



PROJECT MUSE®

---

## There's Nothing Wrong with Raw Perception: A Response to Chakrabarti's Attack on Nyaya's Nirvikalpaka Pratyaksa

Stephen H. Phillips

Philosophy East and West, Volume 51, Number 1, January 2001, pp.  
104-113 (Article)

Published by University of Hawai'i Press  
DOI: 10.1353/pew.2001.0015

Philosophy East and West



A Quarterly of  
Comparative Philosophy  
Volume 51 Number 2

University of Hawai'i Press

- ➔ For additional information about this article  
<http://muse.jhu.edu/journals/pew/summary/v051/51.1phillips.html>

## There's Nothing Wrong with Raw Perception: A Response to Chakrabarti's Attack on Nyāya's *Nirvikalpaka Pratyakṣa*

**Stephen H. Phillips**

University of Texas at Austin

In the lead article of the fiftieth anniversary issue of *Philosophy East and West* (January 2000), Arindam Chakrabarti elaborates seven reasons why Nyāya should jettison “indeterminate perception” and view all perception as determinate, that is to say, as having an entity (a) as qualified by a qualifier (F) as object (Fa). In his notes, Chakrabarti invites a reply “so that,” as he says, “I may know why immaculate perception is *needed* by Nyāya after all.” The following is a response that shows not so much why indeterminate perception is *needed* by Nyāya but why it is identified as a causal factor necessary to the arising of some (not all) determinate perception defined as “perception of an entity as qualified.” Here I follow Gaṅgeśa Upādhyāya, the fourteenth-century founder (with the help of a few less well known predecessors and contemporaries) of “New Logic,” Navya Nyāya. Gaṅgeśa devotes an entire section (about one eighteenth) of the perception chapter of his monumental *Tattvacintāmaṇi* (Jewel of Reflection about Epistemology) to *nirvikalpaka pratyakṣa*,<sup>1</sup> and he is a chief target of Chakrabarti’s chastisement.<sup>2</sup>

Now, first of all, I want to follow Gaṅgeśa’s ground rules. The Naiyāyika is not concerned with strategies about how to look good in debates (with Buddhists or anyone else). His attitude is truth-seeking, not eristic, and thus no reply will be given to Chakrabarti’s agonizing about how best to show ourselves in controversies with (in particular, Buddhist) adversaries (and Wilfrid Sellars). Gaṅgeśa’s reflections are *vāda*—and the section is rightly titled *nirvikalpaka-vāda*, *vāda* being “inquiries among friends”—directed to uncovering real causal factors, not to winning a debate or countering sophisms. Deception, or counter-deception, is sometimes appropriate—for instance, to protect a student or other judge from fallacies advanced by people of bad character. But not here. So I will lay out Gaṅgeśa’s argument for identifying *nirvikalpaka pratyakṣa*, and then run through Chakrabarti’s list of reasons for rejecting it with an eye to the objection’s salience to Gaṅgeśa’s project. In other words, Chakrabarti’s objections will be taken up with an eye to the truth as it appears to a Naiyāyika, not with an eye to how our team should best present itself to outsiders. I have little to say about Chakrabarti’s complaints about appearances—in fact, I find them delightful. Don’t let him fool you. There’s no greater Naiyāyika enthusiast than Chakrabarti himself, and he knows how to distill a controversy to show the wisdom

of Nyāya in contrast to revealing a deficiency, as he appears to be doing here. He does this to make us think broadly about Nyāya in a contemporary context. And at the end I join him in making some very general comments about Nyāya's realism. First, Gaṅgeśa's argument and a rebuttal of Chakrabarti's seven reasons from Gaṅgeśa's point of view.

There is no direct, apperceptive evidence for *nirvikalpaka pratyakṣa*; rather, it is posited by force of the following inference as the first step of a two-step argument. "The perceptual cognition, 'A cow' (for example), is generated by a cognition of the qualifier, since it is a cognition of an entity as qualified (by that qualifier appearing), like an inference." The second step takes a person's first perception of an individual (Bessie, let us say) as a cow (i.e., as having some such property) as the perceptual cognition figuring as the inference's subject (or *pakṣa*) such that the cognizer's memory not informed by previous cow experience could not possibly provide the qualifier, cowhood. The qualifier has to be available, and the best candidate seems to be its perception in the raw, a qualifier (cowhood), that is to say, not (as some are wont to misinterpret the point) as divorced from its qualificandum (Bessie) but rather as neither divorced nor joined, and, furthermore, not as qualified by another qualifier (such as being-a-heifer) but rather just the plain, unadorned entity. In the particular example, the entity is the universal, cowhood, or being-a-cow, although, again, it would not be grasped as a universal or as anything except itself.

The easiest of Chakrabarti's objections to repel is the second, which attacks the causal principle that is responsible for the invariable connection between the prover (being-a-cognition-of-an-entity-as-qualified) and the probandum (being-generated-by-a-cognition-of-a-qualifier) in the crucial inference. Chakrabarti says that "the only example given of that *vyāpti* (generalization) is inferential awareness." But this is simply false. All cognition of an entity as qualified by a qualifier (F) is generated, in part, by a cognition of the qualifier (F). The examples that Gaṅgeśa gives start with (1) inferential awarenesses but include (2) recognitions ("This is that Devadatta whom I saw yesterday"), which are a type of perception (otherwise we would not say "This," indicating the object of a current sensory experience), (3) bits of knowledge based on trustfully understood words (to use Chakrabarti's own felicitous rendering of *śabda-bodha*), and (4) analogical comprehensions (such as learning the meaning of "water buffalo" through analogies being drawn without having perceived a water buffalo before). In each case, a prior cognition of the qualifier (F) appearing as predication content (*prakāra*) is required and thus is identified as a causal factor, a condition that, although insufficient in itself to bring about a later determinate cognition with F as content, has to be in place for the determinate cognition to occur. As Gaṅgeśa says, "for without familiarity with a probandum and so on, inference and so on would be impossible."<sup>3</sup> This means we would have no knowledge at all.

Non-veridical cognitions, too, have a cognition of the qualifier presented as a cause, as will be explained. Indeed, every determinate cognition that we know of is found to have a cognition of the qualifier as one of its causes. In the case of inferential awarenesses, it is awareness of a prover property as pervaded by a probandum

property. With bits of knowledge from testimony, it is prior understandings (cognitions) of the words that the speaker uses to convey the information conveyed. Similarly, with analogical comprehensions, it is prior understandings of the meanings of the words in the analogical statement. Moreover, many *perceptions* plainly have other perceptions as such causal factors. When we see a person as a staff-bearer, our perception is informed by a perception of the staff that he holds. Perception of an entity as qualifiedly qualified (*a* as *G*-ly *F*), as qualified by a qualifier (*F*) that is itself qualified (by *G*), is caused, in part, by cognition of the qualifier (*G*). Otherwise, it would not be available, and people would not be provoked by their experience to say that *a* is *G*-ly *F*. But we speak like this all the time (“That is a person holding a staff”).

Sometimes memory informs perception such that the memory-forming prior experience would be the causal factor, such as when we see a piece of distant sandalwood as fragrant though there is no olfactory stimulation by fragrant sandalwood particles but only a remembering of the fragrance, which by sight is revived and presented in the current perception. Similarly, in the case of the illusory experience of a rope as a snake (“*a* is a snake”), the snakehood is furnished by memory and previous experience of snakes (more about this in a moment). In the case of recognitions, the cognitive causal factor is a remembering of the thing now experienced again. Indeterminate perception of a qualifier is to be posited to maintain causal uniformity in a case when nothing else seems able to make the qualifier available. We have such a case in a person’s first-time perception of a cow (the second step of the argument), since the cognizer is stipulated as having no previous experience of cows—and has also not been told about cows, et cetera.

Gaṅgeśa says that unless there are counter-considerations, the causal uniformity should be viewed as extending to such cases. Thus we are moved to posit indeterminate perception. Now, Gaṅgeśa claims that there are no counter-considerations, but Chakrabarti’s list may have been overlooked by him. Not the second objection, which, as we have seen, contains an error, a failure on Chakrabarti’s part to notice the correlations on which the causal principle is based, but perhaps the rest. Let us take up the other six in the order that Chakrabarti presents them.

The first objection is that the *Nyāyasūtra* definition of perception (1.1.4) can be read without interpreting *a-vyapadeśyam* (“non-verbal”) as indicating indeterminate awareness. This is correct. Vātsyāyana and Uddyotakara, the two oldest commentators, understand the word to apply to perception in general, and it is, as Chakrabarti says, the much later commentator Vācaspati who first uses the term in the sense of the indeterminate perception of the later system.<sup>4</sup> But Gaṅgeśa and other Navyas know this. They have read Vācaspati and know the history of the concept—including considerations, we may remark, some seemingly weightier than any on Chakrabarti’s list, against indeterminate perception having a causal role (Gaṅgeśa has a hard-hitting *pūrvapakṣa* whose theme is that all perception is determinate). Although in general Gaṅgeśa and the others do make an effort to show Gautama and all the early tradition in a good light, they will depart from it if reasons demand. Gaṅgeśa is willing to dispute even Udayana’s positions, although usually

he follows his “revered teacher.” So Chakrabarti’s first objection would be significant only in tandem with counter-considerations that are independently weightier than the two-step argument reviewed above. And even so, its significance would be historical only. As a philosophic objection, it can be dismissed. No Naiyāyika regards the *Nyāyasūtra* as *śruti*.

The third objection is that Gaṅgeśa defines perception in a way that makes indeterminate perception problematic. But does he? He himself clearly does not think so—as he himself says in a couple of sentences that follow on the heels of the definition. In other words, Gaṅgeśa is himself worried that his definition (perception is “cognition that does not have a cognition as its *karaṇa*, as its chief instrumental cause”) will appear to rule out—especially, it seems (reading between the lines)—the determinate perception that has an indeterminate perception as one of its causes. He takes the trouble to argue that the prior cognition of the qualifier that is required in the case of any determinate perception (including indeterminate cognition as sometimes such an instrumental cause) is never the “chief instrumental cause,” *karaṇa*. Since Chakrabarti does not review Gaṅgeśa’s reasoning, let us do so here briefly.

But we [endorse the following definition of perception]: “cognition that does not have a cognition as its chief instrumental cause [*karaṇa*, trigger].” And cognition of the qualifier is not the chief instrumental cause of a perception of an entity as qualified [by that qualifier although a preceding cognition of the qualifier is a causal factor including sometimes indeterminate cognition], because it [indeterminate cognition and all such causally efficacious prior cognition of the qualifier] has no employment in its causal operation [that is, no *vyāpāra*, no “operation,” and a true chief cause or trigger has to be employed]. Furthermore, a cognition of the qualifier is a cause with respect to a cognition of something doubly qualified [e.g., “The lotus is blue,” with the blue qualifying the something that is also qualified by lotushood or being-a-lotus]. But it is not the case that a cognition of the qualifier of the qualifier is also, by means of a cognition of the qualifier [as its employment in the causal process], the chief instrumental cause. For, there is no argument.<sup>5</sup>

The “employment in its causal operation” that is the *vyāpāra* of a chief instrumental cause is usually illustrated by an axe—the chief instrumental cause of the action of a tree being felled—which is employed in the action of (repeated) contact with the tree. This is not, however, simply an instrumental cause, as Chakrabarti renders the word *karaṇa*. Typically an effect has many instrumental causes—as would any perception—but there is always only one *karaṇa*, only one “trigger.” An indeterminate perception is considered *an* instrumental cause of some determinate perceptions (not all), but it is never the “chief instrumental cause,” and so the definition is all right. Now it is true, as Chakrabarti suggests, that Gaṅgeśa appears to be of two minds about *karaṇa* in the cognitive context. The appropriate sense organ in operation, that is to say, in sensory connection with an object perceived, is the *karaṇa* of any perception, he says. But with inference, a different view of what is required to be a *karaṇa* seems to be in place, something like “*proximate* instrumental cause.” The vacillation probably should be taken as marking a transition within Nyāya, and Gaṅgeśa’s inconsistency either a spur to or a reflection of a process of a change in

theory.<sup>6</sup> Mathurānātha, Rucidatta, and other classical commentators have much to say on this score. Nevertheless, Chakrabarti's objection hinges on indeterminate perception having to count as the *karaṇa* in the terms of the definition, whereas Gaṅgeśa does not consider indeterminate perception or any cognition of a qualifier ever to be the *karaṇa* of a perception. Thus, Chakrabarti's complaint is unfair.

The fourth objection is misleading. Chakrabarti says:

When the visual organ or skin is in touch with a substance and perceives a universal such as cupness or a textural feature such as roughness that inheres in it, it is simply counter-intuitive to say that it [the visual sense organ or the organ of touch] *first* sees the universal or feels the texture quality without any clue that it is a cup or a bark that has that texture and then goes on to perceive, predicatively, that—ah!—it must be the cupness in that cup or the roughness of the bark.

When one feels a piece of bark in one's hand, the contact between the organ of touch (in the hand) and the bark is a contact with the bark as a substance. The hand does not somehow first come into contact with the barkness of the bark or its roughness. But that sort of priority is not entailed by the posit of indeterminate perception. Chakrabarti has not brought out an untoward consequence of the theory. Here one has to appreciate Gaṅgeśa's appreciation of the complexity of perception as a causal process. The visual sense organ does not "see," as Chakrabarti says; it does not have that function but is rather an inconscient, material instrument crucial to the generation of seeing as a property of a person. Caitra sees the cup, not his visual organ. Nor does the tactile organ itself "feel." In certain circumstances, a determinate—that is, verbalizable—perception (with explicit predication content, e.g., "cupness" as connected to the individual cup, responsible for the verbalization "It's a cup") is fed its predication content (cupness) not by a memory but by a pre-predicative perception. The precise way that the information is conveyed is difficult to state, as we Naiyāyikas will readily admit. All that goes into making almost any particular effect what it is—and, again, perceptions we think of as effects—is extremely complex, and usually we have to be content in terms of explanation with identifying apparent necessary conditions without much hope of filling out the entire picture. Rarely can we know an effect's entire *sāmagrī*, "set of conditions together sufficient to bring it about." The reason we posit indeterminate perception as one of many necessary conditions for a restricted type of perception (e.g., "Cow" when a person has not seen or heard of a cow previously) has been given: the causal uniformity we find among all determinate cognitions, that is, cognitions of an entity as qualified by a qualifier appearing as "predication content," as has been explained.

The fifth objection is a good one: indeterminate perception presents a taxonomical problem. Where do we include it in our ontological scheme? Determinate perceptions are either veridical or non-veridical, but indeterminate perceptions fall outside that division since their object is simple (F) and not qualificative (a as F). However, veridicality and non-veridicality are ontological *upādhis*, a term rendered by Chakrabarti as "titular properties" (I usually say "surplus properties" to bring out the open-endedness of the idea) and employed to indicate that such properties have

no clear place in the category system, that they do not recur in the fashion of true universals, and that in their case taxonomical “cross-division” may be admitted. Furthermore, in the face of overwhelming evidence for a pervasion (*vyāpti*) or causal principle, taxonomical considerations take a secondary place. A causal discovery might urge us to revise our taxonomy, but a taxonomical difficulty would not undercut the evidence for a *vyāpti*. Finally, Chakrabarti is simply mistaken when he says that, taxonomically, perception is introduced as a variety of veridical awareness. Perception is a natural kind; there is a true universal, perceptionhood. But, again, there is no true universal, veridicality or veridical-awareness-hood. The actual ordering is just the reverse of that implied.

The sixth objection is difficult to unpack. Much of what Chakrabarti says is insightful, excellently revealing the spirit of Nyāya’s realist attitude, and it is hard to remember the objection by the end. Filtering out the worries about Buddhists becoming our friends, we see that the only question asked is why we should view the relationality present in something’s being some way (*a*’s being *F*) as “causally layered.” Well, we don’t—except, of course, in the atemporal causal mode of inheritance, in that the something (*a*) might be an inherent cause of a property (*F*, as an inherent cause of *F*, *samavāyi-kāraṇa*). But this is an objectwise picture. Cognition-wise, of course, the story is different. Our perceiving something as possessing a property is indeed layered—well, not “layered” but “ordered”: there is a temporal ordering such that any instrumental cause precedes its effect—whereas the layering of inherent causality is not in this way temporal. So Chakrabarti’s question amounts to: “Why do we presume this ordering? In particular, why do we presume that a determinate cognition *C* has to be preceded by a cognition of the qualifier that appears as *C*’s predication content?” The answer is, as before, that all determinate cognitions seem to have a cognition of such a qualifier among their causal conditions, and in the case of a first-time perception of, for example, a cow only an indeterminate cognition of cowhood seems able to make the qualifier available in accordance with the causal rule.

But let us try to give a more general answer, taking a wider view, as does Chakrabarti in revealing the spirit of the system and in worrying about capitulation to the Buddhist subjectivist stance. The Buddhists’ best argument is perceptual illusion. Indeed, all subjectivists and antirealists tend to cite illusion as the evidence showing that a perception’s object is not a feature of the world but is contributed somehow from the side of the subject. A rope can be perceived as a snake, with no difference, from the perspective of the perceiver, between the illusion and a veridical snake perception. Similarly, dreams are the perceptions of a dreamer but do not touch reality. (Our world is a dream, say Buddhists, and we should wake up and become *buddha*, “Awakened.”) Now, there are brothers in our realist cause, Prābhākara Mīmāṃsakas, who view all perception as veridical, and do so at least in part in order to resist this subjectivist polemic. (“Oh my, what a great folly this is, even of [you Naiyāyikas who are apparently] intelligent men! If cognition wanders from its mark, what’s the reason to trust it?”<sup>7</sup>) The longest section of Gaṅgeśa’s perception chapter is devoted to maintaining a “misplacement” view of illusion as opposed to the

Prābhākara “no-illusion” or “omission” view. The subjectivists are right: sometimes a person perceives *a* to be *F* when *a* is not in fact *F* and cannot discern (at that time) from her own first-person perspective that she is having a perception that is non-veridical.

But the predication content, the presentation of *F*-hood, nevertheless originates in things really being *F*, through a previous veridical experience of *F*-hood. Here we touch the heart of the Nyāya realism, and glimpse the wider answer to Chakrabarti’s query. Snakehood is available to become illusory predication content through previous veridical experience of snakes. It gets fused into a current perception by means of a foul-up in the normal causal process through the arousing of a snakehood memory formed by previous experience of snakes. The content of an illusion is to be explained causally as generated by real features of real things just as veridical perception is, too, although illusion involves the projection into current perception of predication content preserved in memory whereas at least in some cases (for example, those where an indeterminate perception furnishes the qualifier) veridical perception is not shaped by memory. Furthermore, Naiyāyikas agree with Prābhākaras to this extent: typically a non-veridical perception is veridical concerning the qualificandum. It is only the qualifier that gets misplaced. “This is a snake” would be veridical in part in that there really is something out there (a rope) that is the qualificandum (the “This”) relative to the misplaced qualifier. Illusion is to be explained as a taking something to be what it is not, a seeing or perceiving of it through a misplaced qualifier. This means that perception involves combination—what Chakrabarti vaguely calls layering. But, to repeat, sometimes neither a prior determinate cognition nor a remembering furnishes the predication content, but rather an “in the raw” perceptual grasping of the qualifier delivers it to an ensuing determinate and verbalizable perception. And if this were not an “immaculate perception” but itself a grasping of a property through the grasping of another property, we would be faced with an infinite regress, and direct perception of the world would be impossible.<sup>8</sup>

Moreover, a distinct line of reflection feeds the view that determinate perception is a cognizing of a qualificandum through a qualifier: things have multiple properties some of which normally go undetected on any given occasion of experience. If I can touch what I saw, for example, then when I am only touching the thing, I normally will not be aware of the thing’s color perceptually. If the ontological layering of things and their qualifiers were not reflected in the disputed causal ordering, then perception of a qualificandum should entail that the “thick” particular be presented, that is, the thing with all of its properties, and, as Gaṅgeśa points out, a blind person in touching a yellow piece of cloth would know that it is yellow.

The seventh objection seems to be a worry about appearances, and lines up more with what Chakrabarti says at the beginning of his essay than with the list laid out at the end. The objecthood—the having-an-object or intentionality—of indeterminate perception is different from that of determinate perception (of course it is), and “comes dangerously close to that of an awareness without any object directedness.” I say that this worry can be only a matter of how we present ourselves to non-

Naiyāyikas in a debate or the like, since clearly all indeterminate cognitions have objects, to wit, the qualifiers that appear as predication content in ensuing determinate cognitions. It is important to keep in mind that Gaṅgeśa and the others fully realize that indeterminate perception is hypothetical, a posit made for systematic, explanatory purposes. There is no direct perceptive—that is, apperceptive—evidence for it; rather, it is an inferential posit made on the basis of the two-step argument that we have reviewed. Now, there is an old principle in Nyāya that in positing a hypothetical entity for explanatory purposes, one posits it as having the properties that it has to have to play its explanatory role. For example, God is posited to explain the coming about of the earth and so on as effects. What kind of God is posited? A being having the properties—the knowledge and skill, in particular—necessary to perform the creative task. Thus, indeterminate perception is not to be confused with the objectless awareness that Advaita Vedāntins tout. The very point of the posit is to explain how some determinate cognitions get their predication content. And so it has to be understood as having an object, the qualifier, namely, that which appears qualifying a qualificandum in such a verbalizable cognition as “That’s a cow.”

Chakrabarti’s seventh objection is especially weak, but it, too, can be taken as a prompt and a call for the wider view. In broad perspective, the purpose of the theory of indeterminate perception seems to be to maintain the position that, despite illusion, there are perceptual instances where *all* the information presented comes from the object perceived. To find a clear instance of this for the purposes of argument, we cannot turn to recognitions (“This is that Devadatta”) or to complex perceptions (“This is a human being because I see his hands”) where, albeit the cognitions are veridical, a prior determinate perception (of Devadatta or the hands) provides content, for these examples are easily misinterpreted in a subjectivist fashion. But with a first-time perception of, for example, a cow, nothing on the side of consciousness could provide the content. Cowhood is provided by a direct sensory connection with the thing as it is in the world.

And so we come to an objection not expressly stated by Chakrabarti but perhaps implied. Why call this causal factor responsible for delivering the qualifier a perception, a cognition? Why not call it something else? For it is unlike all other cognitions in that it cannot be apperceived. Moreover, it cannot be directly verbalized. It seems not a matter of consciousness. If the posit is made to fill out how perceptual processes work, then let us say, perhaps, that the unconscious sense-organ connection delivers the qualifier to determinate cognition, or, better, that all the information—qualifier, qualificandum, and their relationality—flows together through the conduit of the sensory organs and that determinate cognition gets its content all at once through a single and simple causal process. (This latter seems to be what Chakrabarti suggests.)

But how, then, will we explain illusion? There may be better ways to understand various types of perception from our objectivist point of view, but to posit indeterminate cognition is the best that we know of to date. It has the decided advantage of allowing us to maintain a causal uniformity. All determinate cognition has as a

causal factor a cognition of the qualifier that appears as “predication content,” as a “way,” *prakāra*, that an object cognized is. In cases where memory does not feed our perception, it is a direct cognition of the qualifier that does so. True, this perception is unlike others. And there is some mystery in the processes that bring properties into awareness. But calling this providing of the qualifier a perception has the merit of underscoring the fundamental role of perceptual evidence. Objects make us perceive them through perception as a causal process, the process that is our fundamental and best cognitive link with the world. We see most clearly that this is the case with examples where a subject knows something perceptually for the very first time. With illusion and other cases, subjectivists may get a wedge between the world and what we perceive, but not in the case of first-time perceptions where such a primitive, unstructured presentation has to be posited, a cognitive picking up of the way something is for the very first time. Indeterminate perception is transitional between unconscious workings of sensory instruments and conscious processes. The term “perception” (*pratyakṣa*) brings out its affinity with other cognitions; the adjective “indeterminate” (*nirvikalpaka*) makes plain its difference.

## Notes

- 1 – Gaṅgeśa, *Tattvacintāmaṇi*, vol. 1, *Pratyakṣa-khaṇḍa*, with the *Prakāśa* commentary by Rucidatta Miśra and a subcommentary by Rāmakṛṣṇādhvarin, ed. N. S. Rāmānuja Tatacharya, Kendriya Sanskrit Vidyapeetha series 20 (Tirupati, 1972), pp. 857–868.
- 2 – At the end, Chakrabarti says that he would like a “Gaṅgeśa enthusiast” to try to respond to his devastating arguments, mentioning me. See Arindam Chakrabarti, “Against Immaculate Perception: Seven Reasons for Eliminating Perception from Nyāya,” *Philosophy East and West* 50 (1) (January 2000): 1–8.
- 3 – *Sādhya-prasiddhy-ādikam vinā anumity-āder a-sambhavat* (Gaṅgeśa, *Tattvacintāmaṇi*, vol. 1, *Pratyakṣa-khaṇḍa*, p. 858).
- 4 – See *Nyāyasūtra* (Nyāyadarśanam), with four commentaries, the *Nyāyasūtrabhbhāṣya* of Vātsyāyana, the *Nyāya sūtra-vārttika* of Uddyotakara, the *Nyāyasūtravārttika-tātpāryāṭikā* of Vācaspati Miśra, and the *Vṛtti* of Viśvanātha, ed. A. M. Tarkatirtha, Taranatha Nyayatarkatirtha, and H. K. Tarkatirtha, Calcutta Sanskrit Series 18 (1936–1944; reprint, New Delhi: Munshiram Manoharlal, 1985).
- 5 – *Jñānā-karaṇakam jñānam iti tu vayam / viśiṣṭa-pratyakṣe ca viśeṣaṇa-jñānam na karaṇam vyāpārā-bhāvāt / viśiṣṭa-vaiśiṣṭya-pratyakṣe ca viśeṣaṇa-jñānam hetur na tu viśeṣaṇa-viśeṣaṇa-dhīr api viśeṣaṇa-dhī-dvārā karaṇam, mānābhāvāt /* (Gaṅgeśa, *Tattvacintāmaṇi*, vol. 1, *Pratyakṣa-khaṇḍa*, p. 595).
- 6 – Within a set of necessary conditions that together are sufficient for an effect, that instrumental cause called the *karaṇa* gets special attention in Gaṅgeśa’s causal

explanations of effects (and perceptions are effects), for the *karaṇa* is the unique condition that, on being met—after it comes along and, so to say, adds itself *in operation* to a heap of enabling conditions already in place—the effect necessarily comes about.

The requirement that a *karaṇa* must be in operation, or employed, is controversial. A category dispute rears its head as philosophers try to be precise in identifying the *karaṇas* of effects, particularly, as with Gaṅgeśa, the effects that are our veridical and non-veridical cognitions. Roughly, these are results of perceptual, inferential, and other cognitive processes. But what precisely is the *karaṇa*, or type of *karaṇa*, for each principal type of cognitive effect, veridical perception, and so on? Just how an effect is characterized is one variable; another is whether a true *karaṇa* has to have an employment in action, or is itself an action, or a quality, such as sense-organ/object connection. So also, everyday identification of causes has bearing, as well as, of course, what is strictly inferable on the basis of an effect of a certain type having occurred.

Gaṅgeśa appears to be of two minds about the nature of cognitive *karaṇa*. The *karaṇa* of a sense perception is, he holds, the appropriate sense organ, which is a substance *in operation*, that is to say, in sensory connection to an object perceived. Such a connection would be a quality or another category according to what is perceived. But in the case of inference, the *karaṇa* is viewed as a certain type of complex cognition, which is a psychological quality. And with inference the *karaṇa* does not have to have an operation but rather would immediately bring about an inferential cognition as its effect, although commentators disagree about this. Gaṅgeśa's views of the *karaṇa* of analogical and word-generated knowledge are still something else: they are cognitions, as with inference, but they also, in a sense, have operations. In other words, Gaṅgeśa normally does not mean that a *karaṇa* is the absolutely last factor before its effect's occurrence. Within the perception chapter at least, he holds that a true *karaṇa* has to have an employment, or "operation" (*vyāpāra*), that in a sense stands between it and the effect. For example, an axe has to be employed in action to fell a tree. Again, the translation "proximate instrumental cause" may sometimes be right, but it is really the "nearly proximate instrumental cause," since it is understood that the *karaṇa* has to be "employed."

- 7 – *Aho bata mahān esa pramādo dhīmatām api / jñānasya vyabhicāritve viśvāsaḥ kiṁ nibandhanaḥ* // (Gaṅgeśa, *Tattvacintāmaṇi*, vol. 1, *Pratyakṣa-khaṇḍa*, p. 505).
- 8 – Gaṅgeśa admits that indeterminate perception need not provide the qualifier not only with second- and third-time perceptions of something as F but not even, strictly speaking, with a first-time perception, since conceivably there could be an intervening cognitive factor. But with that factor again the question would arise as to how it gets its content, and so, since an indeterminate perception has to be posited at some point to block a regress, it might as well be right at the start.