ABBREVIATIONS

AJP	*Anekāntajayapaṭākā* (Haribhadra Sūri) in Kāpādia 1940/1947
AP	*Apohaprakaraṇa* (Jñānaśrīmitra) in Thakur 1987
AP-D	*Apohaprakaraṇa* (Dharmottara) in Frauwallner 1937
AR	*Anupalabdhirahasya* (Jñānaśrīmitra) in Thakur 1987, Kellner 2007
AS	*Apohasiddhi* (Ratnakīrti) in Thakur 1975
BCA	*Bodhicaryāvatāra* (Śāntideva) in Shastri 1988
BhK1	*Bhāvanākrama 1* (Kamalaśīla) in Adam 2002, Tucci 1986
BhK2	*Bhāvanākrama 2* (Kamalaśīla) in Adam 2002
BKNCT	*Bulletin of Kochi National College of Technology*
CAPV	*Citrādvaitaprakāśavāda* (Ratnakīrti) in Thakur 1975
DhPr	*Dharmottarapradīpa* (Durvekamiśra) in Malvania 1971
DvāṬ	*Dvādaśaśatikā* (Dignāga) in Jambuvijayaji 1966–1978
HB	*Hetubindu* (Dharmakīrti) in Steinkellner 1967
HBṬ	*Hetubinduṭīkā* (Arcaṭa) in Sanghavi 1949
HBṬĀ	*Hetubinduṭīkāloka* (Durvekamiśra) in Sanghavi 1949
ĪSD	*Īśvarasādhanadūṣaṇa* (Ratnakīrti) in Thakur 1975
JNĀ	*Jñānaśrīmitranibandhāvali* (Jñānaśrīmitra) in Thakur 1987
KāVṛ	*Kāśikāvṛtti* (Vāmana and Jayāditya) in Sharma 1969–1985
KBhA	*Kṣaṇabhaṅgādhyāya* (Jñānaśrīmitra) in Thakur 1987 and Kyuma 2005

KKBhS *Kāryakāraṇabhāvasiddhi* (Jñānaśrīmitra) in Thakur 1987
KSA *Kṣaṇabhaṅgasiddhi Anvayātmika* (Ratnakīrti) in Thakur 1975
KSV *Kṣaṇabhaṅgasiddhi Vyatirekātmika* (Ratnakīrti) in Thakur 1975
KTBh *Tarkabhāṣā* (Keśavamiśra) in Gajendragadkar and Karmarkar 1934
LPrP *Laghuprāmāṇyaparīkṣā* (Dharmottara) in Krasser 1991
MBh *Mahābhāsya* (Patañjali) in Kielhorn 1962–1973
MTBh *Tarkabhāṣā* (Mokṣākaragupta) in Iyengar 1952
N1 *Apohasiddhi* (Ratnakīrti), ms. 5–256 from the National Archives of Nepal
N2 *Apohasiddhi* (Ratnakīrti), ms. 3–696 from the National Archives of Nepal
N3 *Apohasiddhi* (Ratnakīrti), ms. 764d (running number) from the National Archives of Nepal
NB *Nyāyabindu* (Dharmakīrti) in Malvania 1971
NBh *Nyāyabhāsya* (Vātsyāyana) in Thakur 1997b
NBhū *Nyāyabhūṣaṇa* (Bhāsarvajña) in Yogindrananda 1968
NBṬ *Nyāyabinduṭīkā* (Dharmottara) in Malvania 1971
NBṬ-Vi *Nyāyabinduṭīkā* (Vinītadeva) in Gangopadhyaya 1971
NBṬṬ *Nyāyabinduṭīkāṭippaṇa* in Shastri 1984
NCV *Nayacakravṛtti* (Siṃhasūri) in Jambuvijayaji 1966–1978
NK *Nyāyakoṣa* in Jhalakīkar 1996
NKaṇ *Nyāyakaṇikā* (Vācaspatimiśra) in Stern 1998
NM *Nyāyamañjarī* (Jayantabhaṭṭa) in Varadacharya 1969/1983
NS *Nyāya-sūtra* (Gautama) in Thakur 1997b
NSū *Nyāya-sūtra* (Gautama) in Thakur 1997b
NV *Nyāyabhāṣyavārttika* (Uddyotakara) in Thakur 1997a
NVTṬ *Nyāyavārttikatātparyaṭīkā* (Vācaspatimiśra) in Thakur 1996a
NVTṬP *Nyāyavārttikatātparyaṭīkāpariśuddhi* (Udayana) in Thakur 1996a
PAP *Pramāṇāntarbhāvaprakaraṇa* (Ratnakīrti) in Thakur 1975
PS 1 *Pramāṇasamuccaya* (Dignāga) in Steinkellner et al. 2005
PSṬ *Pramāṇasamuccayaṭīkā* (Jinendrabuddhi) in Steinkellner et al. 2005
PSV *Pramāṇasamuccayavṛtti* (Dignāga) in Steinkellner et al. 2005
PV 1 *Pramāṇavārttika*, Svārthānumāna (Dharmakīrti) in Gnoli 1960
PV 2 *Pramāṇavārttika*, Pramāṇasiddhi (Dharmakīrti) in Miyasaka 1971/2
PV 3 *Pramāṇavārttika*, Pratyakṣa (Dharmakīrti) in Miyasaka 1971/72
PV 4 *Pramāṇavārttika*, Parārthānumāna (Dharmakīrti) in Miyasaka 1971/72, Tillemans 2000
PVABh *Pramāṇavārttikālaṅkārabhāṣya* (Prajñākaragupta) in Sāṃkṛtyāyana 1953

PVin 1 *Pramāṇaviniścaya* 1 (Dharmakīrti) in Vetter 1966
PVin 2 *Pramāṇaviniścaya* 2 (Dharmakīrti) in Steinkellner 1973
PVinṬ *Pramāṇaviniścayaṭīkā* (Dharmottara) in Krasser and Steinkellner 1989
PVKP *Pramāṇavārttikakroḍapatra*, printed as an appendix to Sāṃkṛtyāyana 1938–1940
PVSV *Pramāṇavārttikasvavṛtti* (Dharmakīrti) in Gnoli 1960
PVSVṬ *Pramāṇavārttikasvavṛttiṭīkā* (Karṇakagomin) in Sāṃkṛtyāyana 1943
PVṬ *Pramāṇavārttikaṭīkā* (Śākyabuddhi) in Kellner 1999.
PVV *Pramāṇavārttikavṛtti* (Manorathanandin) in Sāṃkṛtyāyana 1938–1940
RNĀ *Ratnakīrtinibandhāvali* (Ratnakīrti) in Thakur 1975
SāmP *Sāmānyaparīkṣā* (Dignāga) in Jambuvijayaji 1966–1988
SD *Santānāntaradūṣaṇa* (Ratnakīrti) in Thakur 1975
SP *Saptapadārthī* (Śivāditya) in Jetly 2003
SS *Sarvajñasiddhi* (Ratnakīrti) in Thakur 1975, Bühneman 1980
SSD *Sthirasiddhidūṣaṇa* (Ratnakīrti) in Thakur 1975, Mimaki 1976
SSS *Sākārasiddhiśāstra* (Jñānaśrīmitra) in Thakur 1987
ŚV *Ślokavārttika* (Kumārila) in Ray 1993
ŚVK *Ślokavārttikakāśikā* (Sucaritamiśra) in Śāstri and Rāmasvāmi Śāstri 1926–1943
TS *Tarkasaṃgraha* (Annaṃbhaṭṭa) in Bhattacharya 1976
TS/TSP *Tattvasaṃgraha/Tattvasaṃgrahapañjikā* (Śāntarakṣita/Kamalaśīla) in Shastri 1981
VC *Vyāpticarcā* (Jñānaśrīmitra) in Thakur 1987, Lasic 2000a
VN *Vyāptinirṇaya* (Ratnakīrti) in Thakur 1975, Lasic 2000b
VNV *Vādanyāyaṭīkā, Vipañcitārtha* (Śāntarakṣita) in Shastri 1972
WSTB *Wiener Studien zur Tibetologie und Buddhismuskunde*
WZKM *Wiener Zeitschrift für die Kunde des Morganlandes*
WZKS *Wiener Zeitschrift für die Kunde Südasiens*
WZKSO *Wiener Zeitschrift für die Kunde Süd- und Ostasiens*
YN *Yoginirṇayaprakaraṇa* (Jñānaśrīmitra) in Thakur 1987
YTBh *Tarkabhāṣā* (Yaśovijaya) in Bhargava 1973

CHAPTER 2

Religious Epistemology in Classical India

In Defense of a Hindu God

PHILOSOPHICAL ARGUMENTS FOR AND AGAINST THE existence of God-like beings such as Īśvara have been important to the study of philosophy and religion in both Euro-American and South Asian contexts. This is in part because there is often much more at stake in such arguments than just the existence of an entity of one kind or the other—also at stake are both the worldview within which an Īśvara-like being is supposed to play a (central) role and the sense of self and way of life recommended by it. While such concerns may have informed Ratnakīrti's arguments with the Naiyāyikas, his texts are interestingly silent on the matter. For the most part, this is also the case with the writings of his Nyāya interlocutors. For both Ratnakīrti and his interlocutors, the significance of arguments about the nature and existence of Īśvara appears to lie elsewhere. In this chapter and the next, I explore what Ratnakīrti's texts explicitly and implicitly tell us about their debate and its significance. Along the way, I also provide an introduction to Nyāya epistemology and an analysis of Ratnakīrti's interpretation and critique of the Īśvara-inference.

For someone approaching Sanskrit philosophical texts for the first time, what is most striking and difficult to grasp is the language and style of Sanskrit epistemology. The technical terms and concepts that comprise this

philosophical language were generally shared by Buddhist, Hindu, and Jaina intellectuals, even though their precise interpretations were often (if not always) highly contested.[1] As a result, it was often through discussions of specific technical terms and concepts that Sanskrit philosophers chose to express their views on very basic philosophical problems. This is particularly true for the terms and concepts used in theories of inferential reasoning (*anumāna*) in "classical" and "late premodern/early modern" India.[2] In Ratnakīrti's interpretation and critique of the Naiyāyikas' most important argument for the existence of Īśvara, he relies heavily on the technical philosophical vocabulary that he shared with other Sanskrit philosophers. The dialogical style and essay-like format in which he presents his arguments also assume a familiarity with the technical issues in terms of which the Īśvara-inference was debated.[3] It is not at all surprising, therefore, that Ratnakīrti's critical engagement with the Naiyāyikas' arguments often focuses on very specific, and seemingly trivial, logical and epistemological issues. Familiarity with the philosophical language and style of Sanskrit epistemology reveals, however, that Ratnakīrti and his interlocutors used this technical language to discuss very basic philosophical differences, whose significance extends well beyond the Īśvara debate. Without understanding this technical language, it is simply impossible to appreciate and understand even the general character of Sanskrit philosophy of religion, let alone the specific details of interreligious debates between Buddhist and Nyāya philosophers.

The purpose of this chapter is to provide an introduction to the philosophical language and style of Sanskrit epistemology, and to Buddhist and Nyāya theories of inferential reasoning more specifically. I seek to develop a conceptual vocabulary for understanding both the philosophical details of Ratnakīrti's debate with his Nyāya opponents and what is at stake in it. One

1. Compare and contrast, for example, the Nyāya *Tarkabhāṣā* of Keśavamiśra (ca. thirteenth century), KTBh, which is translated in Gajendragadkar and Karmarkar 1934; the Jaina *Tarkabhāṣā* of Yaśovijaya (ca. seventeenth century), YTBh, which is translated in Bhargava 1973; and the Buddhist *Tarkabhāṣā* of Mokṣākaragupta (ca. twelfth/thirteenth century), MTBh, which is translated in Kajiyama 1998. Also see Matilal 1986:22–26, 35–38.

2. I don't have much at stake in either the periodization or the conceptual commitments that may be implied by these terms. I am using them simply for convenience to refer to the period from (roughly) the fifth to the eighteenth/nineteenth centuries C.E. Cf. Pollock's use of "premodern" in Pollock 2006:1–36.

3. This style is not unique to Ratnakīrti, and in fact characterizes many Sanskrit intellectual practices, such as philosophy, theology, and literary theory.

of the methodological arguments being made in this chapter, and the next, is that it is only by paying attention to these philosophical details that we can discover what philosophical debates in classical and early modern India were really about. In providing an introduction to the language and style of Sanskrit epistemology, I hope to enable us to think with Sanskrit philosophers in their own idiom. To do this, I often follow their texts rather closely and try not to "prepackage" their arguments by interpreting them in terms of contemporary philosophical *debates*. At the same time, the issues that Ratnakīrti and his Nyāya opponents are writing and thinking about are not unique to Sanskrit philosophy. And while it is necessary to pay close attention to what makes their work distinct, it is also important to recognize what makes their work more universal. For this reason, I also interpret their arguments in more familiar philosophical *vocabulary* and, when appropriate, relate their work to more contemporary topics in Euro-American epistemology. A second methodological argument being made in this chapter (and the book as a whole) is that without our doing so Sanskrit philosophical texts will remain imprisoned in someone else's philosophical past. By attending to the details of Sanskrit philosophy in this way, I argue that it becomes possible to better appreciate what is at stake, explicitly, and to discover what is at stake, implicitly, in Buddhist-Nyāya debates about the nature and existence of Īśvara.

What is most obviously and explicitly at stake in these debates is the existence of Īśvara, and more generally the kind of being/object whose existence can and cannot be established through inferential reasoning. As I will argue, what is also at stake—though not quite so obviously—is the Nyāya approach to religious epistemology more generally. In this chapter I focus specifically on Ratnakīrti's presentation of the Nyāya position, and argue that the Naiyāyikas' argument is best thought of in terms of both the cosmological argument and the argument from design.[4] I argue further that the epistemological framework within which this argument is presented and defended is best understood as a "bivalent epistemology" in which knowledge and justification/reflective-knowledge are treated separately.[5]

4. These arguments are discussed briefly in section 2.1 and again in section 4.

5. My use of the term "reflective-knowledge" is based on Sosa 1991 and Sosa 1997. In Sosa 1991:143–145, he contrasts reflective-knowledge with "animal knowledge." He says that *animal knowledge* is a true, apt belief, where "apt" refers to a belief that is produced by an "intellectual virtue," i.e., a cognitive faculty that reliably produces true-beliefs for an agent

More specifically, I point out that the Nyāya theory of knowledge is a version of externalism, and in particular a kind of reliabilism.[6] In contrast, their theory of justification is best interpreted as a kind of "internalist foundationalism."[7] Understanding the Naiyāyikas' argument in these

(usually a normal human being) in a specific environment (usually our normal environment). In contrast, Sosa says that *reflective-knowledge* is a true, apt, and justified belief. For Sosa, a belief is justified only if it fits within a coherent set of beliefs, including a perspective on one's first-order belief as deriving from an intellectual virtue. A concept like this has also been used to discuss aspects of Nyāya epistemology; see, for example, Phillips and Tatacharya 2004:9, where Phillips uses the term "conscious justification," and Ganeri 1999a:152, where he refers to Sosa 1991:240. Note, however, that my interpretation differs from that of Sosa in that I attribute a foundationalist, rather than a broadly coherentist, account of justification to Ratnakīrti's Naiyāyikas. The specific form of the Naiyāyikas' epistemological "bivalence" will be discussed in greater detail in section 1.3.

6. The semantic range of the terms "externalism" and "reliabilism" can be quite broad, and, as with many philosophical terms, their precise meaning is often theory dependent and contested. In general, an account of an epistemic state such as "knowledge" or "justification" can be called an "externalist" account when it asserts that the absence or presence of that state depends on facts/features that are not "internally available" to the person in question.

By "reliabilism," I generally mean a Nyāya version of "process reliabilism." In general, according to process reliabilists, whether or not a belief is justified is a function of the reliability of the processes through which that belief was produced. In general, one doesn't have to know how a belief was produced for the belief to be justified, nor does one have to have any evidence that that belief was produced by a reliable process. According to process reliabilists, a belief is justified just so long as it was in fact produced by a reliable process. A belief-forming process is generally taken to be "reliable" to the extent that it tends to produce true beliefs. Some belief-forming mechanisms yield beliefs as output only when they're given other beliefs as inputs (e.g., inferential reasoning). Such belief-forming mechanisms are often said to be "conditionally reliable," since they tend to produce true beliefs when the beliefs they're given as inputs are themselves true. My view is that the Naiyāyikas are externalists and reliabilists about knowledge, but not justification.

7. I take this term from BonJour, in BonJour and Sosa 2003: part 1, and Fumerton 2006: chap. 4. As mentioned above, there is rarely (if ever) consensus on the precise meaning of technical philosophical terms such as "internalism" and "foundationalism," let alone "internalist foundationalism." On my use of the term, "foundationalism" refers to the view that there is a kind of justification for beliefs that does not require other justified beliefs—that is, there is noninferential, immediate justification. By "internalism," I generally mean a strong version of "access internalism," according to which the conditions that constitute having justification must be conditions that the believer has access to (and is aware of). Here "access" is understood to be the result of "apperception/introspection," which is itself taken to be direct and immediate, and therefore "foundational." There is, of course, a great deal of

terms—and more accurately, according to their interpretation of these terms—makes it possible to discover the technical philosophical issues on which its success depends and on which Ratnakīrti's critique is based.

Attention to Ratnakīrti's presentation of the Nyāya argument within this broader epistemological context also gives us insight into what is implicitly at stake in his debate with the Naiyāyikas. As I will argue, this has to do with the value of epistemology, and especially the value of justification. What emerges from an understanding of the details of Ratnakīrti's debate with the Naiyāyikas is his interest in the nature of philosophical arguments and the value of epistemology; the nature and epistemic significance of religious disagreements; and the soteriological significance of epistemology. The first two issues will be introduced in this chapter, and discussed at greater length in chapter 3. The third issue will be discussed in part 2, and especially chapter 6.

1. Interpreting Nyāya Epistemology

Sanskrit epistemology is concerned, most generally, with sources of knowledge—that is, with how we know what we in fact know—and with what it means to know at all. Throughout part 1 of this book, I will refer to these sources of knowledge as "instruments for warranted awareness" (*pramāṇa*) and to knowledge itself as "warranted awareness" (*pramā*).[8]

controversy about all of this. It is worth noting that in my view in order to be justified one must be aware that one is justified. This is discussed in greater detail in section 1.3.

In BonJour and Sosa 2003:7, BonJour provides a typology of accounts of justification, including internalist foundationalism: "On the one hand, there is the dichotomy between *foundationalist* and *coherentist* accounts of epistemic justification. Does such justification derive ultimately from 'foundational' beliefs whose justification somehow does not depend at all on that of other beliefs, or does it derive instead from relations of coherence or agreement or mutual support among beliefs, with no appeal to anything outside of the system of beliefs? On the other hand, there is the dichotomy between *internalist* and *externalist* accounts of such justification. Must epistemic justification depend on elements that are internal to the believer's conscious states of mind in a way that makes them accessible to his conscious reflection (at least in principle), or might it derive instead from factors that are external to those states of mind, entirely outside the scope of his conscious awareness? These two dichotomies cut across each other, so as to generate four prima facie possible overall positions: internalist foundationalism, externalist foundationalism, internalist coherentism, and externalist coherentism."

8. I intend the term "instrument" to be neutral in regard to the interpretations of "*pramāṇa*" as either a "means" (*pramīyate anena iti pramāṇam*) or an "event" (*pramā iti pramāṇam*).

Given the centrality of knowledge-sources to Sanskrit epistemology, one way to characterize and differentiate between rival Sanskrit epistemological theories is in terms of the number and nature of the instruments for warranted awareness.[9] This is especially so for the Nyāya and Buddhist theories that inform Ratnakīrti's work. Naiyāyikas and Buddhists disagree not only on the number of instruments for warranted awareness, but also on the proper interpretation of the terms "instrument," "warrant," and "awareness." As an introduction to Sanskrit epistemology—and the Naiyāyikas' argument for the existence of Īśvara—it is important to consider how these terms were interpreted by Nyāya philosophers, since this points to the bivalent epistemological theory within which Nyāya inferential arguments, such as the Īśvara-inference, are presented and defended.[10]

My use of the terms "instrument" and "sources of knowledge" is thus supposed to apply to the diverse interpretations of "*pramāṇa*" found in Sanskrit sources. In part 1 of this book I will generally use the term "*warranted* awareness" to translate the Sanskrit term "*pramā*." In part 2, however, in discussing Ratnakīrti's own view, I will generally use the term "*valid* awareness" (to translate "*pramā/pramāṇa*").

9. For Ratnakīrti's discussion of this issue see RNĀ (PAP 96–105) and Kajiyama 1998:30–38.

10. My interpretation of the "Nyāya" theory of epistemology is based on Keśavamiśra's *Tarkabhāṣā* and Ratnakīrti's own presentation and discussion of the theory. Whenever possible I have supported my interpretation by citing passages from the KTBh, and in many cases have also cited relevant secondary scholarship. In some cases the secondary scholarship treats Nyāya theories that significantly postdate Ratnakīrti's own work, and therefore it should be consulted with care. Unfortunately, it is beyond the scope of this chapter to fully defend my interpretation of Nyāya epistemology, which would require a systematic analysis of the *Nyāya-sūtra* (NS) corpus at least up to and including Udayana (ca. eleventh century) and the work of Bhāsarvajña (ca. 860–920).

The KTBh is an introductory text, or "handbook," of Nyāya philosophy. It was composed in the latter half of the thirteenth century, but reflects the viewpoint of an earlier period of Nyāya thought. It represents a point of view that is not, for example, overly influenced by the "new school" of Nyāya. The general theoretical framework discussed in this text is therefore closer to the viewpoint of Ratnakīrti's Naiyāyikas than to that discussed in other such texts, e.g., Annaṃbhaṭṭa's *Tarkasaṃgraha* (TS). It provides a convenient "baseline" interpretation of Nyāya epistemology, and in my view reflects the general viewpoint of the specific Naiyāyikas discussed by Ratnakīrti. I have supplemented the KTBh discussion when necessary. The account of Nyāya epistemology discussed in the following section is not, therefore, the theory of any particular Naiyāyika. Instead, it is a reconstruction and interpretation that is primarily based upon the KTBh.

1.1. *The Theory of Event-Makers*

Naiyāyikas (and Buddhists) interpret the idea of instruments for warranted awareness in terms of the Sanskrit grammatical theory of "event-makers" (*kāraka*).[11] As briefly discussed in the introduction, this grammatical theory provides a conceptual vocabulary for developing a general theory of "events" (*kriyā*) and does so by describing six semantic relations (*kāraka*) between the nouns in a given sentence and the event that is expressed by the main verb in that sentence.[12] This is important for Nyāya and Buddhist epistemology since both Naiyāyikas and Buddhists understand warranted awareness (*pramā/pramāṇa*) to be a mental event that is denoted by the verb "to know" (*pra+√mā*). Of the six semantic relations, or "semantic roles," described in the theory, three are especially important for Nyāya and Buddhist epistemology: the "patient" (*karman*); the "agent" (*kartṛ*); and the "instrument" (*karaṇa*).

Consider the sentence "Devadatta cuts the tree with an axe."[13] In this sentence the event is the action denoted by the verb "to cut." The Naiyāyikas

11. For the Grammarians' description of this theory see the "*kārakāhnika*" of Patañjali's *Mahābhāṣya* (MBh 1.4.23ff) and the "*Kārakaprakaraṇa*" of Bhaṭṭoji Dīkṣita's *Siddhāntakaumudī* in Bhattacharya 1974. For the Naiyāyikas' use of this theory see NBh, NV, NVTṬ, and NVTṬP *ad* NS 2.1.15–2.1.16. Also see Biardeau 1964:30ff, Cardona 1974:231ff, Ganeri 1999a:51–72, Kiparsky and Staal 1969, and Matilal 1985:372–389.

It is interesting (and important) to note that while contemporary epistemologists often appeal to ethical, metaphysical, psychological, semantic, or social-scientific theories to interpret epistemological concepts, Sanskrit philosophers almost always appeal to grammatical ones. For more on "background theories" in contemporary epistemology see Zagzebski 1999.

12. The "six semantic relations" are: (1) *kartṛ* (agent); (2) *karman* (patient); (3) *karaṇa* (instrument); (4) *sampradāna* (target, beneficiary); (5) *apādāna* (donor, source); (6) *adhikaraṇa* (place, location). For the description of these relations as "semantic" consider Cardona 1974:231, who writes, "Things are *kārakas* when they play certain roles in the accomplishment of an action. A thing may be classified in one way if it functions in a certain way with respect to any activity at all; or it may belong to a certain *kāraka* class if it functions in a given way with respect to a particular activity; and a *kāraka* classification may apply only if a certain action is denoted by particular items." Also see Vātsyāyana's discussion in his *Nyāyabhāṣya* (NBh *ad* NS 2.1.16), which is translated in Matilal 1990:43 and Ganeri 1999a:52.

13. KTBh 13–14. This example is also referred to at RNĀ (ĪSD 34.06–34.16) but in a different, though related, context. My discussion of the theory of "event-makers" is based on Pietroski 1998 and Pietroski 2000, and more specifically his analysis of agency, thematic roles, and actions. The relevance of Pietroski's proposals to Nyāya epistemology has been very helpfully discussed in Ganeri 1999a: chap. 2.

analyze this event as being constituted by two subevents, an intermediary, or "functioning," event (*vyāpāra*) and a final, or "culminating," event (*phala*). The final, or culminating, event is, in this case, the cutting of the tree. This is the event in which we are most interested. It is helpful to think of it as the final effect of the action expressed by the verb. Since the tree is the locus of this final effect, it is said to be the patient of the event.[14] The functioning event is an intermediary event in the causal chain that begins with the agent's effort (*kṛti*) and culminates in the final effect.[15] This event is usually represented by the initial contact (*saṃyoga*) of the axe with the tree.[16] According to the Naiyāyikas, the agent of an event is the one who performs the action that is the first member in the causal chain that culminates in the final effect of the event. This action is sometimes described as the "effort" (*prayatna*) motivated by a specific desire (*icchā*) of the agent. It is also described as what instigates (*pra*+√*yuj*) the event. In the above sentence, the agent is Devadatta. According to the Naiyāyikas, the instrument is the cause par excellence (*sādhakatama*) of the event.[17] It is usually represented by the axe. On this view, the instrument (i.e., the axe) is the cause whose functioning (i.e., contact with the tree) culminates in the final effect of the event (i.e., the cutting of the tree). Given this interpretation, an instrument is closely associated with a functioning event and, in an important sense, it is the instrument

14. "Final effect" also includes a change in the state of the patient (e.g., the softening of rice) or a change in its location. See Ganeri 1999a:56.

15. Ganeri 1999a:56. Also see Matilal 1986: chap. 4.

16. Functioning event: "A functioning intermediary is a producer of a *y* that is produced by *x*: Just as the contact of an axe with a tree is produced by the axe (*x*) [and] produces a cutting (*y*) that is produced by the axe" (*tajjanyas tajjanako 'vāntaravyāpāraḥ | yathā kuṭhārajanyaḥ kuṭhāradārusaṃyogaḥ kuṭhārajanyacchidājanakaḥ*) (KTBh 15 n. 1). Usually, functioning intermediary (*vyāpāra*) is defined as: "A producer of a *y* that is produced by *x*, given that it itself is produced by *x*" (*tajjanyatve sati tajjanyajanakaḥ*) (KTBh 137). Given this definition, the functioning intermediary is that which produces the culminating effect, the cutting of the tree (*y*), given that it has the property of being produced by the instrument, the axe (*x*).

17. The term "par excellence" is interpreted in various ways. Some Naiyāyikas, for example, maintain that an instrument (*karaṇa*) is the cause that finally produces the event; the cause that seizes the effect (*phalopādhāyakaṃ kāraṇam*); or the cause that is excluded from a nonconnection with the culminating effect (*phalāyogavyavacchinnakāraṇam*). Given these interpretations, the contact of the axe with the tree would be the instrument. Also see NK (s.v. *karaṇa*), KTBh 113, ŚV Pratyakṣa vv. 74–75, Matilal 1985:373, and Ganeri 1999a:61. For more on this see below.

that functions.[18] An instrument can be described, therefore, as a cause whose functioning is just the intermediary event that culminates in the final effect. Given this conceptual vocabulary, the Naiyāyikas argue as follows: The complex event denoted by the verb "to cut" is constituted by an intermediary event "e" (i.e., the axe's contact with the tree) and a final event "f" (i.e., the cutting of the tree). Devadatta is the agent of "e" and the tree is the patient of "e." The axe is the instrument whose functioning produces the intermediary event that culminates in the final event "f."[19]

The conceptual framework provided by the theory of event-makers is directly applied by the Naiyāyikas to the mental event denoted by the verb "to know."[20] Consider, for example, the sentence "Devadatta knows 'p' by means

18. There are at least three different Nyāya views regarding the instrument (*karaṇa*). See Matilal 1985:372–378.

(1) The first view, which is usually associated with the older Nyāya school (*prācīnanyāya*), is that the instrument is the cause par excellence of the event. On this view, the instrument is the most excellent cause. See KTBh 3.10–3.11: "What is the instrument? It is the most effective instrument. 'Most effective' is the preeminent effective thing, which means that it is the most excellent cause" (*kiṃ punaḥ karaṇam | sādhakatamaṃ karaṇam | atiśayitaṃ sādhakaṃ sādhakatamaṃ prakṛṣṭaṃ kāraṇam ity arthaḥ*). It is also explained that what makes the cause "preeminent" and "most excellent" is that it "possesses the functioning intermediary." See KTBh 137 where it is said, in the notes, that the term "preeminent" (*atiśaya*) means "possesses the functioning" (*vyāpāravat*). Thus, the instrument is a cause that possesses the functioning (*vyāpāravat-kāraṇaṃ karaṇam*).

(2) The second view, which is usually associated with the new Nyāya school (*navyanyāya*), is that the instrument is, as discussed in KTBh 137, "that which is excluded from a non-connection with the culminating effect" (*phalāyogavyavacchinna*) and "that which does not produce the relevant effect with delay" (*yadvilambāt prakṛtakāryānutpādaḥ*). This same idea is expressed at KTBh 12.06 as "the cause which seizes hold of the culminating effect" (*phalopādhāyakakāraṇam*). Also see Matilal 1985:373. On this view what I am calling the functioning intermediary is itself the instrument. In the context of our example, this means that the contact of the axe with the tree, and not the axe, would be the instrument.

(3) The third view seems to be the view of Jayantabhaṭṭa (ninth century C.E.), who argues that the entire causal complex that produces the culminating effect is the instrument. Jayantabhaṭṭa thus rejected previous approaches to the problem by rejecting the distinction between a "most excellent" cause and subsidiary or contributing causes. See Matilal 1985:376 and, for a much fuller treatment of Jayantabhaṭṭa's views, Shah 1992:20–26 and NM 25–28.

19. Although cumbersome, this way of describing the event is supposed to make clear the various components of its definition, and also to make it easier to compare my discussion with that of Pietroski 1998 and Pietroski 2000.

20. See KTBh 14, and my earlier references to the NS corpus.

of 'I.'" In this sentence, the event is the awareness-event denoted by the verb "to know." Knowing-events, like cutting-events, are understood in terms of two subevents, an intermediary or functioning event and a culminating event. The culminating event is the warranted awareness (*pramiti*) that "p," where "p" is the object or content of that state of awareness. As such, "p" is taken to be the locus of the culminating event and is therefore the patient of the event. The functioning intermediary of the event is associated with the instrument "I" and is an intermediary in the causal chain that begins with the action of an agent and culminates in the final effect. A more specific description of the intermediary event will depend upon the nature of the specific instrument. For the Naiyāyikas, there are four instruments whose functioning could culminate in the final effect of warranted awareness. In addition to inferential reasoning (*anumāna*), the Naiyāyikas argue that perception (*pratyakṣa*), verbal testimony (*śabda*), and comparison (*upamāna*) are also accredited instruments for warranted awareness.[21] Associated with each of them is a somewhat different functioning intermediary. The agent of the event is, as before, Devadatta. With this conceptual vocabulary, the Naiyāyikas interpret the event denoted by the verb "to know" (*pramā*) as follows: They say that knowing-events are constituted by an intermediary event "e" and a culminating event 'f.' Devadatta is the agent of "e" (*pramātṛ*) and "p" is the patient (or object) of "e" (*prameya*). Warranted awareness is the culminating event "f" (*pramiti*). "I" is the instrument (*pramāṇa*) whose functioning produces the intermediary event that culminates in the final effect "f."

1.2. *A Causal Theory of Warranted Awareness*

The above analysis describes the basic structure of a knowing-event (*pramā*), by identifying a set of event-making components; by defining the relevant relationships between them; and by explaining how they come together to constitute the event. This structure is important since it reveals the broadly causal features of Nyāya epistemology, and the Nyāya theory of knowledge more specifically. As the above paraphrase suggests, in the Nyāya view, the final effect/event and the instrument are distinct, in that they are related

21. The instrument (*karaṇa*) of inferential reasoning will be discussed in detail in sections 2.2 and 2.3.

to one another as effect and cause. It is the aetiology (or causal history) of a state of awareness that determines whether or not that state of awareness is a knowing-event. The Nyāya theory of knowledge is thus best viewed as a causal theory of knowledge and, as mentioned earlier, a version of externalism.[22]

More specifically, the Naiyāyikas are "extrinsicists" about knowledge: What makes an awareness-event a knowing-event is the presence of an "epistemically special property" (*guṇa*) among the generic causal factors that bring about the event. This property is a necessary, but not sufficient, condition for it to be a *knowing*-event. Similarly, it is the presence of an "epistemically negative property" (*doṣa*) among the generic causal factors that leads to a nonknowing-event. This position is referred to as "extrinsicism," since both of these properties are external to (*parataḥ*) the collection of generic causal factors that are necessary for an *awareness*-event as such.[23] Unlike epistemically negative properties, the epistemically special property is almost always a property of the instrument. For example, if the "generic causal factors" that bring about the cutting-event described earlier include the agent, axe, swinging of the axe, tree, etc., then the special property that leads to a cutting-event (rather than a hitting-event) would be something like the axe's "making proper contact with the tree," "having a sharp enough blade," etc. Epistemically negative properties might be the agent's "lack of skill in wielding an axe," the axe's "having a dull blade," its "being swung with insufficient velocity," etc. As this example suggests, both positive and negative epistemic properties are often defined relative to an instrument and are, to a significant degree, instrument specific.

In contrast to Nyāya extrinsicism about knowledge, "intrinsicists" about knowledge argue that awareness-events that do not have an epistemically negative property among their generic causal factors—that is, a property that interferes with its causes and conditions—are knowing-events.[24] Awareness-

22. See Goldman 1992: chap. 4, for a reprint of an early version (1967) of his "causal theory of knowledge." For a more recent statement see Goldman 1999, in which he discusses his causal/reliabilist theory of justification. It is worth repeating that in my view the Naiyāyikas are not externalists or reliabilists about justification, but rather are so about knowledge. Given their bivalent epistemology, knowledge is an epistemic state distinct from being justified. For a discussion of a reliabilist theory of knowledge, see Dretske 1981.

23. For a discussion of this issue with textual references see Mohanty 1966:58–71, Phillips and Tatacharya 2004:10, Potter 1977:158–160, and Matilal 2002:154–159.

24. In addition to the references cited above, many of the relevant issues are discussed in Taber 1992.

events that are not knowing-events occur only because an external factor interferes with the causes and cōnditions that are otherwise necessary and sufficient for it to be a knowing-event. Unlike the intrinsicists, Naiyāyikas maintain that there is a basis for knowing-events, epistemically special properties. Like the intrinsicists, they maintain that there is also a basis for nonknowing-events—negative epistemic properties.

This analysis of a knowing-event in terms of the theory of event-makers describes the basic architecture of the Nyāya theory of knowledge. A more adequate analysis requires (at least) an account of "warranted awareness" and a more detailed analysis of "instrument." Attention to the Nyāya interpretation of these terms is especially important since it reveals the sense in which Nyāya epistemology is bivalent, and thus leads to a more nuanced understanding of the Naiyāyikas' interpretation of knowledge as warranted awareness, and to their theory of justification.

1.3. A Bivalent Epistemology

According to most Sanskrit philosophers, it is awareness-events/episodic states of awareness (*jñāna*)—rather than beliefs—that are the primary objects of epistemic analysis. Belief-episodes are generally understood as a special sort of awareness-event.[25] The Nyāya typology of awareness-events thus

25. See Heil 1999:44–48 for an account of "belief" and Matilal 1986:101–107 and Mohanty 1992a:134–135 for a discussion of the differences between "beliefs" and "awareness" (*jñāna*). Also see Shukla 1991 for a discussion of why Naiyāyikas have no room for a "third realm" of propositions. In general, for Naiyāyikas, awareness (*jñāna*) is a quality (*guṇa*) that is located in a soul (*ātman*). Unlike other "qualities" that are located in the soul—e.g., desire, aversion, pleasure, pain, etc.—awareness is directed towards an object (*arthapravaṇa*). Thus, desire, aversion, pleasure, and pain are not themselves awareness-events, even though we can become aware of them. For three very useful "charts" of Praśastapāda's (ca. sixth century), Udayana's (ca. eleventh century), and Annaṃbhaṭṭa's (ca. seventeenth century) typologies of awareness-events, see Nyman 2005:554, 556. KTBh 59–61, 74 discusses the soul. For more on the soul see Mishra 2006:301–330.

Although I will not argue for it here, I understand the verb "to believe" to mean "to think with assent"; see Zagzebski 1999:93 n. 4. For the Naiyāyikas, the phrase "awareness-event" (*jñāna*) refers to a much broader range of mental events that includes (i) dreams (*svapnajñāna*), which are usually classified as memory-awareness that is not in accordance

provides the conceptual context within which their account of warranted awareness, and beliefs, is developed.

According to the Naiyāyikas, there are two classes of awareness-events: presenting-awareness (*anubhava*) and memory (or re-presenting awareness) (*smṛti*). It is important that, for the Naiyāyikas, every awareness-event is intentional (*arthapravaṇa*), and that most are either in accordance with their object (or content) (*yathārtha*) or not in accordance with their object (or content) (*ayathārtha*).[26] The Nyāya position is also that the object of an awareness-event is distinct from the awareness-event itself.[27] Knowledge, according to them, is simply warranted awareness (*pramā*)—that is, presenting-awareness that is in accordance with its object (*yathārthānubhava*). Presenting-awareness is usually defined negatively as any awareness-event that is not a memory-episode. Memory-episodes are described as awareness-events in which the intentional object is one about which we were already aware, or as awareness-events that are produced from mental impressions alone (*saṃskāramātrajanya*).[28] When used in the context of presenting-awareness-events, the phrase "in accordance with its object" describes an awareness-event that is not produced through suppositional reasoning (*tarka*) and in which there is neither doubt (*saṃśaya*) nor error (*viparyaya*).[29]

with its object (*ayathārtha-smṛti*); (ii) memory (*smṛti*); (iii) awareness produced through "suppositional reasoning" (*tarka*); (iv) mislocation (or misobservation) (*viparyaya*); and (v) doubt (*saṃśaya*) (these latter three states of awareness are classified as presenting-awareness that is not in accordance with its object [*ayathārtha-anubhava*]); finally, there is (vi) warranted awareness (*pramā*). See KTBh 127.

26. See KTBh 86: "Awareness manifests an object" (*arthaprakāśo buddhi*), and KTBh 94.09–94.10: "All awareness is marked by an object since it is available to the mind only if it is connected with an object" (*sarvaṃ jñānam arthanirūpyam arthapratibaddhasyaiva tasya manasā nirūpaṇāt*); see also Potter 1984. For a useful discussion of "in accordance with its object" see Nyman 2005, who also refers to Goldman's "causal theory of knowing."

27. This refers to the idea that awareness is imageless (*jñānaṃ nirākāram*). KTBh 94.07–94.08 explains: "Moreover, all awareness is in fact imageless, and it is not the case that in awareness an object produces an image of itself" (*sarvaṃ ca jñānaṃ nirākāram eva | na tu jñāne 'rthena svasyākāro janyate*).

28. KTBh 94 and KTBh 128. For an excellent discussion of memory, with references, see Mohanty 1966:36–37 and Mishra 1934:177–186. See also the helpful discussion in Granoff 1978 and Perry 1995.

29. For suppositional reasoning, see KTBh 101.11–102.10: "Suppositional reasoning is reasoning to an undesired consequence. Moreover, it has the form of reasoning to an undesired

A presenting-awareness-event that is in accordance with its object is also described, more positively, as an āwareness-event that is produced by a functioning instrument. According to the Naiyāyikas, a "functioning instrument" must be one of the four accredited instruments mentioned above and must be free from any defects (*aduṣṭa*). Let us refer to a nondefective, accredited instrument as a "well-functioning instrument." A knowing-event, then, is any awareness-event that is in accordance with its object and is produced by a well-functioning instrument. Since, in the Nyāya view, a well-functioning instrument necessarily produces a presenting-awareness-event that is in accordance with its object, a knowing-event can be described, more simply, as any awareness-event that is produced by a well-functioning instrument. For the Naiyāyikas, then, "knowledge" is warranted awareness, that is, a presenting-awareness-event that is in accordance with its object or, equivalently, any awareness-event that is produced by a well-functioning instrument.

According to this analysis, any awareness-event that is in fact produced by a well-functioning instrument will be in accordance with its object and will be a knowing-event. As I have presented it, the Nyāya theory of knowledge may naturally be interpreted as a version of reliabilism.[30] According to

pervader through the [provisional] acceptance of the pervaded when pervasion between the two properties is known" (*tarko 'niṣṭaprasaṅgaḥ | sa ca siddhavyāptikayor dharmayor vyāpyāṅgīkāreṇāniṣṭavyāpakaprasañjanarūpaḥ*). The idea is that if there were the absence of a pervader (e.g., fire) in the site of an inference, as an opponent claims, then there would also have to be the absence of the pervaded (e.g., smoke). But, there is not the absence of the pervaded. Thus the opponent's supposition is incorrect. One reason the Naiyāyikas consider this to be awareness that is not in accordance with its object (*ayathārtha*) is that the provisionally accepted awareness that the pervader is absent is known by the person entertaining it to be incorrect. Other Sanskrit philosophers, however, consider this awareness to be in accordance with its object (*yathārtha*). Although Naiyāyikas identify eleven different varieties of "suppositional reasoning" (*tarka*), KTBh discusses only one of them: the variety called reasoning to "an object that is defeated by an instrument of warranted awareness" (*pramāṇabādhitaviṣaya*). My translation of "*tarka*" as "suppositional reasoning" is intended to capture this use of the term. For more on "*tarka*" see the excellent discussion in Bagchi 1953; see also Davis 1981 and Patil (forthcoming, a).

For doubt, see KTBh 97.05–97.10: "Doubt is the awareness of there being incompatible properties in a single locus" (*ekasmin dharmiṇi viruddhanānārthāvamarśaḥ saṃśayaḥ*).

For error, see KTBh 94.01–94.03: "And error is grasping *x* when there is non-*x*" (*viparyayas tv atasmins tadgrahaḥ*).

30. For a brief description of "reliabilism" see note 6. See also Matilal 1985:70–72, Matilal 1986:138–140, and Ganeri 1999a:66 n. 26. On my use of the term, reliabilist theories of

most versions of reliabilism, knowledge is any true belief that is produced by a reliable belief-forming mechanism. In the context of Nyāya epistemology, we might say that on this interpretation a knowing-event is any awareness-event that is in accordance with its object (the truth component) and produced by a well-functioning instrument (the reliability component).[31] Notice, however, that for the Naiyāyikas, there cannot be a state of awareness that is both produced by a well-functioning instrument and not in accordance with its object. This is because the property "being produced by a well-functioning instrument" entails that awareness will be "in accordance with its object."[32] This is what allows for the simplified description that knowledge is, for the Naiyāyikas, any awareness-event that is produced by a well-functioning instrument.[33]

knowledge assert that what makes a true belief an instance of knowledge is that it was formed by a reliably truth-producing process, e.g., sense perception. According to reliabilist theories of justification, what makes a belief justified (or warranted) is that it was formed by a reliably truth-producing process. In most versions of reliabilism, it is not necessary that the reliability of "the process" be cognitively accessible to the agent. As a result, reliabilism is usually taken to be a form of externalism. See Zagzebski 1999:617–622. The Nyāya view, however, is not an example of "simple reliabilism," which also asserts that reliability is both necessary and sufficient for knowledge. One well-known problem with simple reliabilism is that it does not rule out, as instances of knowledge, beliefs that are accidentally produced by reliable processes or faculties. See Plantinga 1993a and Zagzebski 1999:620. In my view, the Nyāya theory should not be considered a version of simple reliabilism, since built into their theory that reliability is necessary and sufficient for knowledge is also an account of what makes a process reliable *in the right way*. See below.

31. See Nyman 2005.

32. This seems to be a somewhat controversial claim. My view is that according to Ratnakīrti's Naiyāyikas, there cannot be awareness that is in accordance with its object but not produced by a well-functioning instrument. One cannot, in other words, come to have warranted awareness accidentally. All putative cases of accidental warranted awareness are in fact the result of instruments that are, for one reason or the other, not well-functioning. For very useful work on this issue see Matilal 1986: chap. 6, Matilal 1990:65–68, 72–74, Matilal 2002:159–160, 177–180, Phillips and Tatacharya 2004:9–10. Consider, for example, that correct memory is an example of an awareness-event that is in accordance with its object, but not an instance of warranted-awareness. It is, therefore, clear that not every awareness-event that is in accordance with its object must be warranted. One reason for this is that such awareness-events are not "presenting-awareness-events" (*anubhava*). In my view, this means that awareness-events such as memory (and accidentally warranted awareness-events) are not produced "in the right way."

33. Zagzebski (1999:99–104) argues that it is a desideratum of any definition of knowledge that there not be a "gap" between the truth component of knowledge (for the Naiyāyikas,

Assumed in the typology presented above is another dimension to how awareness-events are characterized. Awareness-events may be either "unnoticed" or "noticed."[34] Unnoticed awareness-events are mental events that we are aware of only in the sense that we have them. Such awareness-events are mental happenings, even though they may escape our notice. Noticed awareness-events are awareness-events that do not escape our notice—we are aware that we have them. There are two sorts of unnoticed awareness-events: those that have nonconceptual content (*nirvikalpaka*, A_0) and those that have conceptual content (*savikalpaka*, A_c).[35] The content of nonconceptual awareness-events is taken to be, in principle, nonpredicative, inexpressible, and inaccessible to any form of apperception/introspection.[36] The fact

the "in accordance with its object" component) and the element that is added to it in the definition of knowledge, for example, justification (for the Naiyāyikas, the element "being produced by a well-functioning instrument"). She argues that closing this gap is the only way to avoid Gettier counterexamples. Entailment of truth by the second element is, she suggests, one way in which this gap could be closed.

34. My use of these concepts is based, loosely, on BonJour and Sosa 2003:120–121, where Sosa draws a distinction between "n(oticing)-awareness and e(xperiential)-awareness," interestingly, in order to argue against BonJour's "internalist-foundationalism." Here Sosa also makes the point that from the fact that one is e-aware of something it does not follow that one is n-aware of it. BonJour (BonJour and Sosa 2003:190) helpfully glosses this by saying that this is "a distinction between two sorts of awareness that one might have of a feature of one's experiences: (1) intellectual awareness or noticing ('n-awareness'), which involves believing or judging that feature to be present, and further requires that the belief in question be in some way justified or reasonable; and (2) experiential awareness ('e-awareness'), the sort of awareness that one has of the content of one's experience simply in virtue of having or undergoing it." This distinction is also relevant to the issue of "luminosity," which is discussed below in note 44.

35. For a discussion of this distinction see Bhattacharya 1996:25–34, Chatterjee 1978:189–204, Mohanty 1966, Phillips 1995:122–125, Phillips and Tatacharya 2004, and Potter 1977:147–153.

36. Recently there has been a lively debate regarding whether unnoticed awareness-events with nonconceptual content are necessary for Nyāya. For arguments in support of the view that they are unnecessary see Chakrabarti 2000 and the response in Phillips 2001. Also see Chadha 2001 and the responses in Siderits 2004 and Phillips and Tatacharya 2004. It is worth noting that in a series of articles Arindam Chakrabarti takes a position on the following three issues in the philosophy of perception that are indirectly related to the issues that I am discussing in this section. For a discussion of (1) whether there are perceptual awareness-events with nonconceptual content, see Chakrabarti 2000; (2) whether there are awareness-events that are not self-luminous, see Chakrabarti 2003; and (3) whether there are nonlinguistic

that there are such states of awareness is established inferentially.[37] Moreover, these awareness-events are, unlike all other awareness-events, neither in accordance with their objects nor not in accordance with their objects—they are neither warranted nor unwarranted—and cannot be (what I am calling) a knowing-event. The content of unnoticed awareness-events with conceptual content (A_c) is taken to be a triad made up of a subject locus, a property, and a relation that connects the property to the subject locus.[38] The content of such awareness-events is predicative, in that the subject component of content is always propertied, verbally expressible, and accessible through apperception/introspection.[39] Moreover, unnoticed conceptual awareness-events must be either in accordance with or not in accordance with their objects—that is, they must be either warranted or nonwarranted. They are, therefore, the kind of awareness-event with which the Nyāya theory of knowledge is most concerned. When verbalized, the content of basic unnoticed conceptual awareness-events is expressible as "That (the subject component) is (the relation component) *F* (the property component)," e.g., "That is a pot." It may be helpful to think of such awareness-events as nonoccurrent belief-episodes.

According to the Naiyāyikas, it is not necessary that unnoticed awareness-events be noticed.[40] Nonconceptual awareness-events (A_0) are, for example, never noticed, even though they play a causal role in the production of other awareness-episodes. And although unnoticed conceptual awareness-events (A_c) are noticeable, it is not always the case that they are noticed. There are, according to the Naiyāyikas, many conceptual awareness-events that pass unnoticed.[41] Conceptual awareness-events are not self-luminous or self-intimating. Those conceptual awareness-events that are noticed, however, are noticed in virtue of becoming the object (content) of illuminating-awareness—a secondary, meta-awareness-event that results from the instrument of apperception

forms of conceptualization, see Chakrabarti 1998. For a brief introduction to these three issues, see Chakrabarti 2004. See also Kellner 2004a.

37. For an interesting discussion of this see Chakrabarti 2004. See also Potter 1977:161–168 and Bhattacharya 1996:26–28 for a brief, but useful, discussion of this issue in both the "old" and "new" schools of Nyāya.

38. See Bhattacharya 1996:26–28, 36–45; Mohanty 1966:30–34; and Potter 1993:24–33 for a discussion of, and references to, this characteristic description of the constituents of the content of conceptual awareness-events according to the later Nyāya school.

39. See Gupta 2006:176–179, Potter 1977:160, Matilal 1986:143–144.

40. For a useful discussion of this issue see Chakrabarti 2003.

41. See Matilal 1986: chap. 5.

(*anuvyavasāya*), a variety of perception. Illuminating-awareness (A_i) is a second-order apperceptive awareness-event.[42] When verbalized, the content of such awareness-events is expressible as "I am aware that that (the subject component) is (the relation component) *F* (the property component)," e.g., "I notice that that is a pot." It may be helpful to think of such awareness-events as occurrent belief-episodes. Both unnoticed and noticed belief-episodes can be either in accordance with their objects or not in accordance with their objects, and thus can be either warranted or unwarranted. It is, then, only such belief-episodes—that is, conceptual awareness-events—that can be candidates for being knowledge-episodes, regardless of whether they are unnoticed or noticed.[43]

This distinction between unnoticed awareness-events and noticed awareness-events reveals another aspect of Nyāya extrinsicism: in addition to being extrinsicists about what makes a conceptual awareness-event a knowing-event, they are also extrinsicists about what makes us aware of conceptual awareness-events. Conceptual awareness-events are not self-luminous or self-intimating. In order to notice them—that is, be aware that we have them—another awareness-event, illuminating-awareness, is necessary. This is also the case for knowing-events. It is not a part of the Nyāya view of knowledge that one must *notice* that one knows. Like awareness-events in general, conceptual awareness-events and knowing-events are not self-luminous.

42. By the term "apperceptive awareness-event," I mean a higher-order noticed awareness-event that takes a first-order unnoticed awareness-event as its object, but is separate and distinct from it. See NK (s.v. *anuvyavasāya*) for references to this concept in Nyāya texts. For my purposes, "apperception" may also be thought of in terms of "introspection" or "reflective awareness." For useful discussions of "apperception" and "introspection" see BonJour and Sosa 2003: part 1, chap. 4. For more on this see below.

43. This is based on the view that in order for an awareness-event to be "in accordance with its object" (*yathārtha*) it must, by definition, be an awareness-event that has as its content the three specific constituents discussed above. While nonconceptual awareness-events, like all awareness-events, are said to have the general constituent of "being about an object" (*viṣayatā*), only the content of conceptual awareness-events is constituted by all three specific constituents. For a very helpful discussion of this see Bhattacharya 1976:148–155, Bhattacharya 1996:36–44, Mohanty 1966:32–34, and Potter 1993:24–33. This way of speaking about awareness-events is primarily found in texts belonging to the "new" Nyāya school, and I will not go into further details here. Related to this issue is the idea that nonconceptual awareness-events cannot be the objects of apperception/introspection (*anuvyavasāya*): nonconceptual awareness-events are never illuminated and their contents go unnoticed. What we know about them, we know inferentially. See Mohanty 1966:32.

It is also not a part of the Nyāya view of knowledge that one must *know* that one knows. For the Naiyāyikas, knowing is not self-luminous either.[44] In order to know that one knows, one has to know either that the awareness-event in question is a presenting-state of awareness that is in accordance with its object or that the instrument that produced it is well-functioning. All that is required for warranted awareness, however, is that the awareness-event be a presenting-state of awareness that is in accordance with its object or, equivalently, that it be produced by a well-functioning instrument. There is nothing in the Nyāya account of warranted awareness that requires that one actually know, for example, that the instrument that produced it is well-functioning. In order to know that one knows, the Naiyāyikas insist, another knowing-event is necessary. This reveals a third dimension to Nyāya extrinsicism: the causes and conditions that result in our having an unnoticed knowing-event and those that result in our noticing this awareness-event do not result in our unnoticed or noticed awareness of it as a knowing-event. For this, another awareness-event is necessary. While our awareness of a knowing-event as an *awareness-event* is said to be the result of illuminating-awareness, our awareness of a knowing-event as a *knowing-event* is, according to the Naiyāyikas, the result of a certification-inference, a second-order knowing-event, which I will refer to as reflective-knowledge (A_r). Noticing that we have reflective-knowledge is said to be the result of illuminating-awareness. It is these two knowing-events,

44. My use of the term "luminous" is based on Williamson 2000: chap. 4, where he argues that hardly any mental states are *luminous*, in the sense that if one were in such a state one would invariably be in a position to know so. The issue of luminosity is, in the Sanskrit philosophical context, often associated with a variety of externalism. In this context the term "externalism" labels the idea that to have a state of awareness "*x*" does not entail an awareness of having that state of awareness "*x*." A state of awareness that is "external to" or different from the state of having "*x*" is necessary for an awareness of having that state "*x*." The Nyāya view is, as is Williamson's, opposed to what is usually referred to as the "KK-thesis." For the classic statement of the thesis see Hintikka 1962. For Williamson's discussion see Williamson 2000:114–117. As Mohanty (1999:197) describes the Nyāya view, "if K1 is knowledge of the object 'O' at time t1, K1 itself is not known at t1. K1 can be known, and is usually known, by another cognition K2 occurring at the succeeding moment t2." Also see Matilal 1986:138–140, Matilal 1990:70–72, and Ganeri 1999a:67 n. 26, where, summarizing Matilal's view, he writes, "Someone who by chance comes to believe truly that *p*, and so 'knows' that *p*, will not be in a position to know that he knows that *p*, i.e., truly believe that he truly believes that *p*." For some excellent work on Williamson's anti-luminosity arguments see Brueckner and Fiocco 2002, Weatherson 2004, and Ramachandran 2006.

knowledge and reflective-knowledge, that define the Naiyāyikas' bivalent epistemology.

There are two important differences between knowledge/warranted awareness and reflective-knowledge: warranted awareness is rarely voluntary, and its intentional object does not have to be an awareness-event. As a second-order awareness-event, "reflective-knowledge" is defined relative to a first-order knowing-event and does not itself refer to a different *kind* of knowing-event: every reflective knowing-event can itself be the object of a subsequent reflective knowing-event and thus, relative to it, a first-order knowing-event.

1.3.1. Reflective-Knowledge and Justification

This third dimension of Nyāya extrinsicism is directly related to "iterative awareness"—that is, whether and how one knows that one knows or, for the Naiyāyikas, is aware that one's awareness is warranted.[45] For convenience, let us stipulate that while warranted awareness has to do with knowledge, iterative awareness has to do with reflective-knowledge, both unnoticed and noticed. Let us stipulate further that having unnoticed reflective-knowledge is just what it means to have justification and that having noticed reflective-knowledge is being aware of this.[46] When verbalized, the content of unnoticed reflective knowing-events is expressible as "My awareness 'That is *F*' (subject component) is (the relation component) warranted (the property component)," e.g., "My awareness 'That is a pot' is warranted." Noticed reflective knowing-events can be expressed as "I am aware that 'That is F' is warranted," e.g., "I notice that 'That is a pot' is warranted."

For the Naiyāyikas, "justification" is not a necessary condition for a first-order awareness-event (A_o) to be warranted.[47] Rather, justification is closely tied to reflective-knowledge, the second-order awareness-event (A_r) that provides us with an epistemic perspective on the first-order awareness-event by certifying that the instrument that produced it was well-functioning.

45. This use of "iterative awareness" is a modification of "iterative knowledge" in Klein 1996:101.

46. The issue of "iterative awareness" is widely discussed in Sanskrit philosophy and has to do with much more than what I am calling "justification." See Matilal 1986:141–179 and Mohanty 1966:9ff.

47. BonJour 1985:8: "Epistemic justification is therefore in the final analysis only an instrumental value, not an intrinsic one." See also Sartwell 1992.

Justification is a "criterion" rather than a condition for knowledge; that is, it is a test for determining whether or not an awareness-event is warranted.[48] The Nyāya theory of justification, then, has to do with specifying and satisfying criteria through which one can determine whether or not an instrument of awareness is well-functioning. I will refer to these criteria as defining an instrument's "certification conditions" (C, see figure 1, p. 64).[49] Although some of the certification conditions provide a general account of what it means for an instrument in general to be well-functioning, these conditions are, for the most part, instrument specific, and need to be discussed separately in the context of each accredited instrument for warranted awareness.

Given the Nyāya position on iterative awareness, justification is not necessary for warranted awareness. It is only needed when there is legitimate doubt about whether a particular awareness-event is warranted.[50] Legitimate doubt can be raised either by oneself or by another person. In either case, justification is needed to remove it. According to the Naiyāyikas, removing this doubt entitles one to claim that the first-order awareness-event is a knowing-event and that the instrument that produced it is well-functioning. For the Naiyāyikas, justification is a kind of voluntary epistemic activity: while it is not necessary for warranted awareness itself, it is necessary for us to know that a particular awareness-event is warranted. When it has been determined that an instrument's certification conditions have been adequately defined and satisfied, let us stipulate that that instrument has been "certified."[51] A certified instrument is, therefore, one that has been shown, by an agent, to be well-functioning.[52] An agent who has certified an instrument in this way

48. Sartwell 1992:174: "By a criterion, I mean a test for whether some item has some property that is not itself a logically necessary condition of that item having that property."

49. This terminology is derived from Oetke 1994a:849 and Oetke 1991:471.

50. See Matilal 1986:165 and Perry 1995:157 n. 138.

51. For a use of this term in the context of Nyāya epistemology see Phillips and Tatacharya 2004:9.

52. There are two "levels" at which this determination takes place. Arguments about whether a particular instrument (such as a particular case of sense perception) is justified usually presuppose arguments about whether that type of instrument is an accredited instrument of warranted awareness. Unlike the Naiyāyikas, for example, Buddhists argue that only perception (*pratyakṣa*) and inferential reasoning (*anumāna*) are such instruments. In their view, verbal testimony (*śabda*) and comparison (*upamāna*) are reducible to inferential reasoning (*anumāna*). Since both Naiyāyikas and Buddhists agree that inferential reasoning (*anumāna*) is an instrument of warranted awareness, however, their arguments focus on the

is "justified," in the sense that this agent has fulfilled her epistemic obligations. "Being justified" is, therefore, the result of an epistemic practice and is, most directly, a property of an agent and only derivatively a property of an awareness-event.

As mentioned above, Naiyāyikas maintain that it is the presence of special properties among the causes and conditions that lead to an awareness-event that make it a knowing-event, and the presence of negative properties that lead to it not being a knowing-event. In addition to their causal role, these properties are also indicators that the instrument in question is either well-functioning or defective. These properties thus have an "evidential role" in that it is through an awareness of their presence that one is able to determine whether or not an instrument was well-functioning, and whether or not the awareness-event that was produced by it is warranted. The certification process can be understood, therefore, as being directed toward detecting the presence of these epistemically positive and negative properties.

Although the Nyāya theory of justification will be discussed in greater detail in what follows, it is worth noting here that it has the strong "internalist" requirement that an agent satisfy a set of "certification conditions (C)." It is also "proceduralist" in that it is the conduct of persons that is, in the first instance, justified or unjustified.[53] First-order awareness-events are justified only in the sense that the instruments that produced them have been certified by a person. As will become clear in what follows, this certification procedure is fallible.[54] As the Naiyāyikas themselves recognize, certification conditions are instrument specific, and, as a result, they must be discussed in the context of a specific instrument. The certification process as a whole, however, is itself taken to be a kind of instrument that is, most often, classified as an inference.

1.3.2. Certification and the Īśvara-Inference

The Naiyāyikas defend their inferential argument for the existence of Īśvara by showing that the instrument used to produce the awareness that Īśvara exists satisfies a set of certification conditions that are specific to the instrument,

certification conditions for that type of instrument and on whether the certification conditions that are specific to it have been satisfied.

53. My use of the term "proceduralist" is based on Rosenberg 2002:101–132, 203–248.

54. See Phillips and Tatacharya 2004:11–12 and Potter 1977:158.

inferential reasoning. Ratnakīrti's critique of the Naiyāyikas' argument focuses on showing that they have not satisfied these certification conditions and that they in principle cannot do so. On this interpretation, Ratnakīrti's debate with the Naiyāyikas is about the certification of the instrument used to produce the awareness that Īśvara exists. The Naiyāyikas claim that they have certified the instrument and that they are, therefore, justified in claiming that their first-order awareness of the existence of Īśvara is warranted. Ratnakīrti argues, however, that they have not done so and cannot do so. Their debate is framed, therefore, as a debate about whether or not the Naiyāyikas are, or even can be, justified. Before turning to the Naiyāyikas' specific argument for the existence of Īśvara, it is important to consider how the Naiyāyikas describe the instrument of an inferentially produced knowing-event (*anu+√mā*) more generally. The certification conditions for this instrument will be discussed in the next section.

1.4. Inferential Reasoning

Inferential reasoning has been referred to as the instrument of an inferentially produced knowing-event (*anu+√mā*). More precisely, the Naiyāyikas identify the instrument of this event with what is, strictly speaking, a component of inferential reasoning. This component is called the "special consideration of the reason property" (*liṅgaparāmarśa*).[55] This is a technical term that is itself defined in terms of two other technical terms, "special consideration" (*parāmarśa*) and "reason property" (*liṅga*). "Special consideration" is also called the "third awareness" (*tṛtīyajñāna*) of the reason property, and is among the epistemically special properties that account for inferential reasoning being a source of knowledge.

The standard example that is used to illustrate what this all means is the inference of fire on a mountain from the presence of smoke. In this example, the event being analyzed is an inferentially produced knowing-event whose

55. KTBh 120.08–120.10. Although somewhat infelicitous, I have chosen to translate "*parāmarśa*" as "special consideration" for two reasons: First, there is a long history of using the term "consideration" in the translation of this term. See, for example, Athalye and Bodas 1974:279, "consideration (of the sign)"; Ingalls 1951:30, 32, "consideration (of the middle term)"; Varadachari 1977:669, "consideration (of the mark)"; Matilal 1977:459, "synthetic consideration"; and Phillips and Tatacharya 2004. Second, by using the term "special" I hope to have marked that according to the Naiyāyikas it is not consideration as such.

culminating effect is the inferential awareness (*anumiti*) that there is fire on that mountain. The reason property is said to be smoke or the awareness of smoke. The instrument of the event is the special consideration, or third awareness, of the reason property. The reason why the term "special consideration" is described as a "third awareness" is that the event is usually analyzed in terms of three distinct awareness-episodes of the reason property. It is only the third awareness of the reason property that is taken to be the instrument of the event. Consider the following scenario: (1) Devadatta works in a kitchen with a wood-burning stove and repeatedly observes that wherever he sees smoke he sees fire. He observes, therefore, that smoke is pervaded by fire—that is, that wherever there is smoke there is fire. He commits this concomitance between smoke and fire to memory. This awareness of smoke in the kitchen is the first of the three awareness-episodes of smoke; (2) Sometime later, on a weekend camping trip, Devadatta wonders if there is fire on a nearby mountain after noticing that there is smoke there. This is his second awareness of smoke; (3) After recalling the previously observed concomitance of smoke and fire, Devadatta is again aware of smoke rising above the mountain. On this occasion, however, his awareness is that the smoke on the mountain is pervaded by fire. This awareness of smoke, which is his "third awareness" of it, immediately results in the awareness that there is fire on that mountain. It is this awareness that is called the "special consideration of the reason property" and is, strictly speaking, the instrument of an inferentially produced knowing-event.

Previously I defined an instrument of an event as "a cause whose functioning culminates in the final effect."[56] As described here, however, special consideration (*parāmarśa*) is itself the instrument. According to this interpretation, the instrument of the cutting-event described earlier would be the contact (*saṃyoga*) of the axe with the tree and not the axe. Earlier, however, the axe was interpreted as the instrument and, more specifically, as the "cause component" of the instrument. Its contact with the tree was interpreted as its "functioning component." On this "two component" interpretation of an instrument—according to which an instrument is "a cause that *has* a functioning" (*vyāpāravat kāraṇaṃ karaṇam*)—the reason property is the cause component of the instrument and its special consideration is the functioning component.[57] This

56. See section 1.1.

57. KTBh 137, quoted in section 1.1.

is in contrast to the interpretation of the instrument as the "special consideration of the reason property" (*liṅgaparāmarśa*)—which follows what may be called the "single component" interpretation. The term "special consideration of the reason property" can be reinterpreted, however, in accordance with the two component view such that an instrument of inferential awareness is a cause (the reason property) whose functioning (whose special consideration) directly produces the culminating effect (warranted inferential awareness). This modified interpretation is the one that I will follow in discussing the Naiyāyikas' argument.[58]

Naiyāyikas (and Buddhists) notice that there are two different inferential contexts in which a reason property can function as an instrument. In one context, the instrument is used to produce an inferential awareness for oneself. This inferential context is called "inferential reasoning for one's own sake" (*svārthānumāna*).[59] Since in this inferential context the inference itself is internal to the agent, it is said to have the nature of awareness (*jñānātmaka*). In the second context, the instrument is used to produce inferential awareness in another person. This inferential context is called "inferential reasoning for the sake of another" (*parārthānumāna*).[60] Since, in this case, the instrument is being used to convince someone else of what has already been inferred by oneself, the inference needs to be made explicit to that other person. It is therefore said to be linguistic in nature (*śabdātmaka*). More specifically, the inference is described as a compound sentence (*mahāvākya*) consisting of five parts (*pañcāvayava*). This compound sentence is the

58. See section 1.1.

59. KTBh 25.07–26.03: "Having grasped, by just oneself, through a special kind of perception, the concomitance between smoke and fire in a kitchen, someone who has gone to the mountains sees an unbroken column of smoke stretching from a mountain up to the clouds and wonders if there is fire present there. From seeing the smoke, a mental impression arises [and] he remembers the concomitance [relation], 'Where there is smoke there is fire.' Then he realizes, 'Here, too, there is smoke.' Therefore, he realizes just for himself that 'On this mountain, there is fire too.' That is inferential reasoning for one's own sake" (*svayam eva mahānasādau viśiṣṭena pratyakṣeṇa dhūmāgnyor vyāptiṃ gṛhītvā parvatasamīpaṃ gatas tadgate cāgnau saṃdihānaḥ parvatavartinīm avicchinnamūlām abhraṃlihāṃ dhūmalekhāṃ paśyan dhūmadarśanāc codbuddhasaṃskāro vyāptiṃ smarati yatra dhūmas tatrāgnir iti tato 'trāpi dhūmo 'stīti pratipadyate | tasmād atra parvate 'gnir apy astīti svayam eva pratipadyate tat svārthānumānam*).

60. For a critical discussion and overview of these two inferential contexts see Prets 1992 and Tillemans 1984.

standard form in which Naiyāyikas present inferential arguments that are designed to convince others of what they themselves have already inferred to be the case.[61] It is, therefore, the form of the Naiyāyikas' inference for the existence of Īśvara and the kind of inferential argument that they defend in their work. What follows is an introduction to Ratnakīrti's discussion of this argument and the philosophical language and style in which it was presented and defended by his Nyāya interlocutors. It is through Ratnakīrti's presentation of this argument that the details of the certification process and the Nyāya theory of justification become apparent.

2. The Nyāya Argument for the Existence of Īśvara

Ratnakīrti's "Refutation of Arguments for Establishing Īśvara" (*Īśvarasādhanadūṣaṇa*) begins with a long introductory section in which he sets out the Nyāya position.[62] Here he presents their most important argument for the existence of Īśvara and describes, in some detail, their defense of it.[63] He does so by providing what could be described as a Buddhist perspective on the long history of Buddhist-Nyāya debates on this issue: he rehearses many of the arguments offered by his Buddhist predecessors; quotes, at length, the responses given by numerous Nyāya authors; and in some cases furthers an argument on behalf of his Nyāya opponents.[64] The purpose of this section of his essay is to present his opponents' position and highlight the issues that he takes to be most important for a successful defense (and critique) of it. It is important to note that although Ratnakīrti refers to and reproduces the views of specific Naiyāyikas, his discussion does not exclusively reflect the views of any one of them. Ratnakīrti's opponent can be described, therefore, as a "generic" Naiyāyika whom he rationally reconstructs from the long

61. KTBh 26.06–26.10: (i) This mountain possesses fire (*parvato 'yam agnimān*); (ii) On account of possessing smoke (*dhūmavattvāt*); (iii) Whatever possesses smoke possesses fire, like a kitchen (*yo yo dhūmavān sa so 'gnimān yathā mahānasaḥ*); (iv) And this [mountain] is like that (*tathā cāyam*); (v) Therefore, it is so (*tasmāt tathā*).

62. RNĀ (ĪSD 32.07–40.16).

63. For a discussion of the variety of arguments that Naiyāyikas use to establish the existence of Īśvara, see Chemparathy 1972.

64. For a discussion of these debates see Bhattacharya 1961, Bulcke 1947, Chemparathy 1972, Glasenapp 1954, Hayes 1988, Jackson 1986, Krasser 1999, Krasser 2002, Taber 1986, Van den Bossche 1998, Vattanky 1993, and Vetter 1997.

history of Buddhist-Nyāya debates.[65] What follows, then, is an introduction to this Naiyāyika's argument, as it is understood and interpreted by Ratnakīrti.

2.1. *Inferring the Existence of Īśvara: An Informal Description*

Ratnakīrti's Naiyāyika's argument for the existence of Īśvara is usefully interpreted in terms of both the "cosmological argument" and the "argument from design," or "design inference."[66] As with versions of the cosmological argument, the Nyāya version can be understood to have two parts.[67] In the Nyāya version, the first part of the argument seeks to prove that the world (*jagat*) was constructed by an intelligent agent/maker (*buddhimat-kartṛ*).[68]

65. For a very interesting discussion of this issue see Kellner 1997b:xxvii–xxviii.

66. The terms "cosmological argument" and "argument from design"—which is sometimes called the "teleological argument"—refer, strictly speaking, to two families of arguments. For a "history" of cosmological arguments see Craig 1980. For more contemporary versions see Gale 1991: chap. 7, Gale and Pruss 1999, Gale and Pruss 2005, Koons 1997, Koons 2001, Mackie 1982: chap. 5, Oppy 2006a, Oppy 2006b: chap. 3, Pruss 2006, Reichenbach 1972, Reichenbach 2004, and Rowe 1975. For a discussion of arguments from design/teleological arguments and the "design inference" see Behe 2001, Dembski 1998, Dembski 2002, Fitelson et al. 1999, Habermas et al. 2005 (where Flew, a prominent atheist, says that he now accepts a form of the argument from design), Leslie 1988, Manson 2000a, the articles in Manson 2003, McPherson 1972, Oppy 2006b: chap. 4, Priest 1981, Ratzsch 2003 (who argues that design can be perceived), Sober 2004, Swinburne 1968, Swinburne 1979: chaps. 1–6, 8, and Swinburne 1994: chaps. 1–4. For a useful anthology of relevant literature see Gale and Pruss 2003.

Potter (1977:101–107) insightfully refers to the Nyāya argument as a "cosmo-teleological argument." For an excellent discussion of the Nyāya argument as a "causal argument with *cosmological, moral, and teleological* variants," see Chakrabarti 1989:22. More recently, Collins (2003) considers it to be an "argument from design." K. K. Chakrabarti 1999:159–174 contains a useful comparative analysis of the Nyāya argument with some well-known historical versions of both cosmological and design arguments.

67. See Rowe 1997:331: "Within the philosophy of religion, a cosmological argument is understood to be an argument from the existence of the world to the existence of God. Typically, such arguments proceed in two steps. The first step argues from the existence of the world to the existence of a first cause or necessary being that accounts for the existence of the world. The second step argues that such a first cause or necessary being has, or would very likely have, the properties associated with the idea of God."

68. In what follows I will use the terms "maker" and "agent" interchangeably, and sometimes will also use the term "designer," depending on context.

In the Nyāya version, however, it is not argued that because there is a world—i.e., a something rather than a nothing—there must be a first-cause or self-existent being who created it, but rather that because the world has an apparent design—i.e., it appears to be an artifact—there must be an intelligent designer who made it.[69] In this respect it is unlike cosmological arguments and more like arguments from design. Unlike versions of the argument from design, however, where the complexity of the artifact is the basis for inferring an intelligent designer, in the Nyāya version it is not the complexity of the world, but rather the fact that the world is made up of parts, that is the basis for the inference. It is helpful, therefore, to think of the first part of the Nyāya argument as a kind of "hybrid" argument that draws upon elements from both the "cosmological argument" and the "argument from design." The second part of the Nyāya argument seeks to prove that the intelligent agent/maker/designer who constructed the world has the qualities that identify him as the God-like being called "Īśvara." These qualities include being single (*eka*), omnipresent (*vibhu*), omniscient (*sarvavid*), and eternal (*śāśvata*).[70] Since such considerations are usually taken to be beyond the scope of the design inference, the Nyāya argument is structurally more similar to the cosmological argument.[71] As with more familiar versions of the cosmological argument, relatively more attention is devoted to part 1. In Ratnakīrti's text, for example, issues pertaining to part 2 are usually discussed only in the context of defending part 1. This is, therefore, how the two parts of the argument will be discussed in what follows.

This initial description of the Nyāya argument has been very informal and for the most part neutral with regard to the epistemological contexts in which it is usually described, defended, and critically assessed. The Naiyāyika's own description of the argument is presented more formally, in the

69. Since Nyāya philosophers, and almost all other philosophers in classical India, believed that the most basic (usually atomic) constituents of the world are beginningless, the issue of how they came into being does not usually arise. Instead, the question is how to account for the construction of the world from the eternal things that existed prior to it.

70. RNĀ (ĪSD 32.07–32.12).

71. This is, for example, the view of Dembski (2002), the most prominent defender of the design inference. Paley 1890/1805 also suggests that this is beyond the scope of his analogical version of the argument from design. It is worth noting, however, that some defenders of the cosmological argument also insist that this step is beyond the scope of their argument. See, for example, Reichenbach 1972. This issue will be discussed in greater detail in section 4.

technical vocabulary of Sanskrit philosophy and in the distinctive form in which only Naiyāyikas present inferential arguments. Understanding this distinctively Nyāya form of the argument is essential for understanding Ratnakīrti's critique of it. I will return to my description of it as a "hybrid" argument in section 4.

2.2. The Īśvara-Inference

When the Naiyāyikas are asked how they prove the existence of Īśvara, Ratnakīrti writes that "they present this argument (*sādhana*):

(i) The object under discussion (*vivādādhyāsita*) [i.e., our world/the earth (or anything like it)] has been constructed by an intelligent agent (*buddhimaddhetuka*).
(ii) On account of being an effect (*kāryatva*).
(iii) Each and every effect has been constructed by an intelligent agent, just like a pot.
(iv) And, the [world/earth] is an effect.
(v) Therefore, it has been constructed by an intelligent agent."[72]

It is understood that the "intelligent agent" referred to in the argument will later be shown to be Īśvara. This five-part inference is the standard form in which Naiyāyikas (and not Buddhists) present inferential arguments. Each step in the argument is interpreted as a separable part of a single compound sentence that, strictly speaking, constitutes an inference-for-the-sake-of-another. This compound sentence is helpfully interpreted as a conjunction of the five subexpressions that are the steps of the argument. The purpose of the argument is to produce for/in another person the warranted awareness that the world is constructed by an intelligent agent.[73] In order to interpret this argument, it is helpful to first describe it in terms of its five steps and the five technical terms that, for the most part, constitute them.

72. RNĀ (ĪSD 32.14–32.18): *vivādādhyāsitam buddhimaddhetukam | kāryatvāt | yat kāryaṃ tad buddhimaddhetukam iti | yathā ghaṭaḥ | kāryaṃ cedam | tasmād buddhimaddhetukam iti.*

73. This raises the question of the relationship between these verbal expressions and the states of awareness that are supposed to be produced upon hearing and understanding them.

The first step in the argument states what the person presenting the argument has already inferred to be the case through an inference-for-one's-own-sake.[74] The term "the object under discussion" marks the "site of the inference" (*pakṣa*), which in this case is the world. The site of an inference is generally defined as "a property possessor in which there is doubt about a target property" (*sandigdhasādhyadharmā dharmī*).[75] More simply, it is that about which there is some kind of doubt or disagreement. In this case, the doubt or disagreement is about whether or not the world has been constructed by an intelligent agent. The term "constructed by an intelligent agent" is what is to be proved (*sādhya*). It is also described as the "target property" (*sādhya-dharma*), and thus expresses (in part) what is supposed to be inferred by someone about the site of the inference.[76] The term "on account of being an effect" is called the "reason property" (*hetu, liṅga*). As mentioned above, this is the instrument of the knowing-event that is supposed to be produced through the five steps of the argument. The second step of the argument is interpreted as asserting that the reason property is present in the site of the inference. It is often said that this step asserts that the reason property is a "property of the site" (*pakṣadharmatā*).[77] The third step of the

74. This step is named the "Hypothesis" (*Pratijñā*). It is defined in KTBh 100.10 as follows: "The Hypothesis is a statement which explains that a property possessor is characterized by the property which is to be proved" (*sādhyadharmaviśiṣṭadharmipratipādakaṃ vacanaṃ pratijñā*). This step is also described as: "The statement that the site of the inference has the target property" (*sādhyavattvena pakṣavacanam*).

75. KTBh 34.12. The terms "property" and "property possessor" will be interpreted on the "property-location" model developed by Matilal (1998:19, 143–165). This model interprets the terms "property" (*dharma*) and "property possessor" (*dharmin*) as they are used by Sanskrit philosophers. Briefly, Matilal's model recognizes that the relationship between "property" and "property possessor" is much broader than the subject/predicate relationship with which it is usually compared. For example, properties (*dharma*) include qualities (e.g., color, shape), attributes (e.g., motion of a body), universals (e.g., cow-ness, fire-ness), general terms (e.g., fire), and individuals (e.g., a pot). Property possessors (*dharmin*) are any locus in which such properties can be present.

76. See Mohanty 1992a:104ff. and Nieuwendijk 1992:411. This term is variously described in Ratnakīrti's text, e.g., "intelligent-maker," "intelligence-possessor," "intelligent cause," "person," etc.

77. The term "*hetu*" (reason property) is usually used to name this step of an inferential argument, while the term "*liṅga*" (reason property) is used to name the reason property. Since Ratnakīrti uses the term "*hetu*" to refer to the reason property, I will not follow the usual Nyāya convention. When I refer to step (ii) of an inferential argument, however, I will capitalize the term, i.e., *Hetu*.

argument states the inference-warranting relation called "pervasion" (*vyāpti*) and provides an "example" (*dṛṣṭānta*) of a locus where this relation is instanced.[78] In this case, the example is a "positive example," which is defined as "a property possessor in which the target property has been clearly ascertained" (*niścitasādhyadharmā dharmī*). In order to function as an example, however, the locus cited must be one about which both the proponent of the argument and the "beneficiary" of the argument agree. The fourth step of the inferential argument is similar to step ii, in that it too is one in which the presence of the reason property in the site of the inference is expressed. This step is interpreted, however, as expressing the "special consideration" (*parāmarśa*), or third awareness, of the reason property. Step ii expresses that the reason property is a property of the site of the inference. Step iv expresses that the reason property that is a property of the site of the inference is pervaded by the target property. In other words, step iv is what I described earlier as the "functioning intermediary" (*vyāpāra*), and here will call the "functioning component," of the instrument.[79] The fifth step of the argument states the conclusion of the inference and expresses the culminating effect (*phala*) of the event.[80] By following the steps of this argument, a person

Given this, this step is named the "Reason" (*Hetu*). KTBh 101.01 explains that: "The Reason (*Hetu*) is the statement in which the reason property is explained" (*liṅgapratipādakaṃ vacanaṃ hetuḥ*). This step is also described in the SP as: "The Reason is the statement that the reason property is a property of the site of the inference" (*liṅgasya pakṣadharmatvavacanaṃ hetuḥ*).

78. This step is named the "example" (*udāharaṇa*)." KTBh 101.03 says that: "The example is a statement of an example together with pervasion" (*savyāptikaṃ dṛṣṭāntavacanam udāharaṇam*).

79. This step is named the "application" (*upanaya*). KTBh 101.04 says that: "The application is a statement which draws together the reason property and the site of the inference" (*pakṣe liṅgopasaṃhāravacanam upanayaḥ*). The SP says: "The application is a statement of the special consideration [of the reason property]" (*parāmarśatvavacanam upanayaḥ*). The phrase "This is like that" (*tathā cāyam*) is the standard form in which this step is usually expressed. "Like that" (*tathā*) refers to the reason property's being pervaded by the target property. "This" refers to the site of the inference.

80. This step is named the "conclusion" (*nigamana*). KTBh 101.10 says that: "The conclusion is a statement which sums up what is to be proved" (*sādhyopasaṃhāravacanaṃ nigamanam*).

is supposed to conclude that the world was constructed by an intelligent agent.[81]

The structure of the Nyāya argument may (initially) seem unnecessarily complex; for example, from the perspective of first-order predicate logic, steps ii and iii alone could yield, by *modus ponens*, the conclusion expressed in step v.[82] Rival Sanskrit philosophers also considered the Nyāya argument to involve far too many steps, and argued variously that steps i, iv, and v were unnecessary. Buddhists, for example, thought that steps ii and iii alone were jointly necessary and sufficient for an inference-for-the-sake-of-another.[83] That the Naiyāyikas chose to retain their five-part inferential structure in opposition to such critics reveals that their theory of inferential reasoning is interestingly different from those of their Buddhist opponents, and suggests that it might work against some of our contemporary intuitions about what should constitute a good inferential argument. What most Sanskrit philosophers agreed upon, however, was the importance of steps ii and iii. These two steps can be interpreted as constituting the instrument of inferential awareness, as understood by the Naiyāyikas. Step ii, the step in which the reason property is stated, can be interpreted as the "cause component" of the instrument and step iii—as a necessary part of step iv—can be interpreted as the "functioning component." It is not surprising, therefore, that disagreements about this and almost all inferential arguments focused on the nature of the instrument. Since, in my "two-component" interpretation, it is the reason property that functions, I will refer to it as the instrument.

2.3. *Certification Conditions*

According to the Naiyāyikas, a reason property must have five characteristics (*pañcarūpāṇi*, P) if it is to be a well-functioning instrument of inferential awareness (*anumiti-karaṇa*).[84] Without even one of these characteristics, a

81. "Following" the steps requires hearing and (properly) understanding, in sequence, the five verbal expressions that constitute the argument.

82. See Mohanty 1992a: chap. 4.

83. See Kajiyama 1998:72–75 and Mookherjee 1975:356ff.

84. KTBh 31.10–33.07: "Moreover, these five characteristics are (P1) 'being a property of the site of the inference'; (P2) 'being present in a similar case'; (P3) 'being excluded from dissimilar cases'; (P4) 'having an undefeated object'; (P5) 'not having a rival'" (*tāni pañcarūpāṇi tu pakṣadharmatvaṃ sapakṣe sattvaṃ vipakṣād vyāvṛttir abādhitaviṣayam asatpratipakṣatvaṃ*

proposed reason property is said to be a "non-reason" (*ahetu*) or one that only appears to be a reason.[85] Naiyāyikas further describe such reasons as being defective (*duṣṭa*) and identify five specific defects, whose presence indicates that the proposed reason property is not a well-functioning instrument. These five "defects of a reason property" (*hetvābhāsa*, H) are loosely linked with the absence of at least one of the five characteristics.[86] Determining that a particular instrument of inferential awareness is well-functioning requires determining that none of the five possible defects apply to the proposed reason property/instrument. Earlier, this was referred to as satisfying a set of certification conditions (C) for the instrument. Although this is phrased in terms of the elimination of defects, it is important to note that the elimination of some of these defects is taken to reveal the presence of some of the epistemically special properties that are necessary for knowing-events.

According to the Naiyāyikas, the satisfaction of a set of certification conditions shows that a reason property is not defective, and therefore that the instrument that is defined by it is well-functioning and the awareness-event that is produced by it is a knowing-event. Certifying an instrument in this way is also how the Naiyāyikas defend the inferential argument of which it is a part. In order to understand how the Naiyāyikas defend their argument for the existence of Īśvara, it is necessary to first consider why the Naiyāyikas believe that certifying an instrument is sufficient for both defending an inferential argument and being justified in believing that the awareness-event produced by it is a knowing-event.

Although the five defects referred to above are defined as defects of a reason property, they can be usefully divided into three sets of certification conditions that are individuated according to how they relate to the argument as a whole. Certification conditions (C), then, are also the conditions that must be satisfied in order to properly defend an inferential argument.

ceti). These five characteristics are, strictly speaking, only required for reason properties that have both positive and negative concomitance with a target property (*anvaya-vyatirekī hetuḥ*). Those that have only positive concomitance (*kevalānvayī*) require P1, P2, P4, and P5. Those that have only negative concomitance (*kevalavyatirekī*) require P1, P3, P4, and P5. Since the reason property in the Naiyāyikas' argument is of the first type, I will only consider reason properties that have both positive and negative concomitance with the target (*anvaya-vyatirekī hetuḥ*).

85. KTBh 34.05: *hetuvad ābhāsate*.

86. For a useful survey of the different Buddhist and Nyāya accounts of these "defects" see Gokhale 1992: chaps. 5–6 and Pandeya 1984.

Since certification conditions are themselves defined in terms of the defects of a reason property (H), *showing* that a certification condition has been satisfied requires showing that the defects of the reason property that define it do not apply. By showing that none of the five possible defects of a reason property apply to a particular reason property, the Naiyāyikas are thus able to show

FIGURE 1. Certification Conditions

C1: Performance Conditions

P1
H1a: "unestablished in the site of the inference" (*āśraya-asiddha*)

C2: Instrument Conditions/Triple Conditions

C2.1: P1, T1
H1b: "unestablished in itself" (*svarūpa-asiddha*)

C2.2: P2, T2, V
H2: "opposed" (*viruddha*) [a direct defeater]
H3b: "uncommon" (*asādhāraṇa-anaikāntika*)
H3c: "not universal" (*anupasaṃhārin*)

C2.3: P3, T3, V
H2: "opposed" (*viruddha*) [an indirect defeater]
$H3a_1$: "generally inconclusive" (*sādhāraṇa-anaikāntika*) [a direct defeater]
$H3a_2$: "generally inconclusive" (*sādhāraṇa-anaikāntika*)
[an underminer called "doubt about the exclusion of the reason property from dissimilar cases" (*sandigdha-vipakṣa-vyāvṛtti*)]
H3c: "not universal" (*anupasaṃhārin*)

U:
H1c: "unestablished in being pervaded" (*vyāpyatva-asiddha*)

C3: Argument Conditions

P4:
H4: "equal in scope" (*prakaraṇasama*)

P5:
H5: "too late" (*kālātyāpadiṣṭa*)

C = certification condition; H = defects of a reason property (*hetvābhāsa*); P = one of the five characteristics of a reason property (*pañcarūpa*); T = triple condition (*trairūpya*); U = additional condition (*upādhi*); V = deviation (*vyabhicāra*).

that the certification conditions for the argument as a whole have been satisfied, and therefore that the awareness-event that is produced by it is a knowing-event. The Naiyāyikas' account of certification, for both the reason property/instrument and the inferential argument as a whole, can be understood in terms of three sets of certification conditions (C), the five characteristics of a reason property (P), and the five associated defects (H) (figure 1).

2.3.1. C1: Performance Conditions

The first set of certification conditions are "performance conditions" (C1).[87] These conditions have to do with whether an inferential argument is presented correctly, that is, with whether there are the requisite number of steps, whether the terms of the argument are satisfactory, etc. Strictly speaking, this condition is not necessary, since if the second and third sets of certification conditions are satisfied C1 will also be satisfied.[88] This may account for why only one such condition is usually specified, even though in principle there could be conditions for each and every step and term of an inferential argument. The performance condition most often specified and discussed is defined in terms of the first characteristic of a reason property (P1): A reason property must be known to be a property of the site of the inference. A reason property that lacks this property is said to be "unestablished" (*asiddha*, H1).[89] This defect has at least three subtypes that are individuated by the different ways in which a reason property may not be a property of the site of the inference.[90] Certification condition C1, however, is defined in terms of just the first major subtype (H1a), which is called "unestablished in the site of the inference" (*āśraya-asiddha*). A reason property is said to have this defect when the site of the inference in which it is supposed to be located is known not to exist.[91] Although this subtype of

87. Oetke 1994a:849.
88. Oetke 1994b also makes this point.
89. KTBh 35.07–38.04 and KTBh 104.02–113.01.
90. KTBh 105.08: *āśraya-asiddha* (H1a); KTBh 105.09–107.02: *svarūpa-asiddha* (H1b); KTBh 107.03–110.05, of which there are four subtypes; and KTBh 110.07–113.02: *vyāpyatva-asiddha* (H1c), of which there are two subtypes. H1c will be discussed in chapter 3.
91. KTBh 106.01 gives the following definition and example. Df (H1a): "A reason property which is known to not be in the site is [called] 'unestablished in the site'" (*tatra yasya*

the defect is defined in terms of the reason property, it is more easily understood as a necessary condition for the site of an inference: it specifies that the site of an inferential argument must be known to exist. The absence of defect H1a is most usefully interpreted, therefore, as a performance condition (C1) of the argument.

2.3.2. C2: Instrument Conditions

The second set of certification conditions are "instrument conditions" (C2), or the "triple conditions" (*trairūpya*, T), of a reason property.[92] These three conditions are defined in terms of defects associated with the first (P1), second (P2), and third (P3) characteristics of a reason property. The presence of these defects directly prevents a reason property from being a well-functioning instrument of awareness, since each one directly prevents the special consideration, or third awareness, that is its functioning. For example, a reason property cannot be a well-functioning instrument without the functioning component that directly results in its culminating effect, inferential awareness. As I mentioned above, this functioning component is the special consideration, or third awareness, of the reason property, and is primarily represented by step iv of the inferential argument. There are two necessary subcomponents of this functioning: step ii, the first awareness of the reason property, in which the reason property is known to be a property of the site of the inference (the "site subcomponent"), and step iii, the "second" awareness of the reason property, in which the reason property is

hetor āśrayo nāvagamyate sa āśrayāsiddhaḥ). Example: "A sky-lotus [site] is fragrant [target] on account of being a lotus [reason], like a water-lotus" (*gaganāravindaṃ surabhi | aravindatvāt | sarojāravindavat*).

92. The secondary literature on the "triple conditions" is extensive. See, for example, Franco 1984, Katsura 1983, Katsura 1985, Katsura 2004, Nenninger 1992, Oetke 1994b (and the numerous references contained therein), Patil (forthcoming, a), and Tachikawa 1971. Some of the best recent work on these conditions can be found in Katsura and Steinkellner 2004. In my discussion of these conditions, I will follow the "epistemic" rather than the "ontic" interpretation, and also in its "strongest version." See Oetke 1994a:846, where he describes the strongest version of the epistemic interpretation of the conditions as follows: (T1') the reason property must be known to occur in the site of the inference; (T2') it must be known that the reason property occurs together with the target property in some locus other than the site of the inference; (T3') it must be known that the reason property does not exist in any dissimilar locus and there is a locus in which neither the reason property nor the target property are present.

shown to be one of the terms in the inference-warranting relation of pervasion (the "pervasion subcomponent"). Interestingly, it is toward the satisfaction of the three instrument conditions that the Naiyāyikas direct most of their attention, and where Ratnakīrti chooses to direct his criticism.

The first of the three triple-conditions (T1) is defined in terms of the second major subtype (H1b) of the defect "unestablished." This subtype is called "unestablished in itself" (*svarūpa-asiddha*) and applies to a reason property that is itself known not to be present in the site of the inference.[93] The presence of this defect directly prevents the reason property from being a well-functioning instrument, since without being a property of the site of the inference a reason property will not possess one of the necessary subcomponents for its functioning. H1b thus blocks the proper functioning of the instrument and defeats the argument.

The second triple-condition (T2) is defined in terms of the second characteristic (P2) of a reason property: A reason property (*hetu*) must be known to exist in a similar case (*sapakṣa*); that is, a locus other than the site of the inference in which the target property is also present. An instrument that lacks this property is said to be "opposed" (*viruddha*) (H2).[94] More precisely, the presence of this defect is defined in terms of a reason property that is known to be pervaded by the absence of the target property. This establishes that the reason property is not present in a single similar case (*sapakṣa*) and that it is present in at least one dissimilar case (*vipakṣa*).[95] A reason property with this defect is said to be "opposed" since it proves what is *opposed to* what is to be proved (*sādhya-viparyaya*). It directly prevents the functioning of the instrument since it defeats the second subcomponent of its functioning—i.e., pervasion. It does so by establishing, first, that the reason property is not known to occur together with the target property in some locus other than the site of the inference and, second, that it is present in a dissimilar case. A second defect associated with the absence of this characteristic (P2) is a subtype of the defect known as incon-

93. KTBh 107.03–110.05 gives the following definition. Df (H1b): "A reason property which is itself known to not be present in the site is said to be 'unestablished in itself'" (*yo hetur āśraye naivāgamyate sa svarūpāsiddha ucyate*).

94. See RNĀ (ĪSD 33.21). KTBh 113.04–113.08 gives the following definition and example. Df (H2): "A reason property that is pervaded by what is opposed to the target property is 'opposed'" (*sādhyaviparyayavyāpto hetur viruddhaḥ*), e.g., "sound [site] is permanent [target] on account of being an effect [reason]" (*śabdo nityaḥ | kṛtakatvāt*).

95. The presence of this defect also shows that T3 cannot be satisfied.

clusive (*anaikāntika*, H3).[96] This subtype is called "uncommon" (*asādhāraṇa*, H3b), since a reason property with this defect is known only to be present in the site of the inference: it is excluded from all similar and dissimilar cases.[97] These two defects (H2, H3b) prevent a reason property from being a well-functioning instrument since their presence establishes that the reason property is not present in a single similar case. The presence of this defect blocks step iii by showing that the positive form of pervasion (*anvaya*) is not known.

The third triple-condition (T3) is defined in terms of the third characteristic of a reason property (P3): a reason property must be known to be excluded from all dissimilar cases (*vipakṣa*). A reason property that lacks this property is said to be a subtype of the defect "inconclusive." This subtype is called "common/general" (*sādhāraṇa*, H3a), since a reason property with this defect is known to be present in the site of an inference, a similar case, and a dissimilar case.[98] The presence of this defect prevents the reason property from being well-functioning since it defeats the pervasion subcomponent by showing that there is a locus in which the target property is absent but in which the reason property is present. A third subtype, which is called "not universal" (*anupasaṃhārin*, H3c), applies to reason properties in which both the second (P2) and the third (P3) characteristics are absent.[99] The presence of each of these defects blocks step iii by showing that the negative form of pervasion (*vyatireka*) is not known.

2.3.3. C3: Argument Conditions

Certification conditions of the third set are "argument conditions" (C3). These conditions have to do with factors that are external to the argument

96. KTBh 113.10–115.02 gives the following two definitions: Df.1 (H3): "That which deviates [from the target property]" (*savyabhicāraḥ*); Df.2 (H3): "A reason property for which there is doubt about [its concomitance with] the target property" (*sādhyasaṃśayahetuḥ*). Note: "deviates" and "doubt" are technical terms. See section 3.2.2.

97. KTBh 114.07–114.10 gives the following definition. Df (H3b): "One that is excluded from similar and dissimilar cases, and is present only in the site of the inference" (*yaḥ sapakṣavipakṣābhyāṃ vyāvṛttaḥ pakṣa eva vartate*).

98. KTBh 113.09–114.01 gives the following definition. Df (H3a): "One that is present in the site of the inference, a similar case, and a dissimilar case" (*pakṣasapakṣavipakṣavṛttiḥ*). I will usually refer to this defect with the term "generally inconclusive" (*sādhāraṇānaikāntika*).

99. This subtype is not discussed in the KTBh, but is discussed at RNĀ (ĪSD 36.21–36.23).

itself but nevertheless defeat it. They are defined in terms of the fourth (P4) and fifth (P5) characteristics of a reason property. The fourth characteristic of a reason property (P4) is that a reason property must be known to not have a rival that proves the absence of what it seeks to prove. A reason property that lacks this property of "not having a rival" has the defect called "equal in scope" (*prakaraṇasama*, H4).[100] The fifth characteristic of a reason property (P5) is that its final effect must be known not to be contradicted by another well-functioning instrument such as perception. A reason property that lacks this property has the defect called "too late" (*kālātyāpadiṣṭa*, H5).[101] It is interesting to note that a reason property with defects H4 and H5 could satisfy all three of the instrument conditions (C2) and still not produce warranted awareness. Although satisfying the instrument conditions may be necessary for showing that an instrument is well-functioning, it is clear that it is not sufficient.

3. Defending the Nyāya Argument

Ratnakīrti's Naiyāyikas defend their argument for the existence of Īśvara by showing that none of the five defects discussed in section 2 applies to the reason property "on account of being an effect" (or, more simply, "being an effect"). In so doing, they satisfy the three sets of certification conditions and thus certify the instrument and defend their argument. In Ratnakīrti's

100. KTBh 39 gives the following definition. Df.1 (H4): "Equal in scope is a reason property for which there is another reason property that proves the opposite of the target property" (*prakaraṇasamas tu sa eva yasya hetoḥ sādhyaviparītasādhakaṃ hetvāntaraṃ vidyate*). KTBh 115.03–116.08 gives the following Df.2 (H4): "That for which there is another reason property that is a rival is called 'equal in scope,' which is, 'one for which there is a rival'" (*yasya pratipakṣībhūtaṃ hetvāntaraṃ vidyate sa prakaraṇasamaḥ | sa satpratipakṣaḥ*). Note: "rival" is a technical term. The text says, "A rival is said to be another inferential argument of equal strength that proves the opposite of the target property" (*sādhyaviparītasādhakaṃ samānabalaṃ anumānāntaraṃ pratipakṣa ity ucyate*). For a very interesting discussion of this see Oetke 1994b.

101. The term "*kālātyāpadiṣṭaḥ*" literally means "that which was pointed out long after its time." KTBh 117.01–118.11 gives the following definition. Df.1 (H5): "That for which it has been determined, through perception etc., that the target property is absent in the site of the inference is 'too late.' It is also said to be 'that whose object is defeated'" (*yasya pratyakṣādipramāṇena pakṣe sādhyābhavaḥ paricchinnaḥ sa kālātyāpadiṣṭaḥ | sa eva bādhitaviṣaya ity ucyate*).

presentation of the Nyāya argument, his Naiyāyikas follow this procedure by systematically showing that none of the five defects applies to the reason property being considered.[102] They focus their effort, however, on showing that the "instrument conditions" (C2) have been satisfied.[103] Ratnakīrti similarly focuses on these conditions in his critique of their argument.[104] What follows is a discussion of the Naiyāyikas' attempt at satisfying the instrument conditions (C2) for the reason property "being an effect" and an introduction to the issues that frame Ratnakīrti's critique. My discussion will focus, more specifically, on how the Naiyāyikas show that neither H2 ("opposed") nor H3a ("generally inconclusive") applies to this reason property. This selectivity is warranted because it is their discussion of these two defects that introduces the issues on which Ratnakīrti focuses his own arguments.

What directly and explicitly emerges from this discussion are the specific philosophical issues in terms of which the Naiyāyikas themselves frame the Īśvara debate. This discussion also provides a clear picture of the "inside-out" style of philosophical arguments in classical India, in which broader philosophical issues are introduced through very focused technical discussions. What is revealed, indirectly, is the epistemological significance of the dialogical context of an inference-for-the-sake-of-another, and the relevance of this context to the Nyāya theory of justification/certification. Attention to how the Naiyāyikas show that neither H2 nor H3a applies to the reason property in the Īśvara-inference also points to the deontological aspects of Nyāya internalism. Taken together, these two sets of issues lay the groundwork for the broader epistemological issues that are at stake in the Īśvara debate, for both Ratnakīrti and the Naiyāyikas. I will pick up on some of these issues in section 4.

3.1. Satisfying C2.2, H2

As discussed above, the presence of the defect called "opposed" (*viruddha*, H2) blocks the functioning of a reason property and thus prevents it from being a *well*-functioning instrument of awareness.[105] In order to certify the instrument "being an effect," therefore, the Naiyāyikas must show that its functioning is not blocked by defects such as H2. Ratnakīrti's Naiyāyikas address this issue by first describing the defect and then explaining why it does not apply to the reason property in the Īśvara-inference. They say,

> It is well-known that a [reason property] that exists in only dissimilar cases proves what is opposed to the target property, through its being pervaded by the absence of the target property, and that it is named "opposed" (*viruddha*). . . . But this [reason property, "being an effect"] is not like that, since it is observed to really exist in similar cases such as a pot, for which a maker is well known.[106]

According to Ratnakīrti's Naiyāyikas, the reason the reason property "being an effect" is not opposed is that it is known, through observation, to be present in a similar case, such as a pot. Since it is well known that pots are effects and that they are made by an intelligent agent (they are routinely observed to be made by potters), the Naiyāyikas reason that both parties must agree that a pot is in fact a similar case. Given this, it must also be accepted that the reason property is not present in just dissimilar cases, and therefore that it is not defective because of the presence of H2. To illustrate this further, the Naiyāyikas choose to defend their position against an opponent who insists that the presence of the reason property in a pot-locus is not sufficient for showing that it is not defective because of the presence of H2.

3.1.1. Three Reasons

An opponent provides three related reasons the Naiyāyikas' position is not tenable. He explains that:

> (a) Given that what is to be proved is an omniscient cause, pervasion is not apprehended in even a dream. Since potters and the like are not

102. See RNĀ (ĪSD 32.19–39.01). For H1, RNĀ (ĪSD 32.22–33.20); H2, RNĀ (ĪSD 33.21–36.20); H3, RNĀ (ĪSD 36.21–38.13); H4, RNĀ (ĪSD 38.14–38.18); H5, RNĀ (ĪSD 38.19–38.13).

103. See RNĀ (ĪSD 33.21–38.13).

104. Ratnakīrti's arguments will be discussed in detail in chapter 3.

105. See 2.3.2.

106. RNĀ (ĪSD 33.21–33.24): *{tathā hi} yo vipakṣa eva vartate sa khalu sādhyaviparyaya-vyāpteḥ sādhyaviruddhaṃ sādhayan viruddho 'bhidhīyate | {yathā nityaḥ śabdaḥ kṛtakatvād iti}| na cāyaṃ tathā, prasiddhakartṛkeṣu ghaṭādiṣu sapakṣeṣu sadbhāvadarśanāt.*

omniscient, the example does not have the target property [and therefore is not a proper example or a similar case].

(b) Moreover, the reason property is opposed, since in the case of things like pots, only the pervasion of "being an effect" by "having a *non*-omniscient cause" is apprehended.

(c) And it is not correct that the scope of the reason property is an intelligent-cause-in-general, and that the special characteristic, "being an omniscient cause," is proven on the basis of it, even though it is not within its scope.[107]

The opponent reasons that if what is to be proved is that the world has an intelligent maker who is Īśvara, then in order to satisfy certification condition C2.2, the Naiyāyikas must show that the reason property is present in a locus that is known to have Īśvara, or an Īśvara-like entity, as its cause. Since Īśvara is by definition omniscient, the opponent argues that this locus must be known to have an omniscient agent as its cause. This issue is suppressed in the Naiyāyikas' statement of the inferential argument and in their description of the target property as an "intelligent agent." As mentioned earlier, in order for a locus to be a similar case, both parties must agree that the target property is present there. This kind of intersubjective agreement is necessary if the argument is to be rhetorically effective. The Naiyāyikas example of a pot, however, is now not a similar case, since, as the opponent implies, neither party would agree that potters are omniscient (passage *a*). As a result, the presence of the reason property in such a locus does not show that H2 does not apply to it.

The opponent continues by arguing that not only have the Naiyāyikas not shown that the reason property is present in a similar case, but their example suggests that the reason property is pervaded by a property that is opposed to the target property (passage *b*). After all, it is well known that potters are not omniscient. The opponent insists, therefore, that the reason property is opposed. The problem, as the opponent sees it, is that a reason property must have within its scope the target property as defined by its special characteristics (passage *c*). It must, in other words, have these special characteristics (*viśeṣa*) within its reach. This requires attention to exactly

107. RNĀ (ĪSD 33.26–33.29): *sarvajñapūrvakatve {tu} sādhye vyāptiḥ svapne 'pi nopalabdhā | dṛṣṭāntaś ca sādhyahīnaḥ, kulālādīnām asarvajñatvāt | viruddhatā ca hetor asarvajñapūrvakatvenaiva kumbhādau kāryatvasya vyāpter upalabdheḥ | na copalabdhimatpūrvakatvamātraṃ sādhanaviṣayaḥ, tadviśeṣasya tu sarvajñapūrvakatvasyātadviṣayasyāpi tataḥ siddhir {iti sāṃpratam}.*

what it is that is being proved, the scope of the reason property, and whether or not the target property is within its scope. In this case, the opponent argues that the reason property should prove not just that the world is constructed by an intelligent agent, but that it is constructed by an intelligent agent who has the special characteristic of being omniscient (*sarvajñatva*). The reason property "being an effect" is opposed, according to the opponent, since this special characteristic of the target property is not within its scope, and a characteristic that is opposed to it, "being non-omniscient" (*asarvajñatva*), appears to pervade it. The example cited by the Naiyāyikas is therefore not a similar case, and so the presence of the reason property in it cannot show that H2 does not apply. The opponent concludes, therefore, that the reason property is defective and cannot be a well-functioning instrument of warranted awareness.

3.1.2. Nyāya Response: Being a Property of the Site

The Naiyāyikas first respond to this series of arguments by explaining how in noncontroversial inferential arguments a reason property has special characteristics of the target property within its scope. They then show why the reason property "being an effect" and the target property "having an intelligent agent/maker" are similar to the terms in noncontroversial inferences. According to the Naiyāyikas, this analysis shows both that the example cited by them is a similar case and that the reason property "being an effect" can have the property "being omniscient" within its scope. From this they conclude that H2 does not apply to their reason property. They explain:

> An inference definitely has special characteristics within its scope. This is because, although there is pervasion just between general-terms, since [one of them, the reason property,] is a property of the site of the inference, there is, for that possessor of the target property, an inference of the general-term and its special characteristics. If this were not the case, there would be the unwanted consequence of the failure of all inferential arguments.[108]

108. RNĀ (ĪSD 33.32–34.05): *{ucyate}| sāmānyamātravyāptāv apy antarbhāvitaviśeṣasya sāmānyasya pakṣadharmatāvaśena sādhyadharminy anumānād viśeṣaviṣayam anumānaṃ bhavaty eva | itarathā sarvānumānocchedaprasaṅgāt.*

Consider the inference of fire from smoke mentioned earlier.[109] In the inference-warranting relation in that argument, as the Naiyāyikas now tell us, the reason property is "smoke-in-general" and the target property is "fire-in-general." Included within the scope of these "general terms" are necessary characteristics, such as "being caused by fire" (in the case of smoke) and "having the capacity to burn" (in the case of fire).[110] The purpose of the inference, however, is not to prove that there is fire-in-general, but that there is fire-on-the-mountain.[111] One way to interpret this is to insist that what is being inferred in this case is inclusive of a special, though contingent, characteristic of fire-in-general—that is, the characteristic of "being on the mountain." The issue, then, is whether or not the reason property "smoke-in-general" is able to prove this, and if so, how. It is important to note that the Naiyāyikas' identification of a kitchen as a similar case shows that in order for a locus to be a similar case it is only necessary that the "generic form" of the target property, i.e., fire-in-general, be known to be present there.[112] It is not necessary, for example, that "fire-on-the-mountain" be present there. H2 does not then apply to the reason property "smoke-in-general" because it is present in a similar case—that is, a locus in which the "generic form" of the target property "fire-in-general" is also known to be present.

Although both terms in the inference-warranting relation are general terms (*sāmānya*) and refer to the generic forms of the reason and target properties, the Naiyāyikas argue that a reason property can have within its scope a special characteristic of the target property. More important, they argue that this special characteristic, "being on the mountain," need not characterize the "generic form" of the target property as it is present in the similar case. They reason that since it is known that the reason property "smoke-in-general" is pervaded by fire, step iii, *and* that it is a property of the site of the inference, i.e., that it is present on the mountain, it is also known that the "fire-in-general" that is concomitant with it must be present on the mountain.[113] It isn't just fire-in-general that is inferred, but fire that has the special

109. See 1.4.

110. For more on "general terms" see chapter 3.

111. Matilal 1968; NV, NVTT, NVTṬP *ad* NS 1.1.5 and NS 2.1.46.

112. See 1.5.

113. KTBh (33.09–34.02).

characteristic of "being present on that mountain" or, more generally, "being located in the site of the inference."[114] Given this, the Naiyāyikas argue that a reason property must have at least one special characteristic of the target property within its scope: the characteristic of being a property of the site of the inference (*pakṣadharāmatā*). If this were not the case, they assert, inferential reasoning would be impossible—a consequence that is equally unacceptable to the opponent. This approach to showing that a special characteristic of the target property can be within the scope of the reason property is significant for the Naiyāyikas' discussion of H2, since it explains how a reason property that is present in a similar case that is defined by the "generic form" of the target property can have a "specific form" of it within its scope.

The Naiyāyikas also maintain, however, that a reason property can have more than this one special characteristic within its scope. They argue, for example, that a reason property can have within its scope also those special characteristics of the target property that are implied by its having the special characteristic of being present in the site of the inference. In responding to the opponent, the Naiyāyikas apply this reasoning to their inference for the existence of Īśvara. They insist, for example, that the site of their inference, "the world," is such that only an omniscient maker could have created it. Although the general form of the target property is "an intelligent-maker-in-general," it is known, in virtue of its being a property of the site of the inference, that this intelligent-maker-in-general has the property "being the maker of the world." According to the Naiyāyikas, this implies that this maker must be omniscient, since only such a maker could create an artifact such as the world.[115] This line of reasoning is relevant to showing that H2 does not apply to the reason property "being an effect," since it enables the Naiyāyikas to claim both that a pot-locus is a similar case (since both the reason property and the target property are known to be present there) and that a reason property has those special characteristics within its scope that are implied by the target property being a property of the site of the inference. The first part of their argument shows that H2 does not apply to their reason property, and the second part shows why the opponent's

114. Matilal 1968:152.

115. This point is not only asserted—it is argued for. See RNĀ (ĪSD 56.14–56.25).

objection to their identification of a pot-locus as a similar case does not apply either.

There are, then, three issues that are raised in the Naiyāyikas' discussion of C2.2, each of which has to do with various aspects of the target property. The first has to do with the proper description of the target property. What is to be proved: that the world was constructed by an intelligent-agent-in-general, or that it was constructed by an omniscient agent? Related to this is the question of whether it is possible to establish an inference-warranting relation once the proper description of the target property has been determined. A second issue has to do with whether the example cited in the inferential argument is in fact a locus to which the pervasion relation between the reason property and the target property applies—that is, with whether it is a similar case. A third issue has to do with how the scope of the reason property relates to what can be proved, and more specifically, with how special characteristics of the target property can be established.

Ratnakīrti's Naiyāyikas address each of these issues and claim to have satisfied C2.2 by showing that H2 does not apply to the reason property "being an effect." They show this by (1) identifying a similar case in which the reason property is present and defending their identification of it against an opponent who argues that it is not a suitable example and (2) arguing that some special characteristics of a target property are within the scope of what can be proved, since they are entailed by the target property being located in the site of the inference. In making these arguments, Ratnakīrti's Naiyāyikas explain how a reason property that is known to be pervaded by a "generic form" of the target property can have a specific form of it within its scope. In each of their arguments, the intersubjective context of the certification process is never far from view.

3.2. Satisfying C2.3, H3a

The Naiyāyikas' discussion of the defect "inconclusive" (*anaikāntika*, H3) focuses on the subtype called "generally inconclusive" (*sādhāraṇa-anaikāntika*, H3a).[116] The presence of this subtype—which itself has two subtypes—blocks the functioning of an instrument by affecting its pervasion subcomponent in

116. RNĀ (ĪSD 36.26–38.13).

one of two ways.[117] It either "defeats" it, by identifying a locus in which the reason property is known to be present but the target property is known to be absent ($H3a_1$), or it "undermines" it, by raising doubt about whether the reason property is excluded from all dissimilar cases ($H3a_2$).[118] In the first case, the defect is detected through the identification of a specific locus (i.e., a dissimilar case) that is a "counterexample" to the general rule of pervasion. In the second case, it is detected through doubt about pervasion and, more specifically, about the contraposed form of it.[119] In this case, it is the possibility, rather than the actual identification, of a dissimilar case that explains why the defect applies. The Naiyāyikas assert, however, that neither variety of H3a applies to their reason property, since it is known that their reason property is excluded from all dissimilar cases. This rules out a counterexample and also eliminates doubt regarding the possibility of one.[120] They defend this through critically engaging an opponent who argues both that there is a counterexample to pervasion and that the Naiyāyikas' counterargument reveals a much deeper problem with how they think pervasion relations can be established. It is through this exchange that the Naiyāyikas try to show that the instrument condition that is defined in terms of defect H3a (i.e., C2.3) is satisfied.

3.2.1. A Dissimilar Case

An opponent argues that H3a applies to the reason property "being an effect" by proposing a counterexample to pervasion, that is, by identifying

117. See section 2.3.2.

118. The first of these "two ways" should not be confused with defect H2, which applies to a reason property that is known to be pervaded by what is opposed to the target property (*sādhya-viparyaya*). Although the same locus may be used to illustrate each of these defects (i.e., H2, H3a), the reason why it is used will differ. With respect to H2 such a locus may be referred to by someone who argues that the reason property being considered is pervaded by the opposite of what is to be proved, while with respect to H3a it may be referred to by someone who argues that it just is a locus in which the reason property is present but the target property is not. The issue of whether or not the reason property is pervaded by the opposite of the target property need not arise.

119. The "contraposed" form of pervasion (*vyāpti*) is expressed, in this context, as the exclusion of the reason property (*hetu*) from loci in which the target property (*sādhya*) is not present.

120. RNĀ (ĪSD 37.12–37.16).

a locus in which the reason property is known to be present but in which the target property, "having an intelligent maker," is known to be absent. The locus proposed by the opponent is growing grass. The opponent says,

> In seeing grass grow without the activity of a person, people will definitely not accept the inference-warranting relation, "effects-in-general [i.e., all effects] are caused by a person [i.e., an intelligent maker]."[121]

According to the opponent, growing grass is a dissimilar case (*vipakṣa*), since it is a locus in which the reason property "being an effect" is known to be present and the target property "having an intelligent maker" is known to be absent. Given such a counterexample, the inference-warranting relation of pervasion is defeated. And since pervasion—one of the subcomponents necessary for an instrument to function—has been defeated, the instrument is shown to be defective, and therefore cannot be considered a well-functioning instrument for warranted awareness. The opponent concludes, therefore, that since C2.3 has not been satisfied the instrument has not been certified and the Naiyāyikas are not justified.

The Naiyāyikas respond to this by questioning whether growing grass is really a dissimilar case. They argue that the criteria that the opponent relies on to determine that it is are too rigid, since their application would invalidate/defeat even well-known and noncontroversial inferences. The issue, then, is whether or not the locus, growing grass, is a genuine defeater of the inference-warranting relation, and therefore of the pervasion subcomponent of the instrument. The Naiyāyikas argue,

> If this were so, then even well-known inferences would be offered a handful of water [and thereby given their last rites]. This is because, even when pervasion is being determined in such cases, it is possible to say that "there is smoke without the activity of fire, in a faraway place filled with lions and the like," or that "in the past, a pot was made without the activity of a person." [Thus] people will not even admit the inference-warranting relation "smoke-in-general [i.e., all smoke] is caused by fire" or "pots-in-general [i.e., all pots] are caused by a person."[122]

121. RNĀ (ĪSD 36.26–36.27): *{nanu} puruṣavyāpāram antareṇa tṛṇādīn udayamānān avalokayaṃl lokaḥ kāryamātraṃ puruṣapūrvakam iti vyāptim eva na pratipadyata {iti cet}.*

The opponent's reason for considering growing grass to be a dissimilar case is that even though it is seen to grow and is known to be an effect, it is not seen to have a person as its cause. It is therefore a dissimilar case, since it is known to be an effect that is not caused by a person or any intelligent agent. The Naiyāyikas respond to this by arguing that nonobservation is not always an appropriate criteria for determining whether or not a property is present in a particular locus. Even in well-known inferences, for example, a reason property, e.g., smoke, could be observed in a locus in which its target property, e.g., fire, is not observed to be present. In a passage immediately following this one, it is explained that such a locus need not be a genuine defeater, since the nonobservation of the target property, e.g. fire, in such a locus could be due to its being "spatially remote" (*deśa-viprakṛṣṭa*), i.e., in a faraway place.[123] Similarly, pots are often observed without the potter who made them being observed. Here too the well-known pervasion relation between pots and a potter is not defeated, since in this case the potter who made them could be "temporally remote" (*kāla-viprakṛṣṭa*), e.g., he may be long dead. The Naiyāyikas argue that the maker of growing grass may be remote in a relevantly similar way. Unlike fire or the potter, the maker of growing grass is said to be "essentially remote" (*svabhāva-viprakṛṣṭa*), which means that relative to a normal observer this maker is unobservable. Nonobservation is not, therefore, suitable for determining his absence. In order for a locus to be a genuine defeater, then, it is not sufficient to simply identify a locus in which the reason property is observed to be present but the target property is not, since that target property may be either spatially, temporally, or essentially remote (*deśa-kāla-svabhāva-viprakṛṣṭa*).[124] Not recognizing the significance of the "theory of remoteness" to the identification of

122. RNĀ (ĪSD 36.27–36.31): *evaṃ tarhi prasiddhānumānasthitir api dattajalāñjaliḥ | tatrāpi hi vyāptipratītikāla eva vyāghrādiparyākulātidurgapradeśe vahnivyāpāram antareṇa dhūmaṃ puruṣavyāpāraṃ vinā pūrvaṃ siddhaṃ ghaṭaṃ vā vilokayan loko dhūmamātraṃ vahnipūrvakam iti vyāptim eva na pratipadyata iti vaktuṃ śakyatvāt.*

123. RNĀ (ĪSD 37.01–37.04).

124. For more on the "theory of remoteness" and related issues see Kellner 1997a: n. 165, 1999, Steinkellner 1967, and Tillemans 1995. This issue is also discussed in chapter 3.

genuine defeaters will, the Naiyāyiḳas argue, result in the identification of "genuine" defeaters even for the pervasion subcomponents of the instruments of well-known inferential arguments. The significance of this is that by not recognizing that a maker of growing grass could be "essentially remote" the opponent is relying on an approach through which even well-known inferential arguments would be invalidated.

The criterion used to identify growing grass as a genuine defeater is therefore too rigid, and is not a legitimate way of showing that H3a applies. As a result, the opponent has not, according to the Naiyāyikas, shown that the pervasion subcomponent of the reason property has been defeated, and there is no reason, therefore, to question their initial assertion that C2.3 has been satisfied.

3.2.2. Deviation

At this point, the opponent chooses to concede the point and raises a new, though related, set of objections.[125] These objections have to do with doubt about whether the reason property is known to be excluded from *all* dissimilar cases (P3). The opponent agrees that growing grass may not be a genuine defeater, but insists that the Naiyāyikas' theory of inference-warranting relations does not rule out the possibility of there being a different one.[126] This possibility is referred to as the possibility of deviation (*vyabhicāra*), that is, the possibility that a reason property deviates from the pervasion rule according to which it is known that wherever the reason property is present the target property is present (positive concomitance, *anvaya*) and wherever the target property is absent the reason property is absent (negative concomitance, *vyatireka*).[127] In the opponent's view, since the Naiyāyikas cannot rule out the possibility of deviation, there could be a locus that deviates from the rule. Such a locus would be a genuine defeater for the pervasion subcomponent, and therefore for the functioning of the instrument. The doubt that this generates is significant enough that, in their opinion, it undermines pervasion, by specifically undermining the negative concomitance between the two terms. Their worry is that there may be a locus in which the target

125. RNĀ (ĪSD 37.12–38.13).

126. This theory will be discussed in chapter 3.

127. "Deviation" (or wandering) is a technical term that will be discussed in greater detail in chapter 3. Briefly: A property H deviates from a property S just in case H is located somewhere S is not. See Ganeri 1999a:68.

property is absent but the reason property is present. This worry undermines any claim to C2.3 being satisfied, and even to its being satisfiable. The issues that are raised in this discussion have to do with the epistemic significance of doubt, the nature of pervasion, its scope, and the adequacy of the Nyāya method of determining it. The initial exchange is as follows:

> [*Opponent*] Nondeviation is not ascertained through mere observation and nonobservation in similar and dissimilar cases, since there isn't a nondeviation rule for [reason properties that are] neither of the same nature [as the target property] nor produced from it. So, since there is doubt about its exclusion from dissimilar cases, "being an effect" is not a reason property.
>
> [*Naiyāyika*] About this it is said: There is no doubt about the exclusion of the reason property from dissimilar cases, since an effect-cause relationship, which is established through observation and nonobservation, is established for an effect [the reason property] and an intelligence-possessor [the target property], as it is for smoke [the reason property] and fire [the target property].[128]

The opponent begins by stating that the nondeviation rule (*avyabhicāraniyama*) applies only to two sorts of relations: those in which the two terms are "of the same nature" and those in which the two terms are related as "effect and cause." Let us refer to these as the "identity-mode" (*tādātmya*) and the "production-mode" (*tadutpatti*) of pervasion.[129] The opponent further asserts that in the Naiyāyikas' theory, the inference-warranting relation is neither of these two types and so is not a relation for which deviation can be ruled out. There is, therefore, doubt about the exclusion of the reason property from dissimilar cases (*sandigdha-vipakṣa-vyāvṛtti*). The Naiyāyikas respond,

128. RNĀ (ĪSD 37.12–37.16): *{syād etat}| na sapakṣāsapakṣayor darśanādarśanamātreṇa avyabhicāraniścayaḥ, atadātmano 'tadutpatteś cāvyabhicāraniyamābhāvāt | tad idaṃ kāryatvaṃ sandigdhavipakṣavyāvṛttikatvenāsādhanam | atrocyate nāsti vipakṣāddhetor vyāvṛttisandehaḥ, dhūmānalayor iva kāryabuddhimator upalambhānupalambhasādhanasya kāryakāraṇabhāvasya siddhatvāt.*

129. The secondary literature on these two modes of pervasion is extensive. See, for example, Kajiyama 1989, Katsura 1986a, Katsura 1992a, Lasic 2000a, Lasic 2000b, Steinkellner 1971, Steinkellner 1974, Gillon and Hayes 1991, Hayes 1988, Goekoop 1967, Wada 1990, and Wada 2007. For more on this see chapters 4 and 5.

however, by asserting that the two terms in the inference-warranting relation for the existence of Īśvara are related as effect and cause, just like the two terms in the inference-warranting relation between smoke and fire. They assert further that the relation is established, in part, through the observation (*upalambha*) of the reason property in a finite number of loci in which the target property is known to be present, and the nonobservation (*anupalambha*) of it in a finite number of loci in which the target property is known to be absent, just like in the inference of fire from smoke. The opponent's argument is therefore irrelevant according to the Naiyāyikas, since the nondeviation rule is known to apply to the inference-warranting relation in their argument for the same reasons that it is known to apply to the reason property in very well known, and noncontroversial, inferences.

3.2.3. Scope of the Reason Property

The opponent chooses, at this point, to accept the Naiyāyikas' claim that the inference-warranting relation is an effect-cause relation and that, in general, such relations can be established through observation and nonobservation (*upalambhānupalambha*). The opponent instead directs his attention to showing how the scope of the terms in well-known inference-warranting relations is different from the scope of the terms in the inference-warranting relation in the Naiyāyikas' argument. According to the opponent, the significance of this is that, given the scope of the reason property that is required for the Naiyāyikas' inference, it is not possible, given their own criteria, for them to establish pervasion through observation and nonobservation. The opponent says,

> Only a specific class of effects is proven to be caused by it [i.e., an intelligent maker], not effects-in-general. Just as it is not ascertained that [a property] such as "being a thing," which is present in smoke, etc., is produced from fire.[130]

The inference-warranting relation in the Naiyāyikas' argument is "Each and every effect has been constructed by an intelligent agent, just like a pot."[131] In other words, the terms of the relation are "effects-in-general"—i.e.,

130. RNĀ (ĪSD 37.17–37.18): *kāryaviśeṣasyaiva tadutpādasiddhir na kāryasāmānyasya, yathā dhūmādivartino vastutvāder nānalādijanyatvaniścaya iti {cet}.*

131. See 2.1.

all effects—and "being constructed by an intelligent agent." In the passage cited above, however, the opponent implies that in the well-known inference-warranting relation between smoke and fire, the relation is between a restricted class of effects (*kārya-viśeṣa*), namely smoke and its cause, and not all effects (*kārya-mātra*).[132] Moreover, it is only specific classes of effects that can be shown through observation and nonobservation to be constructed by an intelligent agent. The Naiyāyikas' view that the inference-warranting relation in their argument for the existence of Īśvara is an effect-cause relation that can be determined through observation and nonobservation requires (at least) that the scope of the reason property be restricted to specific, observable classes of effects. If, in general, the scope of a reason property is taken to be unrestricted, then as the opponent points out, even properties of smoke such as "being a thing" could be taken to be pervaded by fire. Since both parties agree that pervasion is between "smoke" and "fire" and not between "smoke-and-all-of-its-properties" and "fire," the opponent presses the Naiyāyikas to explain how the pervasion relation between an unrestricted class of "effects-in-general" (i.e., any effect) and an "intelligent agent" can be determined. The Naiyāyikas' response is to provide an example. They say,

> An effect, such as a piece of cloth, is seen to have a material cause. And a different effect, whose material cause is unobserved, is established as being an effect that has a material cause. Similarly, that very effect, cloth, etc., is observed to have a maker. Therefore that [thing], whose maker is not observed, is established as having a maker, on account of [its] being an effect. This is because the positive and negative concomitance of a maker with an effect is like that of a material cause. . . . Therefore, just as it is not possible to doubt that there could be an effect without a material cause, since a material cause-in-general produces an effect-in-general, similarly, it must not be doubted that there could be an effect without a maker, since there isn't a relevant difference in proving that a maker-in-general produces an effect-in-general.[133]

132. That this, and what follows, is implied by the passage is clear from the Naiyāyikas' response to it and the subsequent discussion of the passage later in the text. See chapter 3, section 2.

133. RNĀ (ĪSD 37.20–37.26): *{yathā hi} kāryaṃ vastrādy upādānavad dṛṣṭam, kāryāntaram apy adṛṣṭopādānam upādānavat kāryatvādy upasthāpyate tathā tad eva kāryaṃ vastrādi dṛṣṭakartṛkam ity adṛṣṭakartṛkam api kāryatvāt kartṛmad vyavasthāpyate | upādānasyeva kartur api*

The Naiyāyikas' approach is to again compare the inference-warranting relation in their inference to a noncontroversial case—here, the relation between effects, such as a piece of cloth, and their having a material (or primary) cause (*upādāna-kāraṇa*). Although the pervasion relation is determined through the observation of a specific class of effects and those effects having a material cause, both parties agree that the relation is more general, and that it applies to effects-in-general. On the basis of this relation it is possible to infer that effects whose material cause has not been observed nevertheless do have a material cause. From the observation of a specific class of effects, such as pieces of cloth, pots, etc., it is similarly possible, the Naiyāyikas maintain, to determine an effect-cause relation between effects-in-general and an unobserved maker.

The opponent is not convinced by the comparison, however, and insists that pervasion can be determined only for a specific class of effects and its cause. In rephrasing the objection, the opponent specifies the property that he believes restricts the scope of the Naiyāyikas' reason property when it is properly formulated. He says:

> You may say anything, still, there is not the inference of an intelligent agent from effects-in-general. On the contrary, it is only from specific effects, from the observation of which there could be an awareness of them having been made, even for one who did not observe them being made.[134]

The reason property should be limited, according to the opponent, to those classes of effects that could be observed to be the products of an intelligent agent. This would distinguish between effects such as pots and buildings, for which pervasion with a maker has been (and can be) observed, and those such as grass and trees, for which it has not (and cannot) be observed. The opponent suggests that the reason property should be limited to just a specific class of effects, namely, those with the property "being an effect from the observation of which there could be an awareness of its having been

kāryeṇānukṛtānvayavyatirekatvāt | {tanmātranibandhanatvāc ca sarvatra kāryakāraṇavyavahārayoḥ} | tasmād yathā kāryaṃ ca syān nirupādānaṃ ceti na śakyam āśaṅkitum, kāryamātrasya upādānamātrād utpādasiddhes tathā ca bhaved akartṛkaṃ ceti nāśaṅkanīyaṃ kāryamātrasya kartṛmātrād utpādasiddher aviśeṣāt.

134. RNĀ (ĪSD 37.27–37.29): *{nanu} brūyā nāma kiñcit | tathāpi na kāryamātrād buddhimadanumānam, api tu kāryaviśeṣād eva | yaddarśanād akriyādarśino 'pi kṛtabuddhiḥ syāt.*

made, even for one who did not observe its being made." The pervasion relation that can be established through observation and nonobservation is not, as the Naiyāyikas assume, between "effects-in-general" (i.e., all effects) and "being made by an intelligent agent," but between "specific-effects" and "being made by an intelligent agent." What makes such effects "specific," moreover, is the special characteristic of "being an effect from the observation of which there could be an awareness of its having been made, even for one who did not observe its being made." Given this, the opponent claims that the Naiyāyikas' reason property is inconclusive, since pervasion can be established only for this specific class of effects and not for effects-in-general.

The presence of the subtype of the defect "generally inconclusive" ($H3a_2$) is detected through the opponent's doubt about the Naiyāyikas' ability to establish pervasion. The basis for this doubt is the opponent's view that the scope of the unrestricted form of the reason property "effects-in-general" includes classes of effects about which it cannot be known through observation whether they have been constructed by an intelligent agent. Given the Naiyāyikas' view that pervasion is established through observation and nonobservation, the opponent argues that there will always be epistemically significant doubt about pervasion. The opponent concludes, therefore, that the Naiyāyikas have not shown that this subtype of the defect "generally inconclusive" does not apply to the reason property in the Īśvara-inference.

The Naiyāyikas defend themselves by first providing an analysis of the limiting phrase "an awareness of having been made." They then try to show that there is no interpretation of it that undermines the pervasion subcomponent of the instrument in their argument. They ask,

> Moreover, what is this "awareness of having been made"? Is it the determination that the activity of something else was needed? Or is it the ascertainment that it came from a person, i.e., was made by a person?[135]

According to the Naiyāyikas, it is necessary to further analyze the terms in the phrase "an awareness of having been made." In their view, the opponent could either mean that an effect that has this characteristic is an effect about

135. RNĀ (ĪSD 37.30–37.32): *api ca kā punar iyaṃ kṛtabuddhiḥ, kim apekṣitaparavyāpārāvasāyo 'tha puruṣakṛtam etad iti pauruṣeyatvaniścaya iti.*

which it has been determined that its production depends upon the activity of something other than itself (*apekṣitaparavyāpāra*), or that it has been made by a person (*puruṣa-kṛta*). The first interpretation, which just specifies what it means for something to be "made" (*kṛta*), applies equally well to effects such as pots and the earth, since both parties would agree that "being an effect" is (at least) "being something whose production depends upon something other than itself."[136] Both the Naiyāyikas and the opponent agree that the class of effects that includes pots and the class that includes the earth are effects in this sense. There is not, therefore, a relevant distinction between these two classes of effects. As a result, the Naiyāyikas reason that this cannot be the opponent's interpretation of the limiting property, since it does not distinguish between what the opponent takes to be the problematic case and the well-known one. The second interpretation focuses on the term "awareness" (*buddhi*) and, according to the Naiyāyikas, needs to be specified further still. The Naiyāyikas suggest that the awareness that an effect "was made by a person" is the awareness either of someone who knows the pervasion relation between "being an effect" and "being made by a person" or of someone who does not.[137] They argue further that for someone who knows the relation there will certainly be the awareness of an intelligent agent from an effect-in-general, and so this cannot be what the opponent has in mind. For someone who does not know the pervasion relation, however, they concede that the inference is impossible. Given this criterion, however, even well-known inferences would be suspect, since it is never the case that someone who does not know pervasion can know, through inferential reasoning, what is to be proved.

According to the Naiyāyikas, there are two problems with the opponent's argument. The first is that the characteristic that the opponent claims is necessary for limiting the scope of the reason property does not limit it in the manner required by him. The second is that the opponent's doubt about being able to establish pervasion between general terms (*sāmānya*) through observation and nonobservation is not epistemically significant, since after considering well-known inferences it is clear that pervasion can be established between general terms, and through this method. The Naiyāyikas conclude that the opponent's attempts at showing that the pervasion component has been undermined by doubt have not been successful and therefore that $H3a_2$ does not apply to the reason property "being an effect."

136. RNĀ (ĪSD 38.01).

137. RNĀ (ĪSD 38.03).

While the issues raised in the Naiyāyikas' discussion of C2.2 were framed in terms of the target property, the issues raised here have to do with the reason property. There are two specific issues that are raised. The first concerns the problem of "deviation" and whether the reason property is known to *actually* deviate from the target property, to *possibly* deviate from it, or to *not* deviate from it at all. In discussing this issue, the Naiyāyikas focused their attention on the criteria for identifying a "counterexample," and the significance of the "theory of remoteness" (*viprakṛṣṭa*) for making this identification. The second issue has to do with the scope of the reason property (*hetu-viṣaya*) and the related issue of how pervasion is supposed to be established. Most central to this discussion is the nature of pervasion and whether or not, given the proper description of the reason property, observation and nonobservation is an adequate method for establishing it.

The Naiyāyikas' discussion of C2.3 thus shows how issues having to do with the reason property are closely linked to those having to do with pervasion. Unlike their discussion of H2, however, here the Naiyāyikas show that H3a does not apply to the reason property by defending their claim that the reason property is known to be excluded from all dissimilar cases. They do so by (1) appealing to the "theory of remoteness," in order to discuss how the absence of a property in a particular locus should not be determined; (2) comparing their argument with well-known and therefore paradigmatic inferences, to show that the opponent's arguments are such that even well-known inferences would be invalidated by them; and (3) exposing internal inadequacies in the opponent's account of the limiting property "an awareness of having been made."

4. Conclusion: Shifting the Burden of Proof

Ratnakīrti's Naiyāyikas frame their discussion of the Īśvara-inference by first identifying a set of potential defeaters for their argument, and then arguing that none of them apply to its reason property, "being an effect." I have argued that these defeaters are best understood as defining a set of certification conditions for the instrument and that, from their perspective, the Naiyāyikas' argument is about showing that these certification conditions

have been satisfied.[138] The certification conditions that are most important for the Naiyāyikas' Īśvara-inference are the instrument conditions (C2), and more specifically those defined by defects H2 (C2.2) and H3a (C2.3)—the defects that affect the functioning component of the instrument, by either defeating or undermining its pervasion subcomponent. It is primarily in showing that H2 and H3a do not apply to "being an effect" that the Naiyāyikas take themselves to have successfully defended their Īśvara-inference. Moreover, given that the Īśvara-inference is an "inference-for-the-sake-of-another," by defending it in this way, Ratnakīrti's Naiyāyikas expect their opponents to concede that the instrument is well-functioning, and that, as a result, the awareness-event that is produced by it is a knowing-event. In concluding this chapter, and before turning to a more detailed discussion of the Naiyāyikas' arguments in the context of Ratnakīrti's critique of them, I want to briefly return to the question of what Ratnakīrti's Naiyāyikas' tell us is at stake, both explicitly and implicitly, in their argument for the existence of Īśvara.

4.1. The Īśvara-Inference as a Hybrid Argument

In section 2.1 I suggested that the Īśvara-inference is helpfully thought of as a "hybrid" argument that makes use of elements from both cosmological arguments and arguments from design.[139] As a way of exploring what Ratnakīrti's Naiyāyikas tell us is explicitly at stake in their defense of this argument, it may be helpful to think of it further in terms of such a hybrid, and therefore in what may be more familiar terms. What follows, however, is not a detailed comparative analysis of the Īśvara-inference that is systematically informed by the extensive (and very sophisticated) philosophical literature on cosmological arguments and arguments from design, but rather an attempt at providing an alternative framework and vocabulary for seeing what Ratnakīrti's Naiyāyikas take to be their most pressing philosophical concerns in defending the Īśvara-inference.[140] This alternative framework

138. The fact that the argument is "about this" is due to its being an "inference-for-the-sake-of-another," in which case it is necessary that the inference-instrument be certified.

139. See the notes to section 2.1, and below, for references to helpful secondary literature on these two types of arguments.

140. There are two reasons I am not providing a more systematic treatment of this issue: first, such a discussion deserves a book-length study of its own; second, an analysis of this issue should be based on the Naiyāyikas' own arguments and not those of Ratnakīrti's Naiyāyikas. Vattanky 1984 provides a translation and commentary on the Nyāya philosopher Gaṅgeśa's discussion of the Īśvara-inference, and could serve as the basis for such a study. Ideally, however, such a study would be based on the work of Gaṅgeśa's predecessor, Udayana. For "translations" of his work see Dravid 1995, Dravid 1996, Laine 1993, and Laine 1998, and the excellent discussion in Chemparathy 1972.

and vocabulary also provides a slightly different perspective on my discussion of the Īśvara-inference in this chapter, and highlights the kinds of issues that will be discussed in greater detail in chapter 3.

The structure of the Naiyāyikas' hybrid cosmological/design argument can be understood in terms of the following three steps, which have been used to characterize both cosmological arguments and arguments from design.[141] Each of these arguments can be understood to begin with a contingent (and usually noncontroversial) existential fact, such as the existence of the universe or of complex well-functioning lifeforms. One way that cosmological and design arguments differ with respect to this existential fact is that in cosmological arguments this fact is often "nonnormative," while in design arguments it is often "normative."[142] In the Nyāya case, the existential

141. For such a characterization see Gale 1991:239, and especially the excellent discussion in Gale and Pruss 2005:117–118, which is what my own discussion is based upon. Here is how they describe the three steps in a typical cosmological argument: (1) a contingent value-neutral existential fact; (2) a version of the PSR [Principle of Sufficient Reason] that requires that every fact of this kind have an explanation; and (3) an explanatory argument to show that the only possible explanation of this fact is in terms of the intentional actions of a supernatural, God-like being. They describe a typical teleological/design argument as follows: (1') a contingent valuable existential fact; (2') some principle of inductive reasoning; and (3') an explanatory argument to show that the probable explanation of this fact is in terms of the intentional actions of a supernatural, God-like being.

There are a number of well-known "hybrid" arguments for the existence of God, including those discussed by Koons 1997 and Koons 2001 (which is also helpfully discussed in Pruss 2006 and Oppy 2006b:125–130) and Gale 2000, who calls his hybrid argument a "cosmological cum ontological cum teleological argument." Gale's argument is essentially an ontological argument (which is based on a slighter weaker version of the well-known S5 modal ontological argument) in which a possible-worlds version of the cosmological argument is used to support its most controversial premise and a design argument is used to solve the "gap-problem."

142. A "nonnormative" existential fact is one that is value-neutral, in the sense that there are very few, if any, features of it that one might take to be valuable, e.g., beauty, simplicity, widespread law-like regularity, etc. A "normative" existential fact is one that is valuable. For this distinction see Gale and Pruss 2005:117, 128.

fact that is expressed in the first step of the argument is that things like the world/earth (the site of the inference) are effects (the reason property), in the sense that they have been constructed out of preexisting parts. As Ratnakīrti's Naiyāyikas seem to interpret it, this fact is both more normative than those that are appealed to in traditional versions of the cosmological argument, and less normative than those with which more familiar versions of the design argument begin.[143]

The second step in these arguments states a principle that, in some relevant way, is supposed to account for the existential fact in step 1. In many cosmological arguments, this principle is some version of either the "Causal Principle" (e.g., every thing that comes into existence has a cause/every contingent event has a cause) or the "Principle of Sufficient Reasoning" (e.g., all true propositions have explanations or all contingently true propositions have explanations). In most design arguments, this principle is a nondeductive principle of reasoning such as analogy, inference to the best explanation, likelihood, prior probabilities (i.e., Bayes' Theorem), or an anthropic principle of one sort or the other, as in arguments based on "fine-tuning."[144] It is

143. Gale and Pruss 2005:128, for example, suggest that the fact about design must be "a morally desirable one. Otherwise, nothing could be inferred about the goodness, as contrasted with the intelligence and power, of the person who brings about this fact. Moreover, if the design explanation is to be satisfactory, the existential fact should be one that an intelligent person would not be too unlikely to desire: if we have a group of stones strewn about apparently at random, we would not expect that an intelligent person desired precisely that combination."

144. For brief, but very useful, discussions of arguments based on analogy see Gale 2007:47–50, Le Poidevin 1996:44–47, Mackie 1982:133–145, Oppy 2006b:174–200, Rowe 1978: chap. 4, and Sober 1993:30–36; for those based on inference to the best explanation/abduction see Gale 2007:50–52, Swinburne 1968, and Swinburne 1979; for those based on likelihood see Sober 2004; for those based on prior probabilities/Bayes' Theorem see Swinburne 1979: chap. 8 (which is criticized in Mackie 1982: chap. 8); for those based on anthropic principles/fine-tuning see Craig and Sinnot-Armstrong 2004, Gale 2007:52–55, Le Poidevin 1996:54–69, Leslie 1988, Manson 2003, Oppy 2006b:201–228, and Swinburne 1968. It may be helpful to note that other than the arguments based on analogy, design arguments are generally probabilistic. For an example of how probability theory has been used to defend the design inference see Dembski 1998 and Dembski 2002. For excellent work on the uses and misuses of probability theory in such arguments, including Dembski's, see Mellor 1969, and especially Fitelson et al. 1999, and Sober 2004. For a short discussion of the contrast between "traditional" and "modern" teleological arguments see Le Poidevin 1996:47.

worth noting that there are also deductive versions of the argument from design.[145] Regardless of the specific principle that is appealed to in such arguments, their function is essentially the same—to provide a basis for recognizing the marks of intelligent design in what is referred to in step 1.[146] In the Naiyāyikas' hybrid argument, the relevant principle is expressed by the inference-warranting relation of pervasion, which is most naturally interpreted as a version of the causal principle. As stated by Ratnakīrti's Naiyāyikas, it is: Each and every effect is constructed by an intelligent agent, just like a pot.

The third step in these arguments is generally an explanatory argument to the effect that the fact expressed in step 1 is to be finally accounted for by the intentional actions of a God-like being. Defenders of both the cosmological and the design argument seem to differ on whether or not this step is really within the scope of their argument. In the Nyāya case it is clearly included, as indicated by the Naiyāyikas' defense of their argument in section 3.1. When the Naiyāyikas' Īśvara-inference is viewed as such a hybrid argument, the following issues are seen to be central to their defense of it.

Ratnakīrti's Naiyāyikas recognize that one obvious and important issue that must be addressed in defense of their hybrid argument has to do with exactly what the target property of their argument is supposed to be: an agent-in-general, an intelligent agent, and/or an intelligent agent who is Īśvara. They clearly recognize that their opponent might accept that there is an "intelligence-possessing" maker of the world/earth, but deny that this maker is Īśvara.[147] The Naiyāyikas recognize that they need to account for the apparent "gap"

145. See Smart and Haldane 2003, for a Thomistic style deductive design argument. Deductive versions of the argument are also discussed briefly in Reichenbach 2004 and Swinburne 1979, who rejects them.

146. See Gale and Pruss 2005:129. Le Poidevin 1996:44 contrasts the second step in cosmological and design/teleological arguments by suggesting that "whereas for the cosmological argument the crucial notion is that of causality, for the teleological argument the crucial notion is that of purpose [i.e., design]. We can make something intelligible by pointing to its antecedent cause, or we can make intelligible its existence by pointing to the purpose for which it was made, provided of course that we are talking about artifacts, i.e., things which are constructed by a conscious agent."

147. Interestingly, Ratnakīrti suggests that he too could accept this. For a discussion of this issue see chapter 5, section 6.

between the intelligent agent that is the target property of their argument and Īśvara. In my hybrid version of the argument, this "gap" is reflected in the differences between what can be concluded on the basis of steps 1 and 2, and what is supposed to be concluded with the addition of step 3. In one sense, the "gap" that needs to be closed is between the cause/intelligent agent in step 2 and the God-like being referred to in step 3.

In showing that H2 does not apply to the reason property "being an effect," Ratnakīrti's Naiyāyikas address this issue explicitly. In the voice of their opponent, they consider the proposal that the only way to close the gap is to build into step 2 the condition that the cause/agent that is referred to there be one that has the qualities of the God-like being referred to in step 3, e.g., omniscience. As the Naiyāyikas point out, however, this radically alters the causal principle in step 2, to the extent that it becomes much more difficult to prove, and, given the Naiyāyikas' specific theory about how such principles can be proven, almost impossible. As a result, the Naiyāyikas refuse to accept this solution to the gap-problem, and argue that there is another way of addressing the issue. They argue that the gap can by closed by recognizing that, given steps 1 and 2, it can be established that effects like the earth have an intelligent cause. They further argue that, given what we know about the earth, we can conclude its cause/agent must have very special qualities, such as omniscience, which uniquely belong to Īśvara. The Naiyāyikas' proposal is to solve the gap-problem with a design argument in step 3.[148]

In showing that H3a doesn't apply to the reason property "being an effect," Ratnakīrti's Naiyāyikas highlight, again in the voice of an opponent, their awareness of a second set of issues. These issues have to do with the Naiyāyikas' version of the "causal principle" in step 2, and its supposed strength. Often the strength of a causal principle can be traced through the scope of its terms and the closely related epistemic burden that it places on its defenders. For example, a "strong" version of the causal principle might require that whatever exists have a cause, while a "weaker" version might require that whatever comes into existence have a cause.[149] In restricting the scope of the existential facts (or types of existential facts) that are to be accounted for, weaker versions of the causal principle can ease the epistemic burden on its defenders. The Naiyāyikas' version of the causal principle is therefore "strong," in the sense that it requires that each and every thing that comes into existence have a cause, but also "weak" in the sense that it doesn't require that whatever exists have a cause, only that each and every thing that comes into existence does. On the other hand, the Naiyāyikas' version of the causal principle significantly restricts the kind of "cause" that is relevant, by ruling out non-intelligence-possessing ones. In this case, restricting the scope of what counts as the right kind of cause/agent for the causal principle strengthens it, in the sense that it increases the epistemic burden on its defenders, even while it lessens the gap between the cause/agent in the causal principle and the God-like being referred to in step 3.

148. For more on this see chapter 3, section 4, where this issue will be discussed in terms of the "site subcomponent" of the inference. A similar strategy seems to be at work in Koons 1997. As Gale and Pruss (2005:135–136) have noted, cosmological arguments and arguments from design are both susceptible to (or as Gale writes, "infected" by) the gap-problem.

In showing that H3a doesn't apply to "being an effect," Ratnakīrti's Naiyāyikas highlight their awareness of the interrelationship between the scope of the terms referred to in steps 1 and 2, the strength of the causal principle, and their epistemic burden. It is clear from their discussion that defending their causal principle is one of their central concerns. As is well known, this is also one of the central concerns for defenders of the cosmological argument.[150] The Naiyāyikas' strategy in defending their causal principle is to first respond to the charge that there are actual counterexamples to it by arguing, partly on the basis of their "theory of remoteness," that the criteria that the opponent uses to identify "actual" counterexamples would result in counterexamples to the causal principles of arguments that even they accept. More specifically, the Naiyāyikas argue that not observing that some effect has an intelligent agent as its cause does not mean that it does not have such an agent as its cause, since its cause could be remote, and similarly, neither does never observing that effects of some type have an intelligent agent as their cause mean that effects of that type do not have such an agent as their cause. Again, the basis for the Naiyāyikas' argument is that the opponent's

149. This issue parallels discussions of "strong" and "weak" versions of the "Principle of Sufficient Reason" (PSR). For references, see below.

150. See Gale and Pruss 1999, Gale and Pruss 2005, Oppy 2006a, Oppy 2006b, Reichenbach 2004:98–103, Rowe et al. 1998:60–114, and Pruss 2006 (a very helpful book-length treatment of PSR).

critique is equally applicable to some of the opponent's own arguments. As Ratnakīrti's Naiyāyikas present it, this argument silences their opponent. In arguing against there being actual counterexamples to their causal principle, the Naiyāyikas thus take themselves to have provided indirect support for it.

In responding to the opponent's charge that there are possible counterexamples to their causal principle, however, the Naiyāyikas explicitly address the issue of the kinds of positive arguments that can be offered in direct support of it. They insist that their causal principle is in fact a version of a principle accepted by the opponent, and that it is established in the same way as the effect-cause relationship between smoke and fire, which the opponent grants does not have any possible counterexamples. The Naiyāyikas then go on to argue that their causal principle is a "nondeviation rule" that can be established empirically, just like the nondeviation rule for smoke and fire. Again, the Naiyāyikas' strategy is to compare both the causal principle in their argument and the positive arguments they use to support it with the causal principle that the opponent accepts and the positive arguments she uses to support them. The issue of exactly what sort of relation the Naiyāyikas' causal principle expresses, and what sorts of arguments they use to defend it, will be discussed in great detail in chapter 3.

At this point in their discussion, however, Ratnakīrti's Naiyāyikas have the opponent resist their analysis, by arguing that there is a deep disanalogy between the causal principle in the Naiyāyikas' argument and those in noncontroversial ones. To support this point, they have their opponent argue that the disanalogy is due to a suppressed difference in the scope of the fact/effect that is assumed in the different versions of the causal principle. The opponent's proposal is that the Naiyāyikas' positive argument can support only a much weaker version of the causal principle, since it can support only the principle that each and every effect "from the observation of which there could be an awareness of its having been made, even for one who did not observe its being made," has been constructed by an intelligent agent. The opponent's strategy is to try to undercut the Naiyāyikas' earlier appeal to the theory of remoteness, by eliminating the possibility that the intelligent agent in question could be "essentially remote." Their proposal is effectively to insist that (given the Naiyāyikas' reliance on observation) the only kinds of effects that anyone can take to exhibit the marks of having been made by an intelligent agent are those that can be seen to have been made by such an agent, e.g., a person. As the opponent sees it, what is essential to inferring

an intelligent maker in ordinary contexts is that we have seen that effects with a certain degree of complexity and scale have been made by such an agent. While this new version of the causal principle lessens the epistemic burden, it does not (according to the opponent) apply to the existential fact in step 1 of the Naiyāyikas' argument, and thus does not provide any basis for an inference from it.

As discussed in section 3.2.3, however, the Naiyāyikas reject the disanalogy, and in so doing clearly show that they recognize both the force of such arguments and the need to formulate an adequate response to them.[151] The Naiyāyikas' general strategy for rejecting the disanalogy is to work with what they present as shared intuitions about the kinds of similarities and dissimilarities that are relevant to the argument. These "shared intuitions" are arrived at by examining those arguments that are accepted by everyone, including the opponent. On the basis of this, the Naiyāyikas then insist that the opponent's argument for a weaker causal principle that can support the inference of an intelligent maker for only a restricted class of effects is actually based on intuitions that are in fact opposed to what she herself takes to be the case. This strategy is reflected in the Naiyāyikas' assessment of the proper interpretation of the "effect-term" in their causal principle, and the closely related issue of the positive support that can be given to it through observation, as compared with the "proper" scope and support through observation of the casual principle in noncontroversial inferences.

As they present the "disanalogy" issue, it is about whether the observability of the cause/agent is the property in virtue of which the causal principles in the two arguments are to be compared. In interpreting the disanalogy issue in this way, they reject the opponent's attempt at trying to restrict the scope of the effect-term, and instead accept the epistemic burden of establishing their less restricted version of the causal principle. Ratnakīrti's Naiyāyikas thus deflect the kinds of disanalogy arguments that have been used primarily against analogical versions of the argument from design, by shifting (or twisting) it away from disanalogies between the effects/artifacts whose causes/makers can be determined and the effect/artifact cited in step 1, to the cause/maker of these effects/artifacts. For the Naiyāyikas, the only relevant "mark of design" is that both sets of effects/artifacts are things "from

151. Cf. Gale 2007:48–49, where he criticizes one of Hume's arguments that there is a decisive disanalogy at work.

the observation of which there could be an awareness of its having been made, even for one who did not observe its being made." (Differences between such effects/artifacts are deemed to be irrelevant.) It should come as no surprise that this issue is explicitly raised again by Ratnakīrti in his critique of the Naiyāyikas' response; it will be discussed in greater detail in chapter 3.

4.2. Satisfaction, Certification, and Justification

When it is understood as a hybrid version of the cosmological and design argument, what Ratnakīrti's Naiyāyikas tell us is explicitly at stake in their Īśvara-inference is a closely related set of issues that parallel, in interesting ways, the kinds of issues that frame (and have framed) debates about both arguments. Through a constructed dialogue with an opponent, the Naiyāyikas highlight the importance of both the gap-problem and the relationship between the scope of the terms in their causal principle and the epistemic burden that this places on them. They clearly recognize that the scope of the reason and target properties account for a trade-off between the force of the gap-problem and the epistemic burden problem. This recognition is important, since it may help to explain their decision to specify that the target property is an *intelligent*-agent and not just a cause or agent-in-general.

In discussing these issues, however, Ratnakīrti's Naiyāyikas also point to what is *implicitly* at stake for them in their argument. As I have pointed out, Ratnakīrti's Naiyāyikas often respond to their opponents by comparing controversial features of the Īśvara-inference to similar features in arguments that are known to be accepted by them. In addition, as Ratnakīrti's Naiyāyikas present it, the transition from argument to argument is often marked by the opponent's seeming acceptance of their analysis. This rhetorical context is epistemically significant, and hardly incidental. As I hope to show, it suggests that Ratnakīrti's Naiyāyikas are aware, at least implicitly, that what is at stake in their argument is their entire epistemology, and especially their approach to certification.

The specific dialogical features of the Naiyāyikas' discussion suggest that Ratnakīrti's Naiyāyikas understand the certification process in terms of fulfilling an epistemic obligation to their epistemic peers.[152] This obligation is

152. My use of this term is based on Gutting 1982:83, where the term is used to refer to those individuals who are like us with respect to "intelligence, perspicacity, honesty, thoroughness, and other relevant epistemic virtues." Kelly 2005 extends Gutting's notion to require, in addition, that our epistemic peers be like us with respect to "their exposure to evidence and arguments which bear on the question at issue." Such a peer is one over whom we "claim no epistemic advantage." The Naiyāyikas' opponent seems to be an epistemic peer who is in between that of Gutting and Kelly. More specifically, while Ratnakīrti's Naiyāyikas seem to view their opponent as being an epistemic peer with respect to Gutting's criteria, it does not seem to me that they would go as far as to say that they have no epistemic advantage over their opponent, e.g., that they have not given greater attention and thought to the arguments at hand. As Kelly 2005 sees it, the Naiyāyikas' opponent is an epistemic peer with respect to his criterion ii, but not with respect to his criterion i.

defined through their theory of defeaters, and is introduced into their argument through the dialogical framework of the text. Specific obligations are met by addressing the philosophical issues that arise in fulfilling what they see as their prima facie responsibility to show their opponent that no known defeaters apply to the reason property in question. A further responsibility is to respond to their opponent's counterarguments, until that opponent's reasonable, and epistemically significant doubts, have been resolved. In an important sense it is peer disagreement that drives the debate by shifting the burden of proof back and forth until it has been lifted. In Ratnakīrti's text, there is never an explicit stalemate.

The certification process thus has built into it what I earlier referred to as both "deontological" and "procedural" dimensions. The deontological dimension is evident from the fact that Ratnakīrti's Naiyāyikas assume that they have a prima facie epistemic responsibility to show their opponent that none of the known defeaters apply to the reason property in the Īśvara-inference. This is evident from the structure of their argument, as is their further obligation to respond to all of the opponent's reasonable doubts.[153] It is only once these epistemic responsibilities have been fulfilled that certification follows. The procedural dimension is evident from the Naiyāyikas' insistence that it is the activity and epistemic practice of certification—i.e., the practice of showing that a set of defects does not apply to a particular inference instrument—that not only precedes the reflective knowing-event itself (A_r) but is in fact what that event is based upon. A first-order awareness-event (A_c) is thus certified only insofar as an epistemic agent has herself

153. See Alston 1989:74–75 and chaps. 4–5, where Alston discusses and rejects what he calls the "deontological" concept of justification and argues in support of an "evaluative" conception of justification which is "just reliability of belief formation with evaluative frosting" (Alston's concession to his moderate internalism). See Alston 1989:96–109.

shown that the instrument that produced it is well-functioning.[154] Certification is how an agent comes to know that a particular first-order awareness-event is warranted. As a result of it, both the agent and the first-order knowing-event itself are "justified."

Given the Naiyāyikas' understanding of certification and justification, this is exactly what one should expect. Ratnakīrti's Naiyāyikas take themselves to have shown that a relevant set of defects does not apply to a specific inference-instrument, once they have met their prima facie epistemic obligations and have responded to and resolved the legitimate doubts that are raised by their epistemic peers. Once these obligations have been met and the doubts have been resolved, the Naiyāyikas are, in their view, entitled to claim that the first-order awareness-event (A_c) that was produced by that instrument is a knowing-event, since the instrument that produced it has been certified, and thereby shown to be well-functioning. Doxastic ascent is thus stopped once legitimate doubt has been resolved through the certification process.

As before, let us refer to the first-order awareness-event as a "knowing-event" (A_c) and the higher-order awareness-event that results from certification as "reflective-knowledge"/"a reflective knowing-event" (A_r).[155] My noticed awareness of this reflective knowing-event is a "certifying-event," which is itself self-luminous, since it is an illuminating awareness-event (A_i). The content of this certifying awareness-event, which has the reflective knowing-event as its object, provides us with an epistemic perspective on the first-order knowing-event by enabling us to notice the content of the reflective knowing-event. There are two constituents of its content: the first is the content of the knowing-event itself, e.g., "Īśvara is the maker of our world,"

154. For a discussion of proceduralism see Rosenberg 2002, esp. chap. 3, where he develops his own position by critically engaging Alston 1989 in support of what he takes to be broadly Sellarsian insights, which he says are "proceduralist only by implication."

155. The certification process, which is itself broadly inferential, produces this second-order knowing-event, about which no further legitimate doubt has been raised. As a result, reflective-knowledge is not itself in need of certification, even though in principle further legitimate doubt could be raised, in which case it too would be an awareness-event for which certification is sought. According to Ratnakīrti's Naiyāyikas, reflective-knowledge cannot be undermined by mere possibilities, but only by those possibilities for which there are strong positive reasons to suppose they actually obtain. Thus, though defeasible, a reflective knowing-event is not itself in need of certification. For an interesting discussion of this with regard to knowledge, see Rosenberg 2002: chap. 1.

and the second is the epistemic perspective on that knowing-event, e.g., "I have certified that the inference-instrument that produced that awareness-event is well-functioning."[156] It may be helpful to think of this second constituent as the assertive-content of that awareness-event. It is this assertive-content that is the source of the agent's "epistemic perspective" on her first-order awareness-event. More specifically, with this assertive-content comes a kind of confidence in the content of the first-order knowing-event. While the first-order knowing-event itself comes with the absence of doubt/uncertainty, the certifying-event comes with confidence, which is one reason it has differential epistemic value as compared with the first-order knowing-event itself. Whether this differential epistemic value is added or simply additional epistemic value will depend on context.

The dialogical form of the text thus indicates that the Nyāya epistemic framework provides not only a dialectical context for their defense of the Īśvara-inference but also an epistemological context for it. The Naiyāyikas' deontological, proceduralist, internalist foundationalism thus informs their defense of the Īśvara-inference by quietly specifying the conditions that determine when any such defense is successful. As I hope to show in chapter 3, Ratnakīrti clearly recognizes this, and fashions a critique of the Īśvara-inference that targets both the inference and the epistemology that is used to defend it.

156. The content of the certifying-event is as follows: "I notice that I am aware that the inference-instrument that produced my awareness that Īśvara is the maker of the world (the subject component) is (the relation component) certified/well-functioning (the property component)." See section 1.3.