhist philosopher Vātsyāyana (fifth century CE) with Dignāga's canonical formulation. Consider, to begin with, this argument given by Vātsyāyana in the *Bhāṣya* to Nyāya Sūtra 1.1.34:

1. *pratijñā*: anityaḥ śabdaḥ  
*proposition*: sound is impermanent
2. *hetu*: utpattidharmakatvāt  
*evidence*: because of having the property of arising
3. *udāharaṇa*: utpattidharmakam sthālyādi dravyam anityam  
*corroboration*: a substance, such as a pot, having the property of arising, is impermanent
4. *upanaya*: tathā ca utpattidharmakaḥ śabdaḥ  
*application*: and likewise, sound has the property of arising
5. *nigamana*: tasmāt utpattidharmakatvāt anityaḥ śabdaḥ  
*conclusion*: therefore, sound is impermanent because of having the property of arising

In this argument Vātsyāyana makes the existential statement "a substance, such as a pot, having the property of arising, is impermanent" (*utpatti-*

*dharmakam sthālyādi dravyam anityam*). Dignāga, on the other hand, makes this argument (cited in Katsura, 1986a, 11–12):

1. *pakṣa*: anityaḥ śabdaḥ  
*thesis*: sound is impermanent
2. *hetu*: prayatnajatvāt  
*ground*: because it results from effort
3. *drṣṭānta*: yat prayatnajam tat anityam drṣṭam yathā ghaṭaḥ  
*precedent*: whatever results from effort is observed to be impermanent, like a pot

In this argument Dignāga makes the universal statement “whatever results from effort is observed to be impermanent, like a pot” (*yat prayatnajam tat anityam drṣṭam yathā ghaṭaḥ*). Or consider the following argument in the *Bhāṣya* to Nyāya Sūtra 1.1.35:

1. *pratijñā*: anityaḥ śabdaḥ  
*proposition*: sound is impermanent
2. *hetu*: utpattidharmakatvāt  
*ground*: because of having the property of arising
3. *udāharaṇa*: anutpattidharmakam ātmādi dravyam nityam drṣṭam  
*corroboration*: a substance, such as the self, not having the property of arising, is observed to be permanent
4. *upanaya*: na ca tathā anutpattidharmakaḥ śabdaḥ  
*application*: and, unlike that, sound does not have the property of not arising
5. *nigamana*: tasmāt utpattidharmakatvāt anityaḥ śabdaḥ  
*conclusion*: therefore, sound is impermanent because of having the property of arising

Here Vātsyāyana makes the existential statement “a thing, such as the self, not having the property of arising, is observed to be permanent” (*anutpattidharmakam ātmādi dravyam nityam drṣṭam*). In contrast, Dignāga makes the following argument:

1. *pakṣa*: anityaḥ śabdaḥ  
*thesis*: sound is impermanent
2. *hetu*: prayatnajatvāt  
*ground*: because it results from effort.
3. *drṣṭānta*: yat nityam tat aprayatnajam drṣṭam yathā ākāśam  
*precedent*: whatever is permanent is observed not to result from effort, like space.

In this argument Dignāga makes the universal statement “whatever is permanent is observed not to result from effort, like the sky” (*yat nityam tat aprayatnajam drṣṭam yathā ākāśam*). Dignāga’s two syllogisms have these respective forms:

1. MAJOR PREMISE: whatever is  $H$  is observed to be  $S$ , like  $d$  (where  $d$  is an instance of something recognized to be both  $H$  and  $S$ )
  2. MINOR PREMISE:  $p$  is  $H$
  3. CONCLUSION:  $p$  is  $S$
- 
1. MAJOR PREMISE: whatever is not  $S$  is observed not to be  $H$ , like  $e$  (where  $e$  is an instance of something recognized to be neither  $H$  nor  $S$ )
  2. MINOR PREMISE:  $p$  is  $H$
  3. CONCLUSION:  $p$  is  $S$ .

As is clear from inspection, both forms are valid.

Having thus identified within the classical Indian syllogism a valid form, Dignāga pressed into service the Sanskrit particle “*eva*” (only) to ensure that the *trirūpahetu*, the truth conditions for inference identified by Vasubandhu, accurately characterize the validity of the form of Dignāga’s syllogism (Katsura, 1986b, 163; Katsura, 1986a, 6–10; Katsura, 2000; Katsura, 2004, 148–149).

Lastly, and most strikingly, Dignāga gave an alternative and equivalent characterization of the truth conditions of his syllogism, which he called the *hetucakra*, or *cycle of reasons*. The so-called cycle of reasons is a three by three matrix, which distinguishes proper from improper grounds and is equivalent to the last two forms of the three forms of a proper ground (*trirūpahetu*). The near equivalence between the *trirūpahetu* and the *hetucakra* confirms that Dignāga was fully aware of the formal character of the syllogism for which he gave the truth conditions. The matrix comprises, on the one hand, the three cases of the evidential property ( $H$ ) occurring in some, none, or all of substrata where the property to be established ( $S$ ) occurs, and, on the other, three cases of the evidential property ( $H$ ) occurring in some, none, or all of substrata where the property to be established ( $S$ ) does not occur. Letting  $S$  be the substrata in which  $S$  occurs and  $\bar{S}$  be the substrata in which  $S$  does not occur, one arrives at the following table, where he identifies the top and bottom cases of the middle column as those cases rendering the statements of corroboration true.<sup>24</sup>

$H$ occurs in:	all $S$ all $\bar{S}$	all $S$ no $\bar{S}$	all $S$ some $\bar{S}$
$H$ occurs in:	no $S$ all $\bar{S}$	no $S$ no $\bar{S}$	no $S$ some $\bar{S}$
$H$ occurs in:	some $S$ all $\bar{S}$	some $S$ no $\bar{S}$	some $S$ some $\bar{S}$

Dignāga's treatment of the classical Indian syllogism brought to light an important problem. The syllogism, conceived as an inference, is that whereby one who knows the truth of its premises may also come to know the truth of its conclusion. Its minor premise is known, of course, either through perception or through another inference. But how is its major premise known? It cannot be known by inference, since the major premise is a universal statement and the conclusions of syllogisms are particular statements. However, to know the truth of the major premise by perception would seem to require that one know of each thing that is  $H$ , whether or not it is also  $S$ . Yet if one knew that, one would already know by perception the syllogism's conclusion. As a result, inference would be a superfluous means of knowledge. At the same time, had one perceived only some things that are  $H$  and had observed them all to be  $S$ , one still would not be warranted in concluding that all things that are  $H$  are  $S$ , for what prevents unobserved things that are  $H$  from failing to be  $S$ ?

The earliest classical Indian philosopher thought to have recognized the problem of how one comes to know the major premise of the classical Indian syllogism seems to have been Dignāga's student, Īśvarasena (Steinkellner, 1997, 638). He appears to have thought that knowledge of the truth of the syllogism's first premise is grounded in non-perception (*anupalabdhi*). That is, according to Īśvarasena, knowledge that whatever has  $H$  has  $S$  comes from the simple failure to perceive something that has  $H$  but that does not have  $S$ . As Steinkellner has explained:

According to Īśvarasena the absence of the probans [*hetu*; evidential property] in the heterologue [*vipakṣa*] is proved by a third kind of valid cognition (*pramāṇāntaram*), called non-perception (*anupalabdhi*), which is nothing but mere absence of perception (*upalabdhyabhāvamātram*). In consequence of this new concept Īśvarasena seems to have rethought the whole theory of the infallibility (*avyabhicāra*) of the probans and of the conditions the probans has to fulfil [*trirūpahetu*] to be considered infallible to the probandum [*sādhya-dharma*; property to be established]. As a result of his concept of non-perception he taught the infallibility of the probans no longer as with Dignāga to be due to the three

marks [*trirūpahetu*] only, but to at least four marks, the fourth being that its object, the probandum, must not have been cancelled by perception (*abādhitaviṣayatvam*). (Steinkellner, 1966, 84)

The idea of using mere non-observation (*adarśanamātra*) can be traced back to Dignāga. As Katsura (1992, 226–227) has shown, Dignāga invokes this to establish the connection of a word to its denotation (PS 5.34). This idea seems to have been adapted by Īśvarasena for ascertaining (*niścaya*) the major premise of a sound classical Indian syllogism.

However, this suggestion does not solve the problem. As Dharmakīrti points out in a number of places (G12.04; PV 13 and G13.01; PV 21 and G21.01.), the simple failure to perceive something that is *H* but not *S* is no guarantee that whatever is *H* is *S*; after all, while one has never encountered something that is *H* and not *S*, what guarantee is there that something that is *H* and not *S* is not among the things that one has yet to encounter? One might, for example, take a pinch of rice from a cauldron to see whether the grains are cooked. But as any cook knows, there is always the risk that some of the other grains may not be cooked.

To address this problem, which constitutes most of what we have translated, Dharmakīrti elaborates on what he has already developed in the first six verses and his commentary to them. There, he defines an inference and maintains that the universal claim used in a sound argument is grounded in a natural relation (*svabhāvapratibandha*) that obtains between the evidence and what is to be established. There are only two natural relations: the relation of arising from something (*tadutpatti*), also referred to as the relation of being a cause (*hetu-bhāva*) and the relation of effect and cause (*kārya-kāraṇa-bhāva*), and the relation of having something for a nature (*tādātmya*), also referred to as the relation of being something (*tadbhāva*). On the basis of these two relations, Dharmakīrti classifies sound inferences into three kinds: inferences based on having something for a nature (*tādātmya*), inferences based on arising from something (*tadutpatti*) and inferences of non-apprehension (*anupalabdhi*). Inferences based on having something for its nature are, to a first approximation, inferences whose pervasion relation is the subset relation between the set of instances of the evidential property (*hetu*) and the set of instances of the property to be established (*sādhya-dharma*). In the case of inferences based on arising from something, the pervasion relation is the subset relation between the set of locations of the individuals that are the effects and the set of locations of the individuals that are the causes.

Returning to the problem that we mentioned above, Dharmakīrti addresses it by maintaining that knowledge of the relation that grounds the universal statement of the major premise is both necessary and sufficient for knowledge of the truth of the major premise. The relation guarantees the universality, and knowledge of it guarantees one's knowledge of the truth of the major premise.

In the text spanning seventh through twelfth verses and their commentary, Dharmakīrti rejects as unsound two kinds of inference: inferences from causes to their effects (PV 7–11) and inferences from effects to some kinds of causes (PV 12). In the balance of the translated text, Dharmakīrti addresses the questions pertaining to the status of the two forms of the major premise, in particular, how their truth is ascertained, how they are related to one another and what their purpose is in an argument. In the text starting with thirteen verse and ending with twenty-second verse (PV 13–22), he criticizes the view that such claims can be ascertained by mere non-apprehension (*anupalabdhimātra*) or mere non-observation (*adarśanamātra*), shoring up his view, wherever he thinks he can, with references to Dignāga. Next, at the twenty-third verse (PV 23), Dharmakīrti turns to the two natural relations of having something for its nature and of arising from something, which he argues guarantees the truth of the major premise. As he explains in the twenty-sixth and twenty-seventh verses (PV 26–27) and their commentary, the purpose of the statement of the major premise is to convey the natural relation that guarantees its truth. He goes on to explain in the text connected with the next two verses that both forms of the major premise are equivalent, each obtainable from the other by implication (*arthāpatti*). He elaborates in the twenty-ninth and thirtieth verses (PV 29–30) and their commentary how various forms of non-apprehensive inferences, first discussed by him in the fourth verse (PV 4), are ultimately based on but one form of non-apprehensive inference and knowledge of the two natural relations. Dharmakīrti then turns to the question of how the natural relations are ascertained. Rather than taking up the question of how the relation of having something for its nature is ascertained in general, he focuses instead, in the thirty-third verse (PV 33) and its commentary, his attention on the ascertainment of relation having something for its nature that underlies the well-known Buddhist claim that everything is momentary. In contrast, starting with the thirty-fourth verse (PV 34), Dharmakīrti does address in a general, albeit unsuccessful, way the question of how the relation of arising from something is ascertained. He goes on to end the passage we are translating with a rather detailed discussion of the causation relation and its ascertainment.

In view of the importance of the relation of arising from something, or the causation relation, in Dharmakīrti's thought, we shall conclude this introduction with a brief discussion of it. As the reader knows, the causation relation has played a central role in Buddhist thought. Many times in the Buddhist canon, one can find the Pali equivalent of the following Sanskrit:

(1) *asmin sati, idam asti*; (2) *asmin asati, idam nāsti*

(1) If *c* is present, then *e* is present; (2) if *c* is not present, *e* is not present.

It is clear from a number of passages in his various works that Dharmakīrti takes the property just stated to be the defining characteristic of the causation

relation. His clearest statement to this effect is found in his *Hetubindu* (4.10–11)

tadbhāve bhāvaḥ tadabhāve abhāvaḥ ca kāryakāraṇabhāvaḥ.

Causation consists in (1) the existence of the effect, if the cause exists, and (2) the non-existence of the effect, if the cause does not exist.

A similar passage is found in the excerpt (PVS 19.06–8) as well as in his other works.<sup>25</sup>

The Sanskrit word “*kāraṇa*,” like its English counterpart “cause,” is often used to pick out a salient causal factor. Suppose someone goes into a room suffused with methane gas and strikes a match, thereby setting off an explosion. One might inquire as to the cause of the explosion, to which a reasonable answer would be that someone struck a match. However, had the room not contained any methane gas, the explosion would not have occurred. The striking of the match is just one condition, among many, including the presence of a flammable gas, the presence of oxygen, etc., which converged to lead to the effect, the explosion.

It is therefore useful to distinguish, as Dharmakīrti and other Indian thinkers did, between the total cause, or causal totality (*kāraṇasāmāgrī*), and the individual causal factors, which themselves can be distinguished into a principal causal factor and its accompanying ancilliary factors, or *coefficients* (*sahakārin*).

Using either the concept of causal totality or the concept of causal factor, one can render Dharmakīrti’s definition of causation into either of the following two forms:

**DEFINITION 1 (Causation: Version 1).** *C* causes *e* if and only if (1) if *C* obtains, then *e* obtains and (2) if *C* does not obtain, then *e* does not obtain.

**DEFINITION 2 (Causation: Version 2).**  $c_1 \wedge \dots \wedge c_n$  causes *e* if and only if (1) if  $c_1 \wedge \dots \wedge c_n$  obtains, then *e* obtains and (2) if  $c_1 \wedge \dots \wedge c_n$  does not obtain, then *e* does not obtain (where “*C*” denotes a causal totality and “ $c_1, \dots, c_n$ ” denotes each of the causal factors constituting *C*).

While these two definitions are logically equivalent, the clauses within each definition are not. The clauses (1) and (2) are obverses of one another.<sup>26</sup> Obverse propositions are not, in general, logically equivalent.

The clauses in (1) and (2) have often stated by Western thinkers as follows:

**PRINCIPLE 1 (Similar Causes).** Similar causes have similar effects.

**PRINCIPLE 2 (Dissimilar Causes).** Dissimilar causes have dissimilar effects.

A second logical point should be made. Contrapositive propositions are logically equivalent.<sup>27</sup> The contrapositive of (2) in the first definition of causation is: if  $e$  obtains, then  $C$  obtains. The contrapositive of (2) in the second definition is: if  $e$  obtains, then  $c_1 \wedge \dots \wedge c_n$  obtains. And the contrapositive of Principle 2 is: similar effects have similar causes.

Above, we defined the causation relation from, as it were, the point of view of the cause. It could equally be defined from the point of view of the effect. After all,  $C$  causes  $e$  if and only if  $e$  is the effect of  $C$ ; similarly,  $c_1 \wedge \dots \wedge c_n$  causes  $e$  if and only if,  $e$  is the effect of  $c_1 \wedge \dots \wedge c_n$ .

Dharmakīrti, like many other thinkers, European or Indian, contemporary or ancient, recognized that one cannot validly infer an effect from just one of its causal factors. Suppose that someone lights a match and a room explodes. No one can validly infer from the lighting of a match that a room will explode. This is because the lighting of a match is only one of many factors that, together, bring about the effect. In the absence of any knowledge of whether or not these other factors obtain, one can make no inference.

It is usually thought, however, that knowledge of all the causal factors, knowledge of the causal totality, permits one to infer the correlated effect. However, Dharmakīrti rejects this. His belief is that, even if all the causal factors are present, one cannot infer the arising of the effect, because some additional impeding factor may prevent the effect from coming about.<sup>28</sup>

If inference from cause to effect is unsound, how about inference from effect to cause? Some such inferences seem indisputable. Consider the case of a forest ranger who spots a column of smoke rising above a mountain. He can legitimately infer that there is a fire; but from the mere seeing of the smoke, he cannot legitimately infer that the fuel of the fire is juniper trees or Ponderosa pine trees. Now, it may be that if he can also smell the smoke, he can legitimately infer what the fuel is. However, he still cannot legitimately infer, on the basis of seeing and smelling the smoke, whether the fire was started by a lightning strike, or by embers blowing from a carelessly tended campfire, or by arson. Yet, further investigation of the site of the fire afterwards might very well permit him to distinguish among these conditions, which was the actual condition.

The question arises whether or not it is always the case that a careful enough inspection of the effect permits one to arrive at a determination of a unique causal totality. In other words, is it possible that the same effect could be brought about by two causal totalities and no amount of scrutiny of the effect would ever permit one to determine which of the causal totalities brought the effect about. Countenancing such a possibility is to countenance what John Stuart Mill referred to in his *A System of Logic* (Book Three (*On induction*), Chapter X (*Of plurality of causes and the intermixture of effects*)) as the doctrine of a plurality of causes, though it would be better referred to

as the view of a *plurality of totalities of causal conditions*, or more briefly as the view of a *plurality of causal totalities*.

DEFINITION 3 (Plural causation).  $e$  has a plurality of causal totalities if and only if, for some  $C_1, \dots, C_m$  (1) if  $C_1 \vee \dots \vee C_m$  obtains, then  $e$  obtains and (2) if  $e$  obtains, then  $C_1 \vee \dots \vee C_m$  obtains (where  $m \geq 2$  and each  $C_i$  is distinct from the other  $C_j$ s).

As we shall see in section 4.2.53, Dharmakīrti argues against the very possibility of an event having a plurality of causal totalities.

## 4.2. COMMENTS ON PASSAGES PVSV 11.1 THROUGH 38.2

### 4.2.1. Notes to PVSV 11.1.

At the seventh verse (PV 7), Dharmakīrti addressed the question of what can be inferred from a causal totality. He pointed out that one can infer at most the possibility for the effect, since an impeding factor could always intervene to preempt the arising of the effect. This sound inference, he says, falls under the rubric of inference from having something for its nature, since the aptitude for the arising of an effect just is its causal totality. An immediate corollary of Dharmakīrti's view that the arising of an effect of its causal totality cannot be inferred from the presence of the latter is that one cannot infer from the presence of one of the causes in the causal totality to the arising of its effect. After all, if one cannot infer the arising of an effect from the presence of its causal totality, one cannot, *a fortiori*, infer the arising of an effect from the presence of just one of the causes in the causal totality. Dharmakīrti illustrates this general point with an inference that, should it be sound, would lead to a conclusion that is incompatible with Buddhist doctrine. It is an inference based on the pervasion expressed by the universal proposition:

- (1) Whoever has a body has passion.

Passion, he points out, requires more than having a body, having senses and having an intellect. We know that a body, the sense faculties and an intellect are among the causes in the causal totality that give rise to passion. It would, however, be unsound to infer from the fact that someone has a body and so forth that passion will arise in him. The unsoundness arises from the fact that we have not taken into consideration the complete set of causes for the arising of passion. According to Buddhist doctrine, one cause in the causal totality must be taken into account, namely, a "fondness for oneself and one's possessions" (*ātmātmīyābhīniveśa*), which is one of the flaws arising out of disorderly thinking (*ayoniśomanaskāra*). An arhant or a Buddha is, according to standard Buddhist thinking, not inclined to disorderly thinking and therefore lacks the fondness for self and possessions that makes passion arise.

#### 4.2.2. Notes to PV 12.1

In the preceding discussion, Dharmakīrti denies that one can infer from a cause to its effect. He maintains, as we saw above, that one can infer from an effect to its cause. However, he restricts inferences from an effect to a cause to inferences to the immediate cause of an effect. This restriction is occasioned by his rejection of a valid argument whose conclusion is inconsistent with Buddhist doctrine. The inference is this:

- (2) a. Whoever speaks does so out of passion. (G9.02)
- b. The Buddha speaks.
- c. Therefore the Buddha spoke out of passion.

The argument is clearly valid. Moreover, it is undeniable that the Buddha spoke. Hence, the rejection of the conclusion 2c, clearly at odds with Buddhist doctrine, requires the rejection of premise 2a. Thus, Dharmakīrti says that speaking does not result from passion alone; it results from a desire to speak.

#### 4.2.3. Notes to PVS 12.2.

Dharmakīrti immediately turns the objection that a desire to speak is itself a passion. His reply to this objection is to distinguish two states of mind: those that are under the influence of one or more of the four perverted views—namely, the mistaken views that impermanent things are permanent, that painful things are pleasurable, that what is not a self is a self and that what cannot be a possession is a possession—from those that are not. To be under the influence of these mistaken views is to exhibit disorderly thinking (*ayoniśomanaskāra*). The antidote to such disorderly thinking is the cultivation of a good understanding of the principles of logic and epistemology. Desire is a mental state. As such, either it can be under the influence of the four perverted views, and hence be disorderly, or it can be free of such influence, and hence orderly. Indeed, as Dharmakīrti reports, “passion (*rāga*)” is defined “as the mind’s intense attachment, which is activated by belief in the permanent, in contentment, in oneself and in possessions, and the subject matter of which is a corrupted property (*sāsrava-dharma*).” However, not all desire is under the influence of the four perverted views. In one whose thinking is orderly, desires may arise, but they are not vicious. Such a mind might be characterized by compassion, which might be described as a passion to help others out of their various difficulties. Finally, Dharmakīrti promises that he “show that compassion and so on are not like that,”—that is, are not vitiated by mistaken views—“because they arise otherwise too.”

Dharmakīrti goes on to say:

(G9.07–09) atra yathā rakto bravīti tathā virakto’pīti vacana-  
mātrād apratipattiḥ. nāpi viśeṣāt. abhiprāyasya durbodhatvāt.  
vyavahārasaṃkareṇa sarveṣāṃ vyabhicārāt.

There is no knowing about this from the act of speaking alone, because a dispassionate person also speaks, as does an impassioned one. Nor is there knowing from a specific act of speaking, because [the speaker's] intention is difficult to discern, since all [acts of speaking] are erratic because behavior is complex.

No inference is reliable unless the property used as evidence pervades the property to be inferred from it. The act of speaking is pervaded by a desire to speak; in other words, no one speaks unless there is a desire to do so. Speaking is not, however, pervaded by unwholesome desire. According to abhidharma theory, desire is not in and of itself either wholesome (*kuśala*) or unwholesome (*akuśala*). If a desire arises from disorderly thinking, then it is unwholesome; and if it does not, then it is either neutral or wholesome. Although one can know of one's own mentality whether it is wholesome or unwholesome, it is impossible to determine the character of another's mentality. The reason for the latter is the following. Both passionate and dispassionate people are capable of speaking; indeed, according to Dharmakīrti, both are capable of speaking exactly the same sentence. Yet, there is no feature of their speaking that is present in the speaking of those who are passionate and absent from the speaking of those who are dispassionate. In short, while Dharmakīrti concedes that from someone's speaking, we can correctly infer that the person has the desire to speak, he maintains we cannot infer whether the person's desire to speak is wholesome, or unwholesome or neither. This is an instance of what was identified above as an effect having a plurality of causes, a view which, else where (PV 33–38 *passim*), Dharmakīrti rejects.

Bearing all this in mind, let us return to the sentence with which Dharmakīrti begins his reply to the objection raised at the beginning of this section. Recall that Dharmakīrti rejected the premise 2a that whoever speaks does so out of passion. The reason he gave is that speaking does not arise just from passion, it arises from the desire to speak, which, as he later explains, may or may not be unwholesome. The objection is raised that the desire to speak is itself a passion. Dharmakīrti replies with the rather enigmatic sentence: “*iṣṭatvāt na kiṃcīt bādhitam*”, which, translated literally, is “because of being accepted, nothing would be contradicted.” The question is: when he says “*iṣṭatvāt*” (because of being accepted), what is it that he is accepting?

The most natural grammatical unit for expressing what he accepts is the preceding clause, namely, the statement of the objection. Thus, it looks as though Dharmakīrti admits that the desire to speak is passion. But, if this were so, it would entail precisely the proposition he is at pains to reject, namely, that whoever speaks does so out of passion.<sup>29</sup>

Karṇakagomin clearly recognizes this problem, for he takes the grammatical unit for expressing what Dharmakīrti accepts to be what is expressed by the fifth case noun phrase of the penultimate clause, namely, “*vacanasya vak-*

*tukāmatāsāmānyahetuvāt*". This is made clear by his gloss of the sentence in question. He says: "*vaktukāmatākāryasya vacanasya iṣṭatvāt*" (because speaking is accepted as the effect of a desire to speak), "*na kiṃcit aniṣṭam*" (nothing at all is unaccepted) (K51.18).

Unfortunately, Karṇakagomin's suggestion makes no sense. The reason is that this claim of Dharmakīrti's, together with the opponent's claim that desire just is passion, entails the claim that whoever speaks does so out of passion, which is precisely the claim Dharmakīrti rejects.

Has Dharmakīrti contradicted himself here? Neither of us thinks he has. How might it be that he did not contradict himself? We each favor a different answer to this question.

One answer is to say that the suitable grammatical unit identifying what Dharmakīrti accepts is indeed the statement of the objection, but that the statement is equivocal, so that the objection means one thing and what Dharmakīrti accepts means something else. On this view, advocated by Hayes, Dharmakīrti has equivocated on the term "passion" (*rāga*), a word that he uses sometimes in the general sense of a desire as such, and sometimes in the specifically negative sense of desire attended by the vices of greed, hatred, and delusion.<sup>30</sup> If one takes the word "rāga" univocally, then Dharmakīrti contradicts himself. If, however, the word is taken in different senses in its various occurrences, the contradiction can be resolved, but there remains a stylistically careless equivocation on a key term. Given that Dharmakīrti seems to be right in contending that it is difficult to assess the mentality of another, it is difficult to say whether his confusing writing is indicative of his being confused or of his trying to be playfully provocative.

Another answer, favored by Gillon, is to find a different grammatical unit to express what Dharmakīrti has in mind. What might that grammatical unit be? A plausible answer is the sentence which follows. Recall that, having accepted that whoever speaks does so from a desire to speak, Dharmakīrti extricates himself from the conclusion that whoever speaks does so out of passion by maintaining, as we saw, that the desire to speak can arise both from passion and from compassion, which are distinct from one another. In other words, Dharmakīrti holds that the desire to speak, and hence speaking, has a plurality of causes. It is his acceptance of the fact that compassion and passion arise differently that extricates Dharmakīrti from the opponent's argument. Though this is alluded to when he says in the preceding sentence that speaking does not arise just from passion, it is stated only in the succeeding clauses. Crucial in this explanation is the definition of "passion" (*rāga*), which is given in the immediately following sentence.

The question arises: can the expression "*iṣṭatvāt*" be construed with the following sentence, rather than the preceding sentence? Had Dharmakīrti said "*iṣṭāt*" (because of what is accepted), then it could certainly be construed with the following sentence. But, such a reading has no textual support.

Can “*iṣṭatvāt*” (because of being accepted) be so construed? Nothing known about the grammar of classical Sanskrit rules it out; and, so taking it obviates ascribing to Dharmakīrti a flagrant self-contradiction.

#### 4.2.4. Notes to PVSV 12.3.

In this section, Dharmakīrti considers and rejects three other arguments to establish the claim that whoever speaks has passion. These arguments and their rejection, indeed the entire passage, have been treated in detail in Gillon (2007). Nonetheless, we would like to draw attention to two puzzling sentences and highlight one of the arguments rejected by Dharmakīrti.

We begin with the two puzzles. The first pertains to the expression “*iṣṭam aviparyāśasamudbhavāt na doṣaḥ*” (G9.11–12). Following the commentarial tradition and the Tibetan translation, we have translated it as “Agreed. It is not a vice, because it does not arise from misjudgement.”

Karṇakagomin (K52.19), like the Tibetan translator, takes “*iṣṭam*” to be a single word sentence. Therefore, “*iṣṭam*” must be a predicate of an understood subject. What is the understood subject? The only plausible candidate is the preceding sentence, namely, “*saiva rāgaḥ*” (It itself is passion), where the antecedent of “*sā*” (it) is “*karuṇā*” (compassion). However, if Dharmakīrti accepts that compassion is passion, then, since, according to Buddhist doctrine, the Buddha has compassion, the Buddha must have passion. But this is precisely the conclusion Dharmakīrti rejects.

An alternative is to take “*iṣṭam*” as the subject of a clause. What is accepted (*iṣṭam*) (namely, compassion), he says, is not a vice because it does not arise from misjudgement. And this is precisely Dharmakīrti’s position.

The second puzzle is the expression “*tadanyena doṣavattvasādhane na kiṃcid aniṣṭam*” (there is nothing at all with which we disagree in the argument for viciousness due to something other than that) (G9.19–20). According to Karṇakagomin (K53.24–54.01), it should be understood as follows: There is nothing we do not accept in the argument to establish that someone devoid of passion has a flaw through things other than passion, such as the desire to speak (*tadanyena rāgādibhyo ’nyena vaktukamatādinā vītarāgasya doṣavattvasādhane na kiṃcid aniṣṭam*). But this seems inconsistent with Dharmakīrti’s immediately preceding claim: There is no flaw because there is no ascription in any way of what does not exist (*sarvathā ’bhūtā-samāropān nirdoṣaḥ*). What one expects Dharmakīrti to say is this: There is nothing we do not accept in the argument to establish that someone devoid of passion has properties such as the desire to speak, which are different from properties such as passion.

We now turn to one of the arguments (G9.20–10.01) Dharmakīrti rejects. It states: just as the formulator of the claim speaks and does so out of passion, so others who speak do so out of passion. Thus, whoever speaks does so from passion.

As Dharmakīrti points out, since such an argument does not hold for other properties, why should it hold for passion? Thus, as Karṇakagomin (K54.04) illustrates, particular properties such as being black or being heavy are observed in one person who speaks but they are not always observed in others who speak. So, why should we think that things are different when it comes to passion?

It is worth mentioning that the very argument that Dharmakīrti has just rejected is used by him not only in another work of his, *Santānāntarasiddhi*, but also elsewhere in his *Pramāṇavārttika* (*Pratyakṣa* v. 475cd–476c). As Katsura (1996) points out, this argument anticipates a similar argument put forth by J. S. Mill (1865, ch. 12) to establish the existence of other minds. Here is the passage from PV:

pratyakṣaṃ ca dhiyaṃ dṛṣṭvā tasyāś ceṣṭābhīdhādikam paracittānumānaṃ  
ca na syād ātmany adarśanāt sambandhasya.

Having observed that one's physical or verbal activity is preceded within one's own stream of consciousness by the awareness or intention to move or to speak, one will know the awareness in others because one sees a similar activity of moving or speaking in others (Katsura, 1996).

#### 4.2.5. Notes to PVSV 12.4.

Recall that Dharmakīrti is defending the adequacy of his view of the classical Indian inference. In the previous verse and its commentary, he denied that, in general, one can soundly infer from a cause to its effect. He maintains, rather, that one can soundly infer from the effect to its cause. However, as the details discussed above show, this too is not always so, for Dharmakīrti admits at least two cases where the very same kind of effect arises from two different kinds of causal totalities. Yet, as we noted, Dharmakīrti also seems to think that causes common to the different causal totalities giving rise to an effect can be soundly inferred from the effect. But then the question arises: how does one know which causal conditions are common to all causal totalities and which causal conditions are peculiar to one or the other? This question, as we noted above, is a pressing one, if Dharmakīrti is not to undermine his own solution to Īśvarasena's problem. Recall that Dharmakīrti wishes to ground all sound inferences in two relations, having something for a nature (*tādātmya*) and arising from something (*tadutpatti*). If one can infer neither from cause to effect nor from effect to cause, then his solution fails for inferences that he thinks are grounded in causation, which includes the well-known inference of smoke from fire.

Clearly, Dharmakīrti must qualify his view that causes can be soundly inferred from their effects. And he does so in this passage. The crucial word is “*nāntarīyaka*.” Karṇakagomin (K55.04) glosses the adjective with “*avinābhāvin*” and the Tibetan translates it with “*med na mi 'byung ba'i*,”

the usual Tibetan translation of “*avinābhāvin*.” Hayes, following Karṇakagomin, understands the qualification as serving to restrict the inferrable causes to those that are invariably related to the effect. Gillon thinks that “*nāntarīyakam*” has its literal, derivational sense of “having no interposer”, hence “immediate.” He thinks that Dharmakīrti intends to distinguish immediate causes from remote causes and that he believes that only immediate causes are inferrable on the basis of the causation relation, and not remote causes. Thus, one can legitimately infer from speaking the immediate causes of the movement of the lips and the desire to speak, but one cannot infer such remote causes the speaker being passionate or dispassionate.

Either way, Dharmakīrti does not solve his problem, for should he mean by “*nāntarīyaka*” “*avinābhāvin*” (indispensable), as suggested by the Tibetan translation and by Karṇakagomin, he will fall into circularity; and should he mean by “*nāntarīyaka*” “immediate causes,” he falls into inconsistency. At the thirty-first verse (PV 31), Dharmakīrti appeals to the relation of arising from something to explain indispensability (*avinābhāva*), saying that the restriction of indispensability (*avinābhāva*) comes about from the restraint either of the relation of arising from something or from the relation of having something for its nature, and not from either non-observation or observation. It is plainly circular to explain, on the one hand, indispensability by appealing to the relation of arising from something, and on the other hand, to distinguish causes from non-causes by appealing to indispensability. Yet, should he mean by “*nāntarīyaka*” “immediate causes,” he falls into inconsistency. The reason is that, once one admits that an effect can arise from a plurality of causal totalities, one must admit that an effect can arise from a plurality of immediate causal totalities. This can be seen as follows: if two kinds of causal totalities, say  $C_1$  and  $C_2$  give rise to the same effect  $e$ , then either  $C_1$  and  $C_2$  are the immediate causal conditions for  $e$  or there is a point where the descendants of  $C_1$ , say  $D_1$ , and the causal descendants of  $C_2$ , say  $D_2$ , which are of different kinds, are immediate causal conditions for  $d$ , itself a causal condition for  $e$ . In other words, different kinds of causal totalities must converge at some point, and when they do, different causal totalities are immediate causal totalities for the same kind of effect. In such cases, it is not possible to infer from an effect to any of its immediate causal conditions.

#### 4.2.6. Notes to PVSV 12.5.

Dharmakīrti here mentions the problem of induction, which he will take up in the next verse (PV 13), in twenty-second verse (PV 22) and in his commentaries to them. As the reader will recall, the crucial question for inference is how the inferrer knows the truth of the major premise. For, if the inferrer has observed only some instances, he or she is subject to the risk that other instances may be otherwise; after all, as Dharmakīrti notes, the simple fact

that things are observed one way in one place at one time does not guarantee that they will be the same way in other places at other times.

#### 4.2.7. *Notes to PV 13.*

From the thirteenth to the twenty-fifth verse (PV 13–25), Dharmakīrti addresses the problem of how an inferrer comes to know the major premise of the classical Indian syllogism. On the one hand, he will adduce a number of arguments to show that mere non-observation (*adarśanamātra* or *anupalabdhimātra*) is not sufficient for knowledge of the truth of the major premise. On the other, he will maintain that what is sufficient is knowledge of a natural relation between the evidence and what is to be established. In this verse and its commentary, Dharmakīrti points out that, while some grains of rice in a cauldron may be observed to be one way—namely, cooked—, other grains in the cauldron may be otherwise—namely, uncooked. He then says that inferences in which knowledge of the truth of the major premise is thus grounded are deficient.

#### 4.2.8. *Notes to PV 14.*

The foregoing leads Dharmakīrti to conclude that any inference, knowledge of the truth of whose major premise is based on the simple failure to have found a counterexample, that is, to have found something that has *H* but that does not have *S*, is deficient (*śeṣavat*), for it fails to alleviate uncertainty. Apparently, according to Dharmakīrti, knowledge requires certainty and knowledge of the truth of the conclusion of an argument requires knowledge of the truth of its premises. The simple failure to observe a counterexample leads only to uncertainty as to whether or not there is a counterexample. Hence, it cannot lead to knowledge of the truth of the major premise. Rather, knowledge of the truth of the major premise requires knowledge of a natural relation between the properties related by the inference.

#### 4.2.9. *Notes to PV 15.1.*

Dharmakīrti invokes the authority of Dignāga in order to lend credence to his view. It should be noted that Dharmakīrti has not been as careful as he might have been in formulating his view. He says: “there is no ascertainment of association and dissociation when there is no connection.” What he must mean, however, is that there is no ascertainment either of association, the second *rūpa*, or of dissociation, the third *rūpa*, when there is no ascertainment of a (natural) connection, for clearly the existence of a natural connection is not sufficient for the ascertainment of the association or of the dissociation it underpins.

Steinkellner (1988), in discussing v. 15, shows that the notion of *niścaya*, although attributed by Dharmakīrti to Dignāga, does not play the same role in Dignāga’s view of the syllogism as it does in Dharmakīrti. Indeed, in the verse

mentioned by Karṇakagomin (K57.21), the word “*niścita*” does not even occur.<sup>31</sup> Steinkellner goes on to remark on other passages, not in *Pramāṇa-samuccaya*, but in *Nyāyamukha*, where Dignāga does use the term “*niścaya*,” but its usage is dialectical—that is, like “*siddha*” and “*prasiddha*,” it refers to agreement between disputing parties—, whereas in Dharmakīrti, its usage is epistemic—that is, it refers to the epistemic certainty corresponding to the pervasion (*vyāpti*) of an act of inference.

Dharmakīrti here provides a review of the theory of inference advocated by Dignāga and himself. An observed property is fit to serve as evidence (*hetu*) for a property to be established (*sādhyadharmā*) just in case it meets three conditions: 1) It is a property of the locus (*pakṣadharmatā*) to which one is trying to attribute the *sādhyadharmā*; 2) it is observed to have an association (*anvaya*) with the *sādhyadharmā* in some subject aside from the locus in question; and 3) it has a dissociation (*vyatireka*) from loci in which the *sādhyadharmā* is absent. Each of these conditions prevents a species of bad evidence. Evidence would be unreliable if

1. it were unattested (*asiddha*) in the locus—saying “There is a fire on the mountain, because there is smoke” would be using bad evidence if in fact no smoke had been observed on the mountain—;
2. it indicated just the opposite of the desired conclusion—saying “The man is dead because he is still breathing” would be using bad evidence, since breathing is a sign of life, not death—; or
3. it were erratic with respect to the conclusion, that is, if it occurred in both loci possessing the property to be established and loci lacking the property to be established—saying “a piñon sheds its leaves in winter, because it is a tree” would be using bad evidence, since being a tree is a property found in both deciduous and evergreen plants.

This reminder of the importance of having evidence that possesses three features (*trirūpahetu*) sets up the point made in the sixteenth verse (PV 16) and its commentary.

#### 4.2.10. Notes to PV 16.1

Dharmakīrti goes on to assert that the very formulation of a sound inference excludes its being based on mere non-observation of counterexamples, for, he claims, if mere non-observation were sufficient to secure one’s knowledge of the truth of the major premise, the statement of dissociation, which Dignāga requires, would be pointless.

#### 4.2.11. Notes to PVSV 16.2

Dharmakīrti now gives the argument to support his claim. The argument is rather difficult to follow and therefore deserves some explanation. It runs as

follows. Everyone has failed to apprehend any oak that is not a tree. That is to say, no one has apprehended the following: some particular oak is not a tree. If it is that absence in which dissociation (*vyatireka*) consists, then a statement to bring about that state of mind is pointless, since everyone is already in that state of mind.

#### 4.2.12. *Notes to PVSV 16.3*

Dharmakīrti entertains two replies. The first is that the statement of dissociation makes one recollect that one has failed to observe a counterexample to truth of the major premise. While conceding that people are usually unaware of their failures to observe something, Dharmakīrti (G12.01–04) counters that the opponent’s point, though true, is irrelevant, for what grounds one’s knowledge of the truth of the major premise, according to the opponent, is the mere absence of any counterexample. This circumstance, according to Dharmakīrti, is, *ex hypothesi*, fulfilled. Thus, no statement of dissociation is required.

#### 4.2.13. *Notes to PVSV 16.4*

The second reply (G12.04) is this. Not to have observed a counterexample to the major premise need not put someone into the state of mind of knowing that one has not observed a counterexample. Thus, according to the opponent, the point of the statement of dissociation is for someone making an argument to make his interlocutor aware of the fact he has not observed a counterexample.

Dharmakīrti takes up this reply in the next verse and commentary.

#### 4.2.14. *Notes to PV 17.1*

Again, Dharmakīrti counters that the opponent’s suggestion is irrelevant, for what is at issue is whether or not the subject of an argument is a counterexample to the truth of the major premise, and not whether or not one’s interlocutor has ever observed a counterexample. In other words, the failure to have observed a counterexample to the major premise is no guarantee that the subject of the argument is not itself a counterexample to it. Thus, a reminder that one has not observed a counterexample to truth of the major premise does not guarantee *ipso facto* that the subject of the argument is not a counterexample to it.

#### 4.2.15. *Notes to PV 17.2*

What is required to be communicated, according to Dharmakīrti, is not that one has not seen any counterexamples, but a rule that guarantees that the present case cannot be a counterexample. As Dharmakīrti puts it, “one who acknowledges exclusion” of the evidence from loci that lack the property to

be established on the basis of that evidence “must express the rule because of which [the ascertainment] ‘it is excluded’ arises.”

#### 4.2.16. Notes to PVSV 18.1

Dharmakīrti now turns to the discussion of the first of five unsound inferences that would have to be accepted as sound, were the dissociation to consist in mere non-observation. This first inference is a patently unsound inference. Consider the following valid inference.

- (3) a. Whatever fruit comes from this branch is sweet.
- b. These (other) fruits come from the branch in question.
- c. Therefore, these (other) fruits are sweet.

Suppose that one samples just one fruit and it happens to be sweet. But suppose that none of the others is. Since no sampled fruit from the tree is not sweet, it follows by the principle of non-observation that whatever fruit comes from the branch is sweet. Taking all the remaining fruit as the locus (*pakṣa*), one legitimately infers that all the other fruits on the branch are sweet. But, *ex hypothesi*, this is false.

#### 4.2.17. Notes to PVSV 18.2

According to Karṇakagomin (K61.10ff), Īśvarasena thought that the non-errancy of evidence with respect to what is to be established could be defined as follows:

*H* errs with respect to *S* iff one is in doubt about whether or not there is an instance of *H* without *S*.

Let us consider this definition more carefully. To do so, it is useful to consider it formulated in terms of the contradictories of each proposition in the definition.

*S* pervades *H* iff one has no doubt that there is no instance of *H* without *S*.

The question arises: is having no doubt either necessary or sufficient for pervasion? It is clearly not necessary, for *S* might indeed pervade *H*, yet one might doubt that there is no instance of *H* without *S*. Neither is it sufficient, for one might have no beliefs about whether or not there is an instance of *H* without *S*, and hence no doubts about whether or not there is an instance of *H* without *S*, and yet *S* may not pervade *H*. Or, one might have the false conviction that there is no instance of *H* without *S*, yet again *S* does not pervade *H*.

However, Dharmakīrti raises a different problem. He points out that this definition is fundamentally incompatible with another widely held view of

inference, namely, that it relieves uncertainty about whether or not the subject of inference, which is known to have *H*, has *S*. If one accepts this as a property of correct inference, then it follows from the above definition that no *S* pervades *H*, for, in every case of inference, one is uncertain as to whether or not *S* is in the subject of inference.

#### 4.2.18. Notes to PVSV 18.3

Dharmakīrti considers and rejects an emendation to Īśvarasena's definition of errancy.

EMENDATION 1. *H* errs with respect to *S* iff one is in doubt about whether or not there is an instance of *H* without *S* that is distinct from the subject of inference—that is, the *pakṣa*. (K 61.14–16).

This emendation, as Dharmakīrti shows, does not work either, since it is liable to the very same objection. For consider an inference, just like the previous one, except that the instance of *H* without *S* that is distinct from what the locus in question had been now becomes the locus in question.

Dharmakīrti concludes that errancy cannot consist in the absence of doubt as to whether or not there is a counterexample to the relevant pervasion; rather, one must establish the association that a sound inference requires and so it is required that one ascertain that there be no counterexamples.

#### 4.2.19. Notes to PVSV 18.4

Dharmakīrti returns to a point already made in his commentary to the fourteenth verse (PV 14), namely, that the errancy of defective inferences lies in their failure to eliminate uncertainty as to whether or not there are counterexamples to the major premise and that only knowledge of the dissociation (that is, knowledge of the truth of the major premise, which here is identified under its contrapositive form) eliminates uncertainty. And this latter knowledge, in turn, requires knowledge of a natural connection.

#### 4.2.20. Notes to PVSV 18.5

Dharmakīrti turns to the second of the five unsound arguments that would have to be accepted as sound, were mere non-observation of a counterexample accepted as sufficient to establish the truth of the major premise of an inference. The consequence is that a certain inference, which Uddyotakara (*ad Nyāyasūtra* 1.1.5 and 1.1.35) has put forth and whose conclusion is inimical to Buddhist doctrine, would be acceptable. It runs as follows:

- (4) a. It is absurd for a living body to be without breath.
- b. This living body has breath.
- c. Therefore, this living body is not without a soul (*ātman*).

This argument is valid and its minor premise is true. Hence, Dharmakīrti must reject the truth of its major premise, for, he argues, one cannot establish the absence of something that is not observable—in this case, the soul.

#### 4.2.21. *Notes to PVSV 18.6*

Dharmakīrti then entertains a reply. Buddhists hold that the soul does not exist. Hence, they must hold *a fortiori* that everything without life is without a soul. This requisite dissociation (*vyatireka*) of the evidence from what lacks the property requiring establishment thereby secures the truth of the major premise.

The Buddhist could very well concede this and still not be committed to the conclusion in 4, for the premise that must be conceded for this argument to be binding on the Buddhist is this:

- (5) Whatever is without a soul is without life.

Of course, this is not accepted by Buddhists. Their belief that souls do not exist is inconsistent with this premise, for they hold that every animal is without a soul, but they do not hold that animals are without life.

Dharmakīrti, however, adverts to other flaws in the reply. To begin with, as Dharmakīrti correctly points out, once the opponent concedes the Buddhist belief that there is no soul, why should the Buddhist belief be authoritative only with respect to those things devoid of breath? Second, as Dharmakīrti adds, if the opponent insists on the division between what has a soul and what does not, he is presupposing his own basic doctrine.<sup>32</sup>

#### 4.2.22. *Notes to PVSV 18.7*

Twice before Dharmakīrti has claimed that non-observation of counterexamples to the major premise leads only to doubt as to whether or not there are such counterexamples. He now seeks to buttress his claim with an appeal to a passage from Dignāga's *Nyāyamukha* (the third verse and its commentary). There, Dignāga argues that both parties of a debate must have made the same determination with respect to the three features (*trirūpa*) of a sound inference. Having laid this out in detail for the first feature—namely, the requirement that the evidence be in the locus in question—Dignāga summarily states that similar considerations apply to the other two features. It is this latter statement that Dharmakīrti cites. However, as Dharmakīrti repeats still again, no such determination is possible on the basis of mere non-observation.

#### 4.2.23. *Notes to PVSV 19.1*

In the verse, Dharmakīrti turns to a third kind of argument that should be rejected as unsound. The kind of argument he has in mind is designated by Dignāga as one whose evidence is specific to its subject (*asādhāraṇahetu*).

Dignāga provides an example of such an argument in his *Hetucakraḍamaru*. The argument runs as follows:<sup>33</sup>

- (6) a. Whatever is audible is permanent.
- b. Sound is audible.
- c. Therefore, sound is permanent.

As indicated in his *Hetucakraḍamaru* and as discussed in the *vṛtti* to his *Pramāṇasamuccaya* (PS 3.21, Ono, 1999 p. 302 n. 5, as well as between PS 2.6cd and PS 2.7 Ono, 1999, p. 303 n. 8), Dignāga regards this argument as unsound, having what he calls ambiguous (*anaikāntika*) evidence. As shown by Ono (1999, §1.3) and by Katsura (2004, §4), in their discussion of these passages, Dignāga requires both the statement of association and the statement of association appear in a sound argument, the latter being required to rule out this argument.

Dharmakīrti rules out such arguments, but in a way different from Dignāga. He maintains that such an inference is unsound, for the exclusion requisite to render its major premise true is unascertained.<sup>34</sup> How Dharmakīrti expresses himself on this point (G14.01–05) is rather obscure. He says: “there is no separation, because there is no ascertainment owing to mere exclusion from something. For how might an existent property that is ascertained not to be somewhere fail to make its absence known?”

There are several obstacles in the way of understanding this sentence. As we saw above, Dharmakīrti sometimes permits ontic terms to do duty for epistemic terms. Here, he does this twice: the ontic term “exclusion” (*vyāvṛtti*) does duty for the epistemic term “non-observation” (*adarśana*), as Karṇakagomin (K65.01) notes; and the ontic term “separation” (*vyavaccheda*) does duty for the epistemic term “ascertainment of separation” (*vyavaccheda-niścaya*). Second, Dharmakīrti does not express the relata of these relational terms. Thus, when he says “there is no separation,” he means to say “there is no ascertainment of the separation from the subject of the argument, either of the property of being permanent or of the property of being impermanent.” And when he says “there is no ascertainment,” he means to say “there is no ascertainment of the separation of either property from every instance of some kind of locus.” And when he says “owing to the mere exclusion from something,” he means to say “owing to the mere non-observation of each of the properties in some locus.”

In other words, Dharmakīrti is asserting that neither does the mere non-observation of something audible and permanent warrant the conclusion that whatever is audible is permanent nor does the mere non-observation of something inaudible and impermanent warrant the conclusion that whatever is impermanent is inaudible. This is, of course, just a further repetition of the same point he has made several times above, namely, that one cannot know

the truth of the major premise of an argument on the basis of observed instances of it. Applied to the case at hand, Dharmakīrti asserts that one concludes therefrom neither that what is audible is permanent nor that it is impermanent.

#### 4.2.24. *Notes to PVSV 19.2*

One salient aspect of the situation giving rise to the inference in 6 is that what is audible is found neither in what is permanent nor in what is impermanent. Moreover, knowledge that something is permanent excludes knowledge that it is impermanent, and vice versa. It might be thought that this exclusivity might salvage such inferences. However, as Dharmakīrti makes clear, the opposite is the case. Karṇakagomin explains:

At the very time at which audibility must be separated from what is permanent because it is excluded from what is permanent, it must affirm impermanence. And at that very time it must be separated from what is impermanent because it is excluded from what is permanent; and it affirms what is permanent. So, there must be both affirmation and denial of the same thing at the very same time. And that is impossible. (K65.11–13)

In other words, should audibility be excluded both from what is permanent and from what is impermanent, one concludes from the former exclusion that whatever is audible is impermanent and from the latter exclusion that whatever is audible is permanent. Since sound is audible, one is led to the contradiction that sound is both permanent and impermanent.

#### 4.2.25. *Notes to PVSV 20.1*

In the first half of verse 20, Dharmakīrti winds up his discussion of the argument in 6 by asserting in his usual laconic fashion that other inferences also run the risk of being contravened by some bit of knowledge. The other inferences are, of course, those whose evidence is specific to the subject of inference.

This line of the verse seems out of place with respect to the two sentences of commentary surrounding it. The first sentence restates his now often repeated general point; the second sentence shows how the denial of his general point is incompatible with the third feature of inference (*rūpa*), which he refers to here as a defining characteristic (*lakṣaṇa*) of evidence. As Karṇakagomin (K65.21) tells the reader, the defining characteristic (*lakṣaṇa*) provides that “the non-observation of the evidence in the dissimilar instances is the basis for its exclusion” (hetor vipakṣādarśanavyāvṛttinibandhanam iti yallakṣaṇam tena yuktaṃ).<sup>35</sup>

The argument that Dharmakīrti seems to have in mind is the following. Mere non-observation cannot be a means for acquiring knowledge of the truth of the major premise, since, if it were, it would permit the possibility

of counter-examples to it. And if one were to allow major premises to have counter-examples, then the very defining characteristics of a proper inference would be refuted. Giving up the three defining characteristics of a proper inference entails giving up inferential knowledge.

#### 4.2.26. *Notes to PVSV 20.2*

Dharmakīrti considers the objection that there are proper inferences whose conclusions are contradicted either by perception or by another inference. In particular, an objector might think that one can determine through inference that sound lacks some properties and through observation that it lacks others. For example, as Karṇakagomin points out (K66.4–6), one can eliminate the possibility that sound is permanent by using proper reasoning, and one can eliminate the possibility that sound is inaudible by simple observation of audibility in sounds.<sup>36</sup>

Dharmakīrti's reply is, of course, to deny that there are proper inferences whose conclusions are contradicted by either perception or by another inference. Such inferences simply do not satisfy the defining characteristic of a sound inference. Karṇakagomin (K66.08–10) elaborates on this, saying that in inferences based on non-observation of an effect and non-observation of a nature there is nothing incompatible with observation and inference.<sup>37</sup>

#### 4.2.27. *Notes to PVSV 20.3*

Dharmakīrti considers still another attempt to salvage the view that the mere non-observation of a counterexample to the major premise is sufficient to establish its truth. The claim is made that if the mere non-observation of a counterexample to the major premise is not sufficient to establish its truth, Dignāga should not have mentioned the fallacy of being erratic from what is incompatible. Dharmakīrti replies that, while Dignāga does mention this fallacy, he does not do so within his treatment of the definition of inference.

#### 4.2.28. *Notes to PVSV 20.4*

Dharmakīrti now argues that, should the mere non-observation of a counterexample suffice to establish the truth of the major premise, one would have to accept as sound an argument explicitly rejected as unsound by Dignāga in his *Pramāṇa-samuccaya* (chapter 2, verse 3d and *vṛtti* thereto; translated in Hayes, 1980, pp. 249–250). Karṇakagomin (K66.14–15) tells us that the argument is the one found in the *Vaiśeṣika sūtra* (VS 2.1.9–10), where the following is said:

Moreover, there is a tactual. Yet a tactual does not belong to observable things. So, air has no observable characteristic mark.

This argument requires some elucidation. We turn to Karṇakagomin's helpful, fuller formulation first.

Every quality has a substance for a substratum, as for example color. Tepidity to the touch, which is not produced from heating, is a quality. Therefore, there must be a substance that is a substratum for it. Yet this quality does not belong to such observable things as earth because they have for qualities tepidity to the touch not produced by heating. Hence, the thing that has this quality must be air. Thus speaks the Vaiśeṣika. (K66.16–19)

To appreciate Kaṛṇakagomin's elucidation of this argument, we must bear in mind the following. First, the Sanskrit noun "sparśa" means touch or contact. It also means not only the sense of touch but also anything perceptible through the sense of touch, including heat, cold, smoothness, softness, etc. No single English word has precisely this last meaning. The closest approximation is the English adjective "tactual," which means "of or relating to the sense of the organs of touch : derived from or producing the sensation of touch" (Webster's Third International Unabridged), which we use as a noun to mean the quality that produces the sensation of touch. However, what is meant by the noun "sparśa" in the argument, as made clear by Kaṛṇakagomin, is still narrower than a quality that produces the sensation of touch. It is rather a kind of quality, namely, tepidity to the touch, or, more literally, the property of being neither hot nor cold (*anuṣṇāśīta*) to the touch.

In addition, the belief was that earth is naturally cool and that it becomes tepid to the touch only through heating. Air, in contrast, was believed to be naturally tepid to the touch. The argument, then, is this. Every quality inheres in a substratum. Tepidity to the touch is a quality. It does not occur naturally in earth. However, it does occur naturally. So, it must occur in another substratum. Air is inferred to be the substratum in which it occurs naturally.

It is this argument which Dignāga rejects as unsound; and it is this argument which, according to Dharmakīrti, would have to be accepted if one held the mere non-observation of a counterexample sufficed to establish the truth of the major premise of an argument.

#### 4.2.29. Notes to PVSV 20.5

Why, one might wonder, is the Vaiśeṣika argument unsound; after all, does not tepidity to touch meet the condition of being apprehensible? While tepidity does meet the condition of being apprehensible, Dharmakīrti rejects the argument because one of its crucial premises has not been established. Dharmakīrti maintains that it cannot be established that tepidity to touch is excluded from earth in general. As Dharmakīrti notes, all kinds of tactuals are observed among such earthy things as cotton bolls, stones and buds. How can we be sure, then, that some kind of earthy thing does not have tepidity to touch naturally? If this uncertainty cannot be laid to rest, one cannot exclude tepidity to touch from all earth.

4.2.30. *Notes to PVSV 20.6*

Dharmakīrti draws to a close his critical assessment of Īśvarasena's view that mere non-observation of a counterexample to the truth of the major premise is sufficient for knowledge of its truth.

4.2.31. *Notes to PVSV 21.1*

Dharmakīrti's rejection of Īśvarasena's view is that the latter's view makes the major premise of an inference liable to being false, which, in turn, leaves open the possibility that the conclusion of an inference might be false. In other words, as long as the major premise is liable to inductive risk, and hence is susceptible of being false, the conclusion of the inference is also susceptible of being false.

In the preceding discussion, Dharmakīrti has looked at the problem of inductive risk from the point of view of the observation of absences. Now he considers the problem from the point of view of observation of presences. Thus, he says that, even if all the plants in some given region have some particular property, it does not follow that plants of the kind will have that property everywhere (G15.09–16).

4.2.32. *Notes to PVSV 21.2*

Dharmakīrti takes advantage of this formulation of the problem of inductive risk to reject the Mīmāṃsā claim that the Vedas were not composed by anyone. His argument is that, in the absence of any special reason, one must infer uniformity. Thus, one infers that sentences uniformly result from human articulatory efforts.

Having stated this argument, Dharmakīrti wishes to forestall the accusation of inconsistency. On the one hand, he maintains that at least one person, namely the Buddha, has special mental qualities, such as wisdom and dispassion. Yet, he has denied that one can know that someone has such qualities either by direct perception—for we do not have direct perceptual access to the mental states of others—or by inference—for there is no simple correlation between people's behavior, including verbal behavior, and their mental states. On the other hand, Dharmakīrti denies that there are any statements that are of non-human origin. Rather, he maintains that all sentences have essentially the same nature, namely, that of being produced by articulatory efforts.

Both cases seem to be the same. No one's mental states are observable and there is no behavior, even verbal behavior, whereby one can distinguish those who are wise and dispassionate from those who are not. Similarly, being unproduced is not a property that can be observed and there is nothing about statements whereby one could distinguish allegedly unproduced statements from produced ones. Yet, Dharmakīrti maintains, in the first instance, that we can know that some person, namely the Buddha, has special, unobserv-

able qualities and, in the second instance, that no statements have special, unobservable qualities.

Since Dharmakīrti's reasoning is rather compressed, we lay it out in detail. He first asserts:

In contrast, it is not the case that human beings have no such existing special cause by which it could be inferred from a similarity in only some respect, such as speaking, that there is a similarity in any [other given] respect. (G15.19–21)

He gives three principal reasons. The first reason is that different causal totalities gives rise to different effects, and in particular, different training gives rise to different mental qualities.<sup>38</sup>

[1.1] Because differences are observed in all [mental] qualities, since it is admitted that differences [in mentality] are due to differences in habit [and] [1.2] because there is the presence of other [mental qualities] also similar to that [habit]. (G15.21–23)

The second reason is that we have no reason to think that any given mental quality does not arise. For example, there is no reason to think that dispassion does not arise. After all, there is no way to rule it out either by perception or by inference. Since it is unobservable, it cannot be ruled out by perception; nor is it known to be incompatible with anything observable. At the same time, there is no effect that is invariably connected with passion. So, it cannot be ruled out by inference.

[2] Because there is no evidence countering the inference of their presence, [2.1.1] because there is no observation of dispassion and [2.1.2] because there is no establishing a relation between a means of countering and what is to be countered through what is unobserved, and [2.2] because there is no invariable effect of such things as passion. (G15.23–25)

The third reason is that special qualities such as dispassion are unobservable and hence undeniable.

[3] Because even when specific properties are present, because it is impossible to observe them, it is not appropriate to dismiss them. (G15.25–16.01)

Now, the question arises: can the Mīmāṃsaka mount a similar argument to establish his claim that the sentences of the Vedas have no human author? In particular, the Mīmāṃsaka might claim that just as one cannot deny that the mental states differ among humans so one cannot deny that sentences differ among themselves. In other words, the Mīmāṃsaka could assert that one has no more reason to deny that some human being is dispassionate than one has to deny that some sentences have not been created by human beings. Dharmakīrti rejects such a contention, maintaining that while human beings

have qualities, namely mental states, which cannot be observed by others, sentences only have qualities that can be observed.

Dharmakīrti strengthens his counterargument with four further points. To begin with, he preempts a counterclaim by the Mīmāṃsaka that Vedic sentences have an unobservable quality that distinguishes them from ordinary sentences. Dharmakīrti maintains it is self-contradictory to hold that an unobservable quality distinguishes Vedic sentences from non-Vedic sentences; after all, what can it mean to distinguish two kinds of sentences on the basis of an unobservable differentiating qualities? Next, Dharmakīrti asserts that any of the observable differences found among Vedic sentences can be found among non-Vedic sentences. Third, he holds that sentences, being sounds, are perceptible, and hence, do not have a nature that is imperceptible. Finally, he preempts a Mīmāṃsāka counterclaim that one fails to observe the special qualities of Vedic sentences because one is deluded into failing to see them. Rather, maintains Dharmakīrti, there is no reason to think that there is delusion, since delusion cannot be established without a cognition that overcomes the delusion.

#### 4.2.33. *Notes to PV 22*

Here, Dharmakīrti comes to the fifth unsound inference that would have to be accepted as sound, were the dissociation to consist in mere non-observation. Dharmakīrti's position, as expressed in the verse, seems to be that, if non-apprehension of the self and non-apprehension of consciousness in clay cannot show that the self does not exist and that the clay is not conscious, then *a fortiori* it cannot establish the absence of counterexamples to universal claims. Dharmakīrti also alludes to the Vaiśeṣika's acceptance of the existence of the self and the Lokāyata's acceptance of the existence of consciousness in clay. In the commentary, he addresses their arguments as well as arguments adduced by the Sāmkhyas for the existence of curds in milk.

#### 4.2.34. *Notes to PVSV 22.1*

Dharmakīrti begins with the Vaiśeṣika's acceptance of the existence of the self. He asserts that it is inconsistent of him to hold on the one hand that non-observation is a means of knowledge, and to maintain on the other the existence of the self; after all, the self is not observable.

#### 4.2.35. *Notes to PVSV 22.2*

Dharmakīrti considers an objection: namely, that his rejection of the Vaiśeṣika argument for the existence of the self (*ātman*) and his acceptance of the Buddhist argument for the existence of the sense faculties are inconsistent. According to the Vaiśeṣika, people experience various mental states such as happiness. These states must reside in something. That something must be the self (*ātman*). According to the Buddhists, consciousness comes and

goes. Hence, it is dependent on something. That something must be the sense faculties.

Dharmakīrti replies that there is no inconsistency, for the two arguments are crucially different in what is to be established. The former argument is intended to establish not only that there is something that is the locus of mental states but that that in which such states as happiness reside is identical with some antecedently accepted entity, namely the self; whereas the latter argument is intended to establish only that there is something on which consciousness depends, and not that that on which consciousness depends is identical with some antecedently accepted entity.

Dharmakīrti strengthens the rejection of the Vaiśeṣika argument for the existence of the self. He points out that, for the Vaiśeṣika to reject the argument that, because the self is not observed, it does not exist, he must admit that the failure to observe the self is not evidence that it does not exist. This admission, *a fortiori*, entails that no dissociation can be established with respect to the self, which means that no sound inference to the conclusion that the self exists can be made.

#### 4.2.36. Notes to PVSV 22.3

Dharmakīrti turns to the second case mentioned in the verse. According to Dharmakīrti, the Lokāyata is inconsistent in his reliance upon non-observation as a means of knowledge. On the one hand, he holds that speech excludes omniscience, even though omniscience is not something that can be observed; yet, on the other hand, he holds that earth does not exclude consciousness, though consciousness is not observed in earth.

Finally, Dharmakīrti turns to a third case, one not mentioned in the verse. The Sāmkhya hold that that composite things are for others, even though many composite things do not so appear, while he also holds that milk does not exclude curds, even though curds are not observed in milk.

#### 4.2.37. Notes to PVSV 22.4

In the preceding two paragraphs, Dharmakīrti has pointed out three schools of thought that have theses based on inconsistent appeals to non-observation. Now, without warning, he undertakes to address both Sāmkhya theses in a little more detail. On the one hand, Dharmakīrti rejects the Sāmkhya thesis that composite things are for the sake of others, pointing out that being for the sake of others places no restriction on being composite. Second, he considers a reply from the Sāmkhya to his assertion that curds are not observed in milk. According to the latter, the claim that curds exist in milk follows from the general thesis, as explained by Kaṛṇakagomin (K74.08–09), that nothing arises from anything that has no potential to produce it (*yad yaj janane na śaktaṃ na tasya tata utpattir yathā śālibījād yavāṅkurasya*).

Dharmakīrti rejects this argument with an argument by *reductio ad absurdum* (*prasaṅga*). He claims, to begin with, that the potentiality to produce curds is either identical with them or completely different from them. On the one hand, should the potential to produce curds be the same as the curds, then, being the same as the curds, which are visible, the potential should, in the same way, be visible. But the potential is not visible. On the other hand, should the potential be different from the curds, then why is it that, when the potential exists, curds exist? Dharmakīrti concludes that the statement that curds exist in milk is metonymical, based on the milk's potential to produce curds.

#### 4.2.38. Notes to PVSV 23.1

Having shown in detail how non-observation fails to establish the dissociation required to establish the truth of the major premise of the classical Indian syllogism, Dharmakīrti turns to his own view. This discussion spans verses 23–25 and its accompanying commentary.

Dissociation, according to Dharmakīrti, consists in this: whenever the property to be established is ruled out, the establishing property is ruled out. This requires that the property to be established restrict (*ni√yam*) the establishing property. Dharmakīrti claims that two relations impose such a restriction, the relation of having something for a nature (*tādātmya*) and the relation of arising from something (*tadutpatti*). Dharmakīrti elaborates a little on how these relations underpin dissociation.

To understand what Dharmakīrti is saying, let us begin by turning our attention to the example he alludes to in his commentary (G17.01). Consider the sentence “this shinshapa is a tree” (*iyam śiṃśapā vṛkṣaḥ bhavati*). In this sentence, the expression “this shinshapa” (*iyam śiṃśapā*) picks out some thing, the expression “tree” (*vṛkṣaḥ*) picks out a nature (*ātman, svabhāva*) and the sentence ascribes the nature to the thing. Now, this shinshapa could not be present were its nature not present. Thus, generalizing, Dharmakīrti wonders rhetorically: how can anything be present in the absence of its nature?

It is this sentence that is Dharmakīrti's commentarial paraphrase of the first half of the PV 23. Even with this paraphrase, it is still not obvious how the sentence in the verse says this. To begin with, for the sake of meter, presumably, Dharmakīrti has omitted to modify the word “nature” (*svabhāva*) with “being ruled out” (*nivartamāṇaḥ*). In addition, the restrictive modifier he does introduce, “*tanmātrasambandhaḥ*”, is somewhat difficult to construe. The problem lies in both the form and the meaning of the term “*sambandhaḥ*.” On occasion, for example at G18.15, Dharmakīrti has used it as a synonym of “*pratibandhaḥ*,” itself short for his technical term “*svabhāvapratibandhaḥ*” (natural relation). But this cannot be the relevant sense here, on pain of circularity of explanation, for what Dharmakīrti is seeking to explain is how the two (natural) relations serve as a basis for the restriction necessary for

sound inferences. A better candidate for the meaning of “*saṃbandhaḥ*” is the meaning of dependence, which Dharmakīrti has expressed commonly with a cognate of “*saṃbandhaḥ*,” namely, “*anubandha*” (dependence). Indeed, he will shortly use precisely the expression “*tanmātrānubandhī*” (depending on nothing more than that) as a modifier of “*svabhāva*” (G18.19).<sup>39</sup>

Even having adopted this meaning, it is still difficult to construe the noun “*saṃbandhaḥ*”. Note, however, that the parallel expression “*tanmātrānubandhī*” has the adjectival form “*anubandhī*” for the cognate “*anubandhaḥ*.” Note also that Karṇakagomin (K74.19–20) glosses “*saṃbandhaḥ*” with the perfect passive participle “*saṃbaddha*,” itself an adjectival form. In fact, Manorathānandin reads “*saṃbaddha*,” as apparently does the Tibetan translator.

#### 4.2.39. Notes to PVSV 23.2

Dharmakīrti then goes on to assert that the causation relation also imposes the same restriction. Because the two natural relations bring about the restriction of the establishing property, or evidence, by the establishable property, he concludes that the exclusion of the absence of one property by the absence of the other is due to one or other of these two natural relations (G17.07).

#### 4.2.40. Notes to PVSV 25.1

Dharmakīrti concludes his discussion of how the two natural relations guarantee dissociation saying: “it is only through a natural relation that evidence makes known what is establishable” (G17.12), by which he means, of course, that knowledge of a natural relation, together with knowledge of the presence of the establishing property, brings about knowledge of the presence of the establishable property.

One oddity should be noted. When Dharmakīrti first introduced the two natural relations (G3.09–4.04), he used the expressions “*tadutpatti*” (arising from something) and “*tādātmya*” (having something for a nature). Here, however, he uses the expressions “*tadutpatti*” and “*tadbhāva*.” The question arises: how are the terms “*tādātmya*” and “*tadbhāva*” related?

Let us first consider the grammatical provenience of the expression “*tadbhāva*”. Recall the sentence “this shinshapa is a tree” (*iyam śiṃśapā vṛkṣaḥ bhavati*). Its nominalization is “this shinshapa’s being a tree” (*asyāḥ śiṃśapāyāḥ vṛkṣabhāvaḥ* or *asyāḥ śiṃśapāyāḥ vṛkṣatvam*). The form of this sentence is “this thing’s being that” (*asya tadbhāvaḥ*). Thus, one way for Dharmakīrti to refer to the relation which underlies the truth of simple predicating sentences is by the Sanskrit nominal compound “*tadbhāva*,” which names the relation of being something.

Next, let us consider the provenience of the expression “*tādātmya*” (having something as its nature). We turn again to the sentence “this shinshapa is a tree” (*iyam śiṃśapā vṛkṣaḥ bhavati*). It can be restated using the term

“nature” (*ātman*, *svabhāva*): “this shinshapa has a tree for its nature” (*iyam śīmśapā vṛkṣātmanī* or *iyam śīmśapā vṛkṣasvabhāvā*). Such sentences have the form “this has that for its nature” (*idam tadātma* or *idam tatsvabhāvam*). If one then nominalizes such a sentence, one obtains “this thing’s having that for its nature” or “this thing’s having the nature of that” (*asya tādātmyam* or *asya tatsvabhāvatā*). Thus, another way for Dharmakīrti to refer to the relation that underlies the truth of simple predicating sentences is by the Sanskrit nominal compound “*tādātmya*,” which names the relation of having something for its nature.

It is worthwhile to point out that the Sanskrit expression “*tatsvabhāva*” is ambiguous between this and its converse. Thus, one can say that the tree is the nature of the *śīmśapā* (*vṛkṣaḥ śīmśapāsvabhāvaḥ*); or one can say that the *śīmśapā* has a tree for its nature (*śīmśapā vṛkṣasvabhāvā*, where “*vṛkṣasvabhāva*” is a *bahuvrīhi* compound). Thus, “*tatsvabhāva*,” as a simple *karmadhārya* compound, means “the nature of something,” and as a *bahuvrīhi* compound, means “having something for its nature.” The latter meaning is also the meaning of the expression of “*tādātmya*” (G4.02), where “*ātman*” has the sense of “*svabhāva*,” or nature. Finally, we come to the expression “*tadbhāva*,” which can mean being something (*tadbhāva*), that is, being what something is.<sup>40</sup>

#### 4.2.41. Notes to PVSV 26–7

Dharmakīrti turns from an explanation of how the two natural relations underpin dissociation to a discussion of the purpose of the statements of precedent. To effect this transition, Dharmakīrti asserts that the statements of precedent in a syllogism show the indispensability of the establishable property to the evidence. The indispensability, of course, rests on the two natural relations.

In verses 26 and 27 and their commentary, Dharmakīrti turns to the statement of the precedent (*dr̥ṣṭāntavacana*).<sup>41</sup> Before treating his discussion, one must be aware of some conventions that Dharmakīrti abides by but to which he does not alert the reader. As we noted in the background section (4.1), the statement of precedent (*dr̥ṣṭāntavacana*) comprises a universal statement, or major premise, and the mention of an instance of the universal statement. Following the practice already put in place by Dignāga (Katsura, 2004), Dharmakīrti refers to the statement of precedent (*dr̥ṣṭāntavacana*) metonymically as the precedent (*dr̥ṣṭānta*) and he refers to the instance of the universal statement as a substratum (*āśraya*).

Dharmakīrti only hints at the fundamental assumption underlying his discussion of the statement of the precedent. The assumption is that the purpose of the statement of the observed precedent, that is, the classical Indian syllogisms’s major premise, is to get the person to whom the syllogism is addressed to grasp the natural relation. (For the hints, see G17.13 and G18.12.)<sup>42</sup> Since the point of a statement of precedent in a syllogism is to make known

the relevant natural relation, only as much need be said as to convey it. In the case of those for whom the natural relation is not already in mind, it is sufficient to state the major premise part of the statement of precedent (verses 26–27ab).<sup>43</sup> In the case of those who already have the natural relation in mind, the experts, the statement of observed precedent can be omitted (verse 27cd).

It may be worth noting in passing that it is puzzling why Dharmakīrti refers here to what should be said to help an interlocutor understand a point. One would normally expect that a consideration of what kinds of things need to be said in an argument belongs properly to the topic of inference for others (*parārthānumāna*) and would have no relevance to inference for oneself (*svārthānumāna*). Why would Dignāga or Dharmakīrti carefully separate the two kinds of inference and then fail to observe the separation?

#### 4.2.42. Notes to PVSV 28.1

It was stated above that the two forms of the major premise are contrapositives of one another. Contrapositives are logically equivalent. Here, Dharmakīrti undertakes to show that the two forms are equivalent, that is to say, that knowing the truth of one, one *ipso facto* knows the truth of the other. This too is a view Dharmakīrti ascribes to Dignāga (G18.17).

Since Dharmakīrti grounds their equivalence in the natural relations, he undertakes to show their equivalence by discussing first the relation of being something (G18.19–19.01) and then the relation of being a cause of something (G19.01–12). In both cases, Dharmakīrti claims that each form of the major premise follows from the other; after all, the two forms of the major premise mean, or pick out, the very same state of affairs (*artha*).

#### 4.2.43. Notes to PVSV 28.2

Dharmakīrti explains how one arrives at the contrapositive of a universal statement whose universality is based on the relation of being something, taking as his example the well-known Buddhist claim that whatever is composite is impermanent. Dharmakīrti seems to believe that people perceive the nature of things. Thus, for example, when one sees a shinshapa, one sees that its nature is that of a tree. Since nothing can exist without its nature, it follows that if there is no tree, then there is no shinshapa.

#### 4.2.44. Notes to PVSV 28.4

Dharmakīrti (G19.12–15) considers an objection, whose exact content is somewhat murky. Here is the gist of the passage, following the exposition of Karṇakagomin. In his *Hetucakranirṇaya*, Dignāga noted that audibility is a property of nothing but sound. That being the case, it is absent from all loci other than the locus sound—both those that have the property of permanence and those that have the property of impermanence. Therefore it cannot be known whether audibility is associated with permanent or impermanent

things. Since it cannot be known whether audibility is associated with permanent or impermanent things, it also cannot be known whether aural cognition is the effect of a permanent cause or an impermanent one. This raises the possible objection that if aural cognition is not the effect of either a permanent cause or an impermanent cause, then it must not exist at all in the absence of both a permanent and an impermanent cause. But surely, says Dharmakīrti, it is not the case that aural cognition does not exist at all. It surely exists, but one cannot be certain whether it arises as an effect of a permanent or an impermanent cause, since one cannot establish to what audibility is restricted. Therefore, reasoning that appeals to evidence that is unique to the locus in which one is trying to establish another property is inconclusive.

Dharmakīrti has just argued for contraposition for inferences from effect. One expects, then, that he will here consider a problem that arises from his view that association and dissociation are equivalent. One possibility is that, though holding this equivalence, he will be forced to admit as sound an inference that he does not wish to admit as sound. Now, we know that Dignāga wished to rule out inferences in which the evidential property (*hetu*) is unique to and co-extensive with the subject of the inference (*pakṣa*). One such case is audibility. Nothing can be inferred about sound from its audibility. The reason given by Dignāga is that it fails the condition that there be an association (*anvaya*) between the evidence and the establishable property in a subjectlike locus (*sapakṣa*).

#### 4.2.45. Notes to PV 29–30

Up to now, Dharmakīrti has discussed inferences based on the relation of being something and the relation of being a cause of something. In the course of this discussion, he has made clear that the two forms of major premises are equivalent, one being the contrapositive of the other. Thus, he has made clear that, if wherever the establishing property exists, the property to be established exists, then wherever the property to be established does not exist, then establishing property does not exist. This shows how knowledge of the two natural relations serves also to ground inferences whose conclusions are negative, that is, give rise to knowledge of things that are not the case.

Dharmakīrti returns, then, to the topic of non-apprehension (*anupalabdhi*), which he had touched upon earlier (vv. 3–6 and the commentary thereto). The most basic form of non-apprehension is that where something, though perceptible, is not perceived. Dharmakīrti has claimed that this is a form of inference; to wit, if a perceptible thing is not perceived, one may infer that it is not present. He goes on to show how this form of inference can be extended to other forms of inference involving absences. In particular, when the object of non-apprehension is a cause or a pervader, one can thereby conclude that its effect or the pervaded thing is not present. Further inferences can be made by taking into consideration exclusion.

4.2.46. *Notes to PV 31–2*

As Dharmakīrti says in his commentary to the two verses, they provide a transition between the previous discussion and a new topic. The first verse summarizes the preceding discussion, which began at verse 23, concluding that the restriction which ensures the truth of the major premise of a sound inference is based either on the relation of being something or on the relation of being a cause of something, and not based on mere observation and non-observation. The second verse supports the conclusion of the previous verse by arguing by *reductio ad absurdum* that, without these relations, what is picked out by the terms of the major premise would be as unconstrained, one by the other. As Karṇakagomin (88.25–89.02) elaborates, should there be no relation of arising, then in what would consist the necessary restriction of the existence of one thing by another; or, in what would consist the necessary restriction of a property-possessor to a property, should the property have for its cause something different from the cause of its possessor, as we find in the case of the dye of a cloth, where the cause of the dye is different from the cause of the cloth?

4.2.47. *Notes to PVSV 33.1*

In this section, Dharmakīrti turns to the problem of the relationship between a nature and its possessor. In the first half of verse 33, Dharmakīrti asserts a second absurd consequence which would follow, should what is denoted by the terms of the major premise of a sound argument not be related by either the relation of being the cause of something or by the relation of being something, namely, that a nature and its possessor would be entirely distinct, for they would have different causes.

In the immediately ensuing commentary, Dharmakīrti tries to show how this second absurd consequence follows. Dharmakīrti adduces two supporting metaphysical claims. The first is that whenever a nature arises, so does its possessor. Though he does not say so here, he also holds that whenever a nature perishes, so does its possessor. So, in fact, his thesis is that a nature and its possessor are coeval. The second claim is that a nature and its possessor do not have different causes, that is, that a nature and its possessor have precisely the same causes.

- (7) a. A nature and its possessor are coeval. (G20.20)
- b. A nature and its possessor have precisely the same causes. (G20.20–21)

The next sentence introduces two more commonsense metaphysical principles, apparently in support of the two principles set out in the previous sentence.<sup>44</sup> The first is that the difference between things consists in their having incompatible properties. This principle can be distinguished into two: if *a* and *b* have incompatible properties (simultaneously), then they are (nu-

merically) distinct; and, if  $a$  and  $b$  do not have incompatible properties, then they are (numerically) identical. The former follows from the ontic version of the law of non-contradiction; the latter seems to be the same as Leibniz's principle of the identity of indiscernibles, which holds that things are different from one another if and only if one has a property the others do not.<sup>45</sup> The second commonsense metaphysical principle is that things are different if their causes are different. As Karṇakagomin points out (89.11–12), different causes means different causal totalities.<sup>46</sup>

- (8) a.  $a$  and  $b$  are numerically identical if and only if they have the same properties. (G20.21)
- b. Every difference in causes implies a difference in effect. (G20.21–2)

Dharmakīrti does not explain, however, how the principles in (7) follow from those in (8). In fact, it is not obvious that they do. Instead, he seeks to justify these last two principles with an argument by *reductio ad absurdum*.

Dharmakīrti seems to think that, from the denial of the last two principles above, these four absurd consequences follow:

- (9) a. nothing would be different from anything (G20.23);
- b. there would be but one thing (G20.23);
- c. everything would arise at the same time and everything would perish at the same time.(G20.24); and,
- d. everything would need everything else.

One could plausibly argue that the claim in (9a) follows from a denial of (8a); after all, if the incompatibility of properties did not differentiate the things of which they are properties then what would? And clearly, the claim in (9b) follows from the claim in (9a). Of course, were there only one thing, then only one thing would arise and only one thing would perish. Moreover, if there were only one thing, when the only thing there is arises, everything arises, and when the only thing there is perishes, everything perishes at the same time. But it is mysterious why Dharmakīrti goes on to infer that everything would need everything, for, by his chain of reasoning, he has concluded that there is only one thing.

The remainder of the section is even less clear. We leave it to the reader to draw his own conclusions as to what Dharmakīrti might be saying.

#### 4.2.48. Notes to PVSV 33.2

Dharmakīrti entertains an objection to the view he set out earlier (G18.19), namely, that whatever is composite is impermanent. Recall that just above, Dharmakīrti supported his view that a nature and its possessor are identical (7) with two principles: that a nature and its possessor are coeval (8a) and

that a nature and its possessor have the same causes (8b). The objection that Dharmakīrti considers is this: impermanence cannot be the nature of a thing, since a thing and impermanence, even if they have the same causes, are not coeval, for a thing such as a pot comes into existence before its impermanence arises.

Dharmakīrti's reply is to claim that something's impermanence does not arise subsequent to the arising of the thing itself, for, he argues, they are identical. If they are identical, then why is the very same thing referred to as a property and as a property-possessor and why does the property of impermanence not appear simultaneously with its possessor? Dharmakīrti defers his answer to the first question to a later section, not translated here. He turns, instead, to the second question.

In replying to the second objection, Dharmakīrti reconstrues impermanence, the property of not abiding forever (*anityatā*), as the property of being momentary, that is, the property of abiding but a moment (*kṣaṇasthiti*). He then must explain how it is that many things do not seem to be momentary. The appearance, he maintains, results from the fact that the things that seem to be non-momentary are indeed momentary, but so closely resembling one another that one fails to distinguish between them. It is only when the difference between one momentary thing and its successor momentary thing are quite different that one infers the impermanence of things.

Dharmakīrti tries to make the view that all things are momentary, more plausible, in spite of appearances, by two analogies. First, he holds, as he reiterates here, that the nature of a cause is to produce its effect. Yet, one can observe the cause without observing the effect. Second, he holds that one infers a cause from its effect. Yet again, one can observe an effect without observing its cause.

Neither of these analogies is convincing, however. In claiming that something such as a pot is momentary, Dharmakīrti must explain away one's belief and one's perception that the pot persists for more than a moment. But one's perception with respect to causes and their effects are not the same. When one infers the existence of a cause from the observation of its effect, one does not thereby come to perceive or observe the cause. In other words, our belief in the existence of the cause is not such that it imposes the perceptual illusion of its existence. But this is what is supposed to take place when one perceives a series of momentary things: the illusion is imposed that one is facing an abiding thing. Similarly, when one perceives a cause, even if one knows what effect the cause is a cause of, no perception of the effect arises.

#### 4.2.49. Notes to PVSV 33.3

Having attempted to address the objection that things being momentary is contrary to direct observation, Dharmakīrti puts forth an argument by *reductio ad absurdum* to support the conclusion that impermanence is identical with

that which is impermanent. The argument is difficult to follow, and unfortunately, Karṇakagomin's commentary to it is missing. The following is an attempt to make it clear.

Suppose that impermanence and that which is impermanent are not identical. Then, by the metaphysical principle that a nature and its possessor have the same causes (8b), they have different causes. Assuming that what is impermanent has at least one cause, then impermanence would have either different causes or no causes at all. In either case, that which is impermanent would not need impermanence, since, having different causes, they are distinct. (G21.13–14)

Having concluded that impermanence and that which is impermanent are identical, Dharmakīrti goes on to argue that the universal impermanence does not exist. After all, he thinks, if impermanence and that which is impermanent are identical, there is no need for the universal impermanence distinct from that which is impermanent (G21.15–16). In addition, he argues, even if the universal impermanence is possessed by that which is impermanent, the universal, being unchanging, does not arise when the impermanent thing arises (G21.16–17). The implication seems to be, though it is not stated by Dharmakīrti, that the universal impermanence, not being coeval with its possessor, cannot be its nature.

#### 4.2.50. *Notes to PVSV 33.4–5*

Again, the reader is confronted with another utterly obscure passage. Again, Karṇakagomin's commentary to it is missing.

The argument set out in this passage is an argument by *reductio ad absurdum*, in which Dharmakīrti seems to return to the objection raised earlier that the property of impermanence and the thing which has it must be distinct, since the thing arises first and its property of impermanence arises only later. The conclusion which Dharmakīrti seems to be aiming at, though he does not state it, is that, if one adopts this view, the argument based on the claim that every composite thing is impermanent would not be sound.

Recall that a consequence of the view that a thing's impermanence arises only after the thing has arisen implies that a thing and its impermanence are distinct. Recall also that Dharmakīrti admits only two relations to underpin the truth of the classical Indian syllogism's major premise: the relation of being a cause and the relation of being something. Should one accept the soundness of the argument based on all composite things being impermanent, then, since impermanence and a composite thing are, by supposition, distinct, the truth of the major premise of the argument would have to be based on the relation of effect and cause, for otherwise, to paraphrase Dharmakīrti (G21.18–19), there being no relation between them, one could not infer the latter from the former.

Now, since the relation of being a cause is the only relation between distinct things which underpins the truth of the major premise, it must be that a composite thing and its nature, impermanence, are related to each other as cause and effect. But impermanence cannot be the cause of the composite thing whose nature it is, since the opponent holds that impermanence arises only after the composite thing arises and causes do not arise after their effects (verse 33c; G21.21–22). Nor can it be that the composite thing is the cause and impermanence its effect, since, as Dharmakīrti has already argued (at verse 7), one cannot infer from cause to effect (G21.22–23). Thus, the argument based on impermanence of all composite things would not longer be sound.

#### 4.2.51. Notes to PV 34.1

Having maintained that what underpins the indispensability (*avinābhāva*) relation is one or the other of the two natural relations, the relation of effect and cause (*kārya-kāraṇa-bhāva*) and the relation of being something (*tat-bhāva*) or of having something for a nature (*tādātmya*), Dharmakīrti asks the question of how one knows that fire is indispensable to smoke. His answer, given in the first half of the verse, is rather enigmatic. He says: “because smoke is the effect of fire in compliance with the property of an effect”. Unfortunately, no help is forthcoming from Karṇakagomin, as that portion of his commentary is missing.

It seems that, once again, Dharmakīrti permits ontic terms to do duty for epistemic terms. If this is so, then what he is saying is this: one knows that fire is indispensable to smoke because one knows that smoke is the effect of fire; and one knows that smoke is the effect of fire, because one knows that smoke conforms to the definition of being an effect.

To see what Dharmakīrti has in mind, let us avail ourselves of the second version of the definition of causation stated in the Background section (4.1), formulated from the point of view of the effect:

DEFINITION 4 (Being an effect).  $e$  is the effect of  $c_1 \wedge \dots \wedge c_n$  if and only if (1) if  $c_1 \wedge \dots \wedge c_n$  obtains, then  $e$  obtains; (2) if  $c_1 \wedge \dots \wedge c_n$  does not obtain,  $e$  does not obtain.

This definition can be rendered into Sanskrit or English as follows:

*yeṣu satsū yad asti yeṣāṃ ekasmin api asati na asti tad tasya kāryaṃ.*

That which exists, when some things exist, but does not exist, when even one of them is absent, is their effect.

Formulated in terms of what is apprehended and what is thereby known, one arrives at the following:

*yeṣāṃ upalambhe tad-lakṣaṇam anupalabdham yad upalabhyate. tatra ekābhāve api na upalabhyate. tad tasya kāryam niścitam.*

That which, not having been apprehended, is apprehended, when its conditions have been apprehended, [but] is not apprehended, when even one of them is absent, is ascertained to be their effect.

With the exception of the word “ascertained to be” (*niścitam*), these are precisely Dharmakīrti’s own words.<sup>47</sup> This conformity, Dharmakīrti concludes, is met in the case of smoke and fire. It is, of course, very similar to Mill’s joint method of agreement and difference,<sup>48</sup> which states:

If two or more instances in which the phenomenon occurs has only one circumstance in common, while two or more instances in which it does not occur have nothing in common save the absence of that circumstance, the circumstance in which alone the two sets of instances differ is the effect, or the cause, or an indispensable part of the cause, of the phenomenon. (Mill, 1843, BOOK III chapter 8.4)

#### 4.2.52. Notes to PV 34.2

In the second half of the verse, Dharmakīrti asserts that any factor *c*, which is absent when an effect *e* is present, is not a causal factor for the event *e*. In other words, any events *c* and *e*, which fail to satisfy the second clause of his definition of causation, are such that *c* is not a causal factor of *e*. Indeed, this clause is equivalent to denying the possibility that a particular event can have a plurality of total causes.

From this denial of the possibility of an event having a plurality of causes, Dharmakīrti appears to wish to conclude that the relation of being a cause can be apprehended in one episode of apprehension. Yet, as David Hume has shown in sections six and seven of his *An enquiry into human understanding*, no number of observations, let alone a single observation, can ever establish unequivocally the existence of a causation relation: all observation can establish is a correlation of events.

In the remainder of the section, Dharmakīrti seems to intend to show also that the rejection of his claim in the second half of the verse entails that events are causeless. However, this cannot be shown. What can be shown is that, should one accept what Dharmakīrti asserts in the second half of the verse, then any event thought to have a plurality of causes would, in fact, according to what Dharmakīrti maintains, be causeless.

To see how this is so, consider the case mentioned by Kamalaśīla in his commentary to verses 1004–5 of Śāntarakṣita’s *Tattvasamgraha*. According to him, fever can be abated by the ingestion of any of the following three plants: *abhayā*, *dhatrī* and *harītakī*. Whenever a fever abates upon the ingesting of any one of these plants, it is the case that the fever is abating in the absence of the ingestion of the other two. According to what Dharmakīrti has said in the second half of the verse, it follows that the abatement of fever is without a cause, for whenever the abatement of fever occurs upon

the ingestion, say, of the plant *abhayā*, one has a case of a fever abates in the absence of the other two. Hence, neither the ingestion of *dhatrī* nor the ingestion of *harītakī* is a cause of the abatement of fever. Similarly, should a fever abate upon the ingestion of *dhatrī*, then neither the ingestion of *dhatrī* nor the ingestion of *abhayā* is a cause of the abatement of fever.

#### 4.2.53. Notes to PV 34.3

Dharmakīrti ended the previous section with an illustration of his claim that an effect cannot exist without its cause, saying that should smoke come to exist without fire, then fire would not be a cause of smoke. The reason is clear: such circumstances violate the second clause of his definition of causation. In this section, Dharmakīrti considers the objection that an event might have a causes of different kinds. In particular, he entertains the suggestion that smoke might result either from fire or from something other than fire. He rejects this possibility by appealing to the second clause of his definition of causation. His argument can be elaborated as follows: suppose that some other causal factor, different from fire, together with other causal factors other than fire, bring smoke about. Then, since fire is a causal factor in producing smoke, in those cases where fire does produce smoke, we have a case of smoke arising in the absence of the hypothetical, alternative factor. This violates the second clause of his definition of causation.

Of course, Dharmakīrti's reasoning is spurious. The reason is that the second clause of his definition is equivalent to the denial of the possibility of a plurality of total causes. Dharmakīrti's denial of the possibility of a plurality of total causes is question begging. Moreover, his appeal to the specific cause of smoke, where common sense finds it intuitively plausible that there is no alternative to fire as a causal factor in the production of smoke, does not rule out the possibility that other events might have causes of different kinds. Indeed, as we saw above, such cases were recognized even by Buddhist thinkers.

#### 4.2.54. Notes to PV 34.4

Dharmakīrti returns still again to the possibility that an event might have a plurality of total causes. The objection is raised that the same effect might have causes of different kinds. And again he denies that this is the case. This time, he tries to substantiate the rejection of this possibility with the first clause of his definition. However, as stated earlier, the clauses of his definition of causation are obverses of one another and they are, therefore, logically independent of one another.

Without any sentence of transition, Dharmakīrti returns to the spurious argument adduced in the preceding section to support the second clause of his definition of causation. This version of the argument is this: If the same effects can have different causes, then effects could not be differentiated, because,

he claims, there would be no restriction on what can bring an effect about. If there is no restriction, then, for any arbitrarily chosen effect, either nothing is its cause or everything is its cause. This, Dharmakīrti holds, is clearly absurd. He therefore concludes that what is different and what is the same among effects arises from what is different and what is the same among their causes.

This argument is also fallacious. It does not follow from an event's arising from more than one causal totality either that it arises from no causal totality or that it arises from every causal totality. Not only is Dharmakīrti's argument fallacious, the ultimate conclusion he draws exceeds his premise. The argument is a *reductio ad absurdum* of the supposition that the principle that the same effects have the same causes is false. Yet, his conclusion from the argument is that both the principle that the same causes have the same effects and the principle that the same effects have the same causes hold.

It is worth noting that the objection that marks the beginning of this section is not signalled with the usual "iti cet" (it might be argued that). Indeed, the entire section seems to be a reworking of the previous section. One wonders whether it might not be a revision of the previous section.

#### 4.2.55. Notes to PV 35.1

In the verse and ensuing commentary, Dharmakīrti seeks to deduce a further absurdity. Recall in section 34.3, he took himself to have shown that, from the denial of the second clause of his definition of causation, should the very same event have allegedly different causes, it would be causeless. Here, Dharmakīrti reasons further. Suppose that something is uncaused. Then, either it would always exist, since nothing would be lacking for its coming into existence, or it would never exist, since all conditions are conditions for its non-existence.

Dharmakīrti appears to wish to substantiate this reasoning with an argument pertaining to things with temporary existence. Here he returns to a notion he first introduced at verse 7, namely, the aptitude that a causal totality has for the effect it gives rise to. According to Dharmakīrti, things whose existence is temporary come about because the situation is apt to produce them obtain and they do not come about because the situation is inapt to produce them. If this were not so, things could as well exist or not exist at any place and time, something that is clearly false.

We noted that the last section seems to be a revision of the section preceding it. Further evidence that this is so comes from the fact that the argument in this section, introduced with the adverb "tathā" (so), is better taken as a continuation of the non-disjunctive conclusion reached in the next to last section, namely that an event with a different causes is causeless, than taken as a continuation of the disjunctive conclusion of the last section, namely that an event with a different causes is either causeless or could be caused by everything.

4.2.56. *Notes to PV 35.2*

What is the aptitude to produce some effect? According to Dharmakīrti, it is just the causal totality, that is, all those causal factors, which, when taken together, give rise to their effect, and nothing else. From this, Dharmakīrti concludes, once again, that the causation relation can be apprehended in one episode. And he further concludes again that there can be no plurality of total causes.

4.2.57. *Notes to PV 35.3*

In this passage, Dharmakīrti returns still again to his denial that an event might have a plurality of total causes. This time his reasoning is based on his view pertaining to natures. A fundamental assumption made by Dharmakīrti is that distinct things have distinct natures. As we mentioned above, Dharmakīrti ascribed to causal totalities natures. It follows, then, that distinct causal totalities have distinct natures. Since the nature of a causal totality is its aptitude to produce its effect, then distinct causal totalities have aptitudes to produce distinct effects. In particular, if the nature of the causal totality that includes fire is an aptitude to produce smoke, then the nature of the causal totality, in which fire, and perhaps other causal factors, are replaced by other factors, thereby yielding a different causal totality, must have an aptitude to produce a different effect.

This is Dharmakīrti's only non-circular argument in favor of the rejection of the possibility that an effect might have a plurality of total causes. The argument hinges on a crucial transition from the plausible metaphysical principle that distinct things have distinct natures to the less plausible metaphysical principle that a set of causal conditions have a nature.

4.2.58. *Notes to PV 37.2*

Here, Dharmakīrti makes explicit what was implicit in the preceding passage, namely, that it is a causal totality, and not any of its causal factors, which has a causal nature and that it is this totality that is to be inferred from the existence of its effect. And because it is the causal totality that brings about the presence of the effect, all the causal factors have to be present together.

4.2.59. *Notes to PV 37.3*

Still again, Dharmakīrti returns to the question of whether or not an effect can arise from a plurality of causal totalities. He mentions two apparent counterexamples: water-lilies, which arise in ponds as well as in cow dung, and plaintain trees, which arise from seeds as well as bulbs. This, Dharmakīrti claims, is an artifact of speech, for while different things called water-lilies and different things called plaintain trees arise from different causal totalities, those with different causal totalities have different appearances, discernible by any ordinary person.

4.2.60. *Notes to PV 37.4*

Repeatedly, Dharmakīrti has rejected the possibility of an effect having a plurality of causal totalities. As we noted above, Dharmakīrti must reject such a possibility, if one is to be able to infer soundly from effect to cause. Dharmakīrti also must reject such a possibility, if one is to be able to rely on perception. If two objects of perception have exactly the same appearance, then perception would not be a means of knowledge. Thus, he holds that distinct objects of percepts must have distinct appearances.

4.2.61. *Notes to PV 38*

In the summary verse, Dharmakīrti states that if one thing conforms to another, as required by association and dissociation, then the first is the effect of the second. In the final part of the verse, he again denies the possibility that an effect might have a plurality of causes.

4.2.62. *Notes to PV 38.2*

Dharmakīrti draws to a close his discussion of how one comes to know the truth of the major premise of the classical Indian syllogism. One must ascertain the underlying natural relation. The relation of effect and cause is known through observation and non-observation, as described above, as a result of which, one grasps the relation. And knowing that the relation obtains, one then knows the truth of the appropriate universal statement. Grasping the relation of effect and cause underlying a universal statement is the only way, aside from an examination of all cases, that one can be sure that the universal statement is exceptionless.

## Notes

<sup>1</sup> Gillon favors the translation of “*kāryasāmānya*” as “common effect.”

<sup>2</sup> Gillon favors the translation of “*sāmānyahetu*” as “common cause.” See section 4.2.2 page 36.

<sup>3</sup> See section 4.2.3 page 39 for an alternative translation.

<sup>4</sup> Here and in later passages, we have used the English “far-fetched” to try to capture the sense of “*atiprasaṅga*,” which means a conclusion that goes beyond what is warranted by the evidence adduced for it.

<sup>5</sup> Gillon favors the translation of “*nāntarīyakam*” as “immediate.” See section 4.2.5 page 40.

<sup>6</sup> The Sanskrit here is “*tatpratibandhāt*.” We have followed the Tibetan translation of “*de la rag las pa yin pa'i phyir*,” though Gillon prefers our usual translation of “*pratibandha*” as “connection.”

<sup>7</sup> Gnoli traces this quotation to Nyāyamukha.

<sup>8</sup> The second sentence does not occur in the Gnoli edition, but is mentioned in a footnote as occurring in one of his manuscripts. It is also missing in the Tibetan translation.

<sup>9</sup> Our translation follows Gnoli's reading: "*pratyakṣabādhāśaṅkāvyabhicārah.*" The Tibetan translation supports G in reading this as a compound but suggests the analysis "*pratyakṣabādhāśaṅkā-avyabhicārah.*" which is not supported by K61.11. K supports G and analyses it as a *karmadhāraya* compound. According to K, this passage refers to the view of Īśvarasena.

<sup>10</sup> K61.14 explains that the subject of an inference is always something that is beyond the range of the senses, and therefore there cannot be a sensation of it.

<sup>11</sup> The Tibetan syntax suggests that "*avr̥tta*" is the patient rather than agent or instrument of "*bādhane*," but K61.19 does not support this construal.

<sup>12</sup> The Tibetan translation does not conform to the Sanskrit. It suggests a reading such as "*nirātmakeṣu ghaṭādiṣu dṛṣṭādṛṣṭeṣu prānādyadarśanāt. tannivṛtṭyā ātmagateḥ*" as in Sāṅkṛtyāyana's reconstruction (S62.07). This reading is not supported by any of the manuscripts or by Karṇakagomin's commentary.

<sup>13</sup> Variant readings: P follows Malvania. G reads "*tasmād adarśane 'py ātmanonivṛtṭyasiddheḥ,*" omitting "*nāsti kutaścīn nivṛtṭiḥ.*" K supports P. "*ātmanonivṛtṭyasiddheḥ*" in G seems clearly to be a mere typographical error. K supports P. And the Tibetan translation suggests "... *ātmano nivṛtṭyasiddheḥ*" or "... *ātmanivṛtṭyasiddheḥ,*" thus supporting P. The Tibetan omits "*nāsti kutaścīn nivṛtṭiḥ,*" thus supporting G.

<sup>14</sup> The expression "*kāryasvabhāvānupalabdhi*" does not occur in the NB. However, the following two expressions do: "*kāryānupalabdhi*" and "*svabhāvānupalabdhi.*" Each names a kind of inference. The NB gives as an example of *svabhāvānupalabdhi* "*nātra dhūma upalabdihīlakṣaṇaprāptasyānupalabdheḥ*". As an example of *kāryānupalabdhi*, NB offers "*nehāpratibaddhasāmārthyāni dhūmakāraṇāni santi dhūmābhāvāt.*"

<sup>15</sup> The term here is "*saṃskāra.*" In the passage above this term was used with reference to the preparation of soil for cultivation; here it refers to the combination of mental work and articulation that a person must do before speaking.

<sup>16</sup> Verses 26–28 and the accompanying commentary are translated in Steinkellner (2004, 236–244).

<sup>17</sup> Verses 34–37 and the accompanying commentary are translated in Dunne (2004, 335–338).

<sup>18</sup> The Tibetan translation divides the PVSV into eleven sections (*bam po*), the first of which ends here.

<sup>19</sup> *Nyāyamukha* v. 13; *Praṇāsamuccaya* ch. 4, v. 5, both cited in Katsura (2004, 137–138).

<sup>20</sup> Hayes (1980) and Oetke (1994) present discussions of Dignāga in which it is claimed that only the proposition stating *vyatireka* is formulated as a universal proposition, while the statement of *anvaya* is an existential proposition. Hayes (1988) qualified his position following discussions with Katsura, whose position is articulated in various writings. See Katsura (2000) for an example of his rejection of the Hayes 1980-Oetke position. This is not the place to go into the details of that dispute. Suffice it to say that in the discussion that follows, an attempt will be made to note when we are talking about the Oetke view of Dignāga and when we are talking about the Katsura view.

<sup>21</sup> A fuller discussion of this can be found in Hayes (1988, 118–119).

<sup>22</sup> That is, one cannot derive "Some *A* is *B*" from "All non-*A* is non-*B*," unless one assumes that the terms are non-vacuous, that is, unless one assumes that there is at least one *A* and one *B*. So, for example, one cannot derive "Some things that are in Kansas are unicorns" from "Everything that is not in Kansas is a non-unicorn" unless one establishes that there is at least one unicorn. If it turns out that there is at least one unicorn, then, obviously, if everything outside Kansas fails to be a unicorn, at least one thing inside Kansas must succeed in being a

unicorn. On the Hayes 1980-Oetke reading of Dignāga, the purpose of the statement of *anvaya* is to establish that the terms in the universal negative proposition are not vacuous.

<sup>23</sup> The induction domain is the set of all loci except the one locus that is the subject (*pakṣa*) of inference,

<sup>24</sup> Were the *trirūpahetu* and *hetucakra* fully equivalent, then the middle case of the middle column would be a case where the corresponding inference is sound. Dignāga does not consider it sound. To understand the issues at stake and the controversy to which it gave rise see Tillemans, 1990 and Tillemans, 2004. See also our discussion at 4.2.44.

<sup>25</sup> See the citations in Inami (1999, 134). See also Lasic (1999).

<sup>26</sup> From the point of view of propositional logic,  $\alpha \rightarrow \beta$  and  $\neg\alpha \rightarrow \neg\beta$  are obverses of one another; while from the point of view of categorical propositions, *All A's are B* and *All non-A's are non-B's* are obverses of one another

<sup>27</sup> From the point of view of propositional logic,  $\alpha \rightarrow \beta$  and  $\neg\beta \rightarrow \neg\alpha$  are contrapositives of one another; while from the point of view of categorical propositions, *All A's are B* and *All non-B's are non-A's* are contrapositives of one another.

<sup>28</sup> This is not, strictly speaking, compatible with his definition of causation.

<sup>29</sup> This interpretation is espoused in Dunne (1996). It has the unfortunate consequence of having Dharmakīrti reject as unsound a valid inference whose premises and conclusion he accepts.

<sup>30</sup> This form of lexical ambiguity is exemplified by the English word “drink,” which is ambiguous between “beverage” and “alcoholic beverage.”

<sup>31</sup> See Steinkellner (1988, n. 8) where he corrects Karṇakagomin to read “*prasiddha*” instead of “*asiddha*.” Also, look at Gnoli p. 11, n. 2.

<sup>32</sup> This argument is further discussed by Dharmakīrti G154.21ff; PV 4.194, PV 4.205–10 (Ono, 1999, §2.2.2).

<sup>33</sup> For understanding how this argument is viewed within the broader Buddhist tradition, see Tillemans, 1990 and Tillemans, 2004.

<sup>34</sup> As pointed out by Ono (1999, §2.2.3), Dharmakīrti revisits this argument at PV 4.218–221.

<sup>35</sup> Here we read “*hetor vipakṣādarśanam avyāvṛttinibandhanam*.”

<sup>36</sup> Western philosophers might be inclined to claim that sounds are audible by definition and that the proposition “sound is audible” is *a priori* knowledge rather than something that we discover by observation. Dharmakīrti seems not to have made any distinctions that correspond to that between *a priori* and *a posteriori*.

<sup>37</sup> In *Nyāyabindu* Dharmakīrti gives as an example of inference based on non-apprehension of a nature (*svabhāvānupalabdhi*): “There is no smoke here, because there is no apprehension of that which has the characteristic of being apprehensible.” As an example of non-apprehension of an effect (*kāryānupalabdhi*) he offers “There is nothing here having the unimpeded capacity to cause smoke, because there is no smoke.”

<sup>38</sup> Note that Dharmakīrti is invoking the principle of a plurality of causes.

<sup>39</sup> At G4.01, Dharmakīrti also modifies “*svabhāva*” with “*bhāvamātrānurodhin*”, which he glosses as “*tanmātrānurodhin*”.

<sup>40</sup> Karṇakagomin (K76.03–04) glosses “*tadbhāva*” in G17.13 as “*sādhyasvabhāva*,” which is a *bahuvrīhi* compound.

<sup>41</sup> See the appendix to Steinkellner (2004) for an alternative English translation of this passage.

<sup>42</sup> As Steinkellner (2004, 229) aptly points out, by using the expression “*saivāvinābhāva*” (that very indispensability), Dharmakīrti “identifies *avinābhāva*, without much ado, with . . . *svabhāvapratibandha*.”

<sup>43</sup> It seems, according to Karṇakagomin, these are cases where the person to whom the argument is addressed once knew the relation but has forgot it (K76.16). The relevant passage is cited by Steinkellner (2004, 233 n. 18).

<sup>44</sup> This sentence contains the evidential particle “*khalu*” (surely), which conveys that this sentence supports the preceding sentence. In fact, Karṇakagomin (89.09) supplies “*yasmāt*” (because) in his paraphrase of the second sentence.

<sup>45</sup> Karṇakagomin (89.10), however, attributes to Dharmakīrti a much more restricted principle, namely that just the properties of arising and not arising are incompatible.

<sup>46</sup> This is, of course, a denial of there being a plurality of causes; that is, it denies that it is possible for there to be two different causal totalities bringing about the same particular effect.

<sup>47</sup> Cp. PVS 22.02. For passages elsewhere, see Inami (1999).

<sup>48</sup> Mill’s methods were not original with Mill. In Europe, the ideas go back to at least Albert the Great. In India, they go back much earlier, but just how early is hard to say.

### Editions cited

#### *Sanskrit editions of PV and PVS*

Dvārikadāsa Śāstri, Svāmī: 1968, ed. *Ācārya-Śrī-Dharmakīrti-viracitā Dharmakīrti-nibandhavalīḥ (1): Pramāṇavārttikam Ācārya-Manorathanandī-vṛttiyuttam*. (Varanasi: Bauddha-bharati.)

Gnoli, Raniero: 1960, ed. *The Pramāṇavārttika of Dharmakīrti: The First Chapter with the Autocommentary*. Serie Orientale Roma 23. (Rome: Istituto Italiano per il Medio ed Estremo Oriente.)

Malvaniya, Dalsukh Bhai: 1959, ed. *Ācārya Dharmakīrti kṛta Svārthānumāna-Pariccheda*. Hindū Viśvavidyālaya Nepāla Rājya Saṃskṛta Granthamālā 2. (Varanasi: Hindu Vishvavidyalaya Sanskrit Publications Board.)

Miyasaki Yushō: 1971, ed. *Pramāṇavārttika-kārikā* (Sanskrit and Tibetan), *Acta Indologica (Indo-kōten-kenkyū 2)*: 1–206.

Pandeya, Ram Chandra: 1989, ed. *Pramāṇavārttikam of Ārya Dharmakīrti: With the commentaries Svopajñavṛtti of the author and Pramāṇavārttikavṛtti of Manorathanandin*. (Delhi: Motilal Banarsidass.)

Sāṃkṛtyāyana, Rāhula: 1943, ed. *Ācārya-Dharmakīrteḥ Pramāṇavārttikam (svārthānumānaparicchedaḥ) Svopajñavṛtṭyā Karṇakagomi-viracitayā taṭṭīkayā ca sahitam*. (Allahabad, India: Kitab Mahal.)

*Editions of Tibetan translations of Sanskrit works*

- D4210 Sde dge edition of Dharmakīrti's *Pramāṇavārttikakārikā*, translated into Tibetan by Subhutiśrīśānti and Dge ba'i blo gros as *Tshad ma rnam 'grel gyi tshig le'ur byas pa*.
- D4216 Sde dge edition of Dharmakīrti's *Pramāṇavārttika prathamaparicchedavṛtti*, translated into Tibetan by an unnamed translator as *Tshad ma rnam 'grel gyi 'grel pa*.
- P5709 Peking edition of Dharmakīrti's *Pramāṇavārttikakārikā*. [Counterpart of D4210] Reprinted in *The Peking Edition of the Tibetan Tripitaka kept at Otani University, Kyoto*. Edited by Daisetz T. Suzuki. Vol. 130. (Tokyo and Kyoto: Tibetan Tripitaka Research Institute.)
- P5717 Peking edition of Dharmakīrti's *Pramāṇavārttika prathamaparicchedavṛtti* [Counterpart of D4216] *Peking Edition at Otani University* Vol. 130.

**References**

- Cardona, G.: 1967–68, 'Anvaya and vyatireka in Indian grammar'. *Adyar Library Bulletin* pp. 31–32; 313–352.
- Dunne, J.: 1996, 'Thoughtless Buddha, passionate Buddha'. *Journal of the American Academy of Religion* **64**, 525–556.
- Dunne, J. D.: 2004, *Foundations of Dharmakīrti's Philosophy*, Studies in Indian and Tibetan Buddhism. Boston: Wisdom Publications.
- Gillon, B. S.: 2007, 'Dharmakīrti on inference from effect: a discussion of verse 12 and the svavṛtti of the Svārthānumāna chapter of the *Pramāṇavārttika*'. In: *Proceedings of the Fourth International Dharmakīrti Conference, Vienna, August 23–27, 2005*. Vienna, Verlag der Österreichischen Akademie der Wissenschaften.
- Hayes, R. P.: 1980, 'Dīnāga's views on reasoning (svārthānumāna)'. *Journal of Indian Philosophy* **8**, 219–77.
- Hayes, R. P.: 1988, *Dignāga on the Interpretation of Signs*. Dordrecht: Kluwer Academic Publishers.
- Hayes, R. P. and B. S. Gillon: 1991, 'Introduction to Dharmakīrti's theory of inference as presented in *Pramāṇavārttika svopajñavṛtti* 1–10'. *Journal of Indian Philosophy* **19**, 1–73.
- Inami, M.: 1999, 'On the determination of causality'. In: S. Katsura (ed.): *Dharmakīrti's Thought and its Impact on Indian and Tibetan Philosophy*, No. 32 in Beiträge zur Kultur- und Geistesgeschichte Asiens. Vienna: Verlag der Österreichischen Akademie der Wissenschaften, pp. 131–154. Proceedings of the Third International Dharmakīrti Conference, Hiroshima, 4–6 November, 1997.
- Katsura, S.: 1986a, *Indo ronrigaku ni okeru henjū-gainen no seisei to hatten: Charakasānhitā kara Darumakīrti made*, Hiroshima Daigaku Bungaku-bu Kiyō, 45. Special edition 1. Hiroshima: Hiroshima Daigaku Bungaku-bu. The Origin and Development of the Concept of Vyāpti in Indian Logic: from the Carakasānhitā up to Dharmakīrti. (In Japanese with English abstract pp 120–122).
- Katsura, S.: 1986b, 'Trairūpya formulae'. In: *Buddhism and its Relation to Other Religions: Essays in Honour of Dr. Shozen Kumoi On His Seventieth Birthday*. [s.l: s.n], pp. 161–172.

- Katsura, S.: 1992, 'Dignāga and Dharmakīrti on *adarśanamātra* and *anupalabdhi*'. *Asiatische Studien / Études Asiatiques* **46**(1), 222–231.
- Katsura, S.: 1996, 'How did the Buddhists prove something? The nature of Buddhist logic'. The Numata Yehan Lecture in Buddhism. Calgary: The University of Calgary.
- Katsura, S.: 2000, 'Dignāga on *trairūpya* reconsidered: A reply to Prof. Oetke'. In: A. Akamatsu (ed.): *Indo no bunka to ronri. Tosaki Hiromasu hakase koki kinen ronbunshū [Culture and Logic in India. A Felicitation Volume for Prof. H. Tosaki on His Seventieth Birthday]*. Fukuoka: Kyūshū Daigaku.
- Katsura, S.: 2004, 'The role of *dr̥ṣṭānta* in Dignāga's logic'. In: S. Katsura and E. Steinkellner (eds.): *The Role of the Example (dr̥ṣṭānta) in Classical Indian Logic*, Vol. 58 of *Wiener Studien zur Tibetologie und Buddhismuskunde*. Arbeitskreis für tibetische und buddhistische Studien Universität Wien, pp. 135–173.
- Lasic, H.: 1999, 'Dharmakīrti and his successors on the determination of causality'. In: S. Katsura (ed.): *Dharmakīrti's Thought and its Impact on Indian and Tibetan Philosophy*, Vol. 32 of *Beiträge zur Kultur- und Geistesgeschichte Asiens*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften, pp. 233–242. Proceedings of the Third International Dharmakīrti Conference (Hiroshima, 4–6 November, 1997).
- Mill, J. S.: 1843, *A System of Logic, Ratiocinative and Inductive: Being a Connected View of the Principles of Evidence, and the Methods of Scientific Investigation*. London: J.W. Parker.
- Mill, J. S.: 1865, *An Examination of Sir William Hamilton's Philosophy and of the Principal Philosophical Questions Discussed in his Writings*. Boston: W.V. Spencer.
- Oetke, C.: 1994, *Studies on the Doctrine of Trairūpya*, Vol. 33 of *Wiener Studien zur Tibetologie und Buddhismuskunde*. Vienna: Arbeitskreis für tibetische und buddhistische Studien Universität Wien.
- Ono, M.: 1999, 'Dharmakīrti on *asādhāraṇānaikāntika*'. In: S. Katsura (ed.): *Dharmakīrti's Thought and its Impact on Indian and Tibetan Philosophy*, No. 32 in *Beiträge zur Kultur- und Geistesgeschichte Asiens*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften. Proceedings of the Third International Dharmakīrti Conference (Hiroshima, 4–6 November, 1997).
- Steinkellner, E.: 1966, 'Bemerkungen zu Īśvarasena's Lehre vom Grund'. *Wiener Zeitschrift für die Kunde Südasiens* **10**, 73–85.
- Steinkellner, E.: 1988, 'Remarks on *niścitagrahaṇa*'. In: R. Gnoli and L. Lanciotti (eds.): *Orientalia Iosephi Tucci Memoriae Dicata*, Vol. 56 of *Serie Orientale Roma*. Rome: Istituto Italiano per il Medio ed Estremo Oriente, pp. 1427–1444.
- Steinkellner, E.: 1993, 'Buddhist logic: The search for certainty'. In: T. Yoshinori, J. V. Bragt, J. W. Seisig, J. S. O'Leary, and P. L. Swanson (eds.): *Buddhist Spirituality: Indian, Southeast Asian, Tibetan, and Early Chinese*. New York, New York: Crossroad, pp. 312–318.
- Steinkellner, E.: 1997, 'Kumārila, Īśvarasena, Dharmakīrti in dialogue. A new interpretation of *Pramāṇavārttika* I 33'. In: P. Kieffer-Pulz and J.-U. Hartmann (eds.): *Baudhavidyāsudhākaraḥ: Studies in Honour of Heinz Bechert on the Occasion of His 65th Birthday*, Monographien zu den Sprachen und Literaturen des indo-tibetischen Kulturraumes: v. 30. Swisttal-Odendorf, Austria: Indica et Tibetica Verlag, pp. 625–646.
- Steinkellner, E.: 2004, 'The early Dharmakīrti on the purpose of examples'. In: S. Katsura and E. Steinkellner (eds.): *The Role of the Example (dr̥ṣṭānta) in Classical Indian Logic*, Vol. 58 of *Wiener Studien zur Tibetologie und Buddhismuskunde*. Arbeitskreis für tibetische und buddhistische Studien Universität Wien, pp. 225–250.
- Tillemans, T. J. F.: 1990, 'On *sapakṣa*'. *Journal of Indian Philosophy* **18**, 53–79.
- Tillemans, T. J. F.: 2004, 'Inductiveness, deductiveness and examples in Buddhist logic'. In: S. Katsura and E. Steinkellner (eds.): *The Role of the Example (dr̥ṣṭānta) in Classical*

*Indian Logic*, Vol. 58 of *Wiener Studien zur Tibetologie und Buddhismuskunde*. Vienna: Arbeitskreis für tibetische und buddhistische Studien Universität Wien, pp. 251–275.