

OUR KNOWLEDGE OF UNIVERSALS
A CASE FOR SENSE-PERCEIVING IMMANENT UNIVERSALS

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ABSTRACT

In this dissertation, I argue that we can know immanent universals. I conclude that we can know immanent universals by means of sense-perception, because we can directly know concrete particulars. Whenever we know a concrete particular by way of sense-perception, we have a cognitive ability to directly recognize a universal inherent in a concrete particular. After introducing the problem of universals in chapter I, I argue in chapter two that universals actually inhere in their concrete particulars. I describe a universal as a singular, eternal entity that can wholly exist within various concrete particulars at the same time. When I say “within” a concrete particular, I mean a universal is an immanent entity that inheres within their concrete particulars via instantiation. In chapter three I argue that we have knowledge of concrete particulars by way of sense-perception as a means of knowledge. The content of our cognition must not only be directed at an external object in the world, but also our cognition must be determinate and free from accidents, errors, and doubts. In short, our sense-perception must be a reliable instrument that is faithful at tracking the truth (*pramāṇa*). In chapter four I argue that our sense-perceptual abilities can help us to recognize universals inherent in their particulars. Indeed, perhaps the most intuitive demonstration for recognizing immanent universals is seeing *the cat on the mat as a cat*. Nyāya thinkers, especially Jayanta Bhaṭṭa explains our ability to notice a universal in a later cognition while presently sense-perceiving a particular object is known as recognition. To recognize an object is to grasp that *felt* sense of similarity. When we look at a familiar object, not only do we recognize the particularity of the individual object (i.e., its uniqueness), but also we can recognize it as a non-particular individual (i.e., as a universal). In chapter 5, I raise three objections to my overall thesis. After raising problems with my overall thesis, I reply and explore each objection.

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In Raphael's fresco, *The School of Athens*, Plato and Aristotle stand in the center. In his left hand Aristotle holds the *Nicomachean Ethics* while directing onlookers to this world. In contrast, Plato points beyond this world, keeping close to him the *Timaeus*. Each gesture indicates a central view concerning the nature of Universals.

Chapter I. Introduction

When I look out upon the world I notice two things – I see a world filled with diverse objects such as clouds, trees, buildings, and people, and yet within this diversity I also see commonality. Philosophers, both in India as well as the West have argued that when objects are similar or agree in their substances, attributes, and actions then they share something in common. Traditionally, they call these common or shared properties, universals (Nyāya-Vaiśeṣika philosophers use the term “*sāmānya*” or “*jāti*”).¹ Universals strike people uninitiated to philosophy as peculiar and outlandish. Bertrand Russell once said, “The point of philosophy is to start with something so simple as not to seem worth stating, and to end with something so paradoxical that no one will believe it” (1985, p. 53). I would not be surprised if Russell was contemplating universals when he spoke those words. Indeed, my personal investigations of universals originate from something so simple – namely, when I see several objects that are alike, I think that they are the same, but the fact that each object I see is distinct suggests they are not the same but different. Therefore, one comes to a seemingly absurd result that distinct things are the same and yet not the same. To invoke universals is to attempt to address the problem of explaining the commonality or sameness among various things. The problem of sameness of

¹ The “they” refers to realist philosophers who think universals exist independently of mind. Not to confuse the general term realist with philosophers who think every day medium size objects are independent of mind.

many things reveals a deep-seated rational inclination to distill out and preserve commonality from the uniqueness or particularity of distinct objects.

One way that realists attempt to direct our attention to such entities is through a close examination of the actual use of words in subject-predicate discourse. For example, it is perfectly acceptable to say that some object x is triangular while some other distinct object y is also triangular; thus x and y share *triangularity* as a common property. However, it is puzzling to say some person x is Barack Obama while some other distinct person y is also Barack Obama. Intuitively, we feel more comfortable about two distinct objects sharing the same predicate or general term, than we feel about two distinct objects that are the same subject.² Having examined the grammar of her language, the realist seeks a fuller *metaphysical* understanding of the expressions of her language. In an attempt to revive metaphysics, P. F. Strawson rightly said, “The structure he [the realist] seeks does not readily display itself on the surface of language, but lies submerged. He must abandon his only sure guide when the guide cannot take him as far as he wishes to go” (1959, p. 10). Exactly how far and deep are some philosophers willing to go?

The philosopher Pranab Kumar Sen went quite far. In his essay, *Strawson On Universals*, Sen challenges metaphysicians to extend the problem of universals to the realm of perception. “[I]f all our present theories of perception are incapable of accommodating the possibility of a perception of generalities, can’t we think of revising our theories of perception themselves?” (2006, p. 39).

My dissertation can be broken down into three parts that together constitute a sustained investigation of one underlying argument.

² Some philosophers have argued for identity across possible worlds (i.e., transworld identities), but if this is so, then how shall we account for numerical identity? If A is identical to B then should not all the properties of the later be identical to the former and vice versa? In other words, it seems that particulars are world bounded i.e., exist only in one world.

Main Argument For Knowing Universals

- A. Immanent universals inhere in their concrete particulars.³
- B. We can have knowledge of concrete particulars by way of sense-perception as a knowledge source.
- C. While sense-perceiving a concrete particular, we have a cognitive ability to directly recognize a universal inherent in a concrete particular.
- D. Therefore, not only do universals exist, but also we have direct knowledge (i.e., cognitive access) to a large number of them.

³ John Cook Wilson in *Statement and Inference* warns philosophers of the concrete and abstract distinction. “Of late years it has been customary to speak of a concrete and abstract universal. These terms are to be avoided. Concrete was originally merely opposed to abstract and should mean a particular existence. Nothing is gained by calling an existence *concrete*, and the term has the danger of seeming to give an explanation” (1926, p. 714). I recognize Cook’s warning, however, I use “concrete” to mean ordinary objects like pots, cows, tables, chairs etc. On the other hand, the term “particular” seems to range over all kinds of entities from tropes to space & time or spacetime, instances of justice or motions or events, minds, souls, angels, God or gods, black holes, bosons, or quantum fields. Furthermore, I also recognize how relations are often thought as a particular or universal. In this work I do not touch upon sense-perceiving universal relations.

Chapter II. The Metaphysics Of Immanent Universals

The universal is unity that is the cause of identical conceptions of particular things, and exists singularly and wholly in each of its subjects.

Praśastapāda: *Nyāyakandali*

By the term ‘universal’ I mean that which is of such a nature as to be predicated of many subjects, by ‘particular’ that which is not thus predicated. Thus ‘man’ is a universal, ‘Callias’ a particular.

Aristotle: *On Interpretation* 7.17a39-b1

In this chapter I investigate the first premise of the Main Argument. I begin this chapter with a set of premises that directly supports the first premise of the Main Argument.

Argument For Immanent Universals Inhering In Their Concrete Particulars

- P1. Our world is a world where things are the same and where things are different. For example, teacups and coffee cups are more alike than pine trees and oak trees.
- P2. If there is a set of concrete particular, $a..n$, that have something in common, then there is a universal call it property F, and a relation R where each $a..n$ stands in R to F that ultimately explains why the concrete particulars have something in common.
- P3. If the consequent of P2 is true, then the relation R between concrete particulars and universals is an inherence relation that does *not* straddle realms of space and time (i.e., if the inheritor is in ordinary space and time then so is the inherent). In short, R serves to unite two different yet spatial-temporal bounded entities into a single complex-object.
- P4 The single complex-object (i.e., fact or state of affairs) suggests that a universal is *wholly* present in (i.e., inheres in) a concrete particular.
- C. Therefore, universals are immanent entities that inhere in their concrete particulars.

Challenging Premise 2: Ockham’s Razor as the practice of parsimony

The investigation of ontological categories involves not only an investigation of “what there is” but also the practice of parsimony that can be explained as the “Economics of Cognitive

Norms”. Norms or “Normative”, in the sense of what we ought to believe and “Cognitive” in the sense of providing evidence for a belief. Thus, the practice of “Economics of Cognitive and Ontological Norms” means following certain cognitive principles, which guide us in what we *ought* and *ought not* to believe about what there is (i.e., E-CON for short). Ockham’s razor is a general ontological principle for simplicity that challenges positing universals. When I say “simplicity” I do not mean non-complexity, rather I mean non-multiplicity of entities. According to this principle one should not *multiply* entities or *kinds* of entities beyond necessity. So, for example, if one can show that certain concrete particulars can function in roles allocated for universals, then one should abstain from positing universals. The following are two arguments for *occamizing* universals from our ontology - resemblance nominalism and exclusion nominalism.

Argument For Resemblance Nominalism⁴

- P1. Various concrete particulars or qualities look the same, for example “O” and “o, o, o, 0”. Indeed, two distinct objects can *exactly* look the same such as “a” and another letter “a”.
- P2. The explanation of why certain objects are common or the same is nothing special. The simple explanation for why a certain object is the same or called the same name with another object is because they resemble each other. So what makes the letter “a” common with other a-like letters “a, a, **a**, a, a” is because the letter “a” resembles those a-like letters.
- P3. According to P2, two objects along with a resemblance relation explain why they are the same without the need to posit anything as fantastic as a universal (i.e.,

⁴ I return to this argument when I discuss tropes (i.e., property particulars). Also, I think it is important to distinguish two philosophical debates concerning universals, which in the end may overlap. One debate concerns whether the explanation of the relation between a particular and a property requires a universal as an *explanans*. In other words, can we explain how “a is F” without appealing to universal Fness? Nominalists, say “No” while realists say, “Yes”. The second debate concerns how to explain commonality between objects that are similar. Realists appeal to universals, while nominalists often appeal to exact resemblance. In this chapter I primarily focus on the later debate.

transcendent or immanent universals).

P4. According to Occam's Razor (i.e., the principle of parsimony) one should not *multiply* entities or *kinds* of entities beyond necessity.

C. Therefore, we have no good reason to posit universals.

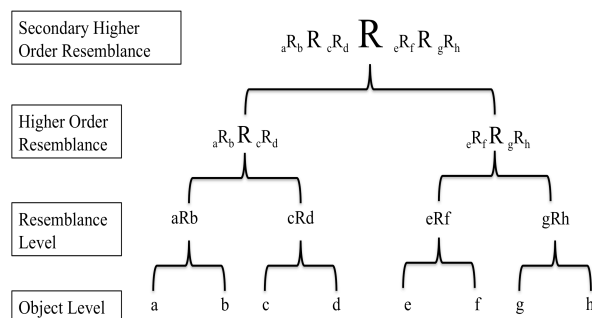
Response To Resemblance Nominalism

X objects are X and thus called X simply because they resemble each other in a way in which they do not resemble Y objects, or Z objects. But in what sense does the resemblance relation resemble other resemblance relations? Russell, in *The Problems of Philosophy* argued that the resemblance relation requires resemblance itself to be a universal.

If we wish to avoid the universals *whiteness* and *triangularity*, we shall choose some particular patch of white or some particular triangle, and say that anything is white or a triangle if it has the right sort of resemblance to our chosen particular. But then the resemblance required will have to be a universal. Since there are many white things, the resemblance must hold between many pairs of particular white things; and this is the characteristic of a universal. It will be useless to say that there is a different resemblance to each pair, for then we will have to say that these resemblances resemble each other, and thus at last we shall be forced to admit resemblance as a universal. The relation of resemblance therefore, must be a true universal and having been forced to admit this universal, we find that it is no longer worthwhile to invent difficult and implausible theories to avoid the admission of such universals as whiteness and triangularity (1997, p.96-97).

Russell warns us that in our attempt to *occamize* universals, by analyzing them in terms of particulars and resemblance, we have overlooked the commonality or sameness of the resemblance relation itself. Russell

Regress of Resemblance Relations



questions, what makes the particular resemblance between a pair of similar objects (aRb) and the particular resemblance between another pair of similar objects (cRd) a similar resemblance

relation? If we say another particular resemblance relation, then we seem to be locked into positing a particular higher order resemblance ($_aR_b \ R \ _cR_d$) relation that hold between resemblance relations of similar pairs. But this higher order resemblance between particular resemblance relations of similar pairs will resemble another higher order resemblance between another resemblance relations of another similar pair ($_eR_f \ R \ _gR_h$). But what makes these higher order resemblance relations similar? Answer: a secondary higher order resemblance relation ($_aR_b \ R \ _cR_d \ R \ _eR_f \ R \ _gR_h$). Thus we seemed to be locked into positing an *infinite* number of higher resemblance relations. Why not just admit resemblance as a true universal? Indeed if we admit resemblance as a universal into our ontology, then why not admit other kinds of universals such as *triangularity* and *whiteness* to our ontology?

Now a resemblance nominalist might question whether an infinite number of particular resemblance relations are vicious. Since all resemblances are particular like particular tables or particular colors etc, we really have not added an additional *kind* of entity to our ontology. And if we are given a choice between adding a kind of entity to our overall ontology or *not*, then it seems E-CONomically wiser to believe in an infinite number of resemblance relations, which do not add to our ontology than to add to our ontology a new *kind* of entity (i.e., universal) that are untold in number.

But I think a realist can reply to this objection by elucidating how universals actually explain the resemblance relation itself. In other words, accepting universals along with the inherence relation aid in our explanation why particular objects actually resemble each other. Unlike resemblance nominalist who seem to accept resemblance as an unexplainable brute fact or primitive, realists, on the other hand, can explain the resemblance relation by positing the

existence of a universal that either stands distinct from their instances (i.e., transcendent or uninstantiated universals) or lies within their instances (i.e., immanent universals) via inherence as instantiation.⁵ Although, we pay a price for adding an entity to our ontology, we purchase in return a cognitive explanation why objects resemble each other. If we are given a choice between universals that adds to our ontology by offering an explanation of similar or resembling objects versus one that neither adds to our ontology nor aids us in the explanation of resemblance itself, the wiser E-COnomical choice between the former (i.e., realist) and the latter (i.e., resemblance nominalist) is not so apparent.

Now another argument that seems troublesome for resemblance nominalists is the degree of flexibility of the resemblance relation itself. If objects strictly or exactly resemble each other, then the relation is not only communicative but also transitive.⁶ So if $x = \text{“a”}$ & $y = \text{“a”}$ & $z = \text{“a”}$, then there is no mystery to the transitivity and symmetry between or among exact resembling objects. Thus, the stiffness of the resemblance relation does not offer any leeway for

⁵ If a universal is inherent in a particular then a universal is an immanent entity. Shall we say instantiation is like the inherence relation insofar making an uninstantiated universal into an immanent entity? If inherence is a possession relation, then it is unclear whether instantiation is a kind of possession relation, in the sense of ownership. On the other hand, I do not think that instantiation is a copy relation because a universal would not be an immanent entity. It seems to me that instantiation is a special kind of inherence relation. If x is an instantiation of y or if x instantiates y , then x is an instance of y . So particulars are the instantiation of their universals because particulars are instances of their universal. The word “instance” means to “stand in” (“in” + “to stand”). So, if x *instantiates* y , then y *inheres* in x . All instantiation relations are inherence relations but not all inherence relations are instantiation relations. For example, the ontology of properties and substances – qualities and actions are properties that inhere their substances, but they are not instances of their substances and thus are not instantiations of their substances. The details of instantiation will become apparent when I explain Aristotle’s “present in” relation not as an instantiation relation but as an attribution relation between an accidental quality and a substance. Furthermore, I will explore this relation when I explain Nyāya-Vaiśeṣika inherence (*samavāya*) relation.

⁶ A communicative or symmetrical resemblance relation means if x resemble y , then y resembles x . A transitive resemblance relation means if x resembles y and y resembles z then x resembles z .

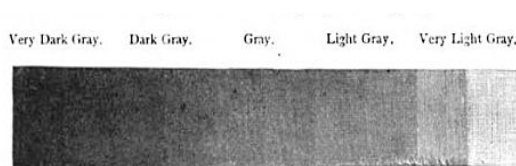
similar objects to resemble each other. On the other hand, if the resemblance relation is not stiff where the objects are not exact such as $x = \text{“a”}$ & $y = \text{“a”}$ & $z = \text{“a”}$, then to what degree does the resemblance relation hold among these objects? Indeed, in cases such as the color gradation what degree of resemblance shall be maintained with respect to transitivity? If very dark gray resembles dark gray and dark gray resembles gray and gray resembles light gray and light gray resembles very light gray, then in what sense does very dark gray resemble very light gray?⁷

Thus a dilemma seems to emerge. On the one hand if the resemblance relation is too rigid or stiff, then objects, which are similar but not exact will fall outside the exact resemblance relation. On the other hand, if the resemblance relation is not stiff or rigid, then what degree of flexibility shall we allow for objects to resemble each other while avoiding the slippery slope of transitivity?

Exclusion Nominalism (*Apoha*)

If we reject universals and accept only concrete particulars in our world, then how are we to understand general words? In other words, if the data of our experience are in fact particular, then how can we explain the significance of our words, given that all words besides proper names are general? The Buddhist philosopher Dinnāga concluded that not only do we learn how to apply general words through our linguistic practices inherent in our custom, but also our minds superimpose on to the particulars objects what we phenomenally experience. Universals, according to Dinnāga, are nothing but super imposed imaginative constructs or *vikalpas*. Unlike

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any theory of nominalism found in the West, Dinnāga's nominalism does not focus on positive abstracted concepts from distinctive resembling features of concrete particular. Instead his nominalism is based on how conceptual or imaginative constructions are actually an exclusion from a contrary class or set. So rather than positing a concept that refers to a universal x-ness as a common property amongst $x_1, x_2, x_3 \dots x_n$ we conceptual construct commonality by excluding all those things that are not x. For example, the common concept amongst three cows Bessie, Bossie and Betty, is not the universal cowness per say, but an exclusion class that are non-cows i.e., dogs, cats, rocks, tables etc.

A Concern Of the Apoha Theory: The Charge of Circularity

One noticeable objection against Dinnāga's exclusion nominalism is its apparent circularity. The argument concludes that we do not need a positive concept of X because it is possible to exclude what is other, that is, the exclusion of what is not X. So our understanding of X depends on our understanding of what is not X. But how are we to build up a concept of not X? It seems we need to know what X is. Thus, our understanding of X depends on our understanding of not X, which in turn depends on our concept of X. If there is no universal cowness, then we need to ask what is it for something to be a cow? It amounts to being excluded from all that are not cows according to exclusion nominalists. So if someone wants to know what a cow is should first identity what is not a cow, but how is he supposes to do that unless he already knows what a cow is (Hugon, 2009, p. 534)?⁸

Transcendent Realists Inquiry into Premise 3 & 4 of The Argument For Immanent Universals

⁸ The sixth century Nyāya philosopher Uddyotakara in his text *Nyāyavarttika*, says, "how could we every think of a non-cow without first thinking of a cow?" (Potter, 1977, p. 327).

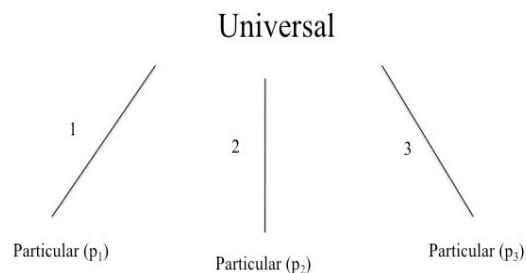
I can imagine a transcendent realist, like Plato challenging Premise 3 because a universal that is somehow “integrated into” into space and time appears to conflict with the belief that universals are eternal and immutable. Thus, in what sense is a universal located in space and time, given that all objects in space and time succumb to change?⁹ Furthermore, Premise 4 would make any Platonist weary, because a universal that is *non-separate* (i.e., fully inherent) yet *wholly* present in a concrete particular leads to an absurd conclusion, namely, a universal, as a singular entity can exist in multiple locations. I shall return to these arguments with more detail, but in order to appreciate Plato’s transcendent realism, I will briefly explain how transcendent universals are not only eternal and immutable but also how they are separate from the natural world.

Brief Background of Plato's Theory of Transcendent Universals as Eternal and Separate

Plato’s transcendent universals as a single eternal entity standing over and separate from the natural world of particulars have not only given us an insight about how to grasp meaning of a general term or how to acquire knowledge through a shared standard, but also how we can come understand the immortality of the soul.

In *Phaedo*, Plato, via Socrates, does not explicitly justify his belief in universals; instead he links his understanding of universals to his belief in the immortality of the soul. But before he links universals to the immortality of the

A Single Transcendent Form as a Universal over many Particulars as participants



Transcendent Universals are Ideal Forms that are Eternal, Immutable Essences

Particulars p1, p2 and p3 are Noneternal, Mutable objects participating in the Universal

⁹ In *Theaetetus* Socrates describes two ways an object can change: change in locality and change in alteration (181d).

soul, Plato first establishes two kinds of categories of being – a being that succumbs to change and is seen, and a being that is invariable and unseen.¹⁰ Having convinced Cebes and Simmias of two kinds of being, Socrates then explains how the human body is subjected to change while the soul is invisible and changeless (78d, 78e-79b, 79c-d). Plato concludes that the soul must be similar in nature to the forms because the soul is the seat for knowing eternal forms such as the Beautiful and the Good. It appears that Plato assumes that whatever can enclose or contain eternal forms (i.e., our soul as the source for knowing forms) must be like the eternal forms. But, exactly how does the immortal soul come into contact with universals?

Plato famously solves this problem with his theory of recollection. Our bodies are born with souls that have within them the concepts of universals, and we just have to recall those concepts from back before we were born – back when our souls were in close contact with universals in some transcendent heaven. So universals like *equality* and *justice* can be known via recollection. But in order to trigger our recollection of a universal, we must recognize a particular object in the world, which then triggers our recollection of a universal. Now Plato is not just interested in recollecting universals with respect to how physical objects are *similar* or *equal* to one another, but in the universal *equality* itself. Before we saw instances of equal things, Plato thinks we possess the *a priori* concept of *equality* that ultimately refers to the universal equality itself. In addition, he thinks universals act as a standard for comparison when we desire to compare similar or dissimilar objects. Keeping this in mind, every particular object, for Plato, is only an imperfect copy of the ideal universal (*Phaedo* 74b-d). In summary Socrates says, “So before we began to see and hear and use our other senses we must somewhere have acquired the knowledge that there is such a thing as absolute equality. Otherwise we could never

¹⁰ If Plato was influenced by Heraclitus' theory of opposites, then it makes sense for him to oppose a single category of being.

have realized, by using it as a standard for comparison, that all equal objects of sense are desirous of being like it, but are only imperfect copies of it” (*Phaedo* 75b).

If a person can judge a particular against a universal, then he can measure the deficiency or adequacy of the concrete particular (*Statesman* 283c). From assessing the deficiency or adequacy of a particular object against a universal, we develop our intuition of what we *ought* to believe. In other words, we seem to acquire a normative intuition with respect to what we ought to accept as a good or bad belief. Having explained how our epistemic normativity arises, Plato then links universals to real definitions.¹¹

Repeatedly we witness Socrates prodding his interlocutor for a real definition of a term. Socrates is never content with his interlocutor's definition of a term because they are either too narrow or too broad. For example, in *Laches*, Socrates denies the definition of courage as “a man who remains at this post and fight against the enemy” (190e-191a). The definition does not cover those who are courageous in the perils of the sea or those who are courageous in disease, or in poverty, or in politics. For Plato the definition must cover all instances of a courageous act. Plato's universals are explanatory essences that are aimed at real rather than nominal definitions. Plato's universals need not express ordinary usage of how competent speakers apply a term rather they aim to specify the nature or essence of a term.

In *Book V of the Republic*, Plato via Socrates is attempting to explain how philosophers who are the lovers of wisdom are different from those lovers of spectacle and the arts. Indeed, those who delight in beautiful tones, colors and shape, which Plato calls “dreamers” are unlike those philosophers who are “awake” and are capable of taking delight in the *nature of beauty in itself* (476b-d). Since Plato thinks we can know the nature of the beautiful itself, and that the

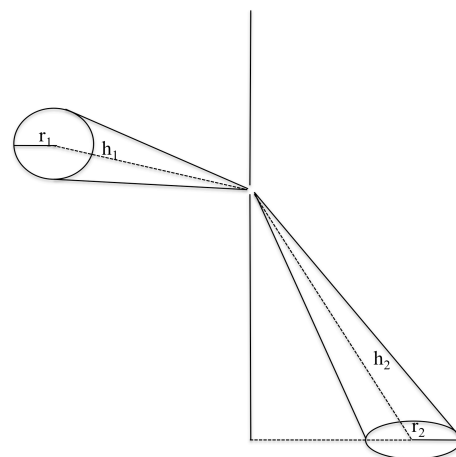
¹¹ A real definition unlike a nominal definition focuses on the essence of an object. Nominal definitions more-or-less captures how a term is simply applied in context.

sensible world seems to lack this sort of entity, he is led to posit the existence of such stable entities elsewhere in a place *separated* from the world that is presented by the senses (477c1-4). Terrance Penner writes, “What dreaming is, in this treatment, is the affirmation of what modern philosophers of science call a “destructive reducing identity.” (Compare: All there is to “possession by devils” is behavior in epileptic seizures.) If “nominalism” stands for the reductionist view that all there is to beauty, equality, the square, and the like, is the many particular beautiful (equal, square) perceptible objects, then the dreamers are what modern philosophers call “nominalists”” (2006, p. 247).

Marsilio Ficino’s Insightful Optic Analogy about Universals

The “destructive reductive identity” of universals that Penner cautions us against, touches on an important aspect that is simply missing in resemblance or nominalists theories concerning universals, namely, the sheer lack of awe and wonderment that has traditionally been an asset to a realist theory of universals. Historically, many philosophers have attempted to lift our hopes from a life that struggles with knowing what one ought to believe, to knowing what one ought to do.

Before I explain in detail Plato and Aristotle’s arguments for universals, I want to step back and examining a 15th century Neoplatonist theologian-philosopher Marsilio Ficino. Ficino expresses an insightful and indeed a poetic analogy between light and universals via optics. Ficino describes how two circular cones with their peaks touching are formed by



the sun’s rays that are constricted through a wall aperture. In the figure, axis h_1 and h_2 are in the

same proportions, as the radii r_1 and r_2 . If the wall aperture were displaced up or down, then we would see a shortening or extension of the axis h_1 , which has a consequent to the diameter of the illuminating cone-base on the floor (Albertini, 1997, p.78). According to Ficino's analogy, the base cone represents our rational soul while the sun represents universals. The light rays of the sun come to us via the aperture, which represent our eyes. The light rays are contracted tightly in the pupil and are transmitted to the rational soul. It is in the rational soul where the true magnitude of the sun i.e., universals are truly judged.

Now as fantastic as this analogy sounds, I find it insightful for two reasons, one it suggests that we can indeed come into contact with universals via our perception and two, more importantly, it inspires us to look up to the light while looking at the world where ordinary objects are revealed by light. Not unlike the Plato's Allegory of the Cave, Ficino motivates his readers to search for the light that ultimately leads to things beyond ordinary objects. In fact, Ficino thinks the path to universals will lead a person to search for oneself and God. In *Platonic Theology*, Ficino commenting on Plato says, "He considers man's soul to be like a mirror in which the image of the divine countenance is readily reflected; and in his eager hunt for God, as he tracks down every footprint, he everywhere turns hither and thither to the form of the soul. For he knows that this is the most important meaning of those famous words of the oracle, "Know thyself," namely "If you wish to be able to recognize God, you must first learn to know yourself "" (Hankins, 2001, Volume 1, Book I, Chapter 1, paragraph 2, line 10-13).

Reductio Arguments Challenging Premise 3 & 4 of The Argument For Immanent Universals

A transcendental realist's argument against immanent universals is grounded on a belief that there exist two distinct ontological realms. One realm is bounded by space and time and is

inhabited by concrete particulars that are subjected to the flux and change within our natural world, while the second realm is outside of space and time and is eternal and unchanging. If the relation between a universal and a particular does not straddle realms of space and time as P3 indicates, then what prevents the universal from succumbing to change? In other words, if the universal and the particular are bounded into a single complex object, then what blocks the universal from changing or being destroyed? If universals are eternal and act as essences of an object, which ground our real definitions, then they seem to be unchanging. Thus for a transcendent realist, an immanent universal is an oxymoronic term because its mutability or destruction is inconsistent with its eternality. The following is a sketch of the argument.

Against the Instantiation Relation of Immanent Universals based on Immutability of a Universal

- P1. If the instantiation relation binds a universal and a particular into a single spatial-temporal object, then nothing seems to prevent this immanent object from succumbing to change.
- P2. Universals do not succumb to change (i.e., they are changeless), because they are eternal.
- C. Therefore, universals are not the kind of immanent objects that exist in our world.

Another argument against the existence of immanent universals focuses on the location of immanent universals. In short an immanent universal seems to exist in multiple locations at the same time. Indeed, this should strike one as peculiar. If an immanent universal can exist in two distinct locations at the same time, then we seem to be committed to the possibility of such an entity standing two feet from itself. How could this be? In other words, if x is holy and y is holy and x and y are different, how can the holiness of x, being in x, be the same as the holiness of y, which is in y? For someone to accept this is to believe in something very unholy! The following is a sketch of the argument.

Against The Multiple Location of Immanent Universals

- P1. If there are immanent universals, then a single immanent universal exists within its various concrete particulars at the same time. For example, an immanent universal cupness exists within various cups at the same time.
- P2. If the consequent of P1 is true, then a single entity can exist in two distinct locations at the same time.
- P3. If the consequent of P2 is true, then a single entity can stand at a certain distance from itself, which is absurd.
- C. Therefore, there are no immanent universals.

Possible Replies & Rejoinders Defending Immanent Universals

Indeed the arguments against premise 3 & 4 in the argument for immanent universals are acute and seemingly decisive. A response to the above arguments will require some heavy metaphysical lifting. A basic question to keep in mind is whether a universal can exist free-floating or uninstantiated i.e., separate from their concrete particulars? If so, then how do universals relate or interact with their concrete particulars? What consequence does this have with respect to universals as a cause? I attempt to answer such questions by exploring the relation between universals and particulars. Plato calls this relation a participation relation while Aristotle calls it a predication relation, and details this relation in terms of accidental and essential properties of a subject or predicate particular. In the Indian tradition, Nyāya-Vaiśeṣika philosophers posit just one relation i.e., *inherence* (*samavāya*). In the following section I attempt to detail this relation in terms of *instantiation*.

Challenging Plato's Transcendent Universals: Infinite Regress & Causality Argument

For Plato it is not the case that universal and particular do not have a relation, rather the relation is not something that can be lodged or something that resides within the particular. So

how do universals and particulars relate? In *Parmenides*, a young Socrates explains to an aged Parmenides how ordinary objects cannot fail to be like a Form since ordinary objects *participate* in a Form. Participation requires that a particular and Form share some characteristics.

But tell me this: is it your view that, as you say, there are certain forms, from which these other things, by getting a share of them, derive their names – as, for instance, they come to be like by getting a share of likeness, large by getting a share of largeness, and just and beautiful by getting a share of justice and beauty? It certainly is, Socrates replied. (130e4–131a3)

Parmenides does not easily give in to young Socrates' theory. As Parmenides inquires into Socrates' theory of Forms, it becomes apparent that forms are universals that are singular, and have a distinct and separate existence from their concrete particulars.

I suppose you think each form is one on the following ground: whenever some number of things seem to you to be large, perhaps there seems to be some one character, the same as you look at them all, and from that you conclude that the large is one. That's true, he said. What about the large itself and the other large things? If you look at them all in the same way with the mind's eye, again won't some one thing appear large, by which all these appear large? It seems so. So another form of largeness will make its appearance, which has emerged alongside largeness itself and the things that partake of it, and in turn another over all these, by which all of them will be large. Each of your forms will no longer be one, but unlimited in multitude. (132a1–b2)

By separating universal from their concrete particulars, Parmenides begins to question how particulars participate in a universal. If particulars participate in a universal, then there is something that a universal and a particular must share. What could be that thing, which both a universal and a particular share? Answer: another universal. Thus, so long as participation is a relationship between universals and particulars that resemble each other, we seem to generate an endless number of universals i.e., *an infinite regress of universals*. This regress is vicious because a universal is supposed to explain why the particular has the property it has. So how can an infinite number of *explicans* act as an explanation for a single *explicandum* (i.e. the thing to be explained)?

Infinite Regress Argument of Transcendent Universals

- P1. There are particular objects that resemble each other in this world. For example a teacup resembles a coffee cup.
- P2. If a set of particular objects resembles each other, then they do so by participating in a universal. In other words, the participation relation between cupness and various particular cups explains why particular cups resemble each other.
- P3. The upshot of a set of particular objects participating in a universal, result in a universal resembling their particular objects. In other words, the explanation of P2 also results in a universal resembling their particular objects.
- P4. But if P3 is true, then there must exist another universal that explains why a universal and their particulars resemble each other.
- C. Therefore, we seem to be locked-on an *infinite regress of universals*.

Challenging The Causality of Plato's Transcendent Universals

If universals stand separately from their particulars, then how can such a transcendent entity interact or relate to a spatial-temporal object like a concrete particular? Having explained the origin of Plato's theory of universals, Aristotle begins to question how transcendent universals are causally efficacious.

Above all one might discuss the question what in the world the Forms contribute to sensible things, either to those that are eternal or to those that come into being and cease to be; for they cause neither movement nor any change in them. But again they help in no wise either towards the knowledge of other things (for they are not even the substance of these, else they would have been in them), or towards their being, if they are not in the individuals which share in them; though if they were, they might be thought to be causes..." (*Meta.* 1079b12-19).

Causal Argument Against Plato's Transcendent Universals

- P1. If transcendent universals contribute to an object's being (either an eternal or momentary object), then it does so by causing an object to move or change.
- P2. If the consequent of P1 is true, then transcendent universals must share in those objects.

P3. Transcendent universals are not located in objects.

C. Therefore, transcendent universals really have no contribution towards an object's being.

The above argument is especially damaging if we assume causal efficacy to be a necessary condition for all existent entities (i.e., possesses causal efficacy or power). If the above conclusion is true, then transcendent universals not only appear to lack any involvement (i.e., inert), they also seem to lack causal efficacy. And if they lack causal efficacy, then what good reason do we have to believe that they exist?¹² Paul Benacerraf articulated a similar argument against those philosophers who believed that propositions and numbers are transcendent entities.¹³

The reason why transcendent universals are causally inert is because they seem to lie outside the bounds of space and time, and thus cannot contribute to an object's being. But is it possible to challenge the assumption that an object must exist within space and time in order to exert causal power? Classical Cartesian dualism, for example, grants full causal power to unextended minds over various extended bodily processes and vice-

¹² Plato's *Sophist*, the Eleatic stranger says, "I suggest that everything which possesses any power of any kind, either to produce a change in anything of any nature or to be affected even in the least degree by the slightest cause, though it be only on one occasion, has real existence. For I set up as a definition which defines being, that it is nothing else but power" (247 d-e).

¹³ The relevant portion of Benacerraf argument is really against Gödel's attempt to draw a parallel between the mathematical and empirical sciences. "He [Gödel] sees, I think, that something must be said to bridge the chasm, created by his realistic and platonistic interpretation of mathematical propositions, between the entities that form the subject matter of mathematics and the human knower. Instead of tinkering with the logical form of mathematical propositions or with the nature of the objects known, he postulates a special faculty through which we 'interact' with these objects.[....] If our account of empirical knowledge is acceptable, it must be in part because it tries to make the connection evident in the case of our theoretical knowledge, where it is not *prima facie* clear how the casual account is to be filled in. Thus, when we come to mathematics, the absence of a coherent account of how our mathematical intuition is connected with the truth of mathematical propositions renders the over-all account unsatisfactory" (1973, p. 675).

versa. But how can this be possible for such two very different ontological kinds to interact? One underlying assumption of causal efficacy is interactionism, which I call the “billiard ball” view of causality. If two objects interact, then they must come into contact with each other, thus objects influencing each other at a distance is simply ruled out unless there is a third entity that acts as a mediator between each object.¹⁴ Indeed, uneasiness exists explaining the interactions of two distinct ontological kinds. In terms of Aristotelian ontology, how can universal substances or universal non-substances play a causal role? In the following section I explain Aristotelian universals and the specific problems they solve.

Aristotle’s Immanent Universals Are Neither Eternal Nor Separate From The Natural World

In the *Peri Ideon* Aristotle's criticism of transcendent universals capitalizes on the above *infinite regress* of separate universals.

For if the (man) being predicated is other than the things of which it is predicated and subsists on its own (*kaf idian huphestos*), and (if) the man is predicated both of the particulars and of the idea, then there will be a third man besides the particular and the idea. In the same way, there will also be a fourth (man) predicated of this (third man), of the idea, and of the particulars, and similarly also a fifth, and so on to infinity (84.21-85.3).

Perhaps Aristotle, for this very reason *grounds* universals in ontological basic primary substances, that is, substances as concrete particulars. By not separating universals from their concrete particulars, Aristotle challenges Plato’s theory of transcendent universals as separate or

¹⁴ An alternative to the Humean ‘billiard ball’ model of causality is where the effect exists in the cause such as an oak tree existing in the acorn or a pot existing in the clay. On this view, we might think of extended as well unextended entities as attributes or features residing in an underlining entity (e.g., energy, or God, or nature etc.). If so, then universals and particulars could be characterized as kind of manifestation or expression of that underlining entity.

independent entities that exist uninstantiated. In the *Categories*, for example, Aristotle says, “if the primary substances did not exist it would be impossible for any of the other things to exist” (2b5). These “other things” I take him to mean uninstantiated universals as well as property particulars (i.e., tropes), which I shall explain in more detail. Also, in the *Metaphysics Book 7* Aristotle argues that if a universal were separate from their particulars, then a universal would be a substance, because a universal would then be an individual. And if a universal is an individual, then it is not something that is common. For Aristotle a universal is common, i.e., belongs to more than one thing (1038b11-12). Furthermore, Aristotle seems to think that universals are never without a least one particular. For example, it is not necessary which particular cow i.e., Bessie or Bossie to exists for cowness to exist or which kind of particular material to exist, for potness can exist in either clay or metallic material.¹⁵

What shall we say about universals being eternal? It appears that Aristotle thinks that eternality is not required for the definition of a universal, if we grant that a universal is simply something that belongs to more than one thing. Indeed, if an immanent universal depends on some (i.e., at least one) concrete particular to exist, and if all the particulars of a certain kind suffered destruction, then immanent universals would not survive such destruction. Again, in the *Categories*, Aristotle offers an insightful example for positing a non-eternal universal, he says, “For if everyone were well, health would exist but not sickness, and if everything were white,

¹⁵ What about the soul? Aristotle says, “The moving causes exist as things preceding the effects, but causes in the sense of formulae are simultaneous with their effects. For when a man is healthy, then health also exists; and the shape of a bronze sphere exists at the same time as the bronze sphere. But we must examine whether any form also survives afterwards. For in some cases this may be so, e.g. the soul may be of this sort—not all soul but the reason; for doubtless it is impossible that all soul should survive. Evidently then there is no necessity, on this ground at least, for the existence of the Ideas. For man is begotten by man, each individual by an individual; and similarly in the arts; for the medical art is the formula of health” (*Met.* 1070a23-1070a30).

whiteness would exist but not blackness” (14a7-a9).¹⁶ I think this example is interesting because it raises concerns about the possibility for a universal to re-exist? Indeed, the opportunity for a universal, which no longer exists, should be possible to re-exist. But how would its re-existence arise in our world? Suppose, our world no longer had sickness, but some unfortunate person accidentally obtains a disease, thus sickness would resurface. But from what place does the universal sickness resurface or arise? Does sickness arise *ex-nihilo* since they are not eternal? Or perhaps the resurfacing of sickness occurs simultaneously with the particular sick individual? A transcendent realist could simply reply to these questions by stating that sickness is eternal, and thus sickness as a universal really never leaves us, although it is possible for sickness not to manifest in our world.¹⁷

But what appears to be a bust for an immanent realist like Aristotle may actually be a boon. In the *Physics*, Aristotle thought that in order to fully explain the phenomena of change, it is not enough to describe the actual gain or loss of a property, but also to understand that there must be a substance that underlines the change of properties. Aristotle offers an example of a man changing from one state of being unmusical to being musical. “For the man remains a man and is such even when he becomes musical, whereas what is not musical or is unmusical does not survive, either simply or combined with the subject” (190a10-a12). Being musical does arise from nowhere, the subject (i.e., primary substance) in this case a particular man is the location from which being musical is possible. But exactly what is the relation a primary substance has with its predicates (i.e., its properties)? In the following section I explain how Aristotle explains this relation.

¹⁶ In *Posterior Analytics*, it is unclear whether he thought that *some* universals are eternal and separate (85b16-b19).

¹⁷ In other words, the existence of uninstantiated universals.

Aristotle's Subject and Predicate Relation: *Said of a Subject & Present in a Subject*

For Plato “*a is F*” means that *a* partakes of the Form, *F*-ness. For Plato, predication, in general, is explicated in terms of the notion of participation. For example, Socrates is white means the universal whiteness participates in Socrates. But for Aristotle the relation is not so simple. In the *Categories*, Aristotle describes two ways a predicate can relate to a subject.¹⁸

Of things there are: (*a*) some are *said of* a subject but are not *in* any subject. For example, man is said of a subject, the individual man, but is not in any subject. (*b*) Some are in a subject but are not said of any subject. (By ‘in a subject’ I mean what is in something, not as a part, and cannot exist separately from what it is in.) For example, the individual knowledge-of-grammar is in a subject, the soul, but is not said of any subject; and the individual white is in a subject, the body (for all colour is in a body), but is not said of any subject. (*c*) Some are both said of a subject and in a subject. For example, knowledge is in a subject, the soul, and is also said of a subject, knowledge-of-grammar. (*d*) Some are neither in a subject nor said of a subject, for example, the individual man or the individual horse — for nothing of this sort is either in a subject or said of a subject. Things that are individual and numerically one are, without exception, not said of any subject, but there is nothing to prevent some of them from being in a subject—the individual knowledge-of-grammar is one of the things in a subject (1a20-1b9).

The two types of predicate relations are summarized in the Table below.¹⁹

	Present in a Subject	Not present in a subject
Said of a Subject	Knowledge (Knowledgehood) (Universals Non-substances)	Man (human being), horse (Universal Substances or Secondary substances)
Not said of a Subject	Particular shade of white, Grammatical knowledge (Particular Non-substance i.e., property particulars)	Individual Man Individual Horse (Primary Substance)

For Aristotle, to be *said of* a subject means ‘F’ is said of ‘a’, which can be expressed as ‘a

¹⁸ When Aristotle says “subject” he means ‘*hupokeimenon*’ i.e., what a statement is about, and when he says, “predicate” he means ‘*katêgoroumenon*’ i.e., what a statement says about its subject.

¹⁹ Please see Marc R. Cohen’s website:

<http://faculty.washington.edu/smcohen/433/433Lecture.html> and Gareth B. Matthews *Aristotelian Categories* in “A Companion to Aristotle” Edited by Georgios Anagnostopoulos 2009 Blackwell Publishing Ltd.

is *F*". For example, human being is said of Socrates means Socrates is a human being. Predicates like "human being", "horse" and "animal" are described as secondary substances or substantial forms (2a13-18). Basically, secondary substances are universals that are *essential* properties of their said subjects. The statement "Socrates is a human being", tells us something basic or fundamental about what kind of a thing Socrates is. In addition, to being a secondary substance, universals can also be non-substances e.g., knowledge-hood or whiteness, which stand to their subject as essential properties. So whiteness is *said of* a particular shade of white means, "A particular shade of white is white" or "Grammatical knowledge is knowledge". Another way to write this is, "Grammatical knowledge has knowledgehood", i.e. has or is possessed of knowledgehood as a universal non-substance.

But for Aristotle whiteness can also be *present in* a subject. Thus there is a second predicate relation, which means to be *present in* a subject. So 'F' is present in 'a', can also be expressed as "*a is F*". For example, knowledge is *present in* a soul means "A soul is knowledgeable". Another example, white is *present in* Socrates means, "Socrates is white" or wisdom is *present in* Socrates means, "Socrates is wise". The statement, "Socrates is white" says something less fundamental, something that just happens to be the case. Aristotle thought this tells us about Socrates' *accidental* properties. Earlier we mentioned how a universal non-substance can be *said of* a subject, like whiteness is said of a particular shade of white. But a particular shade of white can also be *present in* a subject such as the statement, "Socrates is this particular shade of white" or better yet, "Socrates possesses or has this particular shade of white". Lastly, there are names like Socrates and Callias that are primary substances (i.e., particular substances) and they are neither *said of* a subject, nor *present in* a subject. Regardless whether the relation is "said of" or "present in" in a substance or a particular non-substance,

universals are inseparable from their subject and thus cannot exist as an independent free-floating entity.

What exactly are these particular non-substances (i.e., property particulars), and more importantly can they replace universals? After all, if there are various exactly resembling property particulars or a singular property particular in various distinct locations, then why posit universals? Also, a particular non-substance can be present in another particular non-substance, for example this particular brightness can be present in this shade of white. Thus, we can make statements like, “This particular shade of white has this particular brightness to it.”

Property Particulars: Trope Tokens as Property Instances and Trope Types as Property Extents

When Aristotle says, “By ‘in a subject’ I mean what is in something, not as a part, and cannot exist separately from what it is in. For example, the individual knowledge-of-grammar is in a subject, the soul, but is not said of any subject; and the individual white is in a subject, the body (for all colour is in a body), but is not said of any subject” (1a22-1a26). What exactly are “the individual knowledge-of-grammar and “the individual white”? In the literature, there has been some debate concerning the meaning of the above passage.²⁰ J.L. Ackrill’s 1963 translation of *Categories and De Interpretatione* interprets the above passage to mean what current metaphysicians call tropes, a term coined by D.C Williams.²¹ If two distinct pieces of paper, for example, have exactly the same shade of white, then the particular shade of white *cannot exist separately from what it is in*. Each piece of paper possesses its own color despite the fact that

²⁰ Please see Gareth B. Matthews paper, *Aristotelian Categories* in A Companion to Aristotle 2009.

²¹ G.F. Stout called them “abstract particulars” and Russell called them “unit quality”. I think P. F. Strawson’s term “property instance” is the best description and makes most sense for me, however for sake of brevity, I shall stick with “trope token”.

each particular shade of white exactly resembles each other.²²

Now it might strike you as highly unintuitive for two exactly similar qualities e.g., shade of color to be numerically distinct? Image cutting one piece of college rule white paper in half. If we accept Ackrill's understanding of the above passage to mean tropes, then one particular shade of white before the cut is now two identical shades of white after the cut, and if we cut the two pieces of paper once more, we end up with four identical shades of white. This may seem peculiar, after all how can cutting a piece a paper have anything to do with quality of a particular color? Why not just think there exists one shade of white, what I call a "trope type" as a property extent. In 1965, an influential paper "Inherence", by author G.E.L. Owen thought that believing in tropes as property instances was an incoherent view, and argued that Aristotle ought not to be foisted with such a belief. Owen says,

For suppose that the hue of Smith's face could be found in Jones as well: then it could exist separately from Smith, and for that matter it could exist without either of them. So to have condition (b) Smith's shade of purple must, logically, be different from Jones's. Aristotle, to be sure, does not draw these corollaries. He does not conclude, as Stout did, that it must be misleading to say that Smith and Jones have just the same colouring: that at best they have irreducibly different colourings between which some philosophical relation of exact similarity obtains (Owen p. 99-100).

Owen thinks Ackrill will be committed to an unwanted consequence that "General attributes are not in individuals, particular attributes are not in more than one individual" (Owen, p. 100). Owen concludes that Ackrill's interpretation of "cannot exist separately from *what it is in*" must be mistaken. Owen interprets Aristotle to mean that something *present in* a subject

²² Ackrill is aware of a peculiar consequence of a universal that is *present in* a subject. If a universal is *present in* a subject, then it would be unshareable, because it *cannot exist separately from what it is in*. So, if Socrates is wise, then wisdom *present in* Socrates would be unshareable. Thus neither Plato nor Aristotle could be wise because Socrates is the sole proprietor of wisdom. To remedy this unwanted outcome, Ackrill concludes that statements such as, "Socrates is wise" really mean Socrates possesses a particular wisdom that is unshareable. Thus, Ackrill seems to accept that universals cannot be directly *present in* primary substances otherwise they would be unshareable.

“could not exist without *something to contain it*” (Owen, p. 104). Thus wisdom as a universal *present in* Socrates can also be *present in* Plato, Aristotle, etc... although wisdom itself cannot exist separately from something to contain it.

With respect to tropes, Owen rejects tropes as property instances because a particular shade of white *present in* a piece of paper can be the same shade of white *present in* an another separate piece of paper. In other words, a “trope type” could be *present in* various subjects. So if I cut a single sheet of paper in to ten pieces, then despite the fact that there are ten pieces of paper, there is only one single shade of white present in each piece of paper. And if I destroy one piece of the ten pieces of paper, then there still exists that single shade of white as a singular trope type, although there is less of it. In a way a trope type is similar to a universal in so far as existing in separate locations at the same time. Literally, a trope type could stand two feet from itself!

Those who think that universals are mysterious entities may feel apprehensive toward trope types due to its multi-locality. Furthermore, if there are two variations of tropes i.e., trope tokens and trope types, then how are we to distinguish between these two *property* particulars? It is hard for me to imagine that my personal sufferings, frustrations or abilities could be shareable. Thus, a person’s pains or abilities seem to be trope tokens that are unique to that individual person. Indeed, Muhammad Ali’s pugilistic talents are as unique to him as his personal aches and pains he suffered in the ring. On the other hand, colors seem to be the best example of a trope type. It seems that a trope type acts as a spread or a blanket that can survive after being divided into numerous parts. Trope tokens on the other hand cannot suffer such division. Socrates’ particular shade of white can be found in Theaetetus or Phaedo, but his wisdom is unique to him. Socrates’ particular wisdom is not an extent that can be divided up

into parts.²³

But if trope tokens or trope types act like universals, then why not just trim universals from our ontology? After all, realists have posited universals to explain commonality, and it seems that commonality now can be explained by *exactly resembling trope tokens* or *singular trope types*.²⁴ Earlier I mentioned an argument against exact resemblance with respect to ordinary objects, and I think the same argument applies to trope tokens. In short, exact resemblance between various trope tokens leads to an *infinite regress* of higher resemblance relations, which seems highly uneconomical, and thus can be solved by admitting resemblance as a genuine universal. If we accept resemblance as a universal, then it does not seem ontologically feasible to deny the existence of universals with respect to objects and their property particulars.

Although the resemblance regress argument is smart with respect to trope-tokens, this argument is ineffective with respect to a trope-type because there is no resemblance relation between a single trope-type. Trope-types have a singular property extent. The reason why two separate property particulars are common is simply due to the existence of one not many property particulars as a trope-type. I think there are several ways a realist might reply to the above argument. One strategy is to focus on the specific within trope theory that seem wanting and overlooked. For example, what about cases of a color that are not identical? What is common among various trope-types of reds like burgundy, violet and scarlet? The answer, according to a realist, is the natural kind red. In other words, instances of red such as crimson, ruby, vermillion, are instantiation of the universal redness. Another strategy realists can employ

²³ What shall we say about certain kinds of entities like time and space and classical substance-elements like air, water, and ether etc? It appears that such entities are similar to trope types because have a “spread” or “span” and they are divisible. In fact, PK Sen concluded that such entities are really not universals because their instances are parts (2008, p. 23).

²⁴ Assume for a moment that trope theory is in league with bundle theory.

in order to defend their position against trope theory is to expand the notion of a universal itself into an additional domain, and question whether trope theory can follow suit. For example, realists can argue that a universal not only explains commonality, but also explains the nature or *essence* of an object. Thus, the essence of Socrates is that he is man and the essence of a scalene, isosceles, and equilateral triangle is the universal *triangularity*. In the end, it appears that tropes theory either fails to explain the essence of an object or simply thinks this is not a genuine problem.²⁵

The Dependence of Aristotelian Universals and Property Particulars on Primary Substance

As I mentioned earlier, in the *Categories* Aristotle concludes that the existence of universals and property particulars depend solely on a primary substance (2b5). He comes to this conclusion by elucidating how a predicate can be related to a subject in either one of two ways. A predicate can either be *said of* a subject or it can be *present in* a subject. Below I have attempted to formalize the argument.

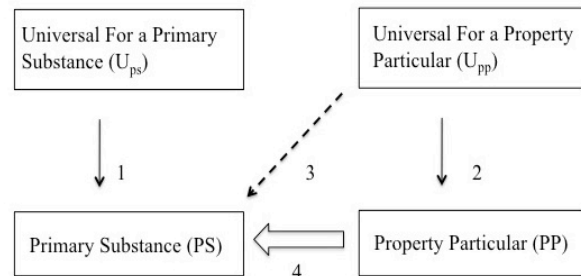
An Argument for the Primacy of Primary Substances

- P1. If something exists as a secondary substance i.e., universal, then it is *said of* some primary substance. For example, man is said of Socrates.
- P2. If something exists as a universal that is not a secondary substance, then it is present in some primary substance or said of some property particular. For example, white is present in Socrates or white is said of ivory white.

²⁵ Keith Campbell, a staunch trope theorist, does not think a common nature is found in resembling objects. “Resemblance theories have to take care which questions they accept. To the question: what is the *common nature* in two resembling things? They are bound to reply: they have no common nature, only resembling natures. To the question: what is it for the two objects to share a common property? the reply must be: there is no such sharing, except joint membership in a natural kind, which is not a universal but a collection of tropes. To the urging: but you must concede that there is *something the same* about these two objects? the reply must be: no, there is no numerically identical item present in both. The similarities between the objects create an illusion of the genuinely common feature” (1991, p. 31-32)

- P3. Lastly, if something exists as property particular, then it is present in some primary substance. For example, this particular shade of white is present in Socrates.
- C. Therefore, universals and property particulars owe their existence to primary substances.

According to Aristotle, there are no free-floating, uninstantiated universals because all universals exist either via being *said of* a primary substance or indirectly being *present in* a primary substance. The following is a basic schema of how universals and property particulars are dependent on primary substance.



Relations: *Said of & Present in*

- 1: U_{ps} Said of PS
- 2: U_{pp} Said of PP
- 3: U_{pp} Present in PS
- 4: PP Present in PS

Aristotle's Immanent Universals as Formal Cause

Thus far, I have attempted to explain Aristotle's immanent universals as entities that neither exist eternally nor exist outside the realm of space and time. Furthermore, they depend on their particulars either accidentally or essentially. In the following section, I explain how Aristotle's immanent universals can play a causal role.

An Argument For Immanent Universals as a Cause

- P1. An immanent universal can act as an essential property of an object. For example, Aristotle thought that the property of being a human necessarily is *said of* Socrates.
- P2. A cause is an answer to a why question, and one way to answer a why question is by seeking the essential property of an action or object. For example, if we want to know why a building had burnt down, then one possible answer is the flammable nature (i.e., flammability) of the component material of the building.

C Therefore, an immanent universal as an essential property can act as a cause.

Aristotelian Causes: Explanation of P2

Aristotle's doctrine of four causes, material, formal, efficient and final cause is crucial in explaining P2 of the above argument. In Greek, the word for cause is *aition*, which means something one cites as an answer to a "why" question. But there are various explanations to a why question.²⁶ For example, "why is there a chair?" often means, "what is the explanation of the chair?" which can mean, "What are the explanatory factors that make this chair?" One factor may refer to the material basis of the chair such wood or plastic, another explanatory factor may refer to "what it is" i.e., its form, such as the construction of a flat surface to support weight of a human body makes a chair, and yet another factor explains "how it was produced", for example, a carpenter is responsible for making a chair, and lastly one may refer to "what it is for", in other words, the purpose of a making the chair, i.e., for resting or contemplating on. If we assume immanent universals are forms, then the Aristotelian notion of a formal cause is a good place to answer whether immanent universals are causes.²⁷ Aristotelian causes are not entirely like Humean causality, because Aristotelian causality is not limited to cause-effect events. It seems that only "the efficient" cause is similar to Humean causality. But in what sense is an immanent universal a cause at all? In what sense does *triangularity* contribute to an object having three sides? In one sense, an immanent universal acts as a cause by constraining the material substance. Aristotle writes, "the form or the archetype i.e., the statement of the essence and its

²⁶ Aristotle was well aware of the ambiguity of *aition*. "causes are spoken of in many ways" (*Phys.* 195a5).

²⁷ There is a debate in the literature concerning whether forms are universals or whether they are substances. "Another question is naturally raised, viz. what sorts of parts belong to the form and what sort not to the form, but to the concrete thing. Yet if this is not plain it is not possible to define anything; for the definition is of the universal and of the form" (*Meta.* Z.11, 1036a29).

genera are called causes” (*Phys.* II.3 194b26-29). For example, a lump of clay is constrained as it is structured into a pot. Immanent universals act as a “real kind” that organize and give structure to its members. Although the shape is the form of a pot, we should not think that all forms are just shapes. Aristotle is aware how we might make this simple mistake, and he offers other examples from music and numbers. “[T]he ratio of 2:1, and number in general are the cause of the octave” (*Meta.* V.2 1013a26-29). When we think about what it is to be something, we should be thinking of an essence. Our interest is to know the essence – so with respect to musical harmonics we seek the ratio that captures the common interval regardless whether the instrument is constructed out of wood, metal, or string.

But in what way can a universal as a formal cause play a role in a causal event?

Although a universal may tell us the essence of a particular, it seems that the particular does all the causal work, and thus it is unclear what is the exact role the universal plays, and furthermore why must it reside in the particular? For instance, think of any instrumental chain of events such as a cue ball knocking an eight ball into the corner pocket. We can ask, “What caused the eight ball to drop into the corner pocket?” The obvious answer is that the particular cue ball with its particular momentum caused the eight ball to drop into the corner pocket. The particular cue ball with its particular momentum is a distinct causal event that caused the distinct effect, i.e., the particular eight ball to drop into the particular corner pocket. Now we can expand the scope of this causal event to include various elements such as the pool stick, the contact between the cue ball & the eight ball, and the pool player along with his intention and desires. Only particulars can interact and collide with another particular. Although the universal may tell us what is the nature of particulars, it is the physical particulars that do all the causal work. Indeed, it seems as though the particular does all the work while the universal receives all the credit! In short, if a

causal event is a causal relation between cause and effect, then it seems that its relata is primarily composed of particulars.²⁸

In the above example, the immediate cause is the contact between the cue ball and the eight ball, while the immediate effect is the relocation of the eight ball. Since the relation between cause and effect cannot occur over an empty distance, some kind of interaction is required between cause and effect. In this particular example, contact is a kind of interaction that is responsible for the transference of momentum from the cue ball to the eight ball. But the contact between the eight ball and the cue ball could not take place if either pool balls lacked certain universal properties such as sphericity, hardness and momentum. Universals are not physically entities that bump and crash against other physical objects in the world. Rather they are common patterns or formula that explain the constraints of a particular object. When I say, “constraints of particular object” I mean the limits of an objects causal power that is responsible for an outcome of an event. Thus universals such as sphericity, hardness, and momentum of a particular cue ball when appropriately struck, possess a causal power to knock another pool ball into the corner pocket. The causal powers of an object are disposed to behave in certain ways in certain circumstances because of its nature.²⁹

This should not surprise an Aristotelian. Aristotle thought that an object’s intrinsic nature could be characterized as a type of potency (*dunamis*) possessing an active and passive power. An active power is “an originative source of change in another thing or in the thing itself qua other” (*Meta.* 1046b10-13). So the ‘active’ art of pot-making or pottery, for example, is a potency which is not in the pot, but in the potter. A passive power, on the other hand, refers to

²⁸ It is possible to consider the various particulars at play as substances and tropes.

²⁹ In their book, *Causal Powers: A Theory of Natural Necessity*, R. Harré and E.H. Madden explain causal powers as "'X has the power to A' means 'X will or can do A, in the appropriate conditions, in virtue of its intrinsic nature' (1975, p.86).

“the source of a thing’s being moved by another thing or by itself qua other” (*Meta.* 1019a20).

So a piece of clay possesses a passive potency of being molded and shaped into a pot. With respect to the above example, the cue ball possesses a passive power to receive the momentum from a cue stick while possessing an active power to produce an effect on the eight ball, and in exchange the eight ball possesses a passive power to receive the momentum from the cue ball.

Possible Replies to the Infinite Regress Argument, the Causality Argument and Eternity of Universals

Perhaps a transcendent realist can challenge P3 of the “Infinite Regress Argument of Transcendent Universals” by replying that the *vicious infinite regress* of transcendent universals, stated by Parmenides and reiterated by Aristotle, does not lead to an infinite regress because the participation relation between a universal and a particular does not result in a universal resembling their particulars. Although a universal can stand as a standard for a particular, it does not *ontologically* function or behave like a particular. The universal man, for example, is not a kind of entity we can shake hands or speak to. A universal stands alone independently as one *over* its many instances. And since a universal stands over its many instances it should not be considered as a member of its many instances. Thus, it does not itself require another universal for its existence.³⁰

If the participation relation does not consist of universals resembling their particulars then what exactly is the nature of this relation? Although we have avoided an infinite regress of transcendent universal, another infinite regress lies in wait. Before I explain how the relation between a universal and particular can lead to an infinite regress of relations, I want to explain

³⁰ Perhaps one can think of a universal as an entity that particulars participate in, yet the universal neither requires self-participation nor requires another universal to participate in it.

three specific arguments for believing in eternal universal. Earlier I mentioned that Aristotle thought immanent universals are non-eternal because he thought eternality was unnecessary for the definition of a universal. By making them non-eternal opened up a concern whether immanent universals can undergo change. According to Aristotle it seems that a universal can undergo change, that is, come into existence and become destroyed because they solely rely on their substances as the location for their existence. And since a substance can undergo change, thus a universal would seem to follow suit.

But this reply appears to be inaccurate, because it is unclear whether the universal itself undergoes a *process* of change. An occasional change of a substance acquiring or losing a property is a far cry from a universal *itself* changing. For example, a piece of string can be shaped into triangle and then undergo a process to be shaped into a circle, and then again shaped into a square, but in the process does triangularity or circularity itself undergo change? It seems to me that such universals i.e., triangularity and circularity remain unchanged, and thus are eternal.

In the *Posterior Analytics* Aristotle appears receptive to eternal or “imperishable” immanent universals. As he is explaining why universal demonstrations are better than particular demonstrations, Aristotle remarks, “Again, if there is some single account and the universal is not a homonymy, it will be some thing no less than some of the particulars, but actually more so, inasmuch as what is imperishable is among the former and it is rather the particulars that are perishable” (85b16-b19). This passage seems to suggest that Aristotle considers universals as imperishable entities. Furthermore, universal demonstrations reveal universal properties of an object, which extends our understanding and knowledge of the world. So it is better to understand that all triangles have interior angles equal to two right angles, than

to understand that this particular triangle just happens to have interior angles equal to two right angles. Although it is true that this particular triangle possesses interior angles equal to two right angles, it really does not extend our knowledge of the world. Indeed, if this particular triangle shape were destroyed or altered, then we would mistakenly believe that triangularity itself would perish.

A second argument for immanent universals existing eternally is based on them functioning as ideals to be sought after and measured against. Justice, for example is something to be striven for regardless of whether or not we achieve it. I think it is nearly impossible to construct a harmonious and lawful social institution, free from justice as an ideal to be sought after. Not unlike, structural engineers designing a building guided by geometrical forms. In fact, if an error occurs in the construction of a building, then the geometrical forms of a building act as a corrective for a structural engineer. A mistake can only be recognized in light of a standard to be sought after. Thus, it seems to me that universals act as standards to be sought and striven for.³¹

Lastly, the idea of a person striving for something ideal is deepened in Marsilio Ficino's work *Platonic Theology*. For Ficino, universals are eternal essences because they are created *from* and *through* an eternal God, "what is created through eternity is eternal" (Hankins, 2001, Volume 3, Book 10, Chapter 7, paragraph 6 line 8-9). Furthermore, he says, "This essence is the cause of its relation [to God] and the relation is the cause of its perfection" (Hankins, 2001, Volume 2, Book 5, chapter 10, paragraph 5, line 9-10). For Ficino, the ultimate form is the

³¹ Ficino nicely captures this insight when he says, "Furthermore, the truth is stronger than what is false, since the truth can exist without the false, whereas the false cannot exist without the truth. For nothing can be said to be false unless it is true that it is false. Nothing has validity unless it is true that it has validity. If a thing is truly understood to be false, then it is by truth that this is understood. A thing is not called false unless it deceives, and it does not deceive except by the appearance of truth" (Volume 1, Book I Chapter 3, paragraph 3, line 1-7).

rational soul, which struggles to recognize its own immortality (Hankins, 2001, Volume 3 Book 3, Chapter 10, paragraph 6, line 4-5, & paragraph 7, line 14-15). Ficino concludes if a person's soul were not immortal, no creature would be more miserable than man. "Since man's mind is never at rest, his body is frail and he is totally without resources, the life he leads on earth is harsher than that of the beasts. Had nature set exactly the same terms to his life as she has to the other creatures, no animal would be more miserable than man" (Hankins, 2001, Volume 1, Book 1, Chapter 1, paragraph 1, line 1-5). But there is hope for man, through the worship and recognition of God. Although our mind is covered in darkness, our rational soul can intellectually ascend toward eternal universals by means of Platonic dialectic. "But I pray that as heavenly souls longing with desire for our heavenly home we may cast off the bonds of our terrestrial chains; cast them off as swiftly as possible so that, uplifted on Platonic wings and with God as our guide, we may fly unhindered to our ethereal abode, where we will straightway look with joy on the excellence of our own human nature" (Hankins, 2001, Volume 1, Book 1, Chapter 1, paragraph 1, line 13-18).

To integrate an omnipotent God as we explore our understanding of universals can deepen one's appreciation of metaphysics, however, it comes at a cost of sounding highly speculative and perhaps too epistemologically opportune. For example, what exactly is the relation between universals and God? This is a difficult question and Ficino applies a fascinating analogy of the sun and sunlight to understand this relationship. Although the sun produces heat *in* the air, sunlight is not *from* air. Sunlight ultimately originates *from* the sun, so too universals are *in* their particular but are not *from* their particulars. Ultimately they are *from* God and made *through* God (Hankins, 2001, Volume 3, Book 10, Chapter 7, paragraph 1). But if universals are made *from* and *through* God, then do concrete particulars also have some origin *from* and

through God? In the *Timaeus* Plato explains the dynamics of being and becoming of the cosmos. “Now everything that comes to be must of necessity come to be by the agency of some cause, for it is impossible for anything to come to be without a cause. So whenever the craftsman [Demiurge] looks at what is always changeless and, using a thing of that kind as his model, reproduces its form and character, then, of necessity, all that he so completes is beautiful. But were he to look at a thing that has come to be and use as his model something that has been begotten, his work will lack beauty” (28a-28b). It is clear that Plato employs a Demiurge as the original craftsman that fashions the created world after changeless Forms (*eidos*). But if God, as a craftsman, acts as an efficient cause for creating the particulars modeled on immutable and eternal universals, then what role does participation play in the creation of particulars?³² It appears that the power of participation is undermined by God! But, maybe we can think of universals not as an efficient cause but as a formal cause that resides in a particular.

If we return to the “Causal Argument Against Plato’s Transcendental Universals”, a Platonist could challenge P3 by explaining how transcendent universals *can* be located in their particulars via participation. In fact, it seems that particulars participating in a universal seem to be what “formally” causes particulars to be what they are. In *Phaedo* Socrates apparently suggests this when he remarks that beautiful things are beautiful because they are caused by the Beautiful (100b-d). Although Plato does not elaborate on the nature of this relationship, he thinks a particular either *shares in* (*koinónia*) or is in the *presence of* (*parousía*) a universal. In *Paramenides*, a young Socrates says, “forms are like patterns set in nature, and other things resemble them and are likenesses; and this partaking of the forms is, for the other things, simply being modeled on them” (132d1-3). This passage seems to suggest that a universal is not only a

³² There is no mention of participation in *Timaeus*.

transcendent entity, but also immanent. They are transcendent in the way that they are eternal, immutable, and the objects of recollection, yet they seem to be immanent in the way that they act as a model or a pattern that *cause* (i.e., a formal cause) particulars to be what they are. Thus, participation is an asymmetrical relation where particulars are dependent upon an original Form itself. But, if the participation relation between a universal and a particular (i.e., a participant) can be characterized as a causal relation, then it would be a kind of relation that crosses spatial-temporal boundaries between two very different orders of existence.

Indeed, I can sympathize with Plato for not elaborating on the nature of this relation. However, if we accept participation as such, then it seems to be a very different ontological entity itself because it can cross the spatial-temporal divide. Perhaps it is for this very reason that Plato, in *Timaeus*, employs a Demiurge that is ultimately responsible for the actual creation of particulars?³³ But even if we posit a God, as an efficient cause that fashioned particulars after universals, we are still left at a loss how exactly the relation between universals and particulars is supposed to manifest. As I mentioned earlier another infinite regress lies wait in our investigation of universals and particulars, and it is this specific problem that I now address.

Two Infinite Regress Arguments Against The Relation Between Universals And Particulars

Just as we require an explanation about how a transcendent universal itself does not require a universal as in the third man argument, so too shall we require an explanation about the participation relation between a universal and a particular. For sake of argument, I shall address the relation between a universal and particular as an instantiation relation. For example, we can inquire whether the existence of an instantiation relation requires a universal i.e., *instantiationess*. After all, a universal instantiation relation explains why various instances of the

³³ *Timaeus* is a later dialogue compared to *Paramendes* and *Phaedo*.

instantiation relations are common between universals and their particulars. So, if there exist a universal instantiation relation i.e., *instantiationess* that instantiates a particular instantiation relation then what relates or ties the universal instantiation relation to a particular instantiation relation? If we posit a second instantiation relation, then we seem to be locked into an infinite regress of instantiation relations.³⁴

A second regress argument, which I think maybe more challenging than the previous argument, is the Bradley infinite regress of relations. If both universals and particulars can possibly exist separately and independently from each other, then the instantiation relation seems to be a third object (i.e., a relational object) that acts as a bind or a tie between a universal and a particular. Since the instantiation relation is different from a particular and a universal, we can ask what relates the instantiation relation to a particular or to a universal? If all three objects must exist together, then it seems that all three must be in relation to one another. And if that is the case, then a new relation must bind the instantiation relation on one end, and a particular or a universal on the other end. It appears that a new relation can be launched *ad infinitum*, thus never achieving instantiation. In short, this argument reveals a *vicious infinite regress* of innumerable relations existing between a relation and one of its terms.

Although both regresses focus on relations, I think, each regress is *structurally* distinct due to different initial assumptions. The first regress assumes a universal instantiation relation that explains various particular instantiation relations. If we grant this assumption, then we can ask, what is the nature of the relation that ties the universal instantiation relation to a particular

³⁴ In an article, *Infinite Regress Arguments And The Problems Of Universals*, D.M. Armstrong concludes that the regress of resemblance that was leveled against resemblance nominalists by Russell can equally be applied to the instantiation relation between a particular and a universal (1974, p. 198). Ironically, Armstrong has retracted his views against resemblance nominalists because an infinite number of resemblance relations do not make the infinite regress vicious, much in the way, a recursive true statement is infinite and yet harmless.

instantiation? If we answer by positing another instantiation relation, then we march towards an infinite number of instantiation relations. The second regress seems to me a common ontological problem concerning unity in a world where one assumes disparate independent entities. Indeed it seems to me that instantiation is a possible solution to the problem of unity. If we think that the world is organized into various ontological categories, then we naturally seek an explanation why certain ontological categories can be linked or tied to each other while other categories are not. Instantiation is an explanation for such relation ties. If both transcendent and immanent realist believe in some kind of relational tie between a universal and particular, then in what way can they assemble a response?

Possible Solutions For The Two Infinite Regresses Arguments Against Instantiation

There are several ways to reply to this argument that are available to a transcendent or an immanent realist, however both replies will need to be more developed and scrutinized. The two infinite regress arguments seem to assume that the relation between a universal and a particular is an external relation (i.e., the instantiation relation between F and a is external). But why assume that? What if the instantiation relation is an internal, non-separate relation? When I say “internal”, I mean a relation where the relatas or terms determine the nature of the relation. And, when I say “non-separate”, I mean a relation that does not exist independently from a substance or property particular. If an immanent universal inheres within the particular where it is impossible for the particular to be otherwise, then the universal is an intrinsic or a necessary property of that particular. With respect to Aristotelian ontology, the *said of* relation is a necessary and internal relation (i.e., the relation between a and F is a necessary one). For example, the universal humanity is *said of* Socrates. Socrates cannot be anything other than being human. Although the universal requires a particular substance for its instantiation, the

identity of that particular substance as human cannot be otherwise. In other words, if that substance is not human, then it is impossible for that substance to be Socrates. And if that is the case, then it seems a relation between a particular and a universal is an internal, non-separate relation. Does this mean instantiation is an “ontological free lunch”? In *World as State of Affairs* Armstrong argues that internal relations are an “ontological free lunch” because they do not appear to add *being* to our ontology (1997, p. 12). If instantiation is an internal relation then it does not appear to be something that stands *over and above* a universal and its particular. In fact, Armstrong goes so far as accepting internal relations as a relation that *supervenes* upon their terms. He argues that an “entity Q supervenes upon entity P if and only if it is impossible that P should exist and Q not exist, where P is possible” (1997, p.11). In the end, if instantiation is an internal relation, then it is not a kind of thing that adds being to our ontology. And, if that is so, then instantiation neither requires a universal for itself (i.e., instantiation-ness), nor requires another instantiation relation, and thus no *vicious infinite regress* manifests.³⁵

But is it not possible for a particular to exist independently of its universal? Can we image a world where there exists *F* and *a*, but no *Fa*? In an Aristotelian ontology, if a universal is an accidental property of a particular, then it seems possible that a particular to exist independently from a universal. Indeed, we can image Socrates existing independently from the pudginess of his nose. In other words, if a universal is *present in* a concrete particular as an accidental property, then the relation seems to be an external relation. And if this is an external

³⁵ Armstrong’s view concerning the relation between a universal and a particular (i.e., the relation between *a* and *F*) has evolved. In *World as State of Affairs*, and Armstrong does not think instantiation is an internal relation. In this work, he thinks the instantiation relation is a contingent relation, because he thinks it is possible for a particular to exist independently of a universal (1997, p. 117). However, recently, Armstrong has changed his view. In an essay, *Particulars Have Their Properties of Necessity*, he still thinks the relation between a universal and particular is an external relation (i.e. relation of partial identity) but does not think that it is a contingent relation, rather a necessary one (2006, p. 243).

relation, then how can we prevent a Bradley-like vicious infinite regress?

In the following section, I briefly explain Nyāya-Vaiśeṣika approach to universals (*sāmānya*) and then detail how they have replied to the above vicious infinite regress of instantiation between a universal and a particular.

Nyāya-Vaiśeṣika Universals, Concrete Particulars And Their Relation³⁶

In Annambhaṭṭa's *Tarkasaṃgraha* (TS) *The Manual of Reason*, and its commentary *Tarkasaṃgraha Dīpikā* (TSD), a universal (*sāmānya*) is a singular eternal entity that inheres in substances (*dravya*), qualities

(*guṇa*), and actions (*karma*)

(G.Bhattacharya, 1983, p. 365).³⁷

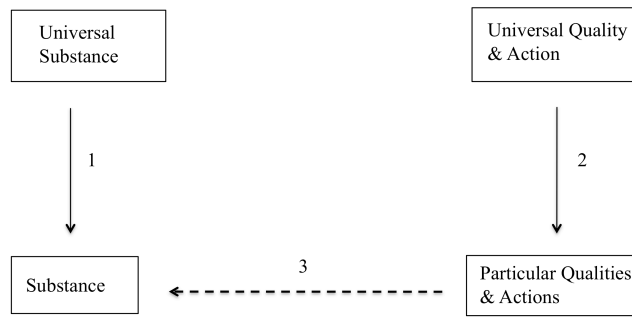
A substance like a pot, unlike a universal, is constituted from an element (i.e., a pot is composed of

earth element, which in turn are

composed of earth atoms).³⁸ Not

only do universals inhere in substances, but also qualities and actions inhere in a substance

Inherence Relations: Universal to Particulars and Particulars to Substances



1: Universal Substance inhering in Substance

2: Universal Quality & Action inhering in Particular Qualities and Actions

3: Particular Qualities and Actions inhering in Substances

³⁶ It is important to keep in mind that Nyāya-Vaiśeṣika ontology in their elementary text *Tarkasaṃgraha* (TS) and *Tarkasaṃgraha Dīpikā* (TSD) will hold to certain peculiarities that require certain concepts to “fit” into an overall coherent ontological system. For example, in their ontology there are seven categories: Substances (*dravya*), “Qualities” (*guṇa*), Actions (*karma*), Universal (*sāmānya*), Individuators (*viśeṣya*), Inherence (*samavāya*) and Absences (*ābhāva*). In the literature, each category and subcategory is vigorously defended against numerous objections.

³⁷ Please see TS §6 & §82. The widest universal is Being (*sattā*) and the narrowest is substanceness.

³⁸ Please see TS §3. There are nine substances: earth (*prithivi*), water (*ap*), fire (*teja*), air (*vāyu*), aether (*ākāśa*), time (*kāla*), space (*dik*), soul (*ātma*) and mind (*manas*).

(G.Bhattacharya, 1983, p. 21).³⁹ The English term “quality” is not quite accurate for translating the notion of a *guṇa* because *guṇa* is an instance of different qualities.⁴⁰ In today’s parlance they would be called a trope or a property-particular or a property-instance. And just like tropes, a *guṇa* is not shareable, but unlike most trope theories a *guṇa* instantiates a universal and inheres in a substance. So a particular blue pot is an instance of the universal blueness that is located in a particular pot substance. Actions (*karma*) also act as tropes, insofar as instantiating a universal and inhering in a substance. According to TSD, the nature of action is motion, which itself is not a conjunction, but a cause (i.e. non-inherent cause) of conjunctions (G.Bhattacharya, 1983, p. 21 & 364). So we can think of a dance, i.e. the tango, as motion that causes the conjunction of certain body parts to contract or to expand.

Nyāya-Vaiśeṣika Reply to the Two Infinite Regress Relation Arguments

What is the relation a universal has with a concrete particular? I think B.K. Matilal articulates the relation quite succinctly when he writes, “the concrete particular manifest or reveals the universal” (1986, p. 382). The nature of this manifestation is a relational complex that is layered or structured according to Nyāya-Vaiśeṣika philosophers. An entity possessing a

³⁹ Please see TSD §3C. The definition of substance is something that either has a universal Substanceness (*dravyatva-jātimattva*) or the property of having a quality (*guṇavattva*). The first part of the definition of a substance is unclear and a bit circular because the term to be defined i.e., the definiendum must not occur in the definiens i.e., the terms that capture the defining characteristics. If we define x as having x-ness, then what shall we say is the definition of x-ness? It seems the definition of x-ness is based on what x is. But maybe it means whatever sort of substance is being expressed (i.e., earth, air, water, etc.) a universal of that sort is a distinctive marker (*lakṣaṇa*) that is always tied to the substance (e.g., earthness, airness, waterness etc.).

⁴⁰ Please see TS §4. Twenty-four qualities (color, taste, smell, touch, number, magnitude, otherness, conjunction, disjunction, remoteness, proximity, heaviness, fluidity, viscosity, sound, cognition, happiness, misery, desire, aversion, volition, merit, demerit, and dispositional trace (*saṃskāra*)). Also, please see TS §5. There are five actions: throwing upward, throwing downward, contraction, expansion, and motion.

property as “a is F” or “a has F” is actually a combination “a-R-b”, where the property bearer “a” possess property “b” by relation R. So what is R? According to the *Tarkasaṃgraha* (TS) and its commentary *Tarkasaṃgraha Dīpikā* (TSD) this relation is said to be an eternal, singular, unitary connection called inherence (*samavāya*) (G.Bhattacharya, 1983, p. 41 & 369). Inherence is perhaps the centerpiece in Nyāya-Vaiśeṣika ontology. It is not only responsible for linking universals to particulars, but also wholes inhering in their parts, quality and actions inhering in their substances, and lastly an ultimate differentiator (*viśeṣa*) inhering in their eternal substances.⁴¹ The key criterion of inherence is that it connects things that are “one-sided” inseparable (*ayuta-siddha*). It is a dependence relation such that one relata or term cannot exist without the other, but the later could exist without the former. So a universal like cowness is something that exists independently of the particular cow in which it manifests, but no particular cow can exist without the universal cowness. Thus the universal is inseparable from one of its particulars as long as the particular lasts.

With respect to the first infinite regress argument that concluded an infinite number of inherence relations due to a universal *inherenceness*, which in turn requires a new inherence relation between *inherenceness* and one of its instances *ad infinitum*. A Nyāya-Vaiśeṣika philosopher might reply that there cannot be a universal *inherenceness* because inherence is not a kind of entity that requires a universal for its existence. Inherence is 1) an eternal entity and 2) a singular entity that is in an ontological category by itself. Since it is eternal, it does not require a universal for its existence. But, for sake of argument, suppose there were a universal called *inherenceness* as a kind of *instantiationness* that abides in each instantiation relation, then there

⁴¹ Please see TS §83. An ultimate differentiator (*viśeṣa*) abides in all eternal substances, which are of two types: numerically one substance like aether (*ākāśa*), time (*kāla*), space (*dik*); and infinite substances, like four element atoms, souls (*ātma*), and mind (*manas*).

would be another instantiation relation to tie or to link *inherenceness* to particular inherence relation. But since inherence is a singular entity that is in a category by itself, there cannot be another inherence relation. Thus, there cannot be a universal *inherenceness*. It appears that on the Nyāya-Vaiśeṣika view there are not many inherence relations, rather there is a singular inherence relation that appears multifaceted or perhaps many pronged.⁴²

This should strike anyone as peculiar because the inherence relation (*samavāya*) acts as a singular or “one tool fits all” model for unifying different ontological entities. Although traditional Nyāya-Vaiśeṣika philosophers accept this conception, I think different kinds or modes of inherence relation would be a welcomed distinction. Earlier I explained how instantiation is a special kind of inherence relation that unifies a universal to a particular.⁴³ The above figure illustrates various relations between universals and particulars. Furthermore it shows which relations are instantiation relations and which relations are not. If a universal is the essence of a particular object (i.e., what an object is), then that particular object necessarily depends upon a universal for its existence. Thus it is not possible for a particular to exist independently of a universal. In the above figure, relation 1 and 2 are instantiation relations between a substance and universal substance, and a particular quality/action and a universal quality/action. On the other hand, relation 3 is not an instantiation relation, but an attribution relation between a

⁴² According to Stephen Phillips in *Classical Indian Metaphysics*, inherence is an entity that behaves like a universal and like a trope. It is like a trope in the way that it is singular, and like a universal in the way that it is abstract. “We may be tempted to see it as a universal (in the minimal Western sense of a “repeatable”), and as identical through instances. But though it is the same everywhere (anugata uniform or continuous), it seems it should not be viewed as a type with tokens [footnote 48]. Rather it is truly singular. The relation ‘less than’ (<), as in ‘2 < 3’, ‘3 < 4’, ‘4 < 5’ and so on, does not have instances but is precisely the same identical relation; the same identical logic (which is dyadic, asymmetrical, transitive, etc.) is in evidence with each order pair it defines. Inherence is similarly a singular critter: it is an abstract (non-temporal, non-spatial) binder of certain types of terms according to its peculiar logic (which is asymmetrical, non-transitive, locus-extracting, etc.)” (1996, p. 135).

⁴³ Please see footnote 4.

particular quality/action and a substance. For example, Socrates' particular pudgy nose is an attribute of Socrates, which is not a necessary property of him [as a substance]. Thus it seems very possible for Socrates to exist as a human being independently of his pudgy nose. What about the relation between a substance and universal quality/action? For example, "Socrates is wise" or "Socrates has wisdom". It seems to me that although Socrates stands as an exemplar for a being wise, he is not an instance of wisdom. Thus there is no instantiation relation between a substance and a universal quality/action. The relationship between Socrates and wisdom itself can be explained as an attributed tie between his particular wisdom, which instantiates the universal wisdom. This was not only understood by Nyāya-Vaiśeṣika thinkers but by contemporary philosophers like PK Sen. Sen in his essay *Strawson on Universals* not only trims Strawson's feature or material universals (i.e., gold, water, snow, jam, etc.) but also does away with instantiation relation between substances and universal qualities/actions. "So if Socrates is wise, then his particular wisdom, with which it is attributively tied, instantiates the universal wisdom, and by virtue of this, Socrates himself *exemplifies* the universal wisdom. We can, however, retain both terms with some advantage. Retaining both of them, we can decide to use them in the following way: while Socrates exemplifies wisdom, wisdom characterizes Socrates. That is, we can use the two terms to stand for two relations, or non-relational ties, which are converses of each other" (2006, p. 29, 32).

Returning the infinite regress problem. Although the above reply may settle the first infinite regress argument, it does not resolve the second infinite regress i.e. Bradley Regress. Given that inherence as an instantiation relation is an eternal and singular entity that is many or perhaps *infinitely* pronged or is multifaceted, does not explain how this relation actually links-up to one of its terms or relata. The Bradley infinite regress is generated so long as a further relation

is required to relate one term to another term, despite the fact that a relation is singular and multifaceted.⁴⁴ However, if the instantiation relation were a *self-linking connector*, that is, something that relates relata without requiring another relation to relate to those relata, then the Bradley regress would be immediately stopped (Potter, 1977, p. 53). Metaphorically, this relation acts as glue or a lasso that binds an object while tying a knot on to itself. Indeed, Nyāya-Vaiśeṣika philosophers posited a self-linking connector (*svarūpasambhanda*) to solve such problems.⁴⁵ Thus, if this relation is a *reflexive* relation i.e., in the way of being “sticky”, then it not only links up universals to particular, but also acts as its own connector (Potter, 1961, p. 62). This may appear as an *ad hoc* attempt to save this relation from the infamous Bradley regress, but Nyāya philosophers also apply self-linking connectors to explain absences. Absences, according to this school, are accepted as objectively real. Indeed for them, the best way to explain the truth of a statement such as “The floor is absent of a pot” is to admit that the connection between the floor and the pot is the absent self-linking connector. And according to the 13th century Navya-Nyāya philosopher Gaṅgeśa, inherence should be considered as a single entity that possesses two natures. As a relation, it is responsible for linking its relatas, but if we ask what relates inherence to its relata, then we should think of inherence as a term that self-links (Phillips, 1996, p. 136).

⁴⁴ This regress is not unique to the Western Philosophy. In Śaṅkara’s commentary on *The Brahma-Sutra* 2.2.12 which states “*samavāya-abhyupagamāc ca sāmāyād anavasthiteh*”, (And from an acceptance (*abhyupagamāt*) of inherence (*samavāya*) causes a likeness (*sāmāyād*) of an unsteadiness (*anavasthiteh*) (i.e., brings about an infinite regress) (Phillips, 1996, p. 332)

⁴⁵ Perhaps the earliest articulation of a self-linking connector was from Nyāya Philosopher Trilocana. But instead of applying a self-linking connector to the relation between a universal and a particular, Trilocana applied this relation between two universals. Trilocana investigates our ability to immediately grasp the entailment relation or concomitance between two universals (i.e., the *vyāpti* relation between *hetu* and *sādhya*). He posits an internal connection (*antarvyāpti*) between universals that could be grasped immediately by an internal organ he called mental perception (*mānasapratyakṣa*). Basically, our mental perception has the power “to see” directly into the structure of nature (Potter, 1977, p. 397-398).

To be sure, this all sounds very puzzling because it is unclear whether we need inherence at all. Why not put forward a theory that relata are themselves self-linking connectors, thus doing away with inherence all together. Isn't it possible for the relata to relate to other relata directly? If the relata themselves are self-linking, then the "glue" that is inherence appears redundant.⁴⁶ Thus ontological parsimony suggests that the infamous Bradley regress of relations demand doing away with inherence! Furthermore suppose we assume a self-linking connector is an intrinsic feature of one of the relatas. If that is the case, then how are we to distinguish the relatas? Thus an unsightly dilemma emerges. On the one hand, if the relation between a universal and a particular is an external relation that acts as a distinct object, then we appear to march towards an *infinite regress* of relations. On the other hand, if the relation between a universal and a particular is an intrinsic or intimate relation that is close and therefore binding, then it appears that a universal and particular are not two distinct entities. Indeed, how could the identity of a concrete particular escape from being absorbed by the universal or the universal escape from being swallowed by the particular?⁴⁷

I would assume that a Nyāya-Vaiśeṣika philosopher would answer this dilemma by arguing universals and particulars do not lose their identity within an object. Perhaps, they would emphasize their deep intuition that entities in the world are very different from other entities in the world - thus, the ontological categories of the world are real. If we were to *occamize* inherence relation from our overall ontology, then in what way could there be a distinction between the various entities that inherence relate? It appears that inherence not only brings two ontological types together, but also keeps them separate; inherence is not so detached or remote that we fall into a Bradley regress, yet it is not so intimate that we lose the identity of

⁴⁶ Two pieces of wood can dovetail to make a corner. Thus, the two joints require no glue.

⁴⁷ The source of this argument is from the Advaita philosopher Śrīharṣa (Phillips, 1996, p. 136).

the relata.⁴⁸

Multiple Location of an Immanent Universal Inhering in Their Concrete Particulars

Earlier I mentioned a problem concerning the location of an immanent universal. Namely, how can a single immanent universal exist *wholly* located in many similar concrete particulars at the same time?⁴⁹ The 5th Century Buddhist philosopher Dharmakīrti concludes that the multiple location of a universal is simply unintelligible. In chapter three of *Pramāṇavārttika* states, “It [the universal] does not move (*yāti*) to a place it exists (*asti*) [from where it] was (*āsīt*) prior (*paścāt*), nor does it possess a part (*aṃśavat*). It does not leave the previous vessel (*ādhāram*). Indeed (*aho*), what a series of disasters (*vyasana-saṃtatiḥ*)!”⁵⁰ In other words, if a universal exist wholly located or confined within each particular then how can a new particular contain a universal? Does the universal run around *migrating* from one particular to the next? If an immanent universal *migrates* from one particular to the next, then a particular would have to deplete its immanent universal, and thus its essence, in order for new particular to arise replete with the universal (Dravid, 2001, p. 67). A cow would lose its cowness in order for her calf to obtain cowhood! This simply does not occur in nature. On the other hand, you might posit a universal as a scattered entity that has parts. Thus, parts of a universal can be in various

⁴⁸ Implicit in this reply, is a belief that all relations are at least dyadic relations with three triadic terms structured into a complex a-R-b. According to later Navya Nyāya philosophers this relation not only has a direction but a location. So, if “x” is related to “y”, then “x” as the beginning term (*pratiyogin*) is the referent or qualifier, while “y” the end-term (*anuyogin*) known as the referend or qualified (i.e., qualificandum). The end-term y also acts as a base for the location of x and the inherence relation.

⁴⁹ I mostly focus on concrete particular although universals can reside in a various kinds of particulars such as qualities, motions/events. In other words, I primarily focus on substantive universals inhering their substances.

⁵⁰ *Pramāṇavārttika svārthānumānaparicchedaḥ: na yāti na ca tatrāsīdasti paścānna cāṃśavat // jahāti pūrva nādhāramaho vyasanasaṃtatiḥ / 3.152*

locations at the same time. So my coffee cup and your teacup can both possess cupness within them so long as your teacup has a different part of cupness than my coffee cup. But if this is the case, then we have forfeited on a universal being a singular entity that exist wholly in its particular. In short, there appears to be a dilemma for an immanent realist. If an immanent universal wholly exists as an *impartite* (i.e., undivided entity) in one particular, then it cannot exist in other particulars, and thus forfeits its commonality among the many particulars (i.e., given that the universal does not migrate from particular to particular). And if the universal exists in parts, then not only will the particulars appear to be incomplete but also the universal itself will be many. The traditional problem of universals is “the one in the many” not “the many in the many”!

The 6th century Nyāya philosopher Uddyotakara in his text the *Nyāyavārttika* replied to this dilemma by arguing that Dharmakīrti is simply misunderstanding the nature of universals. “We repudiate your objection because we do not accept the alternatives raised by you. There can be no such alternative whether *gotva* [cowness] subsists in every individual in its entirety or by parts” (D.N. Shastri, 1964, p. 340).⁵¹ To apply words such as “parts” or “whole” to a universal is to misunderstand the meaning of a universal. Basically, to think of an immanent universal as a composite entity is a mistake. Immanent universals do not behave as particulars, which is why they require their own ontological category. Although it appears as if Dharmakīrti is making a categorical mistake with respect to an immanent universal, one still could legitimately ask how does an immanent universal, which is an eternal *impartite* entity exist in many particulars at the same time? This seems to be a straightforward ontological disagreement about how certain entities exist. A single immanent universal by its very nature is capable of residing at many

⁵¹ Also please see B.K. Matilal, 1982, p. 382.

locations at the same time. An immanent universal appears to violate what the philosopher Gustav Bergmann called *the principle of localization*. “An ordinary thing is at each moment at one and only one place. Synonymously, *an ordinary thing is localized*. The proposition is a truism. Replace in it ‘ordinary thing’ by ‘thing’ and you obtain a second proposition. *Every thing is localized*. This is the so-called principle of localization” (1967, p. 49). Bergmann argues that the second proposition does not follow from the first. He further concludes, that in a world of atemporal or transcendent universals, the second proposition would be false. Although those who accept immanent universals could agree that everything is localized, they would immediately reject the belief that a thing can exist only at one place at a time. Not only do those who accept immanent universals think that an entity can wholly exist at multiple locations at the same time, but also think that two entities, i.e., universal and concrete particular can exist at the same location at the same time. Thus, it appears that immanent universals have revealed to be quite an extraordinary and magical entity. Not only are they wholly located at various spatial regions at the same time, but also they occupy the same spatial region of a particular at the same time.

I recognize that any attempt toward a solution to the above will sound speculative and even desperate, however, desperation can induce inventive approaches to a problem. For example, we could insist that in addition to immanent universals there are eternal *uninstantiated* universals that exist prior to their instantiation. But if we accept eternal *uninstantiated* universals along with the principle of location, then they must be somewhere. Suppose we assume that uninstantiated universals are present in all particulars; e.g., universal cowness residing not only in cows but also in horses, dogs, and cats, etc. If we assume uninstantiated universals are omnipresent in that way, then perhaps a particular expresses itself as that kind of particular, and

not as another kind, thanks to the inherence relation.⁵² But this sounds puzzling because it suggests that an infinite number of universals *potentially* exist in each particular, however, only one universal *actually* expresses a particular of its kind. Indeed, an obvious and disparaging question is what if all the particulars in the world are destroyed so the infinite number of universals have no place to reside? In such a scenario, where are the uninstantiated universals? Do uninstantiated universals exist in some pool of potentiality somewhere between the spaces of particulars? On the other hand, perhaps uninstantiated universals are located nowhere. In other words, the principle of localization is false because there could be something that exists and yet it is not localized. Just because an uninstantiated universal is not located within particulars or “in” space and time or spacetime, then it does not mean it does not exist. Perhaps we should think of uninstantiated universals as an *abstract entity* not unlike a relation or a number. Realists understand *abstract* entities as existing neither in the external world of space and time or spacetime nor in the internal world of the mind. Thus asking where is potness as an uninstantiated universal makes as much sense as asking where I can find the square root of 10? However, if universals are abstract in this way, then why think they “wholly exist” in their particulars? Why think a universal as an immanent entity is bounded by or confined within the space of a concrete particular?

The abstract nature of an uninstantiated universal is a complex issue, but I have attempted to better understand this problem by explaining that an uninstantiated universal is immanent when it is tied to a particular by the instantiation relation. But if universals are immanent, then how do they occupy space and time or spacetime? Perhaps we can answer this question by

⁵² Nyāya philosophers Uddyotakara, Vyomati and Jayanta raise this issue. Please see Dharmendra Nath Shastri *The Philosophy of Nyāya-Vaiśeṣika and its Conflicts with The Buddhist Dignaga School* (1997, p. 334-338).

distinguishing *the way* a concrete particular occupies space from *the way* an immanent universal occupies space. If we assume Newtonian Space, then the existence of a concrete particular depends on space insofar as space being metaphysically prior to concrete particulars. In other words, space acts as an existence condition for concrete particulars.⁵³ Although concrete particulars are ontologically dependent on space, space on the other hand, can exist independently from concrete particulars. Thus space could exist if there were no pots, planets, stars, or galaxies.⁵⁴ But how do concrete particulars interrelate with space? It seems that a concrete particular like a chair depends on space by occupying a spatial volume (i.e., length, width and height). The occupation of space does not replace space or push space aside like water pushes air out of an empty vessel, but by existing along with it in a way that both a concrete particular and space occupy the same location. I think this is difficult to imagine, but perhaps one way to make sense of this, is to image a concrete particular as a set of powers all bundled together. This bundle although contained in space is not really a physical extension of space itself. Newton in his essay, *De gravitatione et aequipondio fluidorum* says, “A body is that which fills place” (Janiak, 2004, p. 13). But if a body is a set of powers, then what fills in a place is a set of powers.⁵⁵ Again, this is not so easy to understand, and perhaps a more

⁵³ This does not mean Newton thought that space was a substance. In *De gravitatione et aequipondio fluidorum* Newton, in opposition to Descartes, thought that space as extension is really not a substance because it is an effect of God. “[Space as extension] is not substance: on the one hand, because it is not absolute in itself, but is as it were an emanative effect of God” (Janiak, 2004, p. 21). Later I will explain how universals might fit into Einstein’s Theory of Relativity.

⁵⁴ For Newton, space is absolute. Newton’s famous rotating water bucket experiment concludes that space is absolute, because space can only act as the true reference for motion of the water in a rotating bucket rather than the bucket itself.

⁵⁵ Hylarie Kochiras thinks that Newton held this view. Please see her essay, “Newton on Matter and Space in *De gravitatione et aequipondio fluidorum*” Presented June 14, 2012 at the 7th Quadrennial Fellows Conference of the Pittsburgh Center for Philosophy of Science, convened at Mugla University. Although I cannot pretend to understand how a concrete particular as a

straightforward view is Descartes' concept of space, which is an identity between space and matter. In the *Principles of Philosophy*, Chapter II. X Descartes says, "Nor in fact does space or internal place, differ from the corporeal substance contained in it, except in the way in which we are accustomed to conceive of them. For in fact the extension in length, breadth, and depth which constitutes the space occupied by a body, is exactly the same as that which constitutes the body" (V. R. Miller and R. P. Miller, 1991, p. 43). For Descartes, space is not distinct from matter. The world is completely filled with matter in which space distinct from body cannot exist. Thus, the essence of matter is extension in space.

Now if space is a theatrical stage where everything happens, then what role do immanent universals play? Immanent universals neither *take up* space, nor is it *identical* to space. If immanent universals take up space like a concrete particular, then they would physically be in touch or in contact with concrete particulars. But any kind of relation between a universal and a concrete particular is one of instantiation not contact or touch. Although immanent universals do not take up space they are bounded by it. When I say, "bounded by space", I mean an immanent universal inhabit a *place*. When I use the word "place" I mean something different from space or location. When I think of *location*, I think of how the metrics of space are used to identify where a particular is located at that moment. However, when I think of space I think of a field where everything exists. And if something happens in space then it happens at a location. Place is not like Newtonian space because place does not exist prior to concrete objects. Also, place is not location, although all places have a location. The following illustrates the distinction between place and location. Imagine moving a fishbowl from one location to another location. If I move a fishbowl from my dresser to my desk, then I have changed its *location* but I have not changed

substance is really a set of powers, I examine in more detail the concept of *place*.

its *place*. In fact, anywhere I move my fish bowl does not change or alter its *place*. Place, more-or-less express how a particular is organized or arranged.⁵⁶ So if I rearrange the fishbowl garden or furniture, or simply remove the objects while maintaining the fishbowl location, then I have changed its place but not its location. Furthermore, if a place were free from the arrangement of concrete particulars, then there would be no place just an open space. The sociologist Thomas Gieryn explains an insight offered by Hillier and Hanson, “First, place is not space which is more properly conceived as abstract geometries (distance, direction, size, shape, volume) detached from material form and cultural interpretation” (2000, p. 465). Furthermore, Gieryn says, “Place has physicality. Whether built or just come upon, artificial or natural, streets and doors or rocks and trees, place is stuff. It is a compilation of things or objects at some particular spot in the universe” (2000, p. 465). Although the cultural interpretation of a place can help understand how places come to be what they are, I investigate how a singular concrete particular, and not just a compilation of discrete concrete particulars, can be considered as a place for a universal to reside.

A lump of clay, for example, is not a pot unless it is systematically arranged as such. When a potter makes a pot, she creates a place for potness to inhabit, and when a carpenter builds a table, he systematically organizes the parts of a table in order for the universal tableness to inhabit that place. Now you might object to the above by questioning whether a particular must be spatially structured or organized in order for an immanent universal to inhabit it? For example, a block of wood or a lump of clay, and similarly, a nugget of gold, or a pool of water all appear to be an amorphous mass that is not really spatially structured and yet all possess universals because such material would not actually exist as that kind of material without their

⁵⁶ Perhaps my understanding of place is closer to Leibnizian space as a system of relations.

universal.⁵⁷

In order to reply to the above objection, I would have to admit that a spatially structured entity is just one way a concrete particular can be organized as a place. Any concrete particular that is spatially structured or organized in some way can be a place. Animals and plants, for example, are biologically structured entities that are not really spatially organized and yet they possess immanent universals. In fact, any earthen or liquid based object like water, clay, or gold either possess a molecular or element structure, which can act as a place for an immanent universal.⁵⁸ If a particular increases its layers or structures in diverse ways, then the more places are open for a universal.

But how does the above explanation relate to an immanent universal existing in multiple locations? Earlier I explained an important difference between *location* and *place*. Namely, a concrete particular can change its location with no change in its place because the structure of the concrete particular was not altered as it moved from location to location. Keeping this in mind, if the structure of several concrete particulars is similar, then the immanent universal that resides in those concrete particulars would seem to be identical. For example, although my left hand is distinct from my right hand, they both have the same structure. Thus, each hand holds a place for an immanent universal handness or *manus* (i.e., the scientific name for hand is *manus*). A mass produced highly repetitive object like a cell-phone, is structured in a way that creates a place for an immanent universal.

⁵⁷ PK Sen challenges Strawson's material or featured universals. Basically, Sen concludes that such material universals like gold, jam, water, etc are not universals because their instances are just parts or *scattered* parts of the material object. In other words, so called "material universals" like water or gold are really just concrete particulars that have a spatial extension that can be divided (Sen, 2006, p. 23).

⁵⁸ One of Armstrong's argument against Platonic or uninstantiated universals is the belief that such philosophers are committed to a blob-like particular (1989, p. 76). I am assuming that if a thin particular obtains more properties it becomes more layered and less blob-like.

I can think of three questions that someone might have in regard to the above explanation. First, is it possible to reduce place and universal substances to a set of relational universals? For example, knifeness resides in a place, which appears to be nothing more than the spatial relation between a blade and a handle.⁵⁹ Second, if universals are not reducible to a set of relational universals, then perhaps universals are just *emergent* properties, which *arise* from the arrangements of the parts of their particular? Thus if knifeness cannot be reduce top-down then perhaps knifeness can emerge bottom-up? Lastly, the above account does not explain the possible multiple locations of quality universals? Shall we conclude that a quality universal also reside in a *place* within the quality particular (i.e., trope, property particular, property instance)? In short, how does redness resides in multiple red tropes?

The *way* an object is organized or structured gives rise to a place. A place is not just a set of relations but the way in which various relata in a set of relations are organized or structured. A handle just sitting on top of a blade does not make a knife, because it is not situated in a way for knifeness to reside in that place. Furthermore, if we consider immanent universals to exist as eternal, singular, non-composite entities that can exist independently from their instances (i.e., uninstantiated), then universals seem to be neither *reducible* to their instances nor arise or *emerge* from their particular instances. Having said that, there are, however, various ways in which concrete particulars (i.e., substances) and quality particulars (i.e., tropes) organize in order to create circumstances for substantive and qualitative universals to reside in a place. Redness, for example, is instantiated by a particular shade of red. Since there are no free floating tropes, a particular red trope only instantiates redness when it is attributively tied to some concrete particular whether it be a red truck, flower or sunset etc. In fact, how those attributes are tied to

⁵⁹ This example comes from D.M. Armstrong (2006, p. 245).

their substance, create a place for a universal to reside. Although it is not apparent that a wise man, a wise decision or a wise act, all share a common *place* for a qualitative universal wisdom to reside, since each particular quality is attributively tied to different substances, a careful analysis might reveal a possible underlying structure that would create a place for wisdom. For example, a wise person creates a *place* for wisdom by cultivating and harmonizing their emotions. In fact, meditation training can be a way to cultivate one's emotional reactions (i.e., disposition) with one's virtues. A wise decision creates a place for wisdom when that decision weighs possible outcomes that best meet the goals of the decision. And lastly, a wise action creates a place for wisdom when those actions are performed in light of achieving the goal or purpose. In other words, wise actions are wise insofar as they are arranged or ordered with a goal that unifies such actions.

Multiple Location of a Universal in Spacetime

How does the above explanation of the multiple location of immanent universals alter, if we combine space and time into a single manifold i.e., spacetime? *Prima facie*, I do not think the above explanation alters too drastically as long as a concrete particular creates a *place* for universals to inhere. In Einstein's relativistic universe, unlike Newton's universe, space and time are not absolute rather the speed of light is a fixed constant. Furthermore, time is the fourth dimension that cannot be separated from the three dimensions of space (length, width, and height). Everyday objects are regarded as events because they have duration, i.e., temporal spread or span. So a concrete particular like a pot or table not only extends in space, but also extends in time. Furthermore if these everyday objects were to rapidly move at a velocity similar to the speed of light, then certain physical changes occur to the object relative to an external frame. In the preface of his essay *Relativity*, Einstein says, "I wished to show that space-time is

not necessarily something to which one can ascribe a separate existence, independently of the actual objects of physical reality. Physical objects are not *in space*, but these objects are *spatially extended*. In this way the concept “empty space” loses its meaning” (2002, p. X).

How do immanent universals fit in Einstein’s spacetime universe? If we assume spacetime as singular substance, a kind of spacetime *monism* where the regions of spacetime are identical to concrete particulars as spacetime events, then there appears to be no room for an additional ontological category for universals.⁶⁰ Thus, the question concerning multiple location of a universal simply does not arise. However, if we can set aside the “monism” of spacetime *monism* while accepting spacetime *substantivalism* along with such everyday concrete objects as spacetime events, then I think there is room for immanent universals.⁶¹ But in order to make room for immanent universals, an explanation is required about how particular spacetime events instantiate universals.

Earlier I had mentioned that even if concrete particulars are identical to spatial regions, as posited by Descartes, then there still is room for immanent universals. Although immanent universals are *bounded by space*, they do not *take up space*. Immanent universals reside within particular so long as there is a place for a universal to reside. Can immanent universals also reside in a kind of spacetime *substantivalism*? Does the dimension of time somehow affect the way an immanent universal can possibly reside in two distinct locations at the same time? If immanent universals are spaceless and timeless then it is difficult to imagine how they can be

⁶⁰ Please see Lawrence Sklar (1974), *Space, Time and Spacetime*, p. 166; Theodore Sider (2001) *Four-dimensionalism* p.110; and lastly, Johnathan Schaffer “Spacetime the One Substance” in *Philosophy Studies* (2009) 145, 131-148.

⁶¹ Here I am attempting to hold back *monism* as a singular ontological category in order to make room for another ontological category of universals. Also I am assuming the metrics of spacetime and spacetime itself are not separable (please see the hole argument). Also, the identity between spacetime with spacetime events is also known as super *substantivalism*.

restricted in any dimension let alone in a spatial or a temporal dimension. In fact, if we define a *geometrical* dimension as a field or a region that can measure an entity's extent, then how can a universal exist as a dimensional entity if a universal lacks an extent, or spread?⁶²

But for sake of argument assume universals exist in the temporal dimension. In other words, imagine triangularity, potness, justice, and the good etc., all exists as temporal beings in the temporal dimension. If we abstract away the spatial parts of a concrete particular (i.e., its spatial dimensions – length, width and height), then its temporal dimension seems unaffected. And if universals actually exist in the temporal dimension, then it appears that universals would not be affected by the loss of a particular's spatial parts. But this raises some tough questions. Namely, what does it mean to instantiate an entity that exists in the in the fourth dimension, and also, how does it fit with our contemporary physics? Indeed, if spacetime can be separated in such a way that universals were somehow a temporal being, then it appears that a pot instantiates not only potness, but also instantiates its temporality. Now this seems strange because 1-D, 2-D or 3-D entities ought to instantiate a universal independently of its duration or temporal characteristics. In other words, it makes perfectly good sense for a 2-D triangle to instantiate *triangularity* independently of its *duration* through time. Although universals are instantiated by their particulars at a time, a particular is not that kind of particular *in virtue of* time. Furthermore, this account does not seem consistent with our best science, which does not separate entities existing *in time from* space. Again, if space and time is a single-manifold i.e.,

⁶² I assume a point is not a dimensional entity because a point only specifies a location, and it lacks length, depth, and height. Furthermore, two salient features are apparent in describing and constructing geometrical dimensions; one, a dimension is a way to measure existing entities within a dimension, and two, higher dimensions are built upon their immediate lower dimension. For example, a 2-D surface can be constructed from 1-D lines, and not vice-versa. Although we can *abstract* and even define a line by slicing or cutting into a surface, dimensions are constructed from lower to higher dimensions. If a 2-D world exists, then this seems to imply that it could not have existed independently from the 1st dimension.

spacetime, then a universal that resides in a concrete particular appears to extend in space as well! But this seems dubious because it raises a question whether universals succumb to the warping affects of gravity. In other words, if immanent universals are part of the fabric of spacetime, then it appears that they yield to the force of gravity. This could lead to some bizarre physics if universal were somehow a constitutive part of spacetime itself. But as I mentioned earlier, if we assume an identity between particular spacetime events and spacetime itself, and if spacetime itself can be *extremely warped*, then is it possible for a particular spacetime event to exists in two distinct locations at the same time? If so, then a universal that inheres in a particular spacetime event would seems to be in two locations at the same time as well. Again this seems far-fetched because the geometry of spacetime itself largely depends on the mass of objects. Although, this line of argument is rather fantastic, it is not vital for the multiple location of an immanent universal. An immanent universal is located in two distinct spacetime events insofar as those spacetime events are similarly structured.

Summary

In summary I have described a universal as a singular, eternal entity that can wholly exist within various concrete particulars at the same time. When I say “within” a concrete particular, I mean a universal is an immanent entity that inheres within their concrete particulars via instantiation. Although universals are ontologically unlike their concrete particulars, the instantiation relation binds a universal to their various particulars in a way that does not require another relation. In short, instantiation acts like metaphysical glue. However, if all the various particulars of a universal no longer exist, then a universal can still exist uninstantiated. Although an uninstantiated universal is causally inert, an instantiated i.e., immanent universal is causally relevant because it establishes the nature of a concrete particular. Instantiation is a unique tie

that can bind a single universal to various concrete particulars existing at multiple locations at the same time. A concrete particular is an instance of a universal, when the arrangement of the parts of a particular creates a *place* for a universal to reside. If several concrete particulars have structures or arrangements of their parts that are similar, then an immanent universal exists at the location of those concrete particulars. Thus, by existing in several concrete particulars at the same time, an immanent universal offers an explanation to why various concrete particulars are in fact common.

Chapter III. The Sense-perception of Concrete Particulars

The eye—it cannot choose but see; we cannot bid the ear be still; our bodies feel, where'er they be, against or with our will.

William Wordsworth
Lyrical Ballads

Every man feels that perception gives him an invincible belief of the existence of that which he perceives; and that this belief is not the effect of reasoning, but the immediate consequence of perception. When philosophers have wearied themselves and their readers with their speculations upon this subject, they can neither strengthen this belief, nor weaken it; nor can they show how it is produced. It puts the philosopher and the peasant upon a level; and neither of them can give any other reason for believing his senses, than that he finds it impossible for him to do otherwise.

Thomas Reid, *Essays on the Intellectual Powers of Man*

In the previous chapter, I tried to argue that universals are inherent in their concrete particulars. By existing within their concrete exemplifiers, I tried show how an *immanent* universal can play a causal role in establishing the nature of a concrete particular. In this chapter, I argue for the second premise of the Main Argument; namely, that we can have knowledge of concrete particulars by way of sense-perception as a knowledge source.

Argument For Knowing Concrete Particulars by way of Sense-perception

- P1. The schema *S knows that p*, nicely captures a basic form regarding the intentionality of knowledge. Knowledge happens when a subject has a certain epistemic relation to his mental content *p*. For example in a statement, “John knows that this is a pot,” John’s knowledge is about some object, which is in this case is a pot.
- P2. The knowledge of *p* in the previous premise is a true determinate cognition that is accepted by the subject, which should not only be free from doubt, but also from being haphazardly or accidentally obtained.
- P3. For a true determinate cognition to be accident free is for it to be had in a principled or reliable manner. Thus, this reliable manner is a knowledge source (*pramāṇa*).

- P4. When our sense-perception is working under suitable environmental conditions, and is functioning untainted by mental or sensory errors, then sense-perception is a reliable instrument for knowledge.
- P5. The cognitive content of our sense-perception is about what our sense organs *causally* interact with, namely concrete particulars.
- C. Therefore, we can have knowledge of concrete particulars by way of sense-perception-as-a-knowledge-source.

Explanation of Premise 1: An Analysis Of Schema *S knows that p*

In general, the schema *S knows that p* does not cover cases where a person knows how to do something (*S knows how to do x*). This seems unfortunate because knowing how to do something on an everyday basis seems to make us succeed by enabling us to accomplish intended actions. In the classical world, Indian philosophers argued that unhesitant actions (*niṣkampa-prvṛtti*) suggest that we are guided by knowledge that is free from doubt, which in turn seems to challenge skepticism.⁶³ Putting aside *S knows how to do x*, the schema *S knows that p* seems to focus on the individual knower. It is the individual that is the fundamental carrier of knowledge, not books, computers, or the Internet. Although a group of individuals can form a community of knowers, it is not the community that knows; rather it is the individuals that constitute the community that will be the possessors of knowledge. If we inquire further into possible kinds of knowers, then what shall we say about animals? Should we include animals into our privilege class of knowers? One way to answer this question is to ask whether certain animals such as apes, parrots, sharks, frogs, snakes, and cockroaches have an ability to stand in the required epistemic relation to their mental (or perhaps bodily) content? On the one hand, we should say yes, because they certainly navigate in their world through sense-perception.

⁶³ Phillips, Stephen, "Epistemology in Classical Indian Philosophy", *The Stanford Encyclopedia of Philosophy* (Spring 2011 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2011/entries/epistemology-india/>.

In fact, certain animals have evolved highly accurate sensory powers that favor their survival. To deny them knowledge would seem awfully provincial on our part. On the other hand, some philosophers think that the scheme *S knows that p* requires a subject to justify their mental content. In other words, for S to know that p, requires S to be in a position to justify their belief in p. Thus, are we so confident that animals have the ability to justify their beliefs in p? The debate concerning non-human knowledge often spills over to the externalism and internalism debate concerning epistemic justification. Internalists argue that an animal's perceptual experiences constitute evidence just in case they are aware or conscious that their perceptual evidence is a reliable guide to truth. Indeed, that seems to be a condition animals cannot meet. This is a hotly debated issue and I shall return to it when I discuss some objections to reliabilism.

Now, what shall we say about the “*that*” part of the *S knows that p* schema?⁶⁴ What is the content of “p” and what is significant about the “that”? Franz Brentano, in his work, *Psychology from an Empirical Standpoint*, says,

Every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional (or mental) inexistence of an object, and what we might call, though not wholly unambiguously, reference to a content, direction toward an object (which is not to be understood here as meaning a thing), or immanent objectivity. Every mental phenomenon includes something as object within itself, although they do not all do so in the same way. In presentation something is presented, in judgment something is affirmed or denied, in love loved, in hate hated, in desire desired and so on (1995, p. 68).

In the schema *S knows that p* the “that” signals the intentionality of the subject's mind. When Brentano says, “In presentation something is presented, in judgment something is affirmed or denied...”, I take him to mean the “that” signals what the thought or cognition is directed towards. So when we ask someone, “What are you thinking *of*?” or “What are you thinking *about*?” Whatever the person's thought is *about* or *of*, is the mind's intentionality. So when I

⁶⁴ Later, I discuss what the content of “p” and how it is structured.

see a cup on a table, then my cognition is directed toward the external object i.e., the cup on the table. But this seems ambiguous because it is unclear whether the intentional object is an external object, or a mental representation of an external object. For example, I certainly can picture a cup on a table that is free from my current sense-perception of a cup on a table. In fact, I can imagine or remember, or even speak about nonexistent objects such as a unicorn or a fictional character like Sherlock Holmes or a round square. Thus it seems the intentional object is a representation that may not exist. Indeed, our ability to represent a nonexistent object is important, because how could we assess whether such state of affair is true or false? On the other hand, if an intentional object is a representation, then it is puzzling how two people can be directed towards the same object? In other words, if the intentional object is not an external object, then what reason do we have to think that two people can experience the same object? However, since we are interested in our sense-perceptual knowledge, the intentional object cannot be a nonexistent object.⁶⁵ Thus with respect to our sense-perceptual knowledge, the “that” captures the intentional object, which is an external object. In addition to the intentional object, we have an attitude towards the intentional object. The standard view considers the intentional relation as a kind of attitude. Bertrand Russell, in his 1918 essay, *The Philosophy of Logical Atomism* states,

What sort of name shall we give to verbs like “believe” and “wish” and so forth? I should be inclined to call them “propositional verbs”. This is merely a suggested name for convenience, because they are verbs which have the *form* of relating an object to a proposition. As I have been explaining, that is not what they really do, but it is convenient to call them propositional verbs. Of course you might call them “attitudes”,

⁶⁵ I just want to mention two brief notes. One, is it possible to have knowledge of a non-intentional object? For example, imagine a person performing certain tasks e.g., making a sandwich while sleepwalking. Shall we say that this person knows that they are making a sandwich? Second, an external object as the intentional object does not mean a representation cannot aid us in our knowledge of an external object. It just means the representation is not the intentional object. Later I distinguish representational properties from sensational properties (Peacocke, 1984, p. 5-6).

but I should not like that because it is a psychological term, and although all the instances in our experience are psychological, there is no reason to suppose that all the verbs I am talking of are psychological (1985, p. 60).

Russell's reservation about the word "attitude" as a psychological term, maybe based on a worry that "psychological" may imply something that is subjective or partial to a person. For Russell, although knowledge is an individual's mental state, the content of knowledge is not subjective; rather it is objective and impartial. People can either have an attitude of acceptance when they believe the contents of their cognition or the attitude of rejection when they think the content of their cognition is false or doubtful.⁶⁶ The attitude of acceptance or rejection of the content is based on an epistemological ethos. It seems we are obligated to believe true cognitions while shunning false ones, or suspend our assent when in doubt. In certain instances we seem to have no choice not to believe such as an immediate pain that overwhelms us. Thus, an immediate *overpowering* experience does not leave much room for doubt. Other times, our beliefs manifest only when it is appropriately activated, such as when we are prompt to answer a question. Many philosophers have compared beliefs to an attitudinal disposition, which seems very appropriate. In the way, a piece of glass is disposed to shatter when dropped, due to the property of brittleness, so to is our cognition disposed to reply to a question or perhaps make an inference due to the cognition being in a certain belief state.⁶⁷ But just like the brittleness of a piece of glass, which may never actually shatter, because it is never dropped, our beliefs may never actualize or manifest. For example, my belief that rocks are not made from plastics may

⁶⁶ In addition to beliefs, there are desires, hopes, wishes, fears, and doubts (Searle, 1983 p. 1-4).

⁶⁷ Armstrong comparing dispositions to beliefs says, "[W]e distinguish between a belief and its manifestation, or, as we also say, its expression: between A's belief that p and the speech-act and other actions or occurrences in which the belief is manifested or expressed; and we recognize that having the belief does not entail manifestation or expression of the belief. Such a distinction enables us to give a plausible account of the case of the sleeping or unconscious believer" (1973, p.8).

remain an unrealized likelihood that, had I been asked, “Are rocks made of plastics?” I would have said “No”.

But the parallel of *a cognitive belief as a mental dispositional state*, and *a concrete particular possessing a dispositional state* have important differences. I shall just name two for sake of brevity. First, a disposition may have some structure that underlies the disposition. For example, the brittleness of a piece of glass possesses an underlying structure that may be responsible for how the object behaves under certain conditions. It is unclear, whether beliefs have an underlying structural base. Now, you might think that if S has a belief that something is a cup, then S would also have a belief that it is something that hold liquids or something that can be held by hands, etc. Indeed, these additional beliefs lend a structural support to S’s belief that this something is a cup. But it is unclear that these beliefs are required for S’s belief. This brings me to the second important difference. Some beliefs seem to be purely voluntary. I can without hesitation have a belief that purple aliens inhabit the dark side of the moon. Without rhyme or reason I am free to instantaneously hold a belief. Furthermore, not only is my *fanciful* imagination free to conceptually conceive fantastic ideas, but also I am free to believe it or reject such thoughts. If some beliefs are voluntary, then what kind of belief ethic or perhaps *responsibility* do I have towards my belief and how is it related to knowledge?

Explanation of Premise 2: The Analysis of “p”, Normativity and Skepticism

In the scheme *S knows that p*, what is the content of “p” and how it is structured. Traditionally “p” is a proposition. In *Some Main Problems of Philosophy*, G.E. Moore understood a proposition as something more than just a sentence.

‘Proposition’ in the sense in which, upon this theory, the object of belief is always a proposition, is not a name for any mere form of words. It is a name for what is *expressed* by a certain forms of words – those, namely, which in grammar, are called ‘sentences’. It

is a name for what is before your mind, when you not only hear or read but *understand* a sentence. It is, in short, the *meaning* of a sentence – what is expressed or conveyed by a sentence: and is, therefore, utterly different from the sentence itself – from the mere words (1953, p. 282).

When G.E. Moore says, “what is expressed or conveyed by a sentence”, I take him to mean a single proposition, which can be conveyed in different declarative sentences e.g., “John bought a car” and “A car was bought by John”. Likewise when various speakers say the same declarative sentence in different languages, then that same expression is a proposition. For example, English speakers say, “Rama sees a pot” and Sanskrit speakers say, “Rāmo ghaṭam paśyati” in both languages each sentence express the same proposition. Furthermore, a proposition is not only the bearer of a true declarative sentence but also, shares a structure similar to a sentence. For example, the sentence “Rama sees a pot” possesses a sentence structure with a subject being in a verbal relation to an object. Similarly, the proposition of this sentence has three constituents that can be represented as r-S-p, where “r” stands for Rama, “S” stands for sees, and “p” stands for pot. Interestingly, Gaṅgeśa, a 13th century Nyāya philosopher, thought a sentence as a verbalized cognition could also be structured (Phillips & Tatacharya, 2004, p. 13). A true or veridical determinate cognition could be structured directly from our sense experience of an object. A determinate cognition (*viśiṣṭa jñāna*) captures an object being qualified by a qualifier (instead of “propositional” think of it as “cognitive”). So an experience of a pot on the ground is captured directly by our determinate cognition as having-an-object. Indeed, our determinate cognition is said to have three constituent parts: a qualificandum (*viśeṣya*), qualifier (*viśeṣaṇa*) and the qualificative relation (*vaiśiṣṭya*). These three parts should look familiar, because they corresponds to an object’s ontological parts i.e., the property bearer, the property, and the relational tie between the property and its bearer. Phillips and Tatacharya argue, “[H]aving-an-object Naiyāyikas discuss in the ways Western philosophers discuss

propositions and people having the same belief. It is the public nature of cognized objects, their intersubjective accessibility, that allows one to verbalize the indications of cognition and do logic and epistemology” (2004, p. 14).⁶⁸

Normativity and Skepticism

From where does the sense or rightness or wrongness i.e., normativity of believing arise? An important reason why we value knowledge is because it meets a certain standard of intellectual excellence of a cognitive state or disposition that is free from doubt, ignorance, and error. Indeed, it seems to me that the main epistemological task is to reach the goal of truth. And believing truly rather than falsely is valuable because, in general, it not only serves us well with respect to living a contented life free from stress and frustration, but also satisfies our inquiry into the nature of the world and possible entities beyond the world. As we navigate in life deciding what to do and what to believe, we try to decide what is best. Indeed, knowledge of reality about certain things is thought by many to be the highest good in life.⁶⁹ However, historically there are certain radical views that question this overall cognitive task. The one I am thinking about in particular is *skepticism*.

A *Pyrrhonian* skeptic thinks we ought to suspend our beliefs because it brings peace of mind, which leads to a tranquil life *free from* stress and unnecessary frustration. The frustrations in life occur when we possess an attitude of fervor and zeal for the truth. Indeed, if the world is

⁶⁸ In the following chapter I explain how a qualified cognition (*viśiṣṭa jñāna*) reveals how we can recognize an *immanent* universal. Indeed, Nyāya thinkers work very hard to triangulate between world, cognition and language.

⁶⁹ Gotama thinks supreme felicity, is attained by the knowledge about the true nature of the sixteen categories viz., means of knowledge (*pramāṇa*), object of knowledge (*prameya*), doubt (*saṁśaya*), purpose (*prayojana*), familiar instance (*dṛṣṭānta*), established tenet (*siddhānta*) members (*avayava*) hypothetical reasoning (*tarka*), ascertainment (*nirṇaya*), discussion (*vāda*), wrangling (*jalpa*), cavil (*vitandā*) fallacy (*hetvābhāsa*), quibble (*chala*), futility (*jāti*), opponents error (*nigraha-sthāna*) (Nyāya Sūtra I.1.1).

indeterminate, then it seems reasonable to adopt an attitude of non-assertion (Long & Sedley, 1987, p.15). But is it appropriate to suspend all our inquiry into reality? Are we so confident that the world is indeterminate? It may be wise to suspend judgments on *some* metaphysical investigations, but is it wise to suspend our inquiry into *all* metaphysical objects? If we are committed to investigating the nature of knowledge and reality, then such a commitment, it seems to me, is a highly rational pursuit.

In addition to valuing knowledge, we also value how we obtain knowledge. We hesitate to attribute knowledge to an individual who obtains a true belief haphazardly or accidentally. For example, imagine a graduate student having an odd belief that his professor is busy studying at the University Library from 1 to 2 am. Suppose, by sheer coincidence that the professor is in fact busy researching at the University Library at 1:30 am. Although the graduate student has a true belief about his professor's study location, we would conclude that the graduate student *does not* know his professor is busy studying at the library from 1 to 2 am. In order to avoid issues of accidents or flukes, many epistemologists argue that knowledge must be acquired in a non-accidental manner.

Our interest lies in obtaining a true belief in a skillful or proper manner rather than acquired in an accidental way or mean. When we engage in an activity like basketball, we not only value making a basket, but also we value the *intrinsic way* that accomplishes this task. An accurate shot that wins the game would feel awesome, but if a shot is won by sheer luck, (i.e., expressed no real skill) then in what sense should we praise such a shot? Indeed, the satisfaction of making a shot carries over to the manner in which the shot was made. Our concept of knowledge acts similarly. In other words, there is a quality to how we reach knowledge. Indeed, a kind of "quality control" component that informs us not only when we hit upon a true belief,

but also *evaluates* how we accomplish this knowledge.

Explanation of Premise 3: Pramāṇa as a Knowledge Instrument or Source

If we want to eliminate accidentally true beliefs or cognitions from the ambit of ‘pramā’-knowledge properly so called, then we should focus more on how beliefs are established.⁷⁰ In fact, one way to avoid accidental true beliefs is to seek out methods, i.e., reliable methods that would guarantee the truth of a belief. In the last three decades, David Armstrong, Alvin Goldman, Fred Drekse, Robert Nozick, and Ernest Sosa have written extensively on the epistemic approach called “reliabilism”. Alvin Goldman in his paper, *Discrimination and Perceptual Knowledge*, thought of reliabilism as a refinement of the causal theory of knowing, and proposed that what makes a true belief an instance of knowledge is the reliability of our cognitive mechanism. “There must be mechanisms that are, in an appropriate sense, ‘reliable’. Roughly, a cognitive mechanism or process is reliable if it not only produces true beliefs in actual situations, but would produce true beliefs, or at least inhibit false beliefs, in relevant counterfactual situations” (1976, p. 771). Armstrong, in his book *Belief Truth and Knowledge*, argues that the connection between my belief and the way the states of affairs must be a law-like connection. “[T]here must be a law-like connection between the state of affairs *Bap* [such as *a*’s believing that *p*] and the state of affairs which makes *p* true, such that, given *Bap* it must be the case that *p*” (1973, p. 166). This is what led Armstrong to posit the famous “thermometer-model” as a model for a reliable belief formation for knowledge. In just the way that a reliable thermometer lawfully reflects the temperature, a person’s belief arising mechanism lawfully reflects the phenomena or states of affairs that makes the belief true. Armstrong’s interest is in a

⁷⁰ I say a more about the tension of causality versus justification, when I contrast reliabilism with evidentialism with respect to sense-perception.

non-inferential, nomological process between our cognition and the state of affairs that make our cognition true. So, in addition to the causal factors being a cognitive process, the environment (e.g., lighting conditions) can also play an important causal role to obtaining knowledge.

Succinctly stated, a cognition is a knowledge cognition just in case there is a property H of the cognition, where it would have to be a law of nature that whenever some cognition possesses H, then that cognition is true. H may be as complicated as one likes, and may include facts about an individual's cognitive process, his sensory apparatus, the environment and so on (1973, p. 197).

Similarly, classical Indian philosophers thought that knowledge, as a true cognition (*pramā*), ought to be derived in a reliable way. A “reliable way”, acts as a truth guaranteed means or instrument (*pramāṇa*) that aids the knower (*pramāṭr*) to acquire knowledge of the object (*prameya*). A *pramāṇa*, in Sanskrit, is technically an instrumental cause (*karana*) or the most effective causal factor (*asādhāraṇa-kāraṇa*) for knowing an object (Matilal, 1986, p.35). So, when I say that I know x by means of y, x is the object known and y is the instrument i.e., *pramāṇa* for knowing x. This formula is not unlike such usage as: “I hold the pen by the fingers” where the fingers are the so-called instrument for holding the pen (Matilal, 1986, p. 43). The etymology of *pramāṇa* is based on the Sanskrit verbal root $\sqrt{mā}$, which means, “to measure”. The prefix *pra* means “onward” while the suffix *ana* signals an action noun. Thus the word *pramāṇa* suggests a “measuring along”, or something that acts as an instrument that measures an object (i.e., the thing to be measured the *prameya*). So a person is said to have knowledge of some object just in case the object is properly measured. Another way to think about the relation among a *pramā*, *pramāṇa* and *prameya*, is a causal chain where the object is linked to our cognition via an instrumental channel. The less noise in the channel the more likely

we grasp the object.⁷¹

Meta-epistemology: Establishing Pramāṇa Epistemology

If we advance the “measuring” analogy to better understand *pramāṇa* epistemology as a kind of reliabilism, then we face a skeptical concern about the *pramāṇa* itself. In the mouth of the objector, “If the object to be known (*prameya*) is measured by a measuring “balance” (*tulā*) (i.e., a *pramāṇa*), then what shall be used to measure the measuring balance itself (i.e., *pramāṇa* itself)?” In other words, it seems legitimate to investigate whether the standards we use to measure objects are themselves in need of being measured (Matilal, 1986, p. 28).⁷² This particular worry leads to a stinging dilemma.

Pramāṇa Skepticism: An Argument Against Establishing Pramāṇa Epistemology

P1: A *pramāṇa* is in need of being established, because we not only value knowledge, but also we value *how* we acquire knowledge.

P2: If a *pramāṇa* is established, then it is either established through another *pramāṇa* or

⁷¹ In the classical schools serious debates centered on how many *pramāṇas* should be admitted into a theory of knowledge. According to *Nyāya Sūtra* I. 1.3, the materialist Cārvāka school thought that sense-perception (*pratyakṣa*) is the only *pramāṇa* while the Buddhists and Vaiśeṣika admit two *pramāṇas*, sense-perception (*pratyakṣa*) and inference (*anumāna*). Sāṃkhya philosophers admit three *pramāṇas*, sense-perception (*pratyakṣa*), inference (*anumāna*) and verbal testimony (*śabda*) while *Nyāya* philosophers add a fourth *pramāṇa* comparison (*upamāna*). Prābhākara Mīmāṃsā philosophers add presumption (*arthāpatti*) to the above list while Bhāṭṭas Mīmāṃsā and Vedāntins philosophers add non-existence (*abhāva*) to the list totaling six *pramāṇas*. Lastly, the Paurāṇikas recognize a seventh and eighth *pramāṇa* namely probability (*sambhava*) and rumor (*aitihya*). In general, it was believed that each type of *pramāṇa* has its own *character* that acts as a source independently from another type of *pramāṇa*. Independent in the sense that a *pramāṇa* like testimony (*śabda*) is not reducible to another *pramāṇa* like sense-perception (*pratyakṣa*).

⁷² This particular objection originates from the Buddhist Philosopher Nāgārjuna (Circa 200 AD) in his text *Vigrahavyāvartani* verse 31. If such and such objects are established for you through the *pramāṇas* (*yadi ca pramāṇatas te tesam tesam prasiddhir arthānām*), tell me how those *pramāṇas* are established for you (*tesam punaḥ prasiddhiṃ brūhi katham te pramāṇānām*) (Bhattacharya, Arnold & Kunst, 2002, p. 115).

through itself.

- P3: If a *pramāṇa* is established through itself (i.e., self-established), then we seem to have collapsed the distinction between the object of knowledge (*prameya*) and the means of knowledge (*pramāṇa*).
- P4: If a *pramāṇa* is established through another *pramāṇa*, then we are lead to a vicious infinite regress of a *pramāṇa* establishing another *pramāṇa* with no apparent end in sight.
- C: Therefore, a *pramāṇa* cannot be established because a *pramāṇa* either regresses *ad infinitum* or is indistinguishable from the object of knowledge (*prameya*).

Explanation of the Premises and Possible Replies

The cogency of the above anti-Nyāya argument has been challenged in a number of different ways, of which the most important are the following.

- 1) The *pramāṇa* skepticism argument is self-defeating.
- 2) Neither knowledge of a *pramāṇa* nor *conscious* justification of a *pramāṇa* is required for obtaining knowledge (*pramā*).
- 3) The way of obtaining knowledge (*pramāṇa*) and the object of knowledge (*prameya*) can actually establish one another.
- 4) The truth of our cognition is intrinsically established (*svataḥ prāmāṇya*).
- 5) The truth of a cognition is extrinsically established (*parataḥ prāmāṇya*).

The Pramāṇa Skepticism Argument is Self-defeating

In *Nyāya Sūtra* (NS) II.1.12-15, Gotama challenges the above argument by arguing that the denial of a *pramāṇa* is impossible because the argument is self-defeating. “If you say that your denial is based on a certain means of knowledge, then you do thereby acknowledge the truth-conduciveness of the means.” Gotama’s challenge to the above argument is quite powerful and direct if the skeptic’s employment of the above argument as an inference (i.e., demonstrative set of rational premises) is recognized as a type of *pramāṇa*. Thus any kind of demonstrative argument that challenges *pramāṇa* epistemology must recognize at least one *pramāṇa* namely

inference (*anumāṇa*). To refute even inference with an inference is simply self-defeating.⁷³

Neither Knowledge of a *pramāṇa* nor conscious justification of a *pramāṇa* is required for obtaining knowledge (*pramā*)

P1 is a significant premise because it touches upon an ethical epistemic principle that we not only value knowledge, but also value how we acquire knowledge i.e., in a reliable manner via *pramāṇa*. If we resist the above argument by challenging P1, then we face an unfortunate consequent. If we still value knowledge while forfeiting legitimately establishing a *pramāṇa*, then we lay bare a kind of arbitrariness to the way we acquire knowledge. In other words, we can never establish a sense of trust in our knowledge, because the way we acquired our knowledge seems more or less arbitrary.

Perhaps one way to challenge the above is to spell out more clearly what exactly is being asserted. P1 states that a *pramāṇa* is in need of being established because we value a reliable way to knowledge and not some arbitrary or whimsical way. But that may suggest that the ground or establishment of the *pramāṇa* must somehow be cognitively available to the person in order for the person to have knowledge (*pramā*). But why assume that? Indeed, if our focus is on the establishment of knowledge, then a person seems only accountable or responsible for obtaining knowledge by using a reliable way i.e., via *pramāṇa*. So the objection that a particular

⁷³ Nyāya philosophers thought that among the four *pramāṇas*, sense-perception (*pratyakṣa*) is the most fundamental. If we admit inference (*anumāṇa*) as a *pramāṇa*, then what shall provide the content for our inference (*anumāṇa*)? Setting aside the possibility of innate ideas, our ideas have an origin in our perceptual observations of the world, which act as initial beliefs for our inference (*anumāṇa*). How else can we conclude that this mountain has fire, if we cannot observe that this mountain has smoke?

But perhaps a Nāgārjunian skeptic is not asserting his belief that a *pramāṇa* cannot be established. The force of what he is saying is not something that can be challenged via argumentation because the force of his words is not an assertion (Matilal, 1986, p. 67). And since the belief is a non-assertion then how could this belief be self-defeating? But if this is what a Nāgārjunian skeptic is saying, then it is unclear to me why a non-assertion should be accepted?

pramāṇa is somehow arbitrary because a *pramāṇa* requires a person to know or justify the *use* of a *pramāṇa* is simply not applicable because a person is not required to cognitively possess a reason why a *pramāṇa* is likely to be true (i.e., *internalist* or conscious perspective). It is a difference between a *pramāṇa* actually being a reliable instrument for knowledge versus a person possessing a reason or *conscious* justification that the *pramāṇa* is in fact reliable. For sake of argument, assume verbal testimony is kind of a *pramāṇa*. A hearer obtains testimonial knowledge (*śabda pramā*) when the truth from the speaker is successfully transmitted and accepted by a hearer.⁷⁴ In such instances, it is not required that a hearer know that a speaker is a reliable speaker (i.e., expert or an authority). Indeed, all that seems to be required is that a speaker is *in fact* a reliable speaker. For example, when I ask someone at the bus stop, “Excuse me, do you know what time it is?”, if she tells me, “Yes. It is 12:30 pm”, then I know that, it is 12:30 pm.

It is not essential for every entity to be known or revealed to us first before it can play the role of a ‘means’. We see with our eyes, the sense of sight, but we do not see the sense itself. We can infer that the sense of sight exists in us from the fact that we can see, but the fact of seeing does not depend on our prior knowledge of the sense of sight. [...] A prior knowledge of the ‘means’ is not always necessary before that means can be used for the generation of a piece of knowledge (Matilal, 1986, p. 61).

Establishing a Pramāṇa

But the above reply only pushes the *pramāṇa* skeptic one step back. Despite the fact that knowledge does not require a conscious justification of a *pramāṇa* an inquirer may still feel the epistemic pull or compulsion to question whether a *pramāṇa* can be legitimately established, independently of our actual *use* of a *pramāṇa*. Although a person is not required to offer a conscious justification or epistemic evidence for believing his use of a particular *pramāṇa*, we as

⁷⁴ I am assuming written text applies *mutatis mutandis*.

philosophical inquirers still want to know why a *pramāṇa* (e.g., sense-perception (*pratyakṣa*) or inference (*anumāṇa*) etc.), is in fact a reliable, truth conducive instrument? This is indeed the brunt of the skeptic's concern. It is at the meta-level of justifying a *pramāṇa* where the inquirer feels the sting of a skeptic's demand (that the skeptic argument gets revived). The skeptic thinks that a person is in doubt or challenged by an opponent cannot legitimately explain or justify why she thinks a *pramāṇa* is truth conducive. And in spite of the "knower" applying the so called, "*pramāṇa*", it would not lead to knowledge because the *pramāṇa* cannot be legitimately established.⁷⁵

The way of obtaining knowledge (*pramāṇa*) and the object of knowledge (*prameya*) can actually establish one another

We can attempt to address P2 and P3 while replying to a *pramāṇa* skeptic by arguing that a *pramāṇa* and *prameya* mutually establish one another. In *Nyāya Sūtra* (NS) Gotama states that an object of knowledge can also be a reliable instrument like a scale.⁷⁶ Usually, a particular *pramāṇa* is an instrument to acquire the objects of knowledge (*prameya*), but sometimes the object of knowledge can act as a *pramāṇa* to help the inquirer to know how we obtain knowledge, which acts as a *prameya*.

The *Nyāya* philosopher, Vātsyāyana commenting on Gotama's analogy of a scale says,

⁷⁵ Roderick Chisholm in his book *Theory of Knowledge* says, "But the appeal to such "sources" leaves us with a kind of puzzlement. If the question "How are we to decide, in any particular case, whether we know?" is seriously intended, then the reply "An ostensible item of knowledge is genuine if, and only if, it is the product of a properly accredited source of knowledge" is not likely to be sufficient. For such a reply naturally leads to further questions: "How are we to decide whether an ostensible source of knowledge is properly accredited?" and "How are we to decide just *what* it is that is yielded by a properly accredited source of knowledge?" (1977, p. 58).

⁷⁶ NS 2.1.16 *prameyatā ca tulā prāmāṇyavat* |

Being an object (*prameyatā*) can also be a reliable means of knowledge (*prāmāṇyavat*) as a scale (*tūla*).

What is meant is that the weigh balance, which is the means of ascertaining the weight of things, comes to be called ‘Pramāṇa’ because it is the means by which one comes to know the exact measure of the total weight of a substance; and the same balance when it has its own measure (of accuracy) ascertained by means of the gold (that has been weighed by another balance), becomes the object of a cognition, and hence called ‘Prameya’ (G. Jha, 1984, p. 635).

This should not sound too fantastic. For instance, when we go to the optometrist to measure the strength of our eyes, the optometrist uses a Snellen chart (i.e., eye chart). In this situation, the instrument of knowledge i.e., *pramāṇa* is the Snellen chart, and the object of knowledge i.e., *prameya* is the strength or power of our eyes (i.e., our sight). And when we receive our corrective lens, we then should be able to use our *pramāṇa* of sight to see the *standard vision* line (i.e., the *prameya*) at a distance of 20 feet.

Vātsyāyana offers a second analogy with respect to his commentary on this sutra, which is particularly insightful because he applies case-relations (*kāraṇas*) to show how the same object can play different roles under diverse circumstances. For example, *vṛkṣaḥ ṭīṣṭhaṭī* “the tree stands”. The tree is in the nominative case or agent. But in the sentence, “He sees the tree” the tree is in the accusative case or patient. And in the sentence, “He shows the moon by the tree” the tree is the means or instrument because it is the main means of accomplishment employed by the person doing the showing (Matilal, 1986, p. 60).

But the analogy seems to break down when we ask, “How were the first scale and the first object actually known?” Since each is the first of their kind, the mutual establishment is simply not an option. Basically, an inaccurate weighting scale cannot establish the weight of an object, and an object of unknown weight cannot possibly measure the reliability of a weight scale. Indeed, we seem to be caught in a circle of establishing a *pramāṇa* by seeking a *prameya*, while establishing a *prameya* by seeking a *pramāṇa*. In the end, it seems we need a way to justify a *pramāṇa* independently from a *prameya*.

The Truth of Our Cognition is Intrinsically Established (*svataḥ prāmāṇya*)

In a further section of the *Nyāya Sūtra* Gotama argues that the establishment of a *pramāṇa* is established like the light of a lamp.⁷⁷ However, prior to this statement Gotama explains an objection from his opponent's view. Basically, the opponent thinks if the *pramāṇas* can be self-established, then so could the *prameya* be self-established, and thus the *pramāṇas* like sense-perception and inference etc would be superfluous (G. Jha, 1984, p. 648). Although this is not the position that dominates Nyāya and later Navya Nyāya followers, Nyāya commentators like Vātsyāyana (*Nyāya Bhāṣya* NB) and Uddyotakara (*Nyāya Vārttika* NV) did take such replies seriously. Uddyotakara argued that this should not surprise us because after all, the mind is an instrument that can know itself. Although he recognizes that a *pramāṇa* such as perception *cannot* at the same time grasp both the object and itself, he thinks that the *pramāṇa* and *prameya* are similar in character (G. Jha, 1984 p. 654). In other words, a *pramāṇa* shared a kind of character with an object and from such "sharedness" understanding arises. Uddyotakara refers to Vātsyāyana's metaphor of how a person can know the well water by means of dipping a bucket into the well water. "Having brought out water one understands that the water in the well is also of the same kind; and yet in this case it is not said that thing (water) is apprehended by means of itself; all that is said is that by means of the thing which is endowed with the character (of water) we apprehend another thing which also is endowed with the same character (of water)" (G. Jha, 1984, p. 654).

The above passage is obscure because it could mean that the physical object that is

⁷⁷ NS 2.1.19 *na pradīpa-prakāśavat-tat-siddheḥ* |

Not so. The instruments of knowledge (*tat*) are established (*siddheḥ*) like the light (*prakāśavat*) of a lamp (*pradīpa*).

captured by our sense-perception, share some kind of physical properties with our own sense-perception i.e., the physical properties of our sense organs. Thus, we can examine the physical properties of an eyeball by means of using our own eyeballs. Indeed, because this reply is not unlike the previous reply concerning our optometrist, it too shall suffer from the previous objection. But more importantly, we could easily slip into a vicious infinite regress. It seems that the above passage suggests that a *pramāṇa* such as sense-perception can be justified or known by another *pramāṇa* such as testimony, and thus we seem to be on the road to an infinite regress (G. Jha, 1984, p. 655). On the other hand, if we take the light lamp metaphor seriously, then a *pramāṇa* such as sense-perception can grasp the object while perhaps indirectly grasping itself.

Gaṅgeśa's Insights in *Tattvacintāmaṇi*

The 13th century Nyāya philosopher Gaṅgeśa Upādhyāya in his text *Tattvacintāmaṇi*, was well aware of the above dilemma and thought that in order to reply to the above argument (*pramāṇa* regress, or a self-illuminating i.e., self-established *pramāṇa*), an inquirer must first differentiate a genuine *pramāṇa* from a spurious one (*apramāṇa*). But how can one recognize a genuine *pramāṇa* (i.e., truth-conducive *pramāṇa*), unless one can distinguish a true cognition from a false one? It is not unlike searching for a way to score a basket with no understanding of the value of placing the ball through the hoop of the basket. So how do we recognize a true cognition? Well, we could survey our collection of beliefs and identify those beliefs that are true. And then ask, “What was the manner or way in which these true beliefs or cognitions arose?” Searching for commonality and general patterns for the likeliness of those true beliefs, I not only avoid false beliefs, but also I shun accidentally obtained true beliefs. Eventually common patterns emerge that help us uncover the *pramāṇas* (e.g., inference (*anumāṇa*) and

sense-perception (*pratyakṣa*) etc.).⁷⁸ But as it stands, we seem to be locked in a circle of reasoning, namely, we seek knowledge as a true cognition (*pramā*) that arises from a reliable way i.e., *pramāṇa*, but the justification of the way we acquire knowledge requires that we recognize a true cognition. Ganeri, likens this circular reason to the problem of the criteria of knowledge noted by philosopher like Montaigne and Roderick Chisholm. Montaigne explains, “to judge the appearance we have of objects, we must have an instrument for adjudicating; to verify this instrument, we must give a proof of it, to verify the proof, an instrument is required” (Ganeri, 2011, p.136).

The skeptic has raised two challenges. One, any sort of establishment of a *pramāṇa* will lead to another *pramāṇa ad infinitum*. Two, any attempt to establish a *pramāṇa* must distinguish true beliefs (*pramā*) from spurious beliefs and this cannot be done independently of a *pramāṇa*. Thus we are caught chasing our tail attempting to establish a *pramāṇa* by first finding a *pramā*, but our attempt to find a *pramā* requires using a *pramāṇa*.

Unlike the Nyāya philosopher Gaṅgeśa, the Mīmāṃsā philosophers Kumārila Bhaṭṭa and Murari Miśra argue that true cognition is established intrinsically (*svataḥ*). This means the identification of a true belief is intrinsic to the belief arising process (*svataḥ prāmāṇya*). Basically, an intrinsicist thinks that there is no need to identify a belief as true or false because the truth of the belief is a constitutive part of the cognition itself. In short, “whatever makes me grasp one of my beliefs is sufficient to make me grasp the truth of that belief” (Ganeri, 2011, p. 136). Earlier I mentioned the metaphor of the light of a lamp. Intrinsicists argue that our cognition is like a lamplight because a lamplight reveals the object it shines upon while revealing itself. And as it lights itself up, the inquirer immediately grasps its truth.

⁷⁸ See Chisholm’s, *The Problem of Criterion* where he explains critical cognitivism and particularism.

Although this is the most abrupt way to reply to a skeptic i.e., “Of course we have knowledge because all our beliefs are true!” Now, this should strike anyone as peculiar because how are we every wrong if we cannot possess false beliefs? Well, to intrinsicists a cognitive error happens as we are on the way towards forming a belief. If a wrong turn has occurred in the *belief-forming process*, (i.e., a kind of cognitive misfire) then we have not formed a belief at all. Often an erroneous cognition consists of a memory and a sense-perception. For example, I see a bowl of fruit in front of me, and recall that those items are apples, bananas, and grapes in front of me. As I move to eat one of the items, I come to realize that this bowl of fruit is not a bowl of fruit, but a bowl of plastic items that look like fruit. Intrinsicists argue, that it is not the case that I had a false belief that “the items in the bowl in front of me are apples, bananas, and grapes”, rather I failed or lacked the belief that, “the items in the bowl are plastic items that look like fruits”. In other words, intrinsicists think a lack of a true belief is not a false belief. If I run into a patio glass door, I failed to see the glass door. It is not the case that I cognitive belief that “There was no glass door in front of me.”

Intuitively, all this sound very dubious to me and I question whether it makes sense that we only possess true beliefs. Although we may not possess false beliefs, i.e., according to intrinsicists, it seems obvious to me that we have a few erroneous cognitions. Thus, it is not clear whether such erroneous cognitions are *mixed* with our true beliefs? But more importantly, if my commitment to my belief is part and parcel of what it is to have a belief, then why should I form a doubt, and more importantly why should I test or verify my beliefs? Thus, the possibility of inquiry would seem lacking on an intrinsicists view. Indeed, intrinsicism accords well for those religious followers who want to rely on the credibility of scripture. Mīmāṃsā philosophers, for example, think that since the statements of the Vedas are authoritative, there is

no need to question their truths, and thus no further need to verify the reliability of the religious text.

The Truth of Our Cognition is Extrinsically Established (*parataḥ prāmāṇya*)

Nyāya philosophers argue that we can in fact identify a true cognition by virtue of a second cognition. This second “extrinsic” cognition is an apperceptive or after cognition (*anuvyavasāya*) that has for its content the target cognition. This distinct apperceptive cognition (*anuvyavasāya*), not only can cognize its target cognition, but also can epistemically justify the truth of the target cognition by a *special* inference. Imagine, that this second cognition as a light that not only shines upon the target cognition for the inquirer to know that it exists, but also offers the inquirer a way to see the truth of content of the target cognition. For example, if the content of my target cognition is, “this is an apple” then my apperceptive cognition can be characterized as, “I am aware that *this is an apple*” or “I see that *this is an apple*”. Indeed, the justification of the truth of the target cognition comes in the form of a *modus tollens* inference. If there were no apple, then I would not have seen an apple. However, since I had the sense-perception of seeing an apple, I thus conclude that there was an apple. Nyāya philosophers emphasize the importance of how successful actions not only justify the target cognition but also can *confirm* and *verify* the truth of the target cognition (Phillips & Tatacharya, 2004, p.74).⁷⁹ For instance, my ability to touch or to retrieve an apple gives me a good reason to believe that an apple exists. It is important to notice two important details of this argument. First, notice how the *pramāṇa* of sense-perception is included in the justification of the target cognition. The

⁷⁹ Do *all* cognitions require a second cognition for it to be known? For Nyāya it is not necessary. “[U]sually for Nyāya the justification of a knowledge source (inference) would presuppose apperception (an exception is the inferential knowledge ‘Every cognition is knowable’, which is self inclusive with no need of apperception)” (Phillips & Tatacharya, 2004, p. 74).

reason why I think my target cognition (i.e., that there is an apple), is true is because I *see* that it is an apple.⁸⁰ And second, notice how the first person point of view enters the argument. Indeed, our first person point of view can *access* the content of the target cognition. The cognitive access avails oneself to doubt or to assert the content of the target cognition.

Again the skeptic will challenge whether an appeal to an apperceptive cognition genuinely solves the regress of establishing a *pramāṇa*. After all, why should we think that the apperceptive cognition along and with its inference (i.e., method of *modus tollens*) reveals the truth of the target cognition? In other words, why should we think that our apperceptive inference via “successful action” is actually truth revealing?⁸¹

One way to reply to the above challenge is to step back and reassess the character of the skeptic’s doubt, which leads him reject the establishment of a *pramāṇa*. It seems that the skeptic’s doubt about establishing a *pramāṇa* is based upon an epistemic standard that simply rejects common sense. In the above example, the truth of the target cognition is justified when an apperceptive cognition performs a *modus tollens* inference about how we acquire the content of the target cognition. An individual’s first person awareness of their experience of the content of their target cognition is best explained by there actually being objects as such. In other words,

⁸⁰ *Vyāpti* can be characterized as, “Whenever I have sensory perception of some object, then I have a good reason to believe that such an object exists”. Also please see the importance of hypothetical reasoning (*tarka*) in Kishor Chakrabarti work on induction (2010, p. 34).

⁸¹ An appeal to a third cognition to settle a doubt about the truthfulness of this apperceptive cognition, will again land us into a *regress* of cognitions attempting to establish another cognition *ad infinitum*. Thus, the possibility of trusting one’s cognition is not possible.

The higher level of cognitions:

1. *a* is F. The content of my cognition is simply that *a* is F. It is not the case that the individual is explicitly aware that *a* is F.
2. S apperceives that *a* is F. The cognition of the truth of my first cognition: I see that *a* is F or I am aware that *a* is F. I think that *a* is F, or I believe that *a* is F or I know that *a* is F.
3. S is cognizant that S’s apperceptive cognition is true.

my sense-perception of a cow in the pasture is best explained by their actually being a cow in the pasture. If there were no cow in the pasture, then I have a very good reason to believe that there is no cow in the pasture. Now the skeptic could again argue that even if we are causally hooked up via sense-perception to the facts in the way we think we are, how could we actually tell that we are hooked up to the world in the right sort of way? Perhaps we are experiencing a remarkable coherent dream or being punk'd by some malevolent demon. In short, how can we tell that the skeptical scenario is false?⁸² At this point of the argument, the *pramāṇa* epistemologist may question whether the skeptic's doubt is truly a *genuine* doubt. After all, what is the reasonableness of such fantastic scenarios in light of a more common sense alternatives? Perhaps one should only seriously consider *relevant alternatives* that are grounded on the context of a situation. When I say relevant alternatives, I mean attempting to determine an object in light of inconsistent properties. Imagine, for example, attempting to determine the identity of a plant while waiting at the dentist office. Is this plant for real or a plastic imitation? If this object is a real plant, then is it a *pothos* or a *philodendron* plant? Intuitively, this sounds more reasonable than considering some matrix world where the objects are electronically induced into a person's brain, or a figment of my imagination. When we are in doubt, we often move towards interacting with the object. This may involve touching it and sometimes even tasting it. As we are interacting with the object, we begin to verify and conform our target cognition. The following is an extrinsicist reply to a *pramāṇa* skeptic.

An Extrinsicist Reply to the *Pramāṇa* Skeptic

P1. If we can establish a true cognition, then we can back track to find a pattern that reveals a true cognition.

⁸² Please see Fred Dretske, *The Closure Problem*.

- P2. The pattern that emerges shall be considered as a reliable means (*pramāṇa*) for knowledge (*pramā*).
- P3. We can establish a true cognition by way of an extrinsic cognition (*parataḥ prāmāṇya*). According to Nyāya thinkers, a second apperceptive cognition (*anuvyavāṣya*) makes a *special* inference (i.e., *modus tollens* inference) that reveals the truth of the target cognition. Furthermore, this special inference is supported by our common sense interactions with an object that we doubt.
- C: Therefore, it is possible to establish a *pramāṇa* for knowledge.

Explanation of Premise 4: Analysis of sense-perception as a reliable instrument of knowledge (*pramāṇa*) in light of sensory error and environmental conditions

Sense-perception occurs when a particular object stimulates our sense organ.⁸³ Each sense organ not only detects an object but also particular properties of an object. Not only can I see Darene as she is speaks on the phone, but also I can hear her voice as she talks on the phone. Hearing Darene on the phone is coming to know that Darene is on the phone by hearing while seeing Darene on the phone is coming to know this in a different way, that is, by seeing. To speak of my particular sense-perception of Darene talking on the phone is to say that sense-perception carries information about the object, information, in the case of vision, about an objects color and shape; in the case of auditory sense-perception, about an objects pitch and volume. Indeed, certain objects are unique or special to a specific sense organ. For example, in ordinary situations my auditory sense-perception cannot detect colors and my visual sense-perception cannot detect pitch.⁸⁴

⁸³ I use the word “perception” to mean sense-perception.

⁸⁴ In *De Anima Book II*, Aristotle writes about a common sense that detect object that are common to the five senses. “Common sensibles are movement, rest, number, figure, magnitude these are not special to any one sense, but common to all” (420a-421a). In Nyāya there is the *manas* i.e., inner sense, which is an organ that is responsible for the direct awareness pleasures etc (TS 18). *Manas* not only passes sensory *pains and pleasures* to the self (*ātman*), but also organizes the information from all of the sense organs and passes such information one at a time to the self so not to overwhelm the self. No sensory information reaches the self without first

Erroneous sense-perceptions can effect us in so many ways. For example misperceiving a car traffic situation, or an awkward social occasion (e.g., mistaking a person for someone else or mistaking someone's anger for happiness). Indeed many people in technical professions such as traffic designers, stage directors, photographers, painters, and structural engineer, are concerned with eliminating erroneous sense-perceptions. If we can better understand erroneous sense-perceptions, i.e., hallucinations, and perceptual illusions, then I think we are better suited to question whether sense-perception is trustworthy.

Nyāya's Theory of Sense-perception: Sense-perception (*pratyakṣa*) as kind of knowledge source (*prāmaṇa*)

Gotama in the *Nyāya Sūtra* (NS) defines sense-perception as cognition that arises from the contact of sense organ with the object.⁸⁵ It has the following features.

- 1) Nonverbal (*avyapadeśyam*)
- 2) Non-wandering (*avyabhicāri*)
- 3) Resolute (*vyavasāyātmakam*)

Sense-perception (*pratyakṣa*) is nonverbal (*avyapadeśyam*) in the way that it has no immediate contact with words that things bear. In *Nyāya Mañjari* (NM), Jayanta says, the term verbal (*vyapadeśyam*) means words that are interpenetrated with how we acquire knowledge. In

going through the *manas*. Although the *manas* is not like Aristotle's common sense, it does seem to share something in common with all the five sense, namely its ability to organize information before reaching the self. The *manas*'s ability to organizing our sensory information helps to explain how we can focus on particular sense-perception while overlooking other information (Potter, 1977, 93-94).

⁸⁵ NS I.1.4 *indriya-artha-sannikarṣa utpannam jñānam-avyapadeśyam avaybhicāri-vyavasāyātmakam pratyakṣam*.

Cognition (*jñānam*) that arises (*utpannam*) from the contact (*sannikarṣa*) of the object (*artha*) and sense organ (*indriya*) is sense-perception (*pratyakṣam*). It is non-verbal (*avyapadeśyam*), non-wandering, (*avyabhicāri*) and resolute (*vyavasāyātmakam*).

order to exclude such knowledge from sense-perception the term nonverbal (*avyapadeśyam*) means something that is not mixed or interwoven with words (J.V. Bhattacharyya, 1977, p.164-165). In short, sense-perceptual knowledge is not like testimonial knowledge where we acquire knowledge of an object through words. If, for instance, a man sings a statement that “I am a tenor”, in some language unknown to the hearer, and assuming that he is in fact, a tenor, then we come to know that he is a tenor not by his words, but by our sense-perceptual abilities.

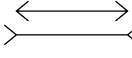
Gotama also thinks that our sense-perception must also be non-wandering (*avyabhicāri*). Despite the fact, that our sense organ is stimulated from some possible external object, it is crucial that our sense-perception does not wander i.e., that it acts in a faithful manner to the object. Matilal liken *avyabhicāri* to being non-promiscuous. “Promiscuity involves one’s indiscriminate relation with at least two persons at the same time” (1986, p. 180). Thus, a wandering sense-perception is one that involves two objects at the same time. So seeing a coiled snake as a snake is not a wandering cognition, but seeing a coiled rope as a snake is a wandering or unfaithful cognition. The properties of a snake although similar to a rope does not belong to the rope and thus our seeing rope as a snake is cognitive wandering in so far as attributing such properties onto the rope. So cases concerning illusions are not instances of sense-perceptual knowledge, because illusions are unfaithful cognitions.

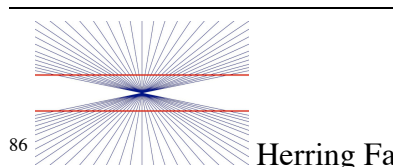
Lastly, Gotama argues that sense-perceptual knowledge must be resolute (*vyavasāyātmakam*). Ambiguous or indistinct sense-perceptions that result in a person’s doubt or hesitation cannot count as sense-perceptual knowledge. For instance, a person looking at a distance and cannot ascertain whether there is smoke or dust on the mountain, or in hazy weather one sees an object but cannot distinctly see if the object is a man or a post. Such scenarios make us hesitate about what we perceive as an object. The environment must be free from physical

distortions in order for the person to sense-perceive the object.

Objections to the above definition: Optical Illusions

What about optical illusions? The Nyāya definition of sense-perception appear to rule out optical illusions as an instance of sense-perception because the sense-perceived object is an unfaithful instances of the external object, for instances the classical example of mistakenly sense-perceiving a rope as a snake. In this example, our sense-perception of a snake is imposed upon the rope. Indeed a snake is something that is imposed upon the rope mostly like due to bad lighting conditions.

But do all optical illusions have the same characteristics as imposing a snake upon a rope? For example, the famous Müller-Lyer illusion  is an optical illusion where the bottom line *appears* to be longer than the top line.⁸⁶ However, if I measure the two lines I come to realize that the top and bottom lines are in fact equal in length. Having realized this fact, if I look at the optical illusion again, it is *not* the case that I sense-perceive that both lines are equal in length. I again sense-perceive that the bottom line is longer than the top line. Indeed, regardless how many times I look at this image from any angle I cannot but help to sense-perceive that the bottom line is longer than the top line.⁸⁷



⁸⁶ Herring Fan Illusion. Do the two thick horizontal lines look straight or curved to you? If you use a ruler, you will see that they are indeed straight.

⁸⁷ Indeed, during the afternoon when I look at the sun, I sense-perceive that the sun is much smaller than the moon. Although this belief is false, my sense-perception no matter how many ways I look at the sun relative to the position that I am in, still reports to me that the sun is either smaller than the moon or the same size of the moon.

Argument for the Unreliability of Sense-perception: Müller-Lyer Illusion

- P1: If sense-perception is such a reliable means of knowledge, then I am sense-perceptually justified in believing that the bottom line is longer than the top line of the Müller-Lyer image.
- P2: But I am not sense-perceptually justified in believing that the bottom line is longer than the top line because the top line and the bottom line of Müller-Lyer image are equal.
- C: Therefore, sense-perception is not a reliable means of knowledge.

Disjunctivism vs The Objectivity of Optical Illusions

One way a Nyāya philosopher could reply to the above objection is deny the consequent of P1 by endorsing disjunctivism. A Nyāya philosopher disjunctivist could simply dig in his heels and argue that all illusions and hallucinations are absolutely not cases of sense-perception. Disjunctivists argue that a perceiver is either experiencing a genuine sense-perception of two lines of equal length OR a mere illusion/hallucination of two lines of equal length, hence the name of the theory. According to disjunctivist, although there can be many overlapping “subjective” features of an illusion of x and sense-perception of x, there will be some “objective” fundamental cognitive state that each disjunction belongs too. What could this fundamental difference be other than one cognitive state being in touch with reality while the other cognitive state simply lacks? Indeed, a Nyāya philosopher in his attempt to define sense-perception excludes all types of illusions and hallucinations by explaining “genuine” sense-perception as faithful and non-wandering (*avyabhicāri*).

But the above seems to overlook an important feature of optical illusions, namely that an optical illusion although false seems to be justified. Unlike an active superimposed illusion, where one sees a coiled rope as a snake or a piece of shell on the beach as piece of silver, optical

illusions like Müller-Lyer or the Herring fan seem to be somewhat faithful to what is seen.⁸⁸

They both appear to be innocent images that any normal adult or child sees. They do not require mental focus or special learning abilities or alteration of the lighting conditions in order to be duped by the image.⁸⁹ On the other hand, illusions like seeing a rope as a snake may involve dim lighting conditions or actively imputing certain snake-like properties onto a rope. Snake-like properties have an origin in reality yet dwell in our memories.⁹⁰

Two questions immediately surface with respect to optical illusions. First, what is the nature of the visual image that led a person to believe mistakenly, that is, what is the image that causes a person to see and then to mistakenly think that the bottom line is longer than the top line even though both lines are equal in length? Second, where is this image or presentation located, i.e., is the image located outside my mind or inside my mind?

Optical Illusions and Sense-data Theory

When we see an optical illusion our sense-perception seems to be in direct contact with a presentation of something other than the intended object of sense-perception.

Müller-Lyer Argument for Sense-perceiving a Presented Image

P1: When viewing the Müller-Lyer optical illusion one directly sense-perceives the bottom line longer than the top line.

P2: But the two lines are actually equal.

⁸⁸ Is a person really unfaithful if they mistakenly kiss an individual that looks like their mate?

⁸⁹ For example, in a crossview stereoscopic image, a person is supposed to relax and cross his eyes. By crossing their eyes, the converged image appears in 3-D.

⁹⁰ Srinivasa Rao, in his text *Perceptual Error*, makes a helpful distinction between systematic illusions and non-systematic illusions. Systematic illusions such as Müller-Lyer illusion or the Herring fan illusion are repeatable and seem to be just “normal” common sense-perceptions (1998, p.7).

- C: Therefore, since one is not directly seeing two equal lines, it seems one is directly in contact with some kind of presented image.

What are these images or presentations? In the early twentieth century philosophers such as Bertrand Russell, G.E. Moore, C.D. Broad and H.H. Price called such images *sensum* or *sense-data* (singular: *sense-datum*). Since details of sense-data theory are complex, I shall briefly explain the significance of this theory with respect to optical or sense-perceptual illusions.

When we see the Müller-Lyer illusion, we immediately sense-perceive a private and yet seemingly public sense-data (i.e., the actual occurrence of seeing the bottom line longer than the top line, and with respect to the Herring Fan illusion, the sense-perception of the curved lines). Now, direct realists are usually concerned about sense-data theory because any kind of presentation or image of an actual sense-perceived object could lend opportunity not only for *representative* or indirect realism, but also for skepticism.⁹¹ In fact, skepticism about an external world seems to resonate well with sense-data theory. If we are in contact with sense-data, then why think we can ever reach the external object itself? Although David Hume does not use the term “sense-data” or “sense-datum”, he challenges direct realism. In section twelve of *An Enquiry Concerning Human Understanding*, he argues that philosophy teaches us that we really never come into contact with the external object because we are only in contact with image or representation of the object from the “inlets” of our senses. “The table, which we see, seems to diminish, as we move farther from it: But the real table, which exists independent of us, suffers no alteration: It was, therefore nothing but its image, which was present to the mind” (Millican, 2007, p. 111). The above argument can be laid out in the following way.

⁹¹ Representative realism or indirect realism means we are *indirectly* aware or cognizant of some object by being *directly* aware of some other object. Thus, sense-data theory along with representative realism argues that we are indirectly cognizant of particular objects because we are directly sense perceiving the sense-data of those particular objects.

Hume's Table Example for Sense-perceiving a Presented Image

P1: When I walk away from a table, I notice it diminishing in size.

P2: But the size of the table is identical to itself at every moment.

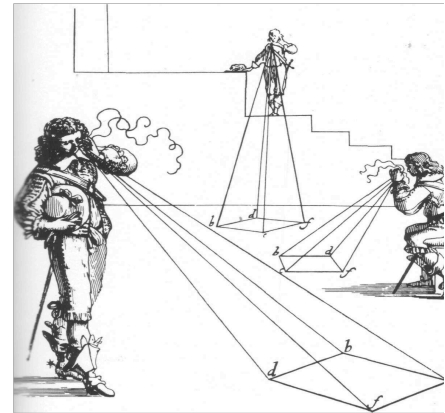
C: Therefore, I must be in contact with a presented image other than the table itself.

But unlike an Müller-Lyer illusion, Hume's example focuses more on a physical relation between the sense-perceiver and the external object. Moving away from the object gives the appearance that the object is getting smaller, while moving toward the object gives the opposite appearance.⁹² And since we know the object and its properties do not alter (i.e., is identical to itself at every moment), we come to the conclusion that we must be in contact with something other than the external object, that is, sense-data.

But it is unclear how this argument actually benefits the skeptic. It seems that the skeptic knows some feature of reality. With respect to the Müller-Lyer argument and Hume's table argument, P2 of each argument suggests that the skeptic has knowledge of some external object either gained by measuring the object or by regularly coming into contact with the object in a way that gives a perceiver a good reason to think that it does not change at a particular moment. In other words, it seems that in order to actually grasp sense-data one must contrast it with some feature of reality itself. In fact, the infamous bent stick in water illusion is experienced in light of our prior knowledge that the stick is actually straight.

⁹² My experience of the object changes as I move to and from the table. However, if the table moves in the same manner as I move (i.e., angular relation to the observer), then my experience of the table does not alter. Thus there has to be some variation as I move while the object stays still or vice versa.

But the skeptic could reply to the above response by arguing that P2 is not known by our sense-perception. With respect to Hume's table argument the claim that "an object is identical to itself" is not something we empirically justify via sense-perception, rather it is a simple appeal to Leibniz Law (i.e., the indiscernibility of identicals, if x is equal to y, then x and y have all the same properties). In fact, P2 has nothing to do with *how we know* the proposition. Indeed, with respect to the Müller-Lyer



illusion, we come to verify the two lines are equal by empirically measuring the two lines, but this physical act of measuring the two lines has nothing to do with the phenomena that the two lines are *in fact* equal. More importantly, the above reply seems to overlook the weight of the skeptical argument, namely how are we to distinguish whether we are in contact with the external object or with these presented images i.e., sense-data? Sense-perception as an immediate means for obtaining knowledge cannot *by itself* distinguish an external object from sense-data. Indeed, once we admit perceiving sense-data via perceptual illusion, we begin to take notice of them as we pay closer attention to ordinary objects. For example, when I carefully look a table from my particular position, I notice that the surface of the table is not quite rectangular. The surface of the table *looks* trapezoidal in shape (i.e., trapezoidal sense-datum). Furthermore, sections of the surface of the brown table appear to shimmer white (i.e., a white sense-datum). Put simply, once we begin to notice various sense-data the skeptic will insist that the immediate object of my sense-perception is not something in the external material world.

But shall we simply concede to the skeptic that *all* our experiences never give us access to the external world? Surely *some* of our experiences accurately capture the world. Russell, in

The Problems of Philosophy, explains the relation between knowledge and sense-data.

My knowledge of the table as a physical object, on the contrary, is not direct knowledge. Such as it is, it is obtained through acquaintance with the sense-data that make up the appearance of the table. We have seen that it is possible, without absurdity, to doubt that there is a table at all, whereas it is not possible to doubt the sense-data. My knowledge of the table is of the kind which we shall call 'knowledge by description'. The table is 'the physical object which causes such-and-such sense-data'. This describes the table by means of the sense-data (1912, p. 22.).

When I repeatedly look at the table by walking around the table, my immediate experience of the patches of light reflecting off the table that had cast a white shimmering color fades away while the light brown color persists. My sense-datum experience of a trapezoid shaped surface alters to a parallelogram shape when I circle around the table, but as I move towards the table attempting to position myself over the table, I experience a rectangular sense-datum. But at this point, the skeptic will insist that even if some of our sense-perceptions are true experiences, how would we be able to tell which sensory experience are true from the more misleading sense-data? Again just think about the Müller-Lyer optical illusion. Exactly how are we to tell within the content of our sense-perceptual experience whether the lines are equal or not?

Recognizing the significance of this question, a representative realist thinks the skeptical analysis of our sense-perception of concrete particular objects *via* sense-data does not go far enough. If we want to preserve our realist intuition about the external world *via* sense-perception, then something more is needed than just our sense-perception of sense-data as a brute fact.

According to representative realists, we require an explanation to why our sense-data are organized as such. As I move about circling the table, my sense-data experience of the table seems to be remarkable coherent. Laurence Bonjour nicely captures this insight when he writes,

Thus the representative realist can perhaps argue that the realm of immediate sensory experience, of sense-data (or adverbial contents), is both *too orderly* not to demand an explanation and *not orderly enough* for that explanation to be that the sense-data have an intrinsic order of their own. What this strongly suggests, the representative realist will then argue, is an independent realm of objects outside our experience, having its own patterns of (mainly spatial) order, with the partial and fragmentary order of our experience resulting from our partial and intermittent perceptual contact with that larger and more stable realm.⁹³

The “perceptual contact with the larger and more stable realm” is due to our causal contact with our sense organs and that stable realm. For the representative realist this must be approximately correct. Below is an attempt to spell out the representative realist argument.

A Basic Representative Realist Argument

- P1: Our sense-data seems remarkable coherent and organized.
- P2: If we can offer a cogent explanation for the coherence of our sense-data, then we seemed to be epistemologically justified in believing that there is an external world.
- P3: The explanation concerning P1 is actually due to the causal interaction of the external material object with our sense organs.
- C: Therefore, our belief in the external object is epistemologically justified.

In P1, when I suggest that sense-data are “remarkable coherent and organized”, I mean how sense-data are sequenced and organized with respect to a set of particular sense-datum. For example, when I observe a rock being thrown against a window, my sense-datum of the sound of the rock crashing against the window and my sense-datum of the image of the breaking glass seems to cohere with one another. It is not the case that the sound of the rock crashing against the window occurs prior to the actually breaking of the glass. If there exists this kind of

⁹³ BonJour, Laurence, "Epistemological Problems of Perception", *The Stanford Encyclopedia of Philosophy* (Spring 2013 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2013/entries/perception-episprob/>.

sequence and coherence of events, then what is the explanation? In P2 when I say, “a very cogent explanation” I am gesturing towards a *best explanation* in light of alternative explanation such as a malevolent demon, a benevolent God or a Matrix super computer. Although such alternative explanations or schemes posit only one addition ontological entity i.e., a God, demon or super computer, the overall power to pull off such a feat would only draw us deeper into an explanation of how such a feat could actually be accomplished. Thus P3 seems more reasonable to me. But exactly how does a causal relation play a justificatory role for our beliefs?

Explanation of P3

Since P3 overlaps with P5 of the main argument in this chapter, a deeper explanation of P5 will be covered later, however, I want to make a few important distinctions. First, what exactly is the difference between sense-data and qualia? Although I suspect that the distinction is not very clear, some philosophers have attempted to make some basic distinctions. For example, if qualia are understood as the phenomenal character of a subjective experience, i.e., “what it is like” for a person to undergo certain experiences, then, in one sense, sense-data are not like qualia because qualia are the raw or brute sensational properties of sense-data.⁹⁴ It seems that sense-data act as an immediate *representational* “image” of the sense perceived object, while qualia do not have any representational features at all. If, for example, I have a visual sense-perception of a ripe tomato on a table, then my sense-datum is the surface image of the tomato, while my qualia would be the round, or bulgy reddish sensation. But this is a little unclear with respect to hearing sounds and smelling odors. When I hear my telephone ring, I often do not have a mental image of my telephone at all. If my immediate sensation is a ringing

⁹⁴ Tye, Michael, “Qualia”, *The Stanford Encyclopedia of Philosophy* (Fall 2013 Edition) Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/fall2013/entries/qualia/>>

sense-datum, as a basic unit of sensory simulation, then I see no difference between sense-data from qualia. However, if I can hear deeper tonal qualities of the sound itself such as the particular pitch or timbre, then perhaps such qualities refer to sense-data.

Second, this leads to another difficult question, namely, what is the difference between sense-data and the actual *mode* or *manner* in which an ordinary object possesses? In other words, maybe it is best to characterize sense-data as *ways* of an object itself (i.e., intrinsic properties) such as the surface image of an object. Indeed, perhaps we should think of sense-data as an object's primary qualities (i.e., Lock's primary qualities), while qualia could be described as Locke's secondary qualities. For example, when I see a red round tomato on the table, then I can certainly sense-perceive the object along with its shape and size i.e., the sense-data of a round bulgy features of the object. But, I also have an immediate sensation of the particular red qualia of the tomato. With respect to visual sense-perceptual illusions, sense-data seem to exist as the surface image of some object that are structured in a way that mislead or misdirect a sense-perceiver.

Third, sense-data are both pre-propositional and pre-conceptual in nature. I use the "pre" to signal the possibility that sense-data are somehow converted into some kind of intentional or representational cognitive structure much in the way Nyāya characterize a cognition (*jñāna*) as having-an-object (*viśayitā*). Later I will explain in more detail the distinction between propositions and concepts, but for right now I want to emphasize that our sense-perceptions are actual caused by an object. Donald Davidson in his paper, *The Coherence theory of truth and knowledge*, says,

The relation between a sensation and a belief cannot be logical, since sensations are not beliefs or other propositional attitudes. What then is the relation? The answer is, I think, obvious: the relation is causal. Sensations cause some beliefs and in *this* sense are the basis or ground of those beliefs. But a causal explanation of a belief does not show how or why the belief is justified (1983, p. 311).

From the above quote there appears to be two kinds of relational “legs” regarding our sense-perception of an object. The first leg is a causal relation where the particular object acts as a cause, while the immediate sense-perception acts as the effect. The second leg of the above quote appears to be a logical relation *from* an individual’s sense-perceptual belief *to* a belief about the external object. I assume that it is the second “logical leg”, which is characterized as the “Cartesian chasm” that has been traditionally crossed by an inference.⁹⁵ An inference that concludes with a description of some external particular object and premised upon a persons sense-perceptual experience of that particular object. For example, the reason I believe *that* there exists a bright red round ball in front of me is because the content of my occurrent belief is *that* I am having a red-round-ball like sense-perceptual experience in front of me. The Cartesian philosopher wants to know what reason does she have to believe that there is some external object in the world exists or whether some object in fact possesses some property.⁹⁶

As trivial as the above may appear, the last point is important because it seems that representative realist requires an inference *from* a subjective-empirical basic belief that is largely informed by sense-data *to* a belief about some external object in the world. Again, historically this would appear to be the best route to cross the Cartesian chasm; however, is there another route to characterize our experience that does not require this inference? In other words, is a

⁹⁵ Although Descartes rejects large portions of his beliefs via the method of doubt, he still preserves his belief in his existence (i.e., *Cogito ergo Sum*) and his subjective experiential states.

⁹⁶ Why introduce the subject into the inference? Why not have a premise that keeps the “I” or observer hidden. For example, the reason why I believe that a couch in the living room exists is because the couch is currently occupied by John and Mary. Indeed, why not have a premise that simply describes sense-data. For example, the reason why I believe that there is a red couch in my living room is because the way the sense-data are arranged or organized? I assume that the motivation behind Descartes and the Cartesian philosophers to introduce the “I”, is primarily due his method of doubt and the *cogito* argument. For Descartes, a strong foundation begins with the self.

realist required to build an inferential bridge to cross the Cartesian chasm? My initial philosophical response is no, because sense-perception is a reliable source for knowledge that *immediately* or *directly* justifies the content (i.e. the object) of our sense-perception. But if we want to integrate sense-data theory along with the possibility of being duped by perceptual illusion, then we seem to be immediately or directly cognizant of sense-data while *indirectly* being aware of the external particular object via inference. Is it possible to integrate sense-data theory with a reliabilist theory of *direct* realism?

Crossing the Cartesian Chasm: Reflective cognition and the responsibility of Direct Sense-perception

In his attempt to explain knowledge of acquaintance, Bertrand Russell says, “We are not only aware of things, but we are often aware of being aware of them” (1912, p. 23). When we make an inference *from* our sense-perception of sense-data *to* the actual object, two things seem to stand out. One, the person undergoing a sense-perception seems keenly aware that they are the person having an experience. And two, the person undergoing a sense-perception can “reflectively” *access* or can introspectively enter their basic intentional content of their sense-perceptual cognition itself, which in turn can act as a reason for them to believe that some object exist.

For example, if someone questions or challenges our sense-perception or if we harbor doubts about the content of our sense-perception, then in such instances, an inference is perhaps required in order to justify what is being sense-perceived. The significance of examining how we come to know an object via inference not only can give us a peace of mind as we attempt to solve a problem, but also can give us a sense of obligation towards the truth. In light of sense-data theory and optical illusions, I think some epistemologists are concerned whether sense-

perception in general over looks our basic epistemic duties that center on securing truth while avoiding error. Indeed, with the possibility of being duped by optical illusions like the Müller-Lyer illusion, are we not practicing “shoddy” epistemology if we *only* rely on our “brute” sense-perception as a means for knowledge while not asking what reason do we have to think that our belief about the world is true or approximately true? Again my reply is no, so long as sense-perception is a reliable means for knowledge. Ernest Sosa explaining epistemic justification says, “[A] belief is epistemically justified, that is because it comes from an epistemically, truth-conducively reliable process or faculty or intellectual virtue” (2003, p.109).

In one sense, there is no mystery here. Not to belabor this point, but every morning when I drink coffee, I immediately sense-perceive my coffee-cup not unlike immediately sense-perceiving my hands.⁹⁷ On such occurrences, I neither immediately sense-perceive sense-data as the intrinsic properties of the object (i.e., is shape or size) nor my phenomenal character/intrinsic character of the sense-perception itself (i.e. the way the object has an subjective *feel* to it). Indeed, sense-data and/or the phenomenal character of my sense-perception is simply transparent to my immediate sense-perceptual cognition of the particular object. Gilbert Harman nicely captures this insight when he describes Eloise sense-perception of a tree.

When Eloise sees a tree before her, the colors she experiences are all experienced as features of the tree and its surroundings. None of them are experienced as intrinsic features of her experience. Nor does she experience any features of anything as intrinsic features of her experiences. And that is true of you too. There is nothing special about Eloise’s visual experience. When you see a tree, you do not experience any features as intrinsic features of your experience. Look at a tree and try to turn your attention to intrinsic features of your visual experience. I predict you will find that the only features there to turn your attention to will be features of the presented tree. . . .” (1990, p.39).⁹⁸

⁹⁷ A parallel example would be testimonial knowledge. The reliability of the testimonial knowledge need not be reduced to an inference. For example, assume a mechanic tells you that your car needs a new ignition. Your knowledge that your car needs a new ignition need not be justified by reasoning because my mechanic is an expert in cars. And whenever a my mechanic says something about my car, then that something is true.

⁹⁸ Unlike Harman, Frank Jackson, does not think sense-data are as transparent as our sensory

If Harman and Sosa are right, then I do not think we are abandoning our epistemic responsibilities when we rely on sense-perception as explained. But how can we avoid being duped by innocent perceptual illusions like the Müller-Lyer illusion? If we hold a doubt or if someone challenges us about what we are sense-perceiving, then before we make an appeal to an inference, do we not immediately *look again*, and perhaps *again* at the object? Do we not rub our eyes or move closer to the object in question? To abandon sense-perception all together would be to throw out the baby with the bath water, because sense-perception along with a reflective inference can help us justify the existence of an external object.

In the Classical world, Nyāya thinkers looked deeply into sense-perception and posited how perceptual illusions might be better explained not as a problem with our sense-perception per say, but rather a mislocation of a past sense-perception that is imposed upon a current location of an object. In the next section, I try explain this view while raising some objections and possible replies.

The Mislocation of Sense-data with Respect to Optical Illusions

Before looking more deeply into the Müller-Lyer illusion, I first explain a classical perceptual illusion that has a long history and could shed light on the Müller-Lyer illusion. The perceptual illusion involves a rope and a snake. Imagine a situation where there exists a rope,

experience itself. “Why do I find representationalism so attractive? One reason—the reason you would expect from a former sense datum theorist—is the diaphanous nature of sensory experience. This point is perhaps best known from the writings of Gilbert Harman. And, as Michael Tye notes, it is no accident that G.E. Moore was both a prominent defender of sense data and of the diaphanous character of experience. But let me make the point via Hume’s famous remarks on the self. Hume found himself unable to access the self as such; one or another experience always seemed to get in the way. We representationalists find the same problem with phenomenal character. Whenever we seek to access it, we find ourselves accessing the putative way experience is representing things to be” (2000, p.4).

but you see it as a snake. It is not the case that you see a rope and it happens to look like a snake, because you actually shriek or scream due to seeing a snake! It is not like seeing a boat in a passing cloud or my beloved in the moon. Now some may want to argue that we *imagined* a snake, but actually we *saw* a rope. This again sounds like you are seeing a rope that happens to look like a snake, which is not the case. Furthermore, to use the word “imagined” seems to suggest a contrast with the word “seeing”, which may be incorrect. In other words, there might be some part of sense-perception that actively uses the imagination (*i.e.* *vikalpa*) to grasp reality. But more importantly, if someone were to say to you, “You did not see a snake.” I think, one might reply, “Wait a minute, I saw a snake right there in front of me!” If we take this response seriously, then we actually *see* a snake that happened to be a rope. The snake does exist, and if this is true, then *how* did we see a snake and *where* did it go? It is this response I wish to


investigate with respect to the Müller-Lyer illusion .

When we see the Müller-Lyer illusion we see that the bottom line is longer than the top line, despite the fact that both lines are equal. Earlier I mentioned how our sense-perception of sense-data can misdirect us. Before I explain how this misdirection is actually a mislocation, I want to briefly mention the ontological status of sense-data. I think one insightful suggestion comes from B.K. Matilal.

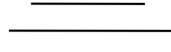
If acceptance of sense-data means only acceptance of such temporary, external objects, there may not be any quarrel between Nyāya and the sense-data theorist in this matter. In fact the ontological status of these ‘objective’ particulars in Nyāya is very intriguing. It is claimed (in Nyāya) that an external objective reality can be created by a set of causal factors, of which a mental event can be a crucial member... In the Nyāya system, numbers such as two, three or a thousand are created in this way as objective external facts by the co-operation of some mental event. The crucial mental event that generates such numbers is called *apekṣā buddhi* (a count-orientated’ cognitive episode (1986, p.217).

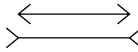
From the above, it seems that Matilal is attempting to explain how something is objective

and yet arise from a mental event. It seems like the *apekṣā buddhi* is a kind of cognition that mentally organizes or selects parts of an experience. Jornardon Ganeri calls *apekṣa buddhi* a combinative cognition (2011, p.173). If sense-data possess an ontological existence comparable to Nyāya theory of numbers, then sense-data like numbers can exist from the activity of the mind and yet exist objectively from the mind.

But how is this relevant to an optical illusion? Nyāya theory of cognitive error (*anyathākhyāti*) maintains that an optical illusion is really not a *misperception*, but rather as a *mislocation*. With respect to the Müller-Lyer illusion, it is true that the bottom line is equal to the top line. And it is also true that we see the bottom line is longer than the top line. The error, with respect to the Müller-Lyer illusion, occurs when we assert that *this* bottom line is longer than the top line. It is not the case that we misperceive the sense-data; rather we mislocate it thinking that the sense-perceived sense-data is located in the space of the two lines. With respect to Müller-Lyer illusion  the direction of the arrowheads along with the two lines are directly *received* (i.e., causally received) by our sense-perception. But from where did the two lines of unequal length arise? Nyāya thinkers have a very interesting view that involves extraordinary perception (*alaukika pratyakṣa*) and memory-disposition (*saṃskāra*). The memory itself does not present a particular difference in line length. According to Nyāya, an extraordinary contact (*alaukika sannikarṣa*) with two unequal lines are located elsewhere (Rao, 1998, p. 68).


The overall process is complicated and involves non-qualificative or indeterminate cognition (*nirvikalpaka jñānam*), qualificative or determinate cognition (*savikalpaka jñānam*), universals (*sāmānya*) and memory-disposition (*saṃskāra*). From how I understand this process, just like a material object is structured as a particular object thanks to a universal inhering in the

material object, so too our sense-perception is really a structured cognition (*savikalpaka jñānam*) thanks to the cognition of a universal i.e., non-qualificative cognition (*nirvikalpaka jñānam*). Other than our first sense-perception of an object, our cognition of a universal lies somewhere in our memory due to a prior sense-perception of a particular object. Thus, the current sense-perception of some particular object triggers our memory-disposition, as a repeated remembering, of the cognition of the universal. So, for example our sense-perception of particular line is structured into a qualificative cognition that is informed by a cognition of *lineness* from a prior sense-perception of a line. Likewise, our sense-perception of arrowhead is structured into a qualificative cognition that is informed by a cognition of *arrowheadness* from a prior sense-perception. But more importantly we have had sense-perceptions of a bottom line *being longer than top line*, maybe due to an image like this . Just as our sense-perception of a particular line is being informed from *lineness* so is our sense-perception of this bottom line is informed by the universal *being-longer-than-top-line* (or *longer-than-top-line-ness*).

So when we see the Müller-Lyer illusion in front of us , we have a determinate sense-perceptual cognition of this bottom is longer than the top line. This is a complex cognition that involves sense-perceiving arrowheads and lines as memory triggers. The result is a sense-data that can be characterized as combinatorial cognition (*apekṣā buddhi*) due to the universal in our memory that was triggered (i.e., *being longer than top line*). In other words, our sense-perception of lines and arrowheads triggered the universal!⁹⁹

The above explanation is already fantastic, but now comes the extraordinary part. No

⁹⁹ I will try to explain this process again in the next chapter as I argue our sense-perception of a particular is due to our recognition of an immanent universal.

matter how many times we see the Müller-Lyer illusion in front of us , we cannot help but to see it as being unequal. Indeed, there is nothing wrong with our sense-perception as being a reliable means for knowledge. Nyāya thinkers call this extraordinary perception (*alaukika pratyakṣa*). Although such sense-perceptions are rare, they are nevertheless explainable. Not unlike when one sees a snake, which happens to be a rope. The error occurs when you believe that the snake is right there in that location of the rope or the two unequal lines actually exist at that particular location. Indeed, the Nyāya philosopher Jayanta thought that this should not sound too strange, because optical illusions are not unlike mixed-up sensory occurrences. For example, upon seeing a ripe mango, one can taste its sweetness, or seeing a piece of sandalwood at a distance, one's olfactory is stimulated (*jñānalakṣaṇapratyakṣa*).¹⁰⁰

The Müller-Lyer Illusion is Not an Example of The Unreliability of Sense-perception

P1: A *mislocation* of something seen does not mean I am having a *misperception*.

P2: An optical illusion is not a misperception, but rather a kind of mislocation of something previously seen via memory-disposition (*saṃskāra*) that is projected on to

¹⁰⁰ I think it is better to translate “a-laukika” as “not ordinary” instead of “extraordinary”. The first kind of “not ordinary” sense-perception, is that of yogis. *Yogaja* perception or yogic perception is acquired by a person who practices yoga. They acquire a capacity to sense-perceive objects that are very remote, or obstructed by a barrier, or very subtle (Yoga Sūtra 1.36, 3.25). The second kind of a-laukika perception is *sāmānya-lakṣajñāna* perception. When a person sense-perceives one instance of a class of objects, he is able to sense-perceive all the instances of that class through the universal (*sāmānya*). For example, when one sees an instance of smoke, it is believed that he sees all instances of smoke even if there is no contact with other instances of smoke with his eyes. Lastly, being able to sense-perceive an object by switching over to a different sense-perception (*jñānalakṣaṇapratyakṣa*) is not so unusual. The ability to tastes with our eyes is not as absurd as one might think. Please see editor Linda Poon, in her article, *Tasting With Our Eyes: Why Bright Blue Chicken Looks So Strange*, argues that the color of foods affect our appetite. April 16, 2014. Accessed April 16, 2014. <http://www.npr.org/blogs/thesalt/2014/04/16/303215873/tasting-with-our-eyes-why-bright-blue-chicken-looks-so-strange>. Indeed, if we have this sort of ability, then can a person who lost their eyesight see color sense-data by triggering their taste buds?

an object standing in front of us.

- P3: Although a misperception would show that sense-perception is an unreliable instrument or means for knowledge, a mislocation does not show that sense-perception is an unreliable means for knowledge.
- C: Therefore, optical illusions like the Müller-Lyer illusion are not a way to show that sense-perception is an unreliable means for knowledge.

The above argument is a reply to the belief that optical illusions like the Müller-Lyer illusion is a misperception. Optical illusions are really just a sense-perception of a particular object that have triggered a memory-disposition (*saṃskāra*) of universal, which in turn makes us think that the particular object is in front of us. Now the application of *saṃskāra* as a memory-disposition with respect to optical illusions and sense-perception is a little confusing for two reasons. One, it seems like the process of sense-perception as a reliable means for knowledge is now being taken over by the process of memory. In other words, the actual operation of our memory-disposition (*saṃskāra*) becomes the leading cause that establishes the content of our sense-perceptual cognition. Second, if memory plays such an influential role in our cognition of our sense-perception of a particular object, then how can we distinguish the object of our memory from our current sense-perception of a particular object? Suppose a real snake is in front of us. How can we tell that we are really seeing a current snake in front of us instead of seeing a snake that was once previously seen? Indeed, what if the current snake and the previous snake is the same snake?

Our sense-perceptual cognition of a particular object involves memory in important ways, but it does not mean memory is the main causal factor for producing our sense-perceptual cognition of a particular object. Gaṅgeśa argues that the main cause is the actual *contact* of the particular object with our sense-organ, while the memory-disposition (*saṃskāra*) acts as an

auxiliary cause (*sahakārin*). Although memory-disposition, and the operation of sense-organ contact work together to produce a sense-perceptual cognition of a particular object, it is important to distinguish our memory-disposition from the overall process of sense-perception. One obvious difference is our ability to remember an object, independently of sense-perceiving an external object. For example, I can close my eyes and remember my ceramic coffee cup on my desk at home. In fact, I can remember my ceramic coffee cup at home, while I am looking at my steel mug on the library table. Thus, my ability to remember seems distinct from my overall sense-perception.

Explanation of Premise 5: The Causal Interaction between Our Cognitive Content via Sense-perception, and Concrete particulars

Earlier I stated a simple intuition behind sense-perceptual knowledge. Namely, that our knowledge of an external object is due to an external object causally interacting with our sensory organs. As simple as this may sound, I have tried to show there is nothing so simple about this insofar as attempting to elucidate sense-data theory and optical illusions. But in light of these various complications, I think it is important to hold steadfast to the basic intuition that the content of our sense-perceptual cognition is determined or modified by external objects interacting with our sense organs. Roughly speaking how should we thinking of this casual process? Well, the sense-perceptual process has a certain causal direction that begins with the external object and then moves through our sense-organs (i.e., as sensory inlets) and results in a cognition of the external object.

W.V. O. Quine in his attempt to explain *naturalized* epistemology says, “This human subject is accorded a certain experimentally controlled input-certain patterns of irradiation in assorted frequencies, for instance-and in the fullness of time the subject delivers as output a

description of three dimensional external world and its history. The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology; namely, in order to see how evidence relates to theory..." (1969, p.82-83). If we consider the "meager input" as sensory input and the "torrential output" as an expression of language or of physical action, then how shall we explain this set of procedures as a set of causal processes? If we think of knowledge as a reliable "reflexive" process that does not require *reflection* and or *introspection*, then it seems as though this process can move as seamlessly as knowing that my hands are indeed hands or that my headache is *in fact* a headache.

Although I think this causal process can act as an efficient means towards knowledge and as a good guide for successfully navigating in our world, it trades on our ability to stop and to think carefully about what *good* reasons we have for thinking what is presented before us is as such. And to give good reasons (i.e., being rational) while avoiding errors is a not only basic for being a good thinker, but according to Aristotle, it appears to be basic for being human. But to reflect on how good reasons are linked to other reasons does not appear to be a causal process, but a logical one as mentioned earlier by Donald Davidson. Indeed this raises an issue. In what way does reason play a role in our sense-perceptual knowledge? In the West, there is a debate that concerns the structure of our epistemic justification with respect to our empirical beliefs (i.e., Foundationalist and Coherentism). But it seems to me, that whether the structure of our empirical beliefs works as a network of coherent beliefs or works as a one-directional support from basic or foundational beliefs, there must be some way an external object "causally" interacts with our sense organs to establish the contents of our cognition. In the classical world in India, the debate was not about how to justify the structure of our empirical beliefs, but what is

the nature of causality? In the following sections, I explain this debate, and then focus on how this debate might contribute to our sense-perceptual knowledge of concrete particulars.

The Effect Pre-exist in the Cause: *Satkāryavāda* of Sāṃkhya

In the Indian classical tradition there is deep-rooted debate about causality. One theory of causality, which is found in the Īśvarakṛṣṇa's *Sāṃkhya Kārikā* (SK), argues for the pre-existent effect in the cause (*satkāryavāda*).¹⁰¹ The followers of this model argue that because the effect (*kārya*) already exists in its cause nothing new is brought into existence or produced in the process of creation. But if sense-perception is a causal process that is directed from the external object that interacts with our sense-organs, which result in a cognition about the external object, then it seems we would be committed to an *odd view* where the content of our cognition pre-exist in the external object. Indeed, this should strike you as peculiar. Furthermore, since the effect pre-exist in the cause, it seems the cause and the effect are ontological a like, but how can an external object be ontologically similar to a cognition?

Perhaps we can try to make better sense of this view by positing a *neutral* entity that is neither mental nor material. In other words, the mental and the material are non-basic entities. What could these basic entities be? The view that the fundamental objects of reality are neither mental nor material is called *Neutral Monism*. Interestingly, H.H. Price thought sense-data,

¹⁰¹ SK. 9. *asad akaraṇād upādānagrahaṇāt sarva saṃbhavābhāvāt / śaktasya śakyakaraṇāt kāraṇabhāvāc ca satkāryam //*

There is satkāryam [i.e. effect has prior being], due to nothing is produced (akaraṇād) from non-being (asad), due to the taking up (grahaṇāt) of material cause (upādāna), due to the non-existence (ābhāvāt) that everything (sarva) is possible (saṃbhava) [i.e., everything is not possible], due to the causal power (śakyakaraṇāt) is of those things that have that power (śaktasya), due to the kind of existence (bhāvāt) of a cause (kāraṇa) [commentators have understood this to mean an effect is not ontologically different or essentially the same as the cause].

which are *given* to our experience are neither physical nor mental, for him, tables, chairs, tooth aches, dreams etc., could be reduced to sense-data. In fact, Russell, at one point in his life thought that experience as sensations and images are important sources of neutral entities.

The stuff of the world, so far as we have experience of it, consists, on the view that I am advocating, of innumerable transient particulars such as occur in seeing, hearing, etc., together with images more or less resembling these.... Sensations are what are common to the mental and physical worlds; they may be defined as the intersection of mind and matter (1921, p. 143–4).

By positing some neutral entity, Russell is attempting to make less mysterious the interaction or intersection of the external object and the content of our cognition. So long as there is some degree of similarity between the cause and the effect, the mystery behind the mechanism behind the causal theory of sense-perception seems to be dampened.

So long as we adhere to the conventional notions of mind and matter, we are condemned to a view of perception which is miraculous. We suppose that a physical process starts from a visible object, travels to the eye, there changes to another physical process, causes yet another physical process in the optic nerve, finally produces some effect in the brain, simultaneously with which we see the object from which the process started, the seeing being something “mental,” totally different in character from the physical process which precede and accompany it (Russell, 1927b, p.111) .

Without getting into the heavy details of Sāṃkhya metaphysics,¹⁰² if we set aside the

¹⁰² Basic Sāṃkhya metaphysics:

[25] entities (<i>tattvas</i>)								
consciousness (<i>centana</i>)		[24] nature (<i>prakṛti</i>)						
Two Inferable only (<i>liṅgin</i>)		[23] manifest (<i>vyakta</i>)						
		13 instruments (<i>karāṇa</i>)					10 fields of activity (<i>kārya</i>)	
		3 internal instruments (<i>antaḥkaraṇa</i>)			10 external instruments (<i>bāhya [karaṇa]</i>)			
				11 powers (<i>indriya</i>)				
				5 senses (<i>buddhīndriya</i>)	5 active powers (<i>karmendriya</i>)	5 sensibilia (<i>tanmātra</i>)	5 elements (<i>bhūta</i>)	
Soul (<i>puruṣa</i>)	unmanifest materiality (<i>avyakta</i>)	understanding (<i>buddhi</i>)	egoity (<i>ahaṁkāra</i>)	<i>manas</i>	sight (<i>cakṣus</i>) hearing (<i>śrotra</i>) smelling (<i>grahāṇa</i>) tasting (<i>rasana</i>) skin (<i>tvac</i>)	speech (<i>vāc</i>) hand (<i>pāṇi</i>) foot (<i>pāda</i>) anus (<i>pāyu</i>) lap (<i>upastha</i>)	color (<i>rūpa</i>) sound (<i>śabda</i>) [smell] [taste] [touch]	Earth Water Fire Air Ether

contentless conscious/witness-self (*puruṣa*), then the fundamental constituents with respect to *prakṛti* i.e., the primordial nature, are the three *guṇa* strands *sattva*, *rajas* and *tamas*. *Sāṃkhya Kārikā* 13 states, “Sattvam is light (*laghu*) and luminous (*prakāśakam*); rajas is desire (*iṣṭam*), exciting (*upaśtambhakam*), and mobile (*calam*); tamas is heavy (*guru*) and concealing (*varaṇakam*). They function (*ṛttiḥ*) for the purpose (*arthatas*) of being like a lamp (*pradīpavat*).”¹⁰³ It does not appear that these three *guṇas* are neither mental nor material. *Prakṛti* constituted by the *guṇas* is not like dead matter bounded by a loose set of atoms. The *guṇas* are alive and productive. They are the three “threads” from which reality other than the witness-self (*puruṣa*) is spun.¹⁰⁴ The spinning of the *guṇas* is a transformation of cause, and according to Īśvarakṛṣṇa, the effect is an actual transformation of the cause called *pariṇāma*. Karl Potter writes, “His model can be illustrated by the metaphor of milk and curds. Milk, it is maintained, is the cause of curds, which is the effect. But the milk is the same stuff as the curds; it is merely transformed into a solid state, being the same material that was previously in liquid state. The effect is already existent in the cause—in fact, it is the very same stuff as the cause,

This table is by Ferenc Ruzsa. “Sāṃkhya Dualism without Substance”
<https://www.academia.edu/6813436/S%C4%81%E1%B9%81khy Dualism without substance>
[S](#)

¹⁰³ SK 13 *sattvam laghu prakāśakam iṣṭam upaśtambhakam calam ca rajah / guru varaṇakam eva tamaḥ pradīpavac cārthato ṛttiḥ //*

¹⁰⁴ SK 16 *kāraṇam asty avyaktam pravartate triguṇataḥ samudayāc ca / pariṇāmataḥ salilavat pratipratiguṇāśrayaviśeṣāt //*

The unmanifest (*avyaktam*) (as unevolved *prakṛti*) is the cause (*kāraṇam*) that manifest (*pravartate*) through the three *gunas* (*triguṇataḥ*) from its union (*samudayāt*) and through its modification (*pariṇāmataḥ*). [The unmanifest is] like water (*salilavat*) that acts as a counter-balance (*pratiprati*) from the distinction (*viśeṣāt*) between the qualities (*guṇa*) and the [inherent] object (*āśraya*).

...” (1999, p. 106). Although *prakṛti* as a whole is constituted by the three *guṇas*, not all external objects are constituted by the *guṇas* equally, a waterfall, for example, is more *rajas*-like than a stone, which is more *tamas*-like.

Now with respect to sense-perceptual knowledge, the four operations: understanding (*buddhi*), egoity (*ahaṁkāra*), *manas*, and one of sensory capacities (*buddhīndriya*) take place.¹⁰⁵ The process begins with the physical objects (i.e., *bhūtas*); then the sensibilia (which I take to be sense-data) (*tanmāstras*) carry the information from the physical object and pass it on towards the sensory capacities (*buddhīndriya*). And at this point our mental organizer (*manas*) coordinates and synthesis this information for the ego as an I-maker (*ahaṁkāra*). The *ahaṁkāra* takes this information and relates it to the subject “I” not as the *puruṣa* self, but “I” as the one who is the possessor; the person who says, “This sensation belongs to me”, or “This book is mine” or “I am hungry”. Lastly, the understanding (*buddhi*) grasps the information from the *ahaṁkāra*. Having reflected upon the content, the *buddhi* presents its content to the soul/self (*puruṣa*) for the sake of the soul’s purpose.¹⁰⁶ In the end, a decision will be made, or some action will be done (Sinha,

¹⁰⁵ SK 30 *yugapac catuṣṭayasya tu vṛttiḥ kramaśaś ca tasya nirdiṣṭā /*
drṣṭe tathāpy adṛṣṭe trayasya tatpūrvikā vṛttiḥ //

But of the four (*catuṣṭayasya*) that were mentioned (*nirdiṣṭā*) [(*buddhi*), (*ahaṁkāra*), *manas*, and *buddhīndriya*] function (*vṛttiḥ*) simultaneously (*yugapac*) and (*ca*) sequentially (*kramaśaś*) in regards to the seen objects (*drṣṭe*). But (*tathāpi*), in regard to the unseen (*adṛṣṭe*), the function (*vṛttiḥ*) of the three (*trayasya*) [(*buddhi*), (*ahaṁkāra*), *manas*,] act prior to that (*tatpūrvikā*). [Our knowledge of imperceptible objects do not use sense-perception (as *buddhīndriya*).]

¹⁰⁶ SK 36 *ete pradīpakalpāḥ paraspāvilakṣaṇa guṇaviśeṣāḥ /*
kṛtsnam puruṣasyārtham prakāśya buddhau prayacchati //

In regards of these [ten externals plus *manas* and egoity] the distinct *gunas* (*guṇaviśeṣāḥ*), which have different distinguishers (*vilakṣaṇa*) from one another (*paraspā*) are like a little lamp (*pradīpakalpāḥ*), which are made manifest (*prakāśya*) in the understanding (*buddhau*), which is then given (*prayacchati*) for the total (*kṛtsnam*) purpose (*artham*) of *puruṣa*.

1934, p.120).

If we set aside *puruṣa*, then it appears we have a metaphysic of *Neutral monism* spun from the three *guṇas*. Although no serious Sāṃkhya philosopher will think that liberation (i.e. liberated knowledge) can arise just from the understanding (*buddhi*) independently of *puruṣa*, it seems that *understanding* as *buddhi* is a knowing process. But this knowing process is, in a peculiar way, just nature manifesting itself. In order to better explain this view, I quote in length Gerald James Larson and Ram Shankar Bhattacharya.

Moreover, because reflective discerning (*sattva*) is a constituent of a continuous tripartite process [three *guṇa*], Sāṃkhya describes the knowing process in terms of intellect [understanding], egoity, mind [*manas*], and the various sense capacities actually assuming or becoming the various forms or manifestations that appear. Hearing assumes or becomes the vibration or sound heard; seeing becomes the color or form seen, and so forth. So, likewise, mind [*manas*] becomes the idea elaborated; egoity is the assimilation of the contents of experience to oneself (so that egoity, as it were, "makes" or "forms" itself, *ahaṃkāra*, *aham karomi*); and intellect [understanding] becomes the final, total configuration insofar as it can be reflectively discerned in a pure *sattva* transparency. Put another way, the process of knowing is simply a subtle material processing which reflective discerning (through intellect [understanding], egoity, mind [*manas*], and the capacities) is inextricably allied with spontaneous activity (*rajas*) and determinate formulation (*tamas*, *tanmātra*, *bhūtas*) (1987, p. 99-100).

When Larson and Bhattacharya explain how the “hearing ...becomes the vibration” or “seeing becomes the color or form seen”, I take them to mean, nature as *prakṛti*, constituted by the *guṇas*, is just manifesting itself singularly. With respect to our sense-perception, there is no duality in so far as the content and the cognition. It appears that the content is just the cognition expressing itself in a dynamic way.

Although I applaud Sāṃkhya thinkers in their attempt to solve the traditional mind-body dualism by employing a theory of pre-existent causality (*satkārya*) that nicely captures a fantastic cosmogony and psychic-psychology, I am skeptical about how the *guṇas* interact in a way that transform nature as we experience it. Exactly how do the three *guṇas* interact? Furthermore, it is unclear how the laws of nature are integrated with respect to the three *gunas*?

Indeed, are the laws of nature somehow “organically” bounded to the *guṇas* or do they stand distinct governing the *guṇa* process?

Earlier, I mentioned a deep-rooted debate about causality. One theory of causality, which is found in the Īśvarakṛṣṇa’s *Sāṃkhya Kārikā* (SK), argues for the pre-existent effect in the cause. The followers of this model argue that because the effect (*kārya*) already exists in its cause nothing new is brought into existence or produced in the process of creation. The other theory of causality, argues that the effect is not pre-existent in the cause (*asatkāryavāda*). Whereas the *satkāryavādin* move towards unifying the universe with some ultimate stuff, the *asatkāryavādins* multiply the number of basic entities. Indeed, the obvious worry is to avoid splitting up the universe so thoroughly that there is no clear-cut way to unifying our universe. Thus, causality will be a way for binding relata that maybe very distinct.

The Effect Does not Pre-exist in the Cause: *Asatkāryavāda* of Nyāya-Vaiśeṣa

Classical Indian philosophical schools such as Yogācārin Buddhists and Nyāya-Vaiśeṣikas argued that an effect is not pre-existent in the cause (*asatkāryavāda*). For such thinkers causality is a matter of causal factors (*sāmagrī*), which can be quite numerous. These causal factors when taken together bring about an effect. Karl Potter says, “The effect is not one of those causal factors: the effect is not included within the cause, since new features arise which are not found anywhere within the causal factors or at any rate not in the particular combination in which they are productive” (1977, p. 55). So, there is a keen sense that Nyāya thinkers are seeking out the sum total of necessary and sufficient conditions (*sāmagrī*) for an effectuation, which produce a result that is distinct from the causal factors. Now you might think that *asatkāryavāda* theory of causality is akin to Humean causality, but that is not quite right. There are three necessary factors (*kāraṇa*) that are listed in Annambhaṭṭa’s *Tarkasamgraha*

(TS), together with its commentary, the *Dīpikā* (TSD) that offer a better understanding of a cause. First, like Humean causality the cause exists before the effect. Thus, the question of self-causation is not possible on this account. Second, again like Humean causality, the cause must exist regularly (*niyata*) to bring about the effect. Thus, the issue of accidental cause seems to be eliminated. Lastly, the cause must not be irrelevant (*anyathāsiddhanta*) to the effect. So a cause is irrelevant if the “cause” is redundant (G.Bhattacharya, 1983, p.160). For example, the color of thread is irrelevant for the cause of the cloth. It appears the Nyāya thinkers are applying a law of parsimony in seeking out the necessary causes. “If a causal law can be correctly formulated with a smaller number of uniform antecedents, why formulate it with a larger number? If it is possible to formulate correctly a causal law with “thread” as a casual condition, why make it cumbersome by incorporating the invariable attribute [i.e., color] of the casual condition in such formulation” (G. Bhattacharya, 1983, p. 160)?

The Nyāya thinkers subdivide causes (*kāraṇa*), into three kinds. (1) Inherence cause (*samavāyi-kāraṇa*), (2) noninherence cause (*asamavāyi-kāraṇa*), and lastly neither inherence nor noninherence cause, which is best characterized as an instrumental cause (*nimitta-kāraṇa*) (G. Bhattacharya, 1983, p.165). The Vaiśeṣika thinker Kanāda, argued that the inherence relation (*samavāya*) signals a causal relation since the effects inhere in the cause. For example a substance (*dravya*) is an inherence cause that brings about the production of motions (*karma*) or qualities (*guṇa*), since qualities (*guṇa*) and actions (*karma*) inhere in substances (*dravya*). It appears that Nyāya thinkers simply do not hold to material causes. Clay, for example, is an inherence cause of the pot because the pot inheres in the clay, and thread is an inherence cause of the cloth because the cloth inheres in the thread. Causation in this sense acts as a unifying relation, but not all unifying relations are inherence relations. Thus the non-inherence relation is

defined as that entity which exists in the inherence cause along with the effect or along with the cause (G. Bhattacharya, 1983, p. 166-167). For example, in the arising of a cloth from the thread, the contact (*saṃyoga*) between the thread, which is a *guṇa* that inheres in the thread, is the non-inherence cause. Lastly, the instrumental cause (*nimitta-kāraṇa*) is considered to be all the other factors that are neither the inherence cause nor the non-inherence cause since this classification of the causes is exhaustive. So in the production of a pot, for example, the potter, his specific actions, his timing and place are all instrumental causes. Nyāya thinkers closely examine instrumental cause (*nimitta-kāraṇa*) and break down causality into two types. There will be general instrumental causes (*sādhāraṇa-kāraṇa*) such as space and time, absence of possible obstructions, and specific causes (*asādhāraṇa-kāraṇa*) such as the potter and specific actions etc.

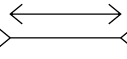
Now out of the three causes (*kāraṇa*), the Nyāya thinkers thought the instrumental cause (*nimitta kāraṇa*) and especially the specific causes (*asādhāraṇa-kāraṇa*) are the special causes (*kāraṇa*). But as we seek special cause(s) for the effect, we quickly realize the difficulties in determining the salient cause(s). For example, is the wheelbarrow or the potter wheel a special cause for the production of the pot? The Nyāya thinkers thought that there ought be a “definitive” or “operative” cause (*vyāpāra*) that directly brings about the effect. For example, with respect to cutting down a tree, the final contact between the tree and the axe is the operative cause (*vyāpāra*). So we have in short, two senses of “cause”. The instrumental “specific” causes (*asādhāraṇa-kāraṇa*), which act as “special” cause(s) (*kāraṇa*), for instance an axe is the special instrumental cause for the falling of the tree. And second, the “operative” cause (*vyāpāra*), which is the *contact* between the tree and the axe because it results in the direct bringing about of the effect.

A Better Understanding of Causality with Respect to Sense-Perceptual Knowledge

With respect to ordinary sense-perception (*pratyakṣa*) as an instrumental means for knowledge (*pramāṇa*), Nyāya thinkers argue that there are various causal factors (*sāmagrī*) that result in a sense-perceptual cognition. There are both negative and positive causal factors. The positive factors, include, the sense-perceiver, the internal sense organ (*manas*), the external sense-organ such as the eyes, the external object, and the sense-object contact. In regards to negative causal factors, Nyāya thinkers recognize; not being too close to the object, not being too far from the object; not blocked by another object; not being mixed up with another object. But the instrumental “specific” cause (*asādhāraṇa-kāraṇa*), according to Nyāya is the sense organs (*indriya*), while the definitive or operative cause (*vyāpāra*) is the connection (*sannikarṣa*) (i.e. contact *saṃyoga*) between the external object and the sense organ. Now the cognitive effect of the sense-perceptual contact with an external object results in two kinds: a qualificative structured cognition, which I have been calling *savikalpaka* cognition and a prior non-qualificative (*nirvikalpaka*) cognition. With respect to *nirvikalpaka* sense-perception, a sense-perceiver sees both the object and its qualifier, but not as being qualified by the qualifier (G. Bhattacharya, 1983, p. 168-169). In the following chapter, I try to explain how the structure of a qualified cognition (*viśiṣṭa jñāna*) actually allows for the possibility to recognize *immanent* universals.

Summary

In summary I have argued that we have knowledge of concrete particulars by way of sense-perception as a means of knowledge. But in order to have sense-perceptual knowledge of a particular object the content of our cognition must not only be directed at an external object in

the world, but also our cognition must be determinate and free from accidents, errors, and doubts. In short, our sense-perception must be a reliable instrument that is faithful at tracking the truth. Although I think a healthy attitude of skepticism is a good sign of being a responsible knower, too much doubt can be self-defeating. In the Indian classical world, strategies for overcoming doubts concerning our means of knowledge (*pramāṇa*), was managed in either one of two ways. Either a true cognition is established on its own merits (*svataḥ prāmāṇya*), or it is established by a distinct external cognition (*parataḥ prāmāṇya*). Nyāya thinkers worried that if a true cognition was established on its own merits i.e., “self-authenticating”, then how could doubt arise? Thus, they concluded that a second apperceptive cognition (*anuvyavāṣya*) makes a *special* inference that reveals the truth of the target cognition. By first establishing a true cognition, it is then possible to back track to find reliable ways that help us establish a true cognition. Indeed, sense-perception is one of those reliable ways that can establish a true cognition of a particular object. Although I explained the definition of sense-perception as a cognition that arises from the contact of our sense-organ with a particular object that is non-verbal, non-wandering and resolute, I was worried whether this definition could adequately rule out optical illusions like the Müller-Lyer illusion . I argued that instead of thinking of our sense-perception of the Müller-Lyer illusion as a misperception, we ought to understand it as a genuine sense-perception of a “mislocated” particular object. Basically, our sense-perception of a particular object triggered a memory-disposition (*saṃskāra*) of a universal, which in turn tricks us into thinking that the particular object is located in front of us, when it is in fact located elsewhere. As fantastic as this may appear, I wanted to preserve two important intuitions concerning our sense-perception of an “illusory” object. One, our sense-perception of a “illusory” object involves memory, and two, we actual interact with an “illusory” object in a causal way. To explain sense-

perception as a causal process is helpful because an important *effect* of sense-perception is a cognition that can be characterized as being qualified or being non-qualified according to Nyāya-Vaiśeṣika thinkers. In the following chapter, I try to explain how both kinds of cognitions can give us some insight into recognizing *immanent* universals.

Chapter IV. Recognizing Immanent Universals

When one of a number of logically indiscriminable particulars has made a stand, the earliest universal is present in the soul: for though the act of sense-perception is of the particular, its content is universal – is man, for example, not the man Callias.

(Post. Analytics 100a15-18).

In the previous chapter I argued that we have sense-perceptual knowledge of concrete particulars. In this chapter, I argue that recognition is a kind of sense-perception that can grasp *immanent* universals.

Argument for Recognizing Immanent Universals

- P1. The content of our sense-perception not only can capture the object with all its particularities but also can capture what an object is. For example, I not only can sense-perceive Cuddles sleeping on the mat, but also I can sense-perceive that it is a cat sleeping on the mat.
- P2. Our ability to sense-perceive what an object is means being able to recognize it. In other words, I must have been familiar with cats in order to recognize that Cuddles is a cat sleeping on the mat.
- P3. Since an immanent universal is *what an object is*.
- C. Therefore, while sense-perceiving a concrete particular, we have a cognitive ability to recognize a universal inherent in a concrete particular.

Challenging the Conclusion: Platonist Objection

Even if we can recognize a universal by sense-perceiving a concrete particular, why must we think the universal is inherent (i.e., immanent) in the concrete particular? Moreover, even if the universal is *actually inherent* in the particular, how does our ability to recognize some object *as* that object secure our belief in immanent universals rather than transcendent universals? In the above example we sense-perceive Cuddles as a cat, because we had come into regular contact

with her or with cats in general by our sense-perception, which we had regularly applied to Cuddles, and by which we then developed the habitual recognition of her as a cat. Now, from this habituation, it is unclear whether we are actually recognizing an immanent universal? In fact, we just as well may be directly in contact with a transcendent universal! In short, our ability to recognize a universal just seems underdetermined with respect to our sense-perceptual abilities. In *Phaedo*, Socrates says, “Do we not call the losing of knowledge forgetting? Most certainly, Socrates, he said. But, I think, if we acquired this knowledge before birth, then lost it at birth, and then *later by the use of our senses in connection with those objects* we mentioned, we recovered the knowledge we had before, would not what we call learning be the recovery of our own knowledge, and we are right to call this recollection? Certainly” (75d1-75e7). I do not want to focus on Plato’s theory of recollection per se; instead I italicized parts of above quote in order to emphasize how our sense-perception of concrete particulars can trigger our recollection of transcendent universals instead of our recognition of immanent universals.

Possible Replies To The Above Objection

I think there are several ways an immanent realist could reply to the above objection. Perhaps the most expedient approach is to formulate a disjunctive syllogism where either we sense-perceive an immanent universal or we sense-perceive a transcendent universal. Since there are no transcendent universals, we quickly conclude that we must be sense-perceiving immanent universals. But if we employ this argument, then we ought to explain in detail the nitty-gritty arguments challenging transcendent universals. In the first chapter I tried to explain these details, but I quickly recognized the complexity of the objections and possible replies. Another approach is to explain how a theory of immanent universals and a theory of sense-perception compliment each other (via cognitive theory) in a way that is utterly lacking in a

theory of transcendent universals. For example, in what way can any theory of sense-perception cross Plato's "two world" divide? This is where Plato's theory of knowledge of transcendent universals takes a very interesting turn.

Plato's Challenge to Sense-Perceptual Knowledge

In *Theaetetus* 184-186, Plato concludes that sense-perception alone cannot be knowledge because sense-perception alone cannot tell whether a particular object exists or not exist. Since the existence or nonexistence of an object is necessary for knowledge, it does not appear sense-perception alone cannot help a person obtain knowledge. More importantly, if recognition is a species of sense-perception, then recognition also cannot be employed to obtain knowledge. For Plato something more is required than sense-perception in order to reveal the existence of an object. In the end, knowledge is obtained when a person mentally *compares* and *reflects* upon what is being sense-perceived. For Plato, there are powers in the body and powers of the mind, and how they interact with one another sheds light on how our mind works with respect to knowledge.

Plato sets up this argument by first explaining how distinct sense-perceptions not only work *through* the body to obtain its particular object, but also that each sense-perceptual quality are different to each other and same to themselves. For example, what you sense-perceive through your hearing is not what you sense-perceive through your seeing (185a1-b2).¹⁰⁷ Next, Plato focuses on how sense-perception alone cannot be the instrument to grasp the "common" properties (*koina*). The following is a list of common properties (*koina*).

Common Properties (*koina*): existence and non-existence, likeness and unlikeness, same and different, being one, odd and

¹⁰⁷ Plato never considers the possibility of cross modal interactions. For example, he does not consider the possibility of seeing a mango followed by tasting its sweetness.

even, beautiful and ugly, good and bad (185c-d, 186a1-4).

For example, *existence* cannot be the object of hearing or seeing because it is common to them both. Indeed, all the *koina* cannot be specifically detected through our particular sense-perception because the *koina* are properties of the objects of several of our sense-perceptions (185b2). Having argued this point, Plato then cleverly argues that when we apply the common properties (*koina*), especially existence, to the objects of our sense-perception, our mind is not only just passively receiving or detecting via sense-perception particular objects but also doing something more. For Plato, it is the mind through itself that sees the truth of what is being sense-perceived (185e1-7). Since knowledge requires truth, and sense-perception alone cannot obtain it, he quickly concludes that sense-perception cannot be knowledge.¹⁰⁸ Socrates says, “And thus there are some things which all creatures, men and animals alike, are naturally able to perceive as soon as they are born; I mean the experiences which reach the soul through the body. But calculations regarding their being and their advantageousness come, when they do, only as the result of a long and arduous development, involving a good deal of trouble and education” (186c1-6).

Plato is saying something quite radical. Even if sense-perception offers reliable information, the nature of that information is simply not enough to give us knowledge. Regardless whether that sense-perceptual activity is *raw* and *coarse* such as an immediate presentation of a color, or *refined* and *polished* such as a sense-perceptual judgments concerning classical music—any kind of sense-perceptual activity that acts independently from our reflective or comparative powers cannot be an instance of knowledge. This seems to suggest that

¹⁰⁸ Here I am assuming that the relation between truth and existence. For some statement or proposition to be true it must refer to something that actually exists.

our sense-perception of every day objects is perhaps necessary but not sufficient for knowledge.

The following is a layout of Plato's argument against sense-perceptual knowledge.

Plato's "Existence" Argument Challenging Sense-perceptual Knowledge

- P1. In order for us to have knowledge of a particular object, we need to know whether that particular object exists or does not exist. According to Plato, existence is a *common property* that is required for knowledge.
- P2. Our sense-perception alone cannot tell us whether a particular object exists or does not exist. Plato seems to suggest that since the objects of our five sense-perceptions are exclusive to each of our sense-perceptual abilities (i.e., we cannot see sounds, or hear colors, etc.) our sense-perceptions cannot inform us whether a particular object exist or does not exist.
- C. Therefore, sense-perception alone cannot give us knowledge of particulars.

Challenging P2

Is it not possible for our sense-perception to *immediately* grasp whether an ordinary object exists or does not exist? If we assume that the mark of an existent object is causal efficacy, and that our sense organs act as the receptors that are effected by the direct contact of ordinary objects, then why not conclude that we not only sense-perceive ordinary objects but also immediate sense-perceive their existence?

I think Plato is keenly aware of this objection. It appears that Plato thinks that our sense-perceptual mechanisms are just bodily instruments that are unintelligent, and the real source of knowledge is the power of mind. "Then knowledge is to be found not in the experiences but in the process of reasoning about them; it is here, seemingly, not in the experiences, that it is possible to grasp being and truth" (186d1-4). Plato appears to possess a strong sense of epistemic *internalism* with respect to accessing and reflecting upon our sense-perceptual beliefs. Our ability to reflect and to compare our sense-perceptual beliefs is what gives us knowledge. In

fact, we should not even call it sense-perceptual knowledge at all, because it misleads one to think that sense-perception is the main cause of our knowledge, when in fact it is the use of our mental capacity to reflect upon what sense-perception offers. Although, we *acquire* beliefs about the external world through our senses, we ultimately gain knowledge of external objects by exercising the mind via reflection. Thus, knowledge of external objects is known via reflection and not by sense-perception.

But what about the immediate knowledge of a large bright scarlet red canvas presented in front of our eyes. Does Plato really think that our knowledge of this immediate presentation of scarlet red is somehow dependent on our reflective and comparative abilities? Having immediately come into contact with such an object, do we really have to make a separate judgment about the existence of such an experience? If making a second judgment about an immediate sense-perception of an object is required, then what would that actually involve? Perhaps, this may involve repeating our immediate sense-perception of the object in question, but then again, why should we think that a second immediate sense-perception is preferable or superior to our first sense-perception? Perhaps that second sense-perception is necessary in order to verify the existence of our initial experience of the object; however, if that is so, then what will verify the existence of our second sense-perception of the object? Is it not peculiar that we have to make a second reflective judgment about our first immediate experience of an object that reflects upon the existence of the object itself?

But maybe, Plato is hinting at a deeper issue. Namely, when he says, “knowledge is to be found not in the experiences but in the process of reasoning about them...” he means the objects that we reason about are states of affairs that are expressed as judgments in our cognition. Thus, knowledge occurs when the mind is able to formulate judgments, which go beyond sense-

perception. Indeed, it is our body that sense-perceives and not our mind because our mind does not have the ability to touch, hear, see, smell, or taste an object.

Plato's "Judgment" Argument Challenging Sense-perceptual Knowledge

- P1. In order for us to have knowledge of a particular object, we need to represent that particular object in the form of a judgment.
- P2. Our sense-perception abilities alone do not have the power to formulate judgments. Plato seems to think that our mind and not our body have the power to produce judgments.
- C. Therefore, sense-perception alone cannot give us knowledge of particulars.

Explanation of P1 and P2

If our beliefs are expressed in the form of a judgment, then it is unclear whether sense-perception can represent this form. Our sense-perception of particular objects seems to “fill in” the content of our judgments either as the subject or as the direct object of a proposition or statement. For example, imagine seeing an unfamiliar object prior to identifying the object. We can sense-perceive its property particulars by giving it a propositional description like, “This object has a dark burgundy reddish hue, and it is shaped like a cube”. Alternatively, we express part of a judgment as a demonstrative phrase prior to ascribing such a phrase to a direct object. For example, we can sense-perceive an outfit and say, “this purple polka dot outfit ...”. Notice that prior to filling out the judgment, it is possible to express the subject of the judgment as a demonstrative phrase. In order to complete the judgment we can say, “This purple polka dot outfit is unsuitable for next weeks party”.¹⁰⁹ In other words, it seems that our sense-perception per se is non-judgmental in character because it only captures a prior part of the judgment's

¹⁰⁹ Sellars, Wilfrid, “The Role of the Imagination in Kant's Theory of Experience” May 18, 1998. Accessed June 1, 2013. <http://www.ditext.com/sellars/ikte.html>

form.¹¹⁰ But this sounds peculiar because if the content of sense-perception can provide the parts of a judgment then why not argue that the judgment itself is just a “sense-perceptual-judgment”?

Plato might reply to this objection by arguing that the production of a judgment comes further along “downstream” from the initial power of sense-perception. In other words, the arising or the production of a judgment is a distinct ability from our sense-perceptual ability. Sense-perception is *bounded by* or *limited by* the power of the body. These particular characterizations assigned to our sense-perception of a particular property or object arise from the power of our cognition, and not from the power of our body. Although the particulars have an origin in our body as “raw” sense-perception, the characterizing process itself along with the inherent duality of subject-object structure of a judgment is established by our cognition.

With respect to premise 2, an implicit piece of the above analysis seems to involve how certain characterizations, which can act as a label or name for particular objects or properties, seem to involve *concepts*. In other words, a particular label or name can *fall under* a concept or general idea. For example, if I say, “this particular basketball has a particular shade of amber orange”, then I am implicitly conceptualizing how this particular object is not just a *ball*, but also a *basketball*. Furthermore, this particular basketball possesses a *color* that is *amber orange*. It seems that many if not all of our expressions that characterize particular objects or properties fall under some concept. The weight of the argument is placed on our mind’s ability to formulate concepts. Thus, if our mind is primarily responsible for producing concepts, and concepts are

¹¹⁰ When I say, “only captures a prior part of the judgment’s form”, I mean the content of our sense-perceptual experience can be expressed as either the subject such as “this big red marble is x” or as the direct object such as “x has black and white stripes”. Imagine, if sense-perception of particular objects *alone* was the only means of communication. Jonathan Swift would be turning over in his grave. Indeed, we seem to be moving closer to the professors of the institute of Laputa who suggested a universal language can be acquired through the depiction of actual objects.

used to generate all our judgments, then it makes perfectly good sense to conclude that our mind is responsible for producing our judgments. The following argument is a justification of P2 from the above argument.

Justification of P2: Judgments are Based upon Concepts

- P1. Only concepts are used to produce or to generate all our judgments.
- P2. Sense-perception alone does not have the power to formulate concepts.
- C. Therefore, sense-perception cannot formulate judgments.

Challenging P1: Not all of our judgments are based upon concepts

I challenge P1 of the above argument by questioning whether all judgments as subject-object statements use concepts? In particular, I question whether our sense-perception alone can produce judgments that does not explicitly use concepts? I can only think of two possible applications — the “is” of identity and the “is” of existence.

1st Reply: With Respect to Concrete Particulars, The “is” of Identity, Does not Explicitly Use Concepts

Imagine introducing a colleague to a friend at a party, you might say, “This is Mr. Mike Koga”. The “is” expresses the “is of identity”, which in this situation does not *explicitly* introduce a concept because one is introducing a particular person by their proper name.¹¹¹

When I say “identity” I mean strict identity — if x is equal to y then everything that is true of x is true of y. Now you might think the “is” is being expressed as a dyadic predicate, that is, if x is

¹¹¹ Names are not concepts. Even names like “Dances with wolves” or “Snow White” although sound like concepts, pick out concrete particular people and not concepts.

identical to y, then x is equal to y, and to introduce Mr. Mike Koga to a colleague is just to say Mr. Mike Koga is identical to Mr. Mike Koga. Thus, it appears that strict identity is a *basic* or a *presumed* concept, which does not require a knower to be *explicitly* familiar with the concept of strict identity in order to know via sense-perception when someone introduces a particular person. Maybe we *implicitly* introduce a concept when we say, “This is Mr. Mike Koga” — such as *man* or *person*, however, if we substitute another name or a set of descriptive concepts on behalf of a name, then it seems that we are altering the meaning of the statement?¹¹² Thus, when we are introduced to someone new, then we are not explicitly using any concepts at all. Similarly, I think we use strict identity when we *recognize* a particular object across time. For example, when I say, “This is the same pen I used yesterday” or “This is the same person I met last week”. Indeed, when we introduce a person at a party for example, we actually recognize this particular person as someone that we had sense-perceived in the past. Thus our ability to recognize a particular object challenges P1 of the above argument, which states that only concepts are used to produce or generate our judgments.

2nd Reply: The “is” of Existence: For Particulars to be, is to be Instantiated

Earlier I explained Plato’s argument concerning why sense-perception could not be knowledge because sense-perception does not grasp the immediate existence of a particular object. It seems to me that this argument can be linked to the previous argument concerning concepts and judgments by way of explaining how existence can only be known through the mind as a concept. Plato concludes that sense-perception alone cannot help us obtain knowledge

¹¹² With respect to characterizing names under certain descriptive concepts, it seems to me that descriptions cannot replace a name without altering the meaning of the sentence. Although Mr. Mike Koga can be described as “the professor who teaches Metaphysics”, which uses concepts to describe a particular person, next semester Mrs. Nancy Kim can be “the professor who teaches Metaphysics”.

because sense-perception alone does not help us produce judgments. And judgments in turn help us grasp whether an object exist or not exist. The primary means to produce a judgment is from concepts and concepts do not have an origin in the body but in the mind. Earlier I mentioned the “is” of identity and questioned whether concepts are relevant when we declare that a particular object is identical to itself. I assume concepts are only implicitly relevant to the identity of a particular object insofar elucidating what a particular actually means.

With regard to the “is” of existence, if I declare via sense-perception that “my laptop exists”, or “my neighbor Fredrick exists”, then it appears that “existence” is not explicitly used as a concept, because existence is being used to refer to a particular object or particular person. Although existence is a concept insofar as being expressed as an abstract or general idea that many existent objects share, I hesitate to say that is it a property i.e., universal.

It seems that Plato thought existence was a universal. From our earlier discussion Plato thought that our immediate sense-perception of an object does not entail whether that object exists or not. After all, an object of sense-perception could be an illusion. Thus, the difference between our thoughts about an object and the object itself; is the actual existence of the object. In short, it seems that existence is something that contributes to making an object actual.¹¹³

But there is something peculiar about the way we are thinking about existence. If I am arranging a meeting with six of my colleagues, and slowly one by one each person enters the meeting until the last person arrives, then it makes no sense to wait for existence to arrive at our meeting. When we sense-perceive a particular object, it seems unnecessary to posit a particular instance of existence (i.e., there is no particular existence to instantiate the universal existence-

¹¹³ When a potter puts form into matter, she may first imagine the shape of the pot. As she spins the clay, her mental image slowly comes to be. Thus, it seems that existence is a property that can make what is imaginable — actual. Again I hesitate to think that what made the imaginable, actual was the universal *actuality*.

hood) because a particular instance of existence does not add or contribute to that, which already exists.¹¹⁴ If we assume that concrete particulars instantiate universals, then a particular triangle exists due to universal *triangularity* inhering within a particular triangle. Therefore, a particular instance of existence appears superfluous.

Now we have a straightforward reply to Plato's existence argument challenging sense-perceptual knowledge. Premise P1 and P2 of the Plato's argument assumes that a knower must know existence as a distinct property from a concrete particular that is actually being sense-perceived. But Plato's assumption is misleading, because when we sense-perceive a particular chair or particular color, etc, we are not required to know existence as a particular instance. Setting aside epistemic externalism, we are not required to know existence as a property instance because there is no universal property of existence that could play such a role.¹¹⁵

But there is an important insight that Plato raises with respect to our sense-perceptual abilities. Namely, that knowledge in general cannot be directly associated with sensation, because knowledge is a kind of cognition. Indeed, cognition is more of a mental event while sensation is a bodily event. Although I agree with the Plato that knowledge cannot be just sensation, that does not mean knowledge cannot be brought about by sense-perception (i.e..

¹¹⁴ Kant says, "Thus when I think a thing, through whichever and however many predicates I like (even in its thoroughgoing determination), not the least bit gets added to the thing when I posit in addition that this thing is" (A600/B628). Although Kant was not writing about how particulars instantiate universals, this statement makes a lot of sense in light of how universals inhere in particulars.

¹¹⁵ In basic predicate logic, existence is not thought as a predicate but as an existential quantifier, which figure into complex statements. Since Russell and Frege, existence is a property not of concrete particulars but of concepts (Chakrabarti, 1997, p. 40). Singular existential expressions like "Fredrick exists" are not well-formed logical statements. Fredrick is not a concept, where we can say, "there exists an x such that x is a Fredrick". It is hard to understand what it means to be a Fredrick. However, if we think of Fredrick as a bundle of properties, such as ...is a student and ...is a logician and ...is a musician, then it is possible to give a description of Fredrick. But the problem with this description is the possibility of some other particular person satisfying those descriptions.

sense-perception is not sensation). I tried to explain, in the prior chapter, that an important feature of sense-perceptual knowledge is *it being a cognition* that arises from the contact of sense organ with the object. In the following section I examine the possibility whether concepts could be apart of our sense-perceptual abilities.

Challenging P2: Concepts do not Stand Outside the Realm of Sense-perceptual Cognition¹¹⁶

Implied in P1 of the main argument for recognizing immanent universals is a belief that concepts stand *within* the power of our sense-perception. However, I also mentioned how concepts arise from the mind i.e., downstream and distant from the immediate powers of the body. In one sense, this may seem peculiar and counter-intuitive because when I see my particular *Lamy* fountain pen, I immediately see that “this is *a* pen”, plain and simple. And when I see my *Pelikan* fountain pen, then I can say, “That is *a* pen as well!” In other words, it seems as though concepts can stand *within* our immediate sense-perceptual abilities. Indeed, the insight behind Aristotle’s quote, which I stated in the beginning of this chapter, is that form and matter although distinct are inseparable.¹¹⁷ So when we sense-perceive everyday objects like tables, people or bronze statues that look like people, we cannot help but to see the form in the matter. The trick is being able not only to sense-perceive the matter of a particular object, but also being able to *recognize* the form (i.e., the immanent universal).

But if this is so, then what about our first sense-perception of a particular object? Does our initial sense-perception involve being able to sense-perceive an immanent universal? What about animals? Do animals have an ability to sense-perceive immanent universals? If concepts, which are abstractions from our experience of particular objects, guide us in sense-perceiving

¹¹⁶ I am referring to P2 of the argument I called “Justification of P2: Judgments are based upon concepts”.

¹¹⁷ I take this to mean Aristotle’s *hylomorphism* thesis.

immanent universals, then it is difficult to image how our initial sense-perception of a particular object can cognize an immanent universal. The following is an argument that concludes immanent universals cannot be sense-perceived upon our initial contact with a particular object.¹¹⁸

The First Sense-perception Argument: Acquiring New Concepts¹¹⁹

- P1. If an immanent universal were sense-perceived upon our first encounter with a particular object, then our sense-perception would be concept laden (i.e., saturated).
- P2. In order for our sense-perception to be saturated with a concept requires not only a repeated sense-perception of similar concrete particulars, but also our ability to abstract from those repeated sense-perceptions to a concept that ultimately refers to a common property (i.e. a universal).
- P3. But we have not yet sense-perceived those other similar objects, since we are concerned with our first sense-perception of a particular object. Case in point, the perception of a newborn infant seems to be free from concepts.¹²⁰

¹¹⁸ Please see A. Chakrabarti's paper, "On Perceiving Properties" (2006, p. 310).

¹¹⁹ The assumption that sense-perception proper is untainted by concepts is not only a lively debate among contemporary Western philosophers, but also in the Ancient World that stretch as far back to 4th century AD between Nyāya Realists and Buddhist Nominalist philosophers. The 9th century Nyāya philosopher, Jayanta Bhaṭṭa author of *Nyāyamañjarī* argues not only for a Realist view of universals via sense-perception, but also vehemently argues against Buddhists (Dīnnāga and Dharmakīrti) who think that proper sense-perception is free from conceptual construction.

¹²⁰ Jayanta Bhaṭṭa, in *Nyāyamañjarī* setups the Buddhist argument in a brief passage.

Samānesu ākalitesu tat-vṛtti-sādhāraṇa-rupam-avadhāya sāmānyam grhyata iti sāmpekṣam tat-svarūpa-grhaṇam | iyaṃ ca prathama-nayana-sannipāda-samud-bhūtā matiḥ pūrvāpara-anusandhāna-vandhyā nirpeskṣā katham tat-graṇāya prabhavet ?

The universal is cognized (*grhyata*) by having an ascertainment (*avadhāya*) of a general form (*sādhāraṇa rupam*), which exists (*vṛtti*) among that which is the assembled (*akalita*) common (*samanesu*). Therefore, (*iti*) the cognition (*grhaṇam*) of the essence (*svarūpa*) of that (*tat* i.e., universal) is dependent (*sāpekṣa*). And this cognition (*matiḥ*), which has arose (*samudbhūtā*) in contact (*sannipāda*) with the eyes (*nayana*) first (*prathama*) which lacks (*vandhyā*) the connection (*anusandhāna*) of the previous and subsequent (*pūrvāpara*) [cognition]; how (*katham*) can it be used (*prabhavet*) for independently (*nirpeskṣā*) grasping (*graṇāya*) that [universal]? (K.S. Varadacharya, 1983, p. 6).

- C. Therefore, an immanent universal cannot be sense-perceived upon our first encounter with a particular object.

Explanation of P1 of The First Sense-perception Argument

If we can cognize an immanent universal upon our first sense-perception of a particular object, then we unavoidably possess a concept. When I write, “concept laden” and “saturated”, I mean a sense-perceptual cognition that has a *predication content* that can express a concept. We cannot have a sense-perceptual cognition of a particular pot or a flower without possessing any concept whatsoever. Our first sense-perception possesses not only a potential for cognizing a particular pot, which can be expressed as a particular name or pronoun, but also a potential for cognizing an immanent universal *potness*, which can be expressed as predication content “...is a pot”. Having said that I think we need to make more clear the distinction between cognizing a concept that refers to a universal and possessing a universal.

Concepts, as P.F. Strawson has explained, can be placed in a system of other concepts. For example, when we engage in logic or mathematics we can think of how such concepts imply or negate other concepts. To possess a universal on the other hand is not like the above. You may grasp the concepts of courage or generosity, that is, understand what courage and generosity are and recognize their manifestations in others without possessing the universal courageousness or generosity itself (1996, p. 326). In fact, you may even possess an immanent universal independently of your knowledge or understanding of a concept. What is important is that we can identify or cognize an immanent universal in a particular via sense-perception, because our sense-perception does not stand beyond our conceptual ability.

Explaining P2 & P3 of the First Sense-perception Argument

Premise 2 specifically focuses on how to build a concept from a series of encounters with various concrete particulars. In effect, the construction of a concept requires sense-perception of various concrete particulars and abstracting from those repeated sense-perceptions to a concept that ultimately refers to a common property i.e., a universal. The force behind this premise is in a belief that sense-perception only grasps particular object because sense-perception ‘proper’ is untainted by concepts. So a child, for example, will have to sense-perceive a variety of triangles (e.g. isosceles, equilateral, or scalene triangles) in order to finally grasp the concept of *triangularity*.

Challenging P2 & P3: Jayanta Bhaṭṭa’s Insightful Examples for Sense-perceiving Immanent Universals

In the *Nyayamañjarī*, Jayanta Bhaṭṭa begins his argument against the Buddhists, with a rhetorical question, “Is it a royal edict that the initial perception is only connected with the thing-in-itself [*svalakṣaṇa*] but the subsequent perception is not so connected? Or, let the initial perception be the source of true knowledge [cognition]. But how do you say that it reveals only its characteristic features and not its generic character?” (J.V. Bhattacharyya, 1977, p. 647-648). When Jayanta says, “but the subsequent perception is not so connected” it is difficult to understand his objection. I believe he is objecting to the Buddhist doctrine of momentariness (*kṣaṇikatva*) of the pure-particulars (*svalakṣaṇa*) (i.e., the thing-in-itself) that seem to pass out of existence as soon they arrive. If so, then our sense-perception do not seem to be in contact with any past entities. Thus our past experiences, in order to be recalled, must be in our memory. Indeed, previous experiences retrieved from memory, which are then assisted with words, help us to construct concepts. Thus, on the Buddhist view, initial sense-perception get no help from our memory.

At this point, Jayanta reiterates the difference between his position and his Buddhist opponent's view. "On the one hand, you hold that sense-perception reveals only the peculiar trait of an object but, on the other hand, we state that perception reveals also the generic character of a thing" (J.V. Bhattacharyya, 1977, p. 648). In what way can we resolve this matter? Jayanta's strategy is to present examples from ordinary experiences, and then closely examine what must have been sense-perceived in that first moment. Jayanta is not a nominalist with respect to universals. The name of an object does not play a role in producing a sense-perception of that object. Verbal knowledge is not the same as knowledge achieved by sense-perception. Indeed, even if a name of an object is unknown, sense-perception of an object takes place. But how is a person directly cognizant of the universal of a particular object? Jayanta says, "Let us illustrate the point in question. "A Deccanise while perceiving a series of similar fleeting things has discovered a common element which is equally shared by the past and the present things. He has perceived a persisting common element. If a person who is innocent of the relation of denotation, i.e., does not know the name of a new class of objects, sees many strange objects at a place then he sees their generic and specific characters" (J.V. Bhattacharyya, 1977, p.648). It is no mystery that language follows upon our cognition of the universal rather than preceding it. For Jayanta, any "similar fleeting things" that is experienced at one time and then a particular object that is similar to that group of fleeting objects cannot be fully explained without accepting the sense-perception of the universal. What about just sense-perceiving a group of objects? Well, just look at your hand. Jayanta says, "[...] whenever the four fingers of a person come in contact with the eyes of a person he sees them and understands their common and peculiar features. If this is so, how do you say that the individual [particular] trait of a thing is only visualized?" (J.V. Bhattacharyya, 1977, p. 648). Not only can we see a universal when

we see a group of similar objects at one time, but also utilize a universal to link two similar sense-perceived objects at different times. Jayanta says, “Moreover a person saw as individual cow called Śābaleya in the past. At a later period he sees another individual cow Bāhuleya by name. Experience says that he remembers Śābaleya which was seen before. We cannot explain the remembrance of Śābaleya if no common property belongs to these two individual cows. It is unreasonable to hold that a common element is not grasped. How can we remember an individual on beholding another individual which is entirely different?” (J.V. Bhattacharyya, 1977, p. 649). Despite the fact, that both cognitions are short-lived, there is something that is shared between Śābaleya and Bāhuleya, and for Jayanta it is the universal. Later, Jayanta turns his attention to recognition rather than on remembrance. Although both remembrance and recognition use memory, recognition focuses on a current sense-perception of an object. I think Jayanta’s last example is a real tribute to his originality. Jayanta asks us to imagine directly seeing a heap of sesame seeds. Indeed any group of similar tiny objects that are present together will be sufficient. “If we place some paste of sesame seeds or of pulse seeds [lentils] by the side of heaps of sesame seeds and pulse seeds then we do not see with our eyes individual seeds in the paste. But we grasp with our sense-organs the common element belonging to the seeds and the paste” (J.V. Bhattacharyya, 1977, p. 649). Now, we all can agree that we are unable to sense-perceive each particular grain of sesame seed in the heap because each particular seed simply does not strike the senses as distinct piece of sesame. Despite this fact, we do believe that we see the see sesame-seedness because of the very fact that we are seeing the heap, which is comprised by the particular grains of sesame.

The Explanation of Premise 2 of the “Argument for Recognizing Immanent Universals” Involves How Concepts Can Stand *Within* Our Sense-perceptual Abilities

Our ability to notice a universal in a later cognition while presently sense-perceiving a particular object is known as recognition. To recognize an object is to grasp that *felt* sense of similarity. Jayanta argues that when we have a felt sense of commonality or similarity, then we have actually sense-perceived a universal. If we did not sense-perceive the universal in the first instance, then we could not recognize it in the second instance. But we do recognize the common property in the second instance, thus we must have had the sense-perception of the universal in the first instance.

It is important to keep in mind the differences between remembering and recognizing universals. The act of remembering various past encounters of a common property can help us to grasp a universal, but that would not be by virtue of sense-perception. On the other hand, the act of recognizing a particular object as something that was previously seen helps us recognize a universal. No doubt remembering and recognizing both depend on memory, but the former is articulated as ‘that past *a* was *F*’ while the later is stated as ‘this present *b* is the same *F* as that’. A good example is pattern recognition. Pattern recognition involves the identification of faces, objects, words, melodies, etc. When we identify a face, we do more than just see the colors and contour of a face. Our ability to recognize refers to a process of re-identifying a set of current sensory stimuli in a certain way that must hold the common property that links the before with the present, otherwise we could not have the feeling of resemblance or similarity, which is typical of pattern recognition. Imagine an old man seeing a schoolboy’s soccer ball. Instead of ignoring the object, he carefully looks over the soccer ball. He recognizes the object and says, “This ball is the same kind of ball that I used to play with as a child”.

Now one might think that our ability to acquire a concept is closely tied to our linguistic abilities. Indeed, universals can be brought to light when we learn to apply words to understand

certain concepts. However, I think there are moments where very young children and animals seem to have learned how to master certain properties free from language (i.e., a non-linguistic manner). Just think about how infants recognize *facial expressions*, or how monkeys master the concept of picking *the lowest hanging fruit*.

On this point, I think it is possible for us to sense-perceive a universal by training our mind. When I say, “sense-perceive a universal ‘as’ a universal” I mean recognizing a universal in a later cognition. Sometimes this training may be difficult such as tuning our hearing to be sensitive to certain sounds with respect to certain musical works, and at other times sense-perceiving a universal can be more apparent as when children first learn to see a common property amongst distinct birds.

No doubt it is difficult to explain the nature of sense perceiving a universal in a particular, but perhaps another analogy is called for. Wittgenstein’s duck-rabbit comes to mind.¹²¹ If I am familiar with ducks and unfamiliar with rabbits, then when I see the duck-rabbit figure, I sense-perceive a duck and I am unaware of seeing a rabbit. Due to my not having seen rabbit figures, I need to be shown what a rabbit looks like. Once someone teaches me what a rabbit looks like, I can now see the duck-rabbit figure and say, “Ah, now I see a rabbit-figure”. It is not the case that the figure has physically changed. What has changed is my ability to

¹²¹ We are all familiar with Wittgenstein’s Duck-Rabbit and the old woman/young woman figure. The analogy with Gestalt images is helpful. Our eyes do not add anything to the image, but our mind seems to reveal the lines presented to it, thus imputing wholes out of disconnected parts. On a more interesting note, the Nyāya philosophers argued that the whole of an object is seen in a part of an object. Matilal says, “The ambiguity of the ordinary expression ‘is present in’ is enough for Nyāya to claim, somewhat counter-intuitively, that the tree is contained in its parts, and hence must be present in each simultaneously, as much as the parts, the branches etc. are contained in the tree. According to Nyāya ontological description, the tree is ‘contained’ in the parts by the relation of inherence (i.e. it inheres in its parts) while a part is contained in the whole tree by the reverse of inherence. Hence I may *see* the tree in the branches as much as I see the branches in the tree” (1986, p. 258-259).

recognize a rabbit-figure. This suggests that I am not just seeing with my eyes but with the aid of a previous sense-perception of seeing actual rabbits. Thus, in the way we are trained to apply our minds to recognize a rabbit in Wittgenstein's duck-rabbit figure, in that same way we apply our mind to recognize a universal when we sense-perceive a particular. Another example that illustrates how our current sense-perception is informed from a previous sense-perception is how our mind can fill in certain "gaps". For example, can you sense-perceive the missing letters "W_at _s y_u_ N_m_"? If you know the missing letters, then you are sense-perceiving more than what the seen letters reveal. Just as we actively sense-perceive gaps with our mind, we also actively sense-perceive immanent universals. Thus, in addition to someone teaching us how to recognize a universal, which may involve comparing and contrasting various objects, a careful analysis of our cognitive structure could be helpful. Not unlike a thorough investigation of concrete particulars with respect to their structure, an investigation of our sense-perceptual cognition with respect to our cognitive structure may prove to be invaluable.

The Nyāya Structure of Sense-perceptual Cognition offers insights into Recognizing Immanent universals

Earlier I mentioned that our ability to recognize a universal is due to our familiarity with the object. When I see my cup on the table, I not only see it as my particular cup, but I see it *as a cup*. We not only have an ability to recognize *this* particular cup as *that* same cup we saw yesterday, but also we have an ability to recognize this cup I saw yesterday still *as a cup* I see now. To recognize an immanent universal in a particular refers to a process of re-identifying a set of current sensory stimuli in a certain way that links what *was* sense-perceived to the present; otherwise we could not have the feeling of resemblance or familiarity.

In this section I not only explain the structure of sense-perceptual cognition but also

explain how memory is incorporated into that cognitive structure which in the end sheds light on recognizing *immanent* universals. Earlier I mentioned Gotama's definition of sense-perception (*pratyakṣa*) as knowledge that arises from the contact of sense organ with an object.¹²² It has the following features of being nonverbal (*avyapadeśyam*), non-wandering (*avyabhicāri*) and being resolute (*vyavasāyātmakam*). Later Nyāya thinkers perhaps beginning with Bhāsarvajña and later emphasized by Vācaspati Miśra seem to focus more on the structure of our sense-perceptual cognition.¹²³ We see this most clearly in Section 46 of *Tarkasaṃgraha-Dīpikā*, which defines sense-perception similarly to *Nyāya Sūtra*, but drops the three adjectives: non-verbal, non-wandering and being resolute, and adds two kinds of resultant cognitions with respect to sense-perception: a qualificative cognition (*savikalpaka jñāna*) and a non-qualificative cognition

¹²² NS 1.1.4. *indriya-artha-sannikarṣa utpannam jñānam-avyapadeśyam avayabhicāri-vyavasāya-ātmakam pratyakṣam*.

¹²³ Potter summarizes Bhāsarvajña's *Nyāyasāra*. In Section 7 and 9, offers some insight into qualificative and non-qualificative sense-perception. In Section 7, Potter explains how Bhāsarvajña distinguishes yogic from nonyogic perception. With respect to nonyogic perception, "Inherence and perceptible (*drśya*) *absences* are grasped by the relation of *viśeṣaṇaviśeṣyabhāva* or 'qualifier-qualified relations,' when such a relation takes as its referent relations of one of the other kinds and *its relata*. E.g., 'the ground is void of any pot' or 'the pot is not here on the ground,' etc" (1977, p. 401). In Section 9 "Again, perception is of 2 sorts: propositional and nonpropositional. Propositional perception is demarcated through its having arisen from its description through relation with names, etc. E.g., "This Devadatta has a stick." Nonpropositional perception involves the appearance of the mere nature (*svarūpa*) of a thing, e.g., the judgment produced by the first contact with the eye, or yogic perception of the disciplined-state variety" (1977, p. 401). Bhāsarvajña's own commentary *Nyāyabhūṣaṇa*, which has been translated by Matilal states "Bhāsarvajña says that the word *avyapadeśya* (in Gautama's *sūtra*) indicates that Gautama defined the nonpropositional (*nirvikalpaka*) type of perception. Nonpropositional perception is at the root of all other cognitive states such as propositional perception and inference. All the yogis try to gain this nonpropositional type of perception. But propositional perceptual judgments are also accepted in the Nyāya school, and Gautama supports this kind of perception, not in NS 1.1.4, but in such *sūtras* as NS 1.1.14 and II.2.65 Bhāsarvajña's interpretation is quite different from the traditional interpretations of NS 1.1.4" (Potter, 1977, p. 413). Also, please see Stephen Phillips', *Epistemology in Classical India*, footnote 1 on his notes to Chapter 3.

(*nirvikalpaka jñāna*).¹²⁴ The Navya-Nyāya philosopher Gaṅgeśa was aware of this definition and emphasized the operative relation (*sannikarṣa*) (i.e., the causal process with the object being in contact with the sense organ) as the *primary* or *chief* cause (*karaṇa*) of sense-perceptual knowledge (Phillips & Tatacharya, 2004, p. 335). I believe one important reason why Gaṅgeśa makes this distinction is to explain the causal role of memory in sense-perception but not as a primary cause.¹²⁵ In the following section I try to explain how Navya Nyāya thinkers structure our cognition and explain how sense-perception fits into that overall structure.¹²⁶

¹²⁴ TS 46. *Indriyārthasannikarṣajanyam jñānam pratyakṣam. Tat dvividham – nirvikalpakam savikalpakam ca iti.*

Perception (*pratyakṣa*) is the cognition (*jñānam*) that arises (*janyam*) from the contact (*sannikarṣa*) [operative relation] with the object (*artha*) and sense organ (*indriya*). It has two kinds (*Tat dvividham*): non-qualificative (*nirvikalpakam*) and qualificative (*savikalpakam*).

TSD 46. *Pratyakṣajñānasya lakṣaṇam āha – indriya’ iti. Indriyam cakṣurādīkam, arthaḥ ghaṭādīḥ, tayoh sannikarṣaḥ saṃyogādīḥ. Tajjanyam jñānam ityārthaḥ. Tat vibhajate ‘tat dvividham’ iti.*

It is said (*āha*) that the definition (*lakṣaṇam*) of perceptual cognition is “the sense-organ (*indriya*)...”. The sense-organs like eyes (*cakṣu*) etc., the object (*arthaḥ*) like a pot (*ghata*) etc., the operative relation (*sannikarṣaḥ*) of the two (*tayoh*) like contact (*saṃyoga*) etc. This is the meaning (*artha*) of the “the cognition (*jñānam*) arising (*janyam*) from that (*tat*)”. It divides (*vibhajate*) “It (*tat*) has two kinds (*dvividham*)”.

¹²⁵ The emphasis of the operative relation between our sense-organs and the object as the primary cause for our qualificative cognition is important because non-qualificative cognition (*nirvikalpaka jñānam*) also acts as a cause of a qualificative cognition (*savikalpaka jñānam*). However, non-qualificative cognition is an auxiliary cause and not the primary cause with respect to establishing a qualificative cognition. The idea of an auxiliary cause versus a primary cause has been previously debated in the *Nyāya Sūtra* commentaries by thinkers like Vātsyāyana and Uddyotakara. Two examples that immediately come to mind with respect to sense-perceptual cognition is 1) the role of memory, and 2) the contact between the mind with our soul (J.V. Bhattacharyya, 1977, p. 677).

¹²⁶ I primarily focus on Annambhaṭṭa’s *Tarkasaṃgraha-Dīpikā* and Gaṅgeśa’s *Tattvacintāmaṇi*. In the tradition, early Nyāya philosophers did not mention non-qualificative cognition (*nirvikalpaka jñānam*). For example, the author of the *Nyāya Sūtra* Gotama does not mention *nirvikalpaka jñānam* and neither does Nyāya commentator Vātsyāyana and Uddyotakara. Chakrabarti has mentioned that Vācaspati Mīśra introduced the term to the Nyāya tradition perhaps under the pressure of the Buddhist Logicians (2001, p. 3). For example, in

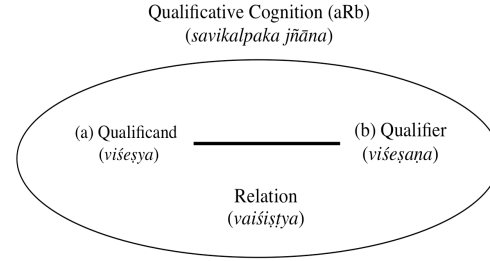
Now according to Nyāya philosophers a qualified cognition (*viśiṣṭa jñāna*) constitutes three components (aRb): (a) qualificand

(*viśeṣya*), (R) relation (*vaiśiṣṭya*) and the (b)

qualifier (*viśeṣaṇa*). The qualificand is more

or less the thing that is qualified by the

qualifier. This should sound familiar since



our cognition seems to be structured in a way that nicely reflects the structure of an object (i.e., the states of an affair of a particular object (*viśayata*)). So when we cognize a chair, the chair is the qualificand, the qualifier is chairness, and the relation between the chair and chairness is inherence. The cognition itself is *nonverbal* but it can be verbalized, as “this is a chair”. The qualificative or determinate cognition as a whole is a *savikalpa* cognition brought about by sense-perception (Phillips & Tatcharya, 2004, p. 15).

For Nyāya thinkers, a qualificative structured cognition (*savikalpaka jñāna*) is a relation because it relates two terms: the qualificand and the qualifier (e.g., something *is* something or something has something or something *as* something or something *is being qualified by*

Pramāṇsamuccya, Buddhist Logician Dinnāga defines perception as something that is free from conceptual construction (*pratyakṣaṃ kalpanāpodham*). Furthermore, *kalpanā* is understood as *vikalpa* (Hattori, 1968, p. 25, 82). The object of Buddhists indeterminate or non-conceptual perception (*nirvikalpaka pratyakṣa*) is the perception of the *bare particular* (*svalakṣaṇa*), while for the Navya-Nyāya philosophers the object of indeterminate perception is the universal or titular property. In Apte’s Sanskrit Dictionary *vikalpa* is understood as something that is “made or prepared”. *Vikalpa* can also mean “doubt, uncertainty, indecision, hesitation or suspicion”. Thus, *savikalpa jñāna* is a cognition that is with *vikalpa* i.e., something that is prepared or made or even a contrivance. Recently, Douglas Berger, in an essay, “The Role of Imagination in Perception”, understands *vikalpa* as “imagination”, which is also found in the Sanskrit dictionary. Thus, Berger understands *savikalpa pratyakṣa* as a perception that results from the mingling of sensation with imagination. If this is so, then *nirvikalpaka pratyakṣa* can be understood as a *raw* sensation free from the imagination. See Indian Philosophy Blog, “The Role of Imagination in Perception” May 17, 2014. Accessed August 15, 2014. <http://indianphilosophyblog.org/2014/05/17/imagination-in-perception/>.

something). So if our cognition of an ordinary particular object is true, then we can say that our cognition has the property of *objectivity*.¹²⁷ Chakrabarti succinctly puts the Nyāya view, “It is because all cognitions are relational that the world is known to be a multiplicity of things that fit into each other like the links of a chain...” (2004, p. 4). The world is not a heap of unorganized particulars, relations, and universals; rather the world is an organized state of affairs of particulars-inherited-in-by-universals.

Contents of Our Sense-perceptual Cognition: Names, Concepts and Their Relations Refer to Particulars, Universals and Their Relations

If our cognition is qualificatively structured as Nyāya thinkers argue, then what are the *contents* of our sense-perceptual cognition? Since our sense-perceptual cognition is relational, it makes sense to think that the *contents* refer to things outside or external to our sense-perceptual cognition, which can be assessed as either being true or false. In other words, it seems that our sense-perceptual cognition refer to states-of-affairs that are constituted or composed of particulars, universals and their relations. Now this seems a little *philosophically* unfair because what contents shall phenomenologists, idealists and in general anti-realists use to characterize their sense-perception experience? Thus, in order to be fair, perhaps we ought to apply “neutral”

¹²⁷ Technically, objectivity (*viśayitā*) is a single cognition with three relational properties qualificandness (*viśeṣyatā*), relationality (*vaiśiṣṭyatā*) and the qualificierness (*viśeṣanatā*) (Sibajiban Bhattacharya, 1996, p.39 & Phillips and Tatacharya, 2004, p. 14). The Navya Nyāya philosophers are interested in the logic of cognition. This logic is really a relation that is described by a certain word order that captures the state of affairs of the world. Potter and Bhattacharya write, “...relation cannot function as a relation if it is denoted by a word [relation would then be a qualificand]. As every cognition-filled cognition is also necessarily a cognition of a relation, the cognition cannot involve a world denoting a relation. ...A relation functioning as a relation, not as a term, in a construction-filled cognition has therefore, to be indicated by word-order in the sentence expressing the cognition, but is never denoted by any word” (2011, p. 43). Also see J.L. Shaw (2010) *Navya-Nyāya on Subject-Predicate and Related Pairs*. Also see P.K. Sen & Amita Chatterjee *Navya-Nyāya Logic*. Lastly see, Ujjwala Jha (2004) *A Primer of Navya Nyāya Language and Methodology (Navya-Nyāya-Bhāṣa-Pradīpa of Mm Mahesha Chandra Nyayaratna)*.

terms to indicate the contents of our sense-perceptual cognition. For sake of clarity, I use names, concepts, and their relations as neutral terms that leave open any metaphysical bolstering. While concepts often but not always refer to universals, names, on the other hand, refer to something unique and unshareable. Although we usually think of *proper* names as tags that refer or designate a person as a particular substance, I would like to extend how names can indicate property particulars, actions, and phenomenological experiences.¹²⁸ So for example, if I am focused on the *particularity* of Frank's facial properties, I can express the content of my cognition as, "Frank is smiling". Not only is the particular subject tagged with a name "Frank", but also Frank's smile, which is unique to Frank (i.e. a trope or property particular), can be given a particular name. On the other hand, I can look at Frank's face in its *generality* and just see a smile and say, "Frank is smiling" conceptualizing it as *a* smile and not paying close attention to the uniqueness of his smile. Also, the content of my sense-perceptual cognition can indicate a phenomenological description (i.e. my own subjective feel) of Frank's face. In the previous chapter I tried to explain how sense-data theory not only could reveal the *manner* or *way* of an object, but also could help explain our sense-perceptual illusions. Indeed, if we pay closer attention to how an object is presented, then not only can we see into the uniqueness of particular properties of an object, but also we can learn to grasp concepts that previously lay *epistemically* hidden.

Something lying cognitively hidden can shed light on an indeterminate cognition

¹²⁸ What about a *contentless* cognition? Is it possible for our sense-perceptual cognition or just cognition in general exists free from names or concepts? Several concerns arise from such a question. A Kantian might remark that such cognition would not only be empty but blind. Other thinkers might argue that a *contentless* cognition would be an ideal cognitive state because it would be free from snarls of overt conceptualizations and linguistic obscurity. Furthermore, it seems that a *contentless* cognition could not be qualificatively structured since there is nothing to be qualified?

(*nirvikalpaka jñāna*). If our sense-perceptual cognition is indeterminate or non-qualificative (*nirvikalpaka*), then it is free from or devoid of any predication content (*niṣprakāra*).¹²⁹ I understand this to mean that although an ordinary object is structured or layered, the sense-perceiver is not aware of the *manner* or *mode* in how an object is being presented (i.e., *prakāra*).¹³⁰ Phillips & Tatacharaya describe the *prakāra* or *viśeṣana* as the *predication content* of how or *the way* the object is presented. It acts as the qualifier of the qualified object (2004, p.16).

For example, imagine trying to identify an object that is unfamiliar to you. You might say, “This is something” or “There is something over there”. On the other hand, imagine identifying an object that you are familiar with or have encountered in the past. Your sense-perceptual cognition of an ordinary object possesses prediction content because you can discern via memory how the object is being presented to you. You might say, “This is Ken” or “This is a police officer”, or “Ken is wearing a white shirt.” Thus, the following examples of sense-perception cognitions are qualificative cognitions (*savikalpaka jñāna*).¹³¹

¹²⁹ TS 47 (*Tatra*) *Niṣprakārakam jñānam nirvikalpakam. (Yathā ‘kiñcit idam’iti). Saprakārakam jñānam savikalpakam. Yathā — ‘Ḍittaḥ ayam’, brāhmaṇaḥ ayam, śyamaḥ ayam iti.*

That cognition (*jñānam*), which is without predication content (*niṣprakārakam*) is one without qualification or is non-qualificative (*nirvikalpakam*). Just as, “this is something” (*Yathā ‘kiñcit idam’iti*). That cognition with predication content is one with qualification or is qualificative or qualificatory. For example, “this is Ḍitta”, “this is a Brāhmaṇ”, “this is black”. The following examples, characterize cognition that concern a particular name, like a person called “Ḍitta”, a universal or kind, like a caste Brāhmaṇaḥ, and a quality like a color black (*śyamaḥ*).

Interestingly, what is not mentioned in the above passage is a qualificative cognition of an action such as “The rice is cooking”.

¹³⁰ The *prakāra* or *viśeṣana* is the *predication content* of how or *the way* the object is presented. It acts as the qualifier of the qualified object (Phillips & Tatacharaya, 2004, p.16).

¹³¹ The last example of “Ken wearing a white shirt” is a complex cognition with several qualifiers. First, Ken is being qualified by the qualifier of being a man (i.e., maness). Second,

Nyāya Controversy Concerning The Prior Definition of Sense-perception with its Current Definition of Sense-perception

A controversy that is not explicitly mentioned in *Tarkasaṃgraha-Dīpikā* or *Tattvacintāmaṇi* concerns whether the three adjectives qualifying sense-perception, non-verbal (*avyapadeśyam*), non-wandering (*avyabhicāri*) and being resolute (*vyavasāyātmakam*), can be adequately incorporated into either non-qualificative (*nirvikalpaka*) or qualificative cognition (*savikalpaka jñāna*)? It seems that the Nyāya thinker Vācaspati Miśra thought that non-verbal cognition (*avyapadeśyam*) could cover our understanding of non-qualificative cognition, while our cognition being resolute or well-defined (*vyavasāyātmakam*) could cover our understanding of a qualificative cognition (*savikalpaka jñāna*) (Potter, 1977, p. 461). Although it may be apparent that a non-qualificative cognition (*nirvikalpaka jñāna*) can cover *non-verbal* cognition (*avyapadeśyam*), it is less clear to assert that *all* qualificative cognition (*savikalpaka jñāna*) is somehow verbal. In other words, it is hard to imagine that all our qualified cognitions are “shot through with words” (Phillips, 2012, p. 35). One way to challenge the view that our cognition is “shot through with words” is simply to image how a child or a mute sense-perceives a prominent object. Our ability to sense-perceive seems independent from our language abilities.

Chakrabarti has emphasized in several papers that just because our sense experience is qualified that does not mean it is linguistic. “Thus *avyapadeśyam* can easily apply to *savikalpaka* perceptions, insofar as even a piece of sensory knowledge that can be communicated in words does not need those (or other) words as its *cause* or *object*. The perception of a leaf as green neither is caused by nor is a perception of the word ‘green’ ” (2000, p. 5).

he is also being qualified by a particular shirt. Third, his particular shirt is qualified by the qualifier shirtness. Fourth, his particular shirt is being qualified by a particular shade of white. And fifth, this particular white is being qualified by qualifier whiteness.

What about our sense-perceptual cognition being resolute (*vyavasāyātmakam*) and non-wandering (*avyabhicāri*)? If our sense-perception is qualificative, then does it mean it is non-wandering and resolute? In the previous chapter I mentioned that a resolute (*vyavasāyātmakam*) sense-perception is one that is free from doubt or hesitation. The source of doubt can stem from sense-perceptual noise e.g., fog or bad lighting. I also said that, a sense-perceptual cognition must be faithful and not wander (*avyabhicāri*) — faithful, in the sense of being true to the object. I think the Nyāya thinkers like Bhāsarvajña and Vācaspati Miśra were on the right track if they thought that the character of a qualificative sense-perceptual cognition (*savikalpaka jñāna*) ought to be faithful and free of doubt. But they may have overlooked how a resolute (*vyavasāyātmakam*) sense-perception could be characterized as a non-qualificative cognition (*nirvikalpaka jñāna*). For example, imagine looking at an object in the fog. Although the fog blocks us from making a resolute sense-perception because we are unable to *qualify* whether the object is a man or a post, we are still able to say, “This is something” or “Something is over there”. Although it is not a resolute sense-perception it still could fall into a kind of non-qualificative (*nirvikalpaka*) cognition.

Now there is a bigger controversy than the disparities between Nyāya’s prior definition with its current definition of sense-perception, namely whether we should even consider a non-qualificative cognition (*nirvikalpaka jñāna*) as an instance of sense-perceptual knowledge. In the following section I try to explain in more detail a non-qualificative cognition.

Non-qualificative or Indeterminate Cognition (*nirvikalpaka jñāna*)

Is there a world out there that can be cognized in the manner of a qualificative cognition (*savikalpaka jñāna*)? Nyāya thinkers understand that our world and our cognition about our world work in tandem. If our investigations of the natural and metaphysical world compliment

(A) Concept Qualifier

(F) Concept Qualifier

(a) Qualificand

Particular Qualifier for (a) and qualificand (f) for concept (F)

Earlier, I mentioned that the definition of a non-qualificative cognition (*nivikalpaka jñāna*) is a cognition that is without predication content (*nisprakāra*). When I say “without predication content” I mean the way or manner the particular object is presented is not recognized by the sense-perceiver. It is not the case that the particular object is free from having a *mode* or *manner*, rather the sense-perceiver is simply not aware of *the way* the object is being presented. The person either lacks the *concept* to describe the sense-perceptual object, or perhaps he cannot recognize the property particular i.e., *manner* or *mode* of how the qualifier is expressed. In either case, it does not mean the cognition cannot be expressed as an indeterminate statement. Nyāya thinkers conclude that cognitions that lack a qualifier can result in statements like “this is something”.¹³²

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It seems that there are three ways a person can lack recognizing a qualifier. One, a person can lack the conceptual qualifier with respect to the object, or two, they can lack recognizing the property particular or quality qualifier (i.e., trope) with respect to the object, or three, they can lack the conceptual qualifier with respect to the property particular (i.e., trope). But what occasion would our cognition lack a qualifier (i.e., cognition without predication content)? Here I will try to imagine various scenarios that might fit the definition of a non-qualificative sense-perceptual cognition. Earlier I mentioned a scenario where *noise* in a semitransparent medium interrupts a person from sense-perceiving an object. For example, in foggy or misty weather, imagine seeing John walking with an indistinct object in his hand. You recognize via sense-perception that is John holding on to *something* in his hand, but you cannot discern the qualifier (i.e., the staff) since it is momentarily not visually available. Thus, you are unable to sense-perceive John as a staff-bearer. Although you can sense-perceive that it is a person, i.e. John, you cannot say that John is a staff-bearer. The concept of being a staff-bearer is not recognized because the particular staff is not seen. Indeed, if the fog or mist is very thick you may not even discern whether the object is a person because you are unable to recognize the shape or the form of the qualifier that distinguishes this object as possibly being a person. Thus, you might say, “There is someone or something over there”.

The idea of noise as a kind of medium that blocks or interrupts our ability to recognize a qualifier can also apply to an object that overwhelms our sense-perceptual cognition. Maybe the particular qualifiers are so variegated with rich colors and with various shapes, which overload our sense-perceptual cognition. We may have a difficult time focusing our attention on a

particular tomato is qualified by the *concept* qualifier a tomato (which refers to universal *tomatiness*), and by the particular qualifier i.e., the particular red shade. The concept red does not qualify the particular tomato, red is a concept qualifier for the particular shade of red.

specific part of the object due to the complexity of the qualifiers. For example, imagine trying to listen to fast tempo, high improvisational bebop jazz or looking at a highly abstract painting or sculpture.

Indeed, our inability to recognize a qualifier in a complex object due its rapid speed, also suggest that objects that are momentary or our experience of an object as momentary can leave us lacking a qualifier. Imagine traveling in a subway and witnessing a flurry of signs. We see some kind of object (i.e. qualificand) but cannot adequately grasp its qualifier because the qualifier appears fuzzy and indistinct.

Another scenario that our cognitions appear to lack a qualifier is when we have an initial sense-perception of the object that is not previously recorded in our memory. One can imagine a toddler's wonderment as they sense-perceive new objects in school, or maybe a tourist's astonishment as they shop in an exotic street market. In either case their cognition lacks a qualifier because they have no way to conceptualize their sense-perception of such new and novel objects.

So far I have been thinking of scenarios where a sense-perceiver lacks recognizing a qualifier in a qualificative cognition. Often when we lack a qualifier we will not recognize the qualificand. But we can also think of scenarios where the qualificand is not recognized however the property particular qualifier is recognized. For example, when we see some unfamiliar object burning in a fire. We say, "Something is on fire". It might be butane, gasoline or a piece of wood. All we are aware of is that something is on fire. Or perhaps we see some object in the distance and see a glow or sheen, but not knowing what object is in fact glowing or shining. Although the object's particular quality is being recognized i.e., the particular shine or glow, we do not recognize the object's conceptual qualifier i.e., what the object is. Furthermore, although

the conceptual and the particular qualifiers are not revealing the object, the location can be revealed. We say, “Something here is on fire”, or “Something over there is shiny”. The *here* and *there* indicate the location of the unknown qualificand object.

So far I have been writing about non-qualificative or indeterminate cognitions where one or both of its qualificative components i.e., qualifier or qualificand is lacking. Indeed, one or both of the components are often substituted by the word “something”. But it seems to me that even if the object is new and unrecorded in our memory, we might be capable of offering some descriptions of the object (i.e., qualificand). If the object is not momentary, then we might have an opportunity to look at the object again, paying closer attention to the *mode* or *way* the property particulars of the object is expressed. But even if the object is momentary, we still can offer some basic description(s) of the object.

Thus, it seems to me that when we have a non-qualificative cognition we can either emphasize what is lacking in our cognition or what remains in our cognition. For example, if we are familiar with bicycle tires and their shape, then when we look at a bicycle tire we can say, “This bicycle tire is circular”. If we are unfamiliar with bicycle tires, then we can make an indeterminate or non-qualificative statement, “Something is circular”. Although I sense-perceive the particular bicycle tire (i.e. the qualificand), I lack the concept qualifier *bicycleness*. On the other hand, what remains in my cognition is my ability to recognize the particular shape. But if I recognize the shape of the bicycle tire, then I must have had the concept qualifier *circularity*, otherwise how could I have said, “this is circular”?

On the one hand it is not difficult imagining a scenario for a person to have an indeterminate sense-perceptual cognition with respect to identifying an object. However, I find it more challenging to imagine a situation for a person to be absolutely clueless about the

property particulars, which act as qualifiers of an object. Perhaps, the only occasion that immediately comes to mind is where the object is being obstructed in a way that the sense perceiver really stands clueless to the object and its properties.

But for the sake of argument if we can imagine a scenario where a sense-perceiver possesses an absolutely indeterminate cognition free from any qualifiers that can only be expressed as a “something” statement i.e., “This is something” or “Something is over there”, then in what sense is such an indeterminate cognition an instance of knowledge? Although the content of the cognition is *epistemically* hidden, the sense-perceiver knows that something occurred in a particular location. If something happened in that location, and a person sense-perceives that something happened there, although he does not know what in specific happened, he still has knowledge that something happened. Thus, the particular location (i.e., qualificand) is qualified by *something* (i.e., qualifier).

Earlier I mentioned that a better understanding of indeterminate cognition involves explaining what components are missing in our cognition and what components remains. In the *Tattvacintāmaṇi*, Gaṅgeśa offers two important insights in his definition of indeterminate cognition. One, that indeterminate sense-perceptual cognition (*nirvikalpaka pratyakṣam*) is a cognition that does not penetrate or make its way into being tied to the qualificand. In other words, it is not tied in a relational way (*vaiśiṣṭya*) to the qualificand. Two, Gaṅgeśa understands “without predication content” (*niṣprakāraṇam*) to mean a cognition that does not require a qualifier to qualify itself. Thus, a *nirvikalpaka* cognition is an *unhinged* unqualified qualifier. In the philosophical literature it is also known as an *immaculate* or *pure* perception.¹³³ Phillips &

¹³³ Tac ca pratyakṣa dvi-vidham nirvikalpakaṁ savikalpakaṁ ca iti | Tatra nāma-jātyādi-yojanā-rahitaṁ vaiśiṣṭyan-avagāhi niṣprakāraṇam nirvikalpakaṁ | (Phillips & Tatacharaya, 2004, p. 609).

Tatacharaya writes,

The qualifier has to be available, and the best candidate is its perception in the raw, 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, though, again, it would not be grasped as a universal or as anything except itself (Phillips & Tatacharaya, 2004, p. 610).

Earlier I had mentioned that our indeterminate cognitions (*nirvikalpaka jñāna*) appear to lack a qualifier when we have an initial sense-perception of some object that is not previously recorded in our memory e.g., when we sense-perceive an unfamiliar object and say, “This is something”. Interestingly, Gaṅgeśa, analyzes an indeterminate cognition (*nirvikalpaka jñāna*) a little differently. For Gaṅgeśa when we have a determinate or qualificative cognition (*savikalpaka jñāna*) of an object, which has not been previously recorded in our memory, then what explains our ability to cognize an object as that object is an indeterminate or non-qualificative cognition (*nirvikalpaka jñāna*). “When a person for the first time in his life has the perceptual cognition, “(That’s a cow),” that cognition is generated by an (indeterminate) cognition of a qualifier, a cognition that is itself generated, since it is a generated cognition of an entity as qualified, like an inferential awareness. And it is not the case that a remembering could be (prior) cognition with this example. For he has not had in this life any experience of cowhood” (Phillips & Tatacharaya, 2004, p. 627).

Gaṅgeśa’s use of the word “*nirvikalpaka*” is a little confusing because he understands

And (*ca*) that (*tat*) perception (*pratyakṣam*) is of two sorts (*dvi-vidham*) *nirvikalpakaṃ* and *savikalpakaṃ*. *Nirvikalpakaṃ* is separated from (*rahitam*) the tie (*yojanā*) of universal (*jāti*) and object (*nāma*) etc. It does not penetrate (*an-avagāhi*) the qualificative relation (*vaiśiṣṭya*) and it is without a mode of presentation.

nirvikalpaka jñāna very differently from Yogācāra Buddhists.¹³⁴ Where Yogācāra Buddhist understands *nirvikalpaka pratyakṣa* to refer to the pure or bare particular *svalakṣaṇa*, Gaṅgeśa understands *nirvikalpaka jñāna* as a *pure* conceptual cognition (i.e., a non-structural conception) that often refers to an eternal universal. Furthermore, Yogācāra Buddhists understand *nirvikalpaka jñāna* as cognition that can carry its own illumination i.e., self-aware (*svaprakāśa*) (Matilal, 1986, p. 343). However for Gaṅgeśa, the pure conceptual content of a *nirvikalpaka jñāna* cannot consciously be cognized i.e., introspectively or as an after or apperceptive cognition (*anuvyavasāya*).

How can we explain such contrary understanding of *nirvikalpaka jñāna*? Perhaps Gaṅgeśa understands “*vikalpa*” to mean something that is “prepared, contrived, fashioned”. If so, then he might understand “*nir-vikalpa*” as something that is without contrivance...something that is genuine or pure. Thus, for the Yogācāra Buddhists understand *nirvikalpaka pratyakṣa* to refer to the *pure* particular *svalakṣaṇa*, but for Gaṅgeśa what is pure or genuine is the eternal universal. Thus, *nirvikalpaka jñāna* is a pure concept referring to a universal.

Why think *nirvikalpaka jñāna* as a free-floating or an *unhinged* conceptual qualifier exists? Since it cannot be accessed introspectively, why think there exists an indeterminate cognition, which in all honesty seems rather fantastic i.e., something “neither divorced nor joined, and, furthermore, not as qualified by another qualifier”?

Justification of Non-qualificative or Indeterminate Cognition

The commentary in Section 47 of the *Tarkasaṃgraha-Dīpikā* offers two related

¹³⁴ Chakrabarti says, “Buddhist would not be happy when they learn that the Naiyāyika immaculate perception often takes the form of a direct acquaintance with a universal! How on earth, the Buddhist Nominalist will wonder could they start calling the bare awareness of a sheer *vikalpa* ‘a *nirvikalpaka* perception’?” (2000, p.7).

arguments that establish a non-qualificative qualifier.¹³⁵ The first argument is based upon how a qualificative cognition (*savikalpaka jñāna*) *causally depends* on the cognition of a qualifier, while the second argument is based on how a non-qualificative cognition, which acts as an *unqualified* qualifier, stops an *epistemic* regress of qualifiers.

The first argument concludes that our qualificative cognition such as our sense-perceptual cognition of a cow arise from a cognition of a qualifier (i.e., *cowness*) because a qualificative cognition is actually a qualified cognition, not unlike our qualificative cognition of a person holding a staff.¹³⁶ Below is a brief structure of this argument.

An Argument for sense-perceptual cognitions caused by a cognition of a qualifier

P1: All qualified cognitions are caused by our cognition of a qualifier.

P2: Our sense-perceptual cognition of a cow is actually a qualified cognition.

¹³⁵ TSD 47. *nirvikalpakasya lakṣaṇam āha — ‘niṣprakāraṇam’ iti. Viśeṣaṇaviśeṣya-sambandhānavagāhi jñānam ityārthaḥ. ‘Nanu nirvikalpake kim pramāṇam’ iti cet na; ‘gauḥ’ iti viśiṣṭajñānam viśeṣaṇajñānanyam viśiṣṭajñānatvāt daṇḍi iti jñānavat’ ity anumānasya pramāṇatvāt. Viśeṣaṇajñānasya api savikalpakatve anavastāprasāṅgāt nirvikalpakasiddhiḥ. Savikalpakam lakṣayati — ‘saprakāraṇam’ iti. Nāmajātyādiviśeṣaṇaviśeṣya-sambandhānavagāhi jñānam ityārthaḥ. Savikalpakam udāharati, ‘yathā’ iti*

It is stated (*āha*) that the definition (*lakṣaṇam*) of *nirvikalpaka* is ‘*niṣprakāraṇam*’. The object (*arthaḥ*), which is a cognition (*jñānam*) that does not enter into (*anavagāhi*) a relation (*sambandha*) between the qualificand (*viśeṣya*) and the qualifier (*viśeṣaṇa*). Objection (*nanu*): “What (kim) is the proof or the reliable means (*pramāṇa*) in showing *nirvikalpaka*?” This should not be said (*cet na*) the proof or reliability (*pramāṇatvāt*) is in the form of an inference (*anumānasya*). “A cow” is a qualified cognition (*viśiṣṭa-jñānam*) that arises (*janyam*) from a qualifier cognition (*viśeṣaṇa-jñānam*) due to it being a qualified cognition (*viśiṣṭa-jñānatvāt*) like the cognition (*jñānavat*) “a person carrying a stick”. Also the establishment of *nirvikalpaka* is from the difficulty (*aprasāṅgāt*) of an infinite regress (*anavastha*) when there is the qualification (*savikalpakatve*) of a qualifier cognition (*viśeṣaṇa-jñānasya*). Qualification (*savikalpakam*) [or qualified cognition] was defined (*lakṣayati*) as that which has a predication content “*saprakāraṇam*”. The object (*arthaḥ*), which is a cognition (*jñānam*) that enter into (*avagāhi*) a relation (*sambandha*) between the qualificand (*viśeṣya*) and the qualifier (*viśeṣaṇa*) such as a particular name, universal, etc. *Savikalpakam* is illustrated just as that (*yathā*).

¹³⁶ Also, please see Monima Chanda (2014), *Knowing Universals the Nyāya Way*.

C: Therefore, our sense-perceptual cognition of a cow is actually caused by our cognition of a qualifier.

Although this argument is very brief, it reveals an important idea about how our sense-perceptual cognition of an ordinary object is actually a qualified cognition. The idea of a cognition being qualified means it is being limited or modified or determined by some qualifier. In short, the subject of our sense-perceptual cognition is being qualified by some qualifier. And being cognizant of a qualifier is required, otherwise how could we apply such a qualifier to the subject of our cognition? It makes no sense to assert that Bessie is a cow, if I am clueless about what a cow is.

If the heart of the above argument is about the relation between the qualificand and the qualifier, then I think it is natural to question how to recognize a qualifier? For example, if I sense-perceive a man with a red hat, then the man is qualified by the red hat. The red hat acts as a qualifier in my cognition. But how do I recognize the red hat? Well, I must have sense-perceived red hats in my past, or red objects and hats in my past, otherwise how could it be a qualifier of my sense-perception of the man with the red hat? But that seems to suggest that I have not only recognized *hatness* in the past, but also I have recognized *redness* (i.e., my qualificative cognition of a hat must have been caused by the qualifier *hatness*, and similarly my cognition of red must have been caused by the qualifier *redness*). But now when I ask, how did I come to recognize *hatness* and *redness*? It seems that a qualifier will have to have been a qualificand of some other qualifier, and if so, then we seem on the path towards an *infinite regress* of qualifiers (G.Bhattacharya, 1983, p. 174-175). The following is a formal argument of the infinite regress of qualifiers. I have formatted the argument in terms of *recognition* of qualifiers.

Argument for the Regress of our Recognition of Qualifiers

- P1: In order to recognize an ordinary object, it must be presented or qualified under some qualifier.
- P2: But the qualifier in P1 itself must also be recognized.
- P3: So in order for the qualifier in P1 to be recognized, requires a second cognition where the qualifier in P1 is qualified by a second qualifier.
- P4: But this second qualifier itself must also be recognized.
- P5: So in order for the second qualifier in P3 to be recognized, requires a third cognition where the second qualifier in P3 is qualified by a third qualifier.
- C: Therefore, if we desire to be cognizant of an ordinary object, we seem to be locked into an *infinite regress* of qualifiers.

To set the brakes on the above regress, the Nyāya thinkers like Gaṅgeśa argue for an *indeterminate cognition* of a universal. Basically, P3 of the above argument is false because an *indeterminate cognition of qualifier* refers to a universal that does not require being qualified by another qualifier. The cognition of a universal as an *unqualified qualifier* is not only untainted from any kind of *way* or *mode* of presentation but also free from another qualifier (e.g., higher order qualifiers).¹³⁷

The previous argument for “sense-perceptual cognitions caused by a cognition of qualifier” could be altered to justify the existence of an indeterminate cognition of a universal. Instead of asserting that, “All qualified cognitions are caused by our cognition of a qualifier”, we can state if the qualifier is not a property particular, (i.e., trope) then all qualified cognitions are caused by an *indeterminate cognition* of a qualifier, which can refer to a universal. Our qualified

¹³⁷ I mention immanent universal, but according to Nyāya philosophers a titular property may act as a regress stopper as well. I explain titular or surplus properties (*upādhi*) in the following chapter.

cognitions of substantial objects e.g. hats and cows or property particulars e.g., colors and shapes or particular actions e.g., a particular walk require an indeterminate cognition. Thus, an indeterminate cognition is indispensable with respect to our knowledge of immanent universals.¹³⁸

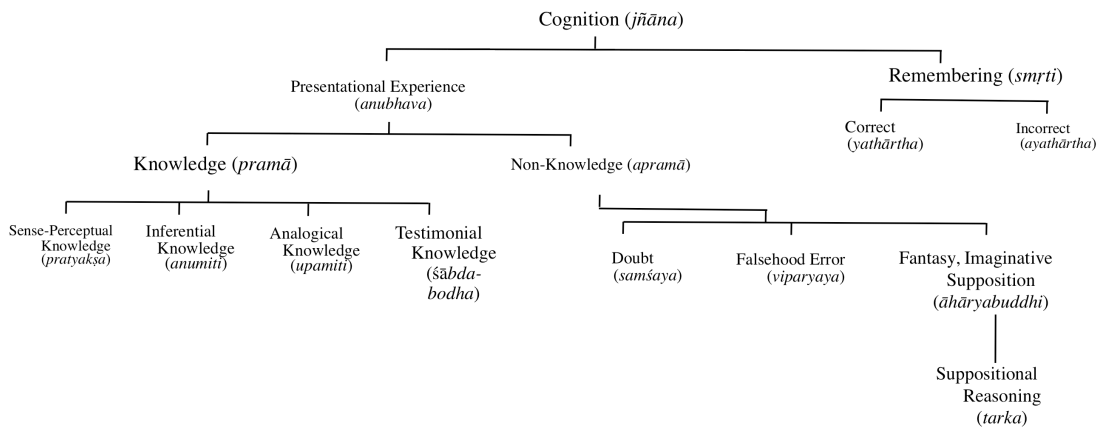
In this section I have argued that we can have knowledge of immanent universals through a qualified cognition (*savikalpaka jñāna*) caused by our sense-perception of an ordinary object, or we can have knowledge of immanent universals through a non-qualified cognition (*nirvikalpaka jñāna*) brought about by an inference. Before I end this section one question lingers, in what way is an indeterminate cognition an instance of knowledge? In his paper, *Against Immaculate Perception: Seven Reasons for Eliminating Nirvikalpaka Perception from Nyāya*, Chakrabarti raises this specific objection against immaculate perception (*nirvikalpaka pratyakṣa*). “The worst penalty that Nyāya pays for accommodating this myth of the pure given is that perception, which is introduced, taxonomically, as a variety of veridical awareness (*pramā*), comes to have a sub-variety that is not a veridical awareness insofar as veridicality, in Nyāya, requires predicative structure and *nirvikalpaka* has none. If all perceptions have to be either true or false, then no perception can be pre-predicative” (2000, p. 6).

Earlier I mentioned that if an indeterminate cognition can be expressed as a kind of “This is something” type of statement, then it is possible for such a statement to be true or false. On

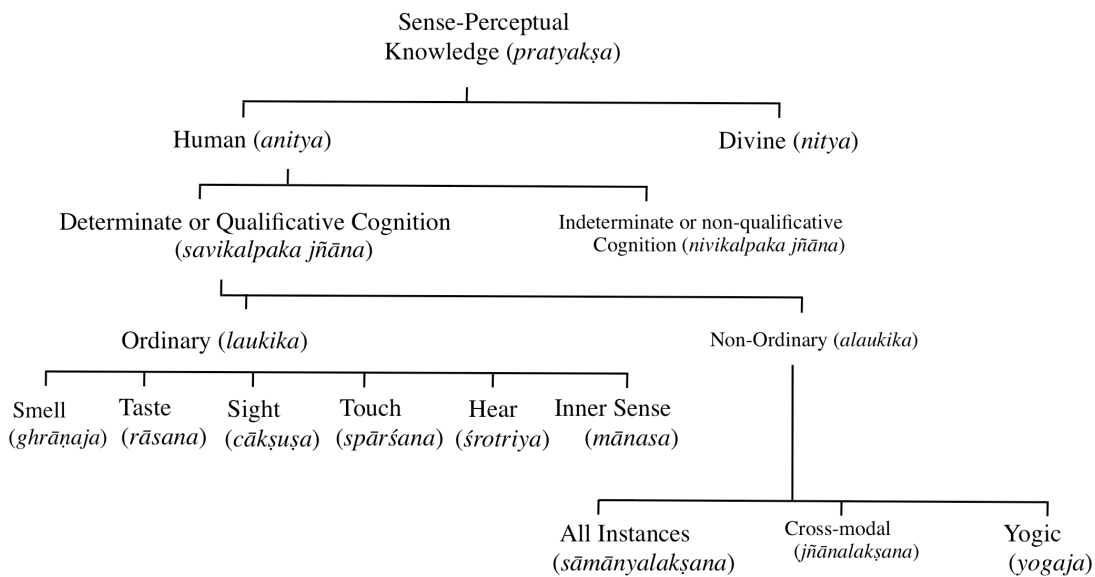
¹³⁸ But from where did we get the qualifier i.e., universal? The source of the qualifier is usually from our memory power or disposition (*saṃskāra*). Our memory disposition of the qualifier plays a causal factor in our determinate cognition. But from where did our memory obtain the universal? Now a common view of Indian and Platonic philosophers is the belief in previous births. Even if previous births are true, we still need a way to explain the first instance of acquiring the universal? Thus, Nyāya thinkers are arguing for an indeterminate sense-perceptual cognition of a universal. Another possibility is innate ideas. Although Nyāya thinkers do not entertain innate ideas, it seems to me that one universal that seems innate is the universal *equality*.

the other hand, if we are trying to assess an indeterminate cognition in its immaculate form as a free floating unqualified qualifier that is neither divorced nor joined to a qualified cognition, then Chakrabarti's objection is apt. In his essay, "There's nothing wrong with Raw Perception: A Response to Chakrabarti's Attack on Nyāya's *Nirvikalpaka Pratyakṣa*", Stephen Phillips' response to Chakrabarti's above objection is a little confusing because Phillips argues "being true" i.e., veridicality is not a real property of sense-perception, rather veridicality is a titular or surplus property (*upādhi*). Furthermore, Phillips says, "in the face of overwhelming evidence for a pervasion (*vyāpti*) or causal principle, taxonomical considerations take a secondary place. A casual discovery might urge us to revise our taxonomy, but a taxonomical difficulty would not undercut the evidence for a *vyāpti*" (2001, p. 109). In other words, taxonomical issues take a backseat to a causal principle such as an indeterminate cognition being causally responsible for a qualified cognition.¹³⁹

¹³⁹ Please see Nyāya taxonomy of cognition (Phillips, 2012, p. 29 & Potter, 1977, p. 154). Also please see Rao Bahadur Yaśavanta Vāsudev Athalye (Y. V. Athalye, 1863, p. 213).



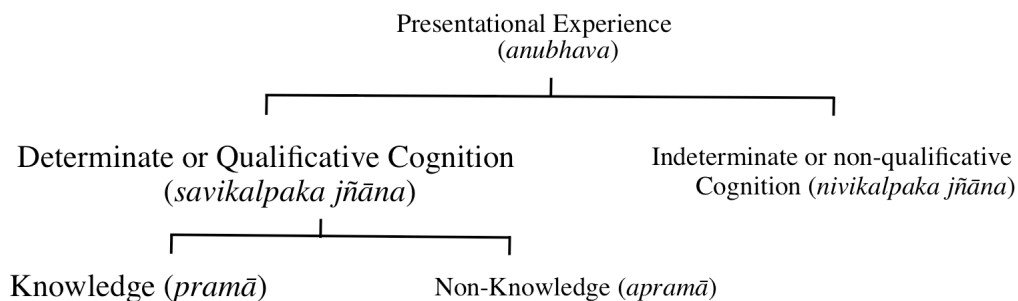
My principal concern was whether an indeterminate cognition is an instance of knowledge? Now, if truth is a necessary condition for knowledge, then sense-perceptual knowledge must also be true i.e., veridical. Phillip's reply to Chakrabarti is a little confusing because it is unclear how *veridicality* not being a real property is pertinent to whether sense-perceptual indeterminate cognition is an instance of knowledge. Perhaps Phillips is arguing that sense-perception as a brute or raw *sensation* is foremost a means for acquiring an immanent universal, and *veridicality* is not an intrinsic property of sense-perception? Maybe, Phillips thinks veridicality comes later down stream as we evaluate our sense-perceptual cognition? In other words, indeterminate sense-perception (*nirvikalpaka pratyakṣa*) is free from being true or false, although it is causally responsible for producing a qualified cognition? I hesitate in believing that Phillips supports such beliefs, nevertheless, I think Chakrabarti's objection still stands. It seems to me that both philosophers have important viewpoints, which leads me to think that both philosophers are right. Chakrabarti is right in-so-far as indeterminate cognition (*nirvikalpaka jñāna*) itself as a free-floating unqualified qualifier cannot be adequately



understood as an instance of knowledge, and thus should not fall under the banner of sense-perceptual knowledge. And Phillips is right in-so-far as our taxonomy ought to take a back seat to a causal principle (i.e., indeterminate cognition (*nirvikalpaka jñāna*) being causally responsible for a qualified cognition). If we reconsider indeterminate cognition in Nyāya's cognitive taxonomy, then we can preserve both Chakrabarti and Phillips' viewpoints. In his explanatory notes, Y. V. Athalye, places indeterminate (*nirvikalpaka*) and determinate (*savikalpaka*) cognition immediately under presentational experience (*anubhava*), and knowledge (*pramā*) and non-knowledge (*apramā*) under determinate cognition (*savikalpaka jñāna*), thus excluding indeterminate cognition as an instance of knowledge.¹⁴⁰ "It [indeterminate cognition] can be neither *pramā* [knowledge] nor *apramā* [non-knowledge], for as is no *prakāratā* [way of being presented] neither the definition *tatvati tatprakāravattvaṃ* [that which conform to possessing a manner or mode] nor *atatvati tatprakāravattvaṃ* [that which does not conform to possessing a manner or mode] applies to it. It is no doubt *jñāna* [cognition] but *jñāna* of a peculiar kind and quite distinct from other cognitions" (1863, p. 219).

One other possible solution or partial solution, is to place indeterminate cognition under yogic sense-perception. Perhaps under deep meditation or trance, a yogi cognizes a universal as

¹⁴⁰ Please see Y V Athalye reorganizing Nyāya Cognitive Taxonomy (1863, p. 219).



it is. Although it is not mentioned in the Nyāya text, Bronkhorst has suggests that in the *Yoga Sūtra* 1.9 and in particular 1.42 and 1.43 indicates that indeterminate cognition is fully accessible to a yogi in a meditative trance.

The same term [vikalpa] occurs again in *YS* 1.42: *tatra śabdārthajñānavikalpaiḥ saṃkīrṇā savitarkā samāpattiḥ*. “The meditational attainment with *vitarka* is mixed with conceptual constructs regarding words, things and cognitions.” It is understood in the immediately following sūtra, *YS* 1.43: *smṛtipariśuddhau svarūpaśūnyevārthamātranirbhāsā nirvitarkā*, “When the memory is purified, {the meditational attainment} without *vitarka*, which is as it were empty of itself and in which only the object shines forth {comes about} (2011, p. 373).

If a universal “shines forth” in our indeterminate cognition while being in a meditative trance, then it seems that this cognition is an instance of knowledge... but not an ordinary case of knowledge. In fact, we may need another way to think about true cognitions that are not predicatively structured. Although details of such a mental cognition involve speculations that are beyond the scope of this chapter, I hope philosophers are not quick to dismiss yogic perception as “hairy scary metaphysics”. Perhaps our modern psychology along with hundreds of years of testimony of classically trained yoga professionals can offer some insights into such cognitions.

Summary

In summary I have argued that our sense-perceptual abilities can help us to recognize universals inherent in their particulars. Perhaps the most intuitive demonstration for recognizing immanent universals is seeing *the* cup on your desk *as a* cup. Platonists, on the one hand, are suspicious of sense-perceptual knowledge of universals because for them, knowledge of universals can only be known through reflecting upon our judgments. On the other hand, Buddhists nominalists are suspicious of sense-perceptual knowledge of universals because for

them, not only do they not believe in universals but, more importantly they think that a strict understanding of sense-perception does not involve concepts. I tried to explain how Nyāya thinkers, especially Jayanta Bhaṭṭa split the middle. For Jayanta our ability to notice a universal in a later cognition while presently sense-perceiving a particular object is known as recognition. To recognize an object is to grasp that *felt* sense of similarity. Jayanta argues that when we have a felt sense of commonality or similarity, then we have actually sense-perceived a universal. One way to explain that felt sense of similarity is by closely examining our cognitive structure as we sense-perceive a particular object. For Nyāya thinkers the structure of our cognition constitutes three components (aRb): (a) qualificand (*viśeṣya*), (R) relation (*vaiśiṣṭya*) and the (b) qualifier (*viśeṣana*). The qualificand is more or less the thing that is qualified by the qualifier. The Nyāya thinkers understand that our world and our cognition about the world work in tandem. Thus, our cognition is structured in a way that nicely reflects the structure of an object. If we think of the world not as a heap of unorganized entities, but rather the world is an organized state of affairs of particulars-inherited-in-by-universals, then we can begin to understand how we can sense-perceive immanent universals. When we look at a familiar object, not only do we recognize the particularity of the individual object (i.e., its uniqueness), but also we can recognize it as a non-particular individual (i.e., as a universal). The recognition of an ordinary object can be expressed verbally e.g., when we see a cow we can say, “This is a cow”. But what if we are unfamiliar with the object? Can we sense-perceive an *immanent* universal inherent in an unfamiliar object? According to some Nyāya thinkers, Yes! Although we are not introspectively aware of the universal *as* a universal qualifier, Nyāya thinkers like Gaṅgeśa argue for an indeterminate or non-qualificative cognition (*nirvikalpaka jñāna*). The content of an indeterminate cognition is not a non-conceptual construction of a pure particular (*svalakṣana*)

rather it is a non-structural conception of a pure universal (i.e., free-floating unqualified qualifier). The justification of an indeterminate cognition is due to a basic principle that all qualified cognitions are caused by an indeterminate cognition of an unqualified qualifier. Furthermore, we can clearly understand this causal principle in the way that an unqualified qualifier puts an end to an *infinite* regress of qualified cognitions. Under normal circumstances, although we do not recognize a universal in an indeterminate cognition, it does not mean a universal is unrecognizable in a qualified cognition.

Chapter V. Outstanding Objections and Replies

Honest differences are often a healthy sign of progress.

Mahatma Gandhi
Young India, July 17, 1920

In the previous chapter, I explained how we can sense-perceive immanent universals via recognition. In this chapter I raise three objections to that claim and then reply to and explore each objection.

First Objection: The Infinite Regress of Qualifiers

It seems that the *infinite regress* of qualifiers is an *epistemic* regress. If so, then instead of a person possessing a non-qualificative or indeterminate cognition (*nirvikalpaka jñāna*) of an immanent universal to block the regress, is it possible for a person to simply grasp a concept that *blocks* or *prevents* the regress of qualifiers?

Background: Getting to the Bottom of Indeterminate Foundationalism

In the previous chapter I tried to explain and defend the view that our sense-perceptual cognition of an ordinary object is actually always a qualified cognition (of the form ‘this is such’, e.g.: That’s a mango, this is a cardinal, or this is salty). However, the idea of a cognition being qualified or having a qualificative content, means that it’s chief intentional object (the qualifcand/*viśeṣya*) is being limited or modified or determined by some qualifier. In short, the subject-term of our sense-perceptual judgment is being qualified by some qualifier. Since we cannot apply a qualifier unless we are aware of it, being cognizant of a qualifier is required, otherwise how could we apply such a qualifier to the subject of our cognition? It makes no sense to assert or sense-perceive that Bessie is a cow, if I am clueless about what a cow is. This led to a possible *infinite regress*, because it seems that a qualifier will have to have been qualified by some other qualifiers. If so, then we seem to be on the path towards an *infinite regress* of

qualifiers. I called it an *epistemic* infinite regress of qualifiers because it seems a person must *know* the qualifier prior to asserting a determinate statement or perceiving a predicate-rich content. To stop this regress Nyāya thinkers posit an indeterminate cognition (*nirvikalpaka jñāna*) of an unqualified qualifier that often refers to a universal.

But can an indeterminate or non-qualificative cognition (*nirvikalpaka jñāna*) act as a foundational cognition for an empirical cognition? I think it is worthwhile to compare an indeterminate cognition to an empirical *basic belief* posited by the Western foundationalists (such as Roderick Chisholm), since they both attempt to stop a runaway *epistemic* regress with a non-inferential justified cognition or belief.

Indeed one obvious worry, which was raised in the previous chapter, was whether, given that any awareness which plays an epistemic role must have a determinate (at least minimally conceptual) content, an indeterminate cognition of an unqualified qualifier can itself play any epistemic role? Some Nyāya thinkers conclude that an indeterminate cognition can and does play an *epistemic* role because an indeterminate cognition is acquired by a reliable sense-perception. In other words, if sense-perception (*pratyakṣa*) is a reliable means of knowledge (*pramāṇa*), and if the content of my indeterminate cognition (*nirvikalpaka jñāna*) is acquired by sense-perception (*pratyakṣa*), then it seems that an indeterminate cognition is an instance of knowledge. However, I was also concerned that if sense-perception has to be capable of being either true or false, then how could an indeterminate cognition, which has for its content something that is pre-predicative (i.e., an immaculate, free floating, unqualified qualifier that is neither divorced nor joined to a qualificative cognition) bear being veridical?

Thus it does not seem that an indeterminate cognition (*nirvikalpaka jñāna*) can play an epistemic role. In the previous chapter, I explained Y. V. Athalye suggestion that indeterminate

(*nirvikalpaka*) and determinate (*savikalpaka*) cognition as a presentational experience (*anubhava*), however only determinate cognition (*savikalpaka jñāna*) can be characterized as knowledge (*pramā*) or non-knowledge (*apramā*), thus excluding indeterminate cognition as an instance of knowledge. But if an indeterminate cognition (*nirvikalpaka jñāna*) is not an instance of knowledge, then how could it act as a foundation for other determinate cognitions? Thus, we seem to have a *dilemma* concerning the *epistemic* status of an indeterminate cognition (*nirvikalpaka jñāna*). On the one hand, if an indeterminate cognition is an instance of knowledge, then an explanation is required concerning how an indeterminate cognition can bear being veridical. On the other hand, if an indeterminate cognition is not an instance of knowledge, then an explanation is required concerning how an indeterminate cognition can act as an *epistemic* foundation for other veridical determinate cognitions.

Reply: The relation between indeterminate cognition and determinate cognition is a causal-operational relation rather than an epistemic relation.

The *regress* of qualifiers does not end with an “*epistemic*” indeterminate cognition of an unqualified qualifier. On the contrary, the *regress* of qualifiers ends with an indeterminate cognition of an unqualified qualifier that plays a *constitutive* causal role for a determinate cognition.

The regress of qualifiers is based upon a belief that in order to correctly identify an object, a person needs to know what that object is. Universals help us know what an object is. When I say, “to correctly identify an object”, I mean a truthful cognition about some object that we sense-perceive in the world. Earlier I mentioned that our sense-perceptual cognition is actually *structured* as a qualificative cognition. When Nyāya thinkers use the phrase “qualified cognition”, I take them to mean that our cognition have members that are distinguishable. The

content of my cognition such as *Frank wearing a red hat* is different from my cognition of *Frank wearing a green hat* or *Frank taking off a red hat* or *Ken wearing a red hat*. Nyāya thinkers seem to conclude that the members of our cognition are distinguishable because they *refer* to different entities. If that is true, then it makes a lot of sense that our cognition is composed of a qualificand (*viśeṣya*), a qualifier (*viśeṣaṇa*) and a relation (*vaiśiṣṭya*). In the previous example, the subject “bearing the qualifier” or qualificand (*viśeṣya*) is Frank, and the thing that is “doing the qualifying” or qualifier (*viśeṣaṇa*), is the red hat, and lastly the relation is the contact between the two i.e., the wearing (*vaiśiṣṭya*). Not unlike molecules possessing elemental components, or words possessing constituent letters, our cognitions possess a compositional structure. Now if the cognitive components are similar to elements that constitute a molecule, then the qualificand, the qualifier, and the relation appear to act as a *constitutive cause* of a single determinate cognition.¹⁴¹ Now the cognition *Frank is wearing a red hat* is more complex or *layered* than the cognition *Frank is a man*, because unlike the qualifier man that is being qualified by the universal *humanity*, the qualifier red hat is not only being qualified by the universal *hatness*, but also the hat is being qualified by the particular shade of red, which in turn is being qualified by the universal *redness*. It seems the cognition of the components in their most basic indeterminate or non-qualificative form (i.e., cognition of a universal) act as a *constitutive cause* for our qualificative or determinate cognition. But is the *causal* relation between indeterminate and determinate cognition an epistemic relation? No, because this relation appears to act as an empirical brute fact of how our cognition operates. In other words, an indeterminate cognition does not show why a determinate cognition is true, even though a determinate cognition was

¹⁴¹ It seems to me that the relation is more like a material cause rather than an efficient cause. It is not like the relation between one billiard ball coming into contact with a second billiard ball, rather it is like steel beams and girders as the material cause of a building.

established by a reliable sense-perceptual process. Due to the above explanation, is there another way to end the *regress* of qualifiers other than by sense-perception? Matilal says,

Must I always be aware of the ultimate universals or simple properties in their unqualified forms, i.e. in their nakedness? The Nyāya answer is no. A simple property can sometimes take on a verbal guise while it floats in our awareness. [...] Nyāya claims that when the simple properties such as goldness or waterness, float as such in my awareness I cannot directly verbalize them with the words that denote them, that is to say, I cannot capture them with such words. I can capture them using directly such words or denote them in the verbalization of my awareness only if I put upon them some other verbal or nominal guise (i.e., a purported property qualifying the property concerned) (1984, p. 345).

Indeterminate cognition is a sense-perceptual way to immediately grasp the nakedness of the universal. The *cloak* or cover of the universal is the way or manner in which the universal can be expressed as a determinate cognition. Not only can the universal be expressed by a physical object, but also can be expressed by words. But isn't it possible to dress up the universal with a concept? For example, the universal circularity is not only expressible in the manner of "O", "o", but also it can be expressed as an equation " $(x-h)^2 + (y-k)^2 = r^2$ ", or as a definitional statement "a round plane whose circumference consists of points equidistant from the center". If you understand such expressions, then you now understand *circularity*. But our understanding of a concept is different from our ability to recognize a universal. A coward ought to be able to conceptualize or grasp the universal *bravery* without possessing i.e., instantiating *bravery*, just as a colorblind scientist ought to be able to understand red independently from sense-perceiving the redness in a fire truck. If we can distinguish understanding concepts from our sense-perception of universals, then I think it is possible to stop the regress of qualifiers by embedding the qualifier in a network of other concepts. Not unlike how our concept of gravity is embedded in Einstein's general theory of relativity as well as Newton's universal law of gravitation.

Second Objection: *Upādhi* As Provisional-Imposed Property

If there are non-genuine immanent universals, (i.e., surplus or titular property (*upādhi*)), then how can we decide, via sense-perception, that a certain property is a universal? If there are parsimonious practices, then how will this affect the way we think about our ontology?

Background: Nyāya Vaiśeṣika Categories (*padārtha*) and the nature of existence for particulars (*sattā*) and for universals (*astitva*).¹⁴²

In chapter one, I explained a universal as a singular, eternal entity that can wholly exist (via inherence) within various concrete particulars at the same time. When I say, “concrete particulars”, I mean ontological categories like substances, qualities, and motions. Furthermore, it seems obvious to me that different objects can exist in different ways. A universal exists differently from particulars, and certain particulars exist differently from other particulars; for example a dance exists very differently from colors or from how cows exist.¹⁴³

Perhaps the purpose of metaphysics is to explain the fundamental structure of the world. For Nyāya-Vaiśeṣika thinkers “cutting nature at the joints” ultimately is a better way to understand the world.¹⁴⁴ Indeed, if a person is interested in being *liberated from* the world, then that person has a very good reason to understand the nature of the world; otherwise how would they know what they are being liberated from?

What exactly do we mean when we use the word being? Indeed this is not easy question,

¹⁴² In this section I emphasize the ontology between universals and particulars. I do not raise the issue of the ontology of absences, individuator or the inherence relation. Stephen Phillips, explains the three circles of reality of existents (*sattā*), presence (*bhāvatva*), and reals (*astitva*) (1996, p. 50).

¹⁴³ Sometimes it is even said that god or God cannot exist in the same way as human exists.

¹⁴⁴ Early Vaiśeṣika ontology can be characterized as pluralistic realism. Their Six *Padārthas* or Categories are all real (*astitva*), knowable (*jñeyatva*), and nameable (*abhidheyatva*). The *padārthas* are not just products of our thoughts. They are (1) substance (*dravya*), (2) property instance or quality (*guṇa*), (3) activity or motion (*karma*), (4) universal (*sāmānya*), (5) individuator (*viśeṣa*) and (6) inherence (*samavāya*). Later, the six categories will add absence or negation (*abhāva*) as the seventh category beginning from Śivāditya and Udayanācārya (ShashiPrabha Kumar, 2013, p. 14 & 45).

but if we want to better understand our world, then some basics inquiry into “what is being” is required. The word “What” seems to me to indicate that being could be a universal. In the *Tarkasaṃgraha*, Section 6 & 82, states that beingness or existentness (*sattā*) is the highest or widest universal, while substanceness is a lowest or narrowest universal (G. Bhattacharaya, 1980, p. 39 & 365). By ranking universals into wide (*para*), and narrow (*apara*) kinds, suggests a hierarchical structure. Beingness (*sattā*) is higher than animality, while cowness is lower than animality. Now, one obvious worry concerns the being of a universal itself. In other words, do universals like beingness, substanceness, or cowness possesses universals? Nyāya-Vaiśeṣika thinkers say, “No” for a possible threat of a regress of nested universals (potness, potness-hood, potnesshood-ness, etc.). Although Nyāya thinker recognize higher and lower universals, they do not accept the recursion of universals.

The result of the above explanation may sound a little puzzling, because the nature of *the existence* of a universal, is a not a universal (i.e., does not possess *sattā*). Undoubtedly, a different intuition is being highlighted. The Nyāya-Vaiśeṣika thinkers like Praśastapāda seem to have thought that since the ontology or nature of universals are very different from the nature of substances (*dravya*), qualities (*guṇa*) and motions (*karma*), universals must have a distinctive way of existing unlike the beingness (*sattā*) (i.e., the way of being) of substances, qualities and motions. Although universals, substances, qualities, motions are knowable and namable, the nature of the existence of universals itself is not a universal. In other words, universal do not possess beingness (*sattā*). So, what *nature* exactly do universals possess? Wilhlem Halbfass says,

The situation is different when we come to Praśastapāda’s concept of *astitva* (‘isness’, objectivity). This concept was itself a reflection of new ways of thinking, and less susceptible to charges of reification than *sattā* and *sattāśambandha*. The apologetic task was less obvious in this case. As we have seen, the concept of *astitva* is not found in the Vaiśeṣikasūtra. Praśastapāda used it only once and left it virtually unexplained (1992,

p.154).

By leaving *astitva* unexplained, Praśastapāda leaves commentators philosophical room to explore “news ways of thinking” about entities like universals. Indeed, Vyomaśiva in his comments argues that *astitva* or isness is basically conceptualistic. *Astitva* is something that has an affirmation in thought and speech. “It refers to, and is the effect of, only a recurrent cognitive event. Thus our own verbal and cognitive response to the world, and not any real and enumerable constituent of the world, account for *astitva*, “objectivity,” and its apparent universality” (Halbfass, 1992, p. 154). Now one obvious worry is, if *astitva* is only a cognitive event that characterizes the nature of universals, then why not use the same argument strategy to show that *sattā* is also just a “recurrent cognitive event”? In other words, the way that substances, qualities and motions exist is really just a cognitive event. Indeed, this would be an outcome a realist would abhor. In fact, the difficulty distinguishing the beingness (*sattā*) of particulars, and the isness (*astitva*) of universals may cut deeper than what Praśastapāda had anticipated. If we cannot adequately distinguish the nature of existence between particulars and universals, then what will stop us from questioning whether substances, qualities and actions share a universal existence (*sattā*)? Moreover, whether the way objects exist within a category. For example, are we so confident that an entity like time, or an entity like a cow that are recognized as substances since both bear properties, share the same way of existing?

The point of view of the above question indicates how ontological pluralists place an interest in cutting up the world into distinct categories. They understand how objects have different ways of being.¹⁴⁵ Nyāya-Vaiśeṣika philosophers are metaphysical pluralists, who argue

¹⁴⁵ On the other hand, ontological monists are not prepared to cut up the world by the joints because they see an absolute being that precedes all various categories of distinction. Lastly, ontological nihilists, with respect to the nature of existence, think that although there are

that the inherence relation (*samavāya*) serves as a way to distinguish universals from particulars. Particulars, unlike universals, are on the receiving end of an inherence relation. Furthermore, they are inclined to explain how entities in the same category share the same way to be. Thus Nyāya thinkers explain that the way universals exist from the way particulars (i.e., the nature of substances, qualities and motions) exist by arguing that the nature of existence for particulars is due to the universal beingness (*sattā*), while the nature of existence of universal is an *imposed* or *surplus* property (*upādhi*).

Reply: Instead of sense-perception distinguishing imposed properties (*upādhi*) from immanent universals (*sāmānya, jāti*), Nyāya thinkers set up property blockers (*jātibādhikas*) to distinguish imposed properties from genuine immanent universals.

In fact there are six tests, according to the Nyāya philosopher Udayana, that block common properties from being full-fledged universals (P.K. Mukhopadhyay, 1984, p. 127-128). (1) Vyakterabedha: The property that belongs to a single thing. For example, spaceness is not a true universal because there is only one space. Could this apply to other Nyāya-Vaiśeṣika's substances like water, earth, fire, wind, aether, and time? What about homogeneous entities like a particular shade of color or a mass term like gold? Would such entities qualify as a universal? (2) Tulyatva: two general names that have the same meaning, for example potness and pitcherness. Either one or the other is not a universal, or both are not universals. (3) Sāṅkaryā: No cross-dividing or mixed properties that exist in some instances while not existing in other instances. For example, being a material element and being finite are not recognized as universals. Under Vaiśeṣika ontology space is a material element but is not considered finite while the mind is finite (limited in size) but is not considered to be a material element (R.R.

efficacious existent objects, existence is not a property (i.e., there is no beingness *sattā*).

Dravid, 1972, p. 23-4). (4) Anavasthā: A regress generating property. In the above, I stated neither universalhood nor cowness are a universal because then one could generate multiply entities of universals endlessly. (5) Rūpahāni: Under Vaiśeṣika ontology there are ultimate individuators (*viśeṣas*) that differentiate objects of the same kind and thus cannot fall under any principle of unity. For example, there is an individuator that distinguishes my copy of Brothers Karamazov from the Public Library's copy. (6) Asambandha: Any property that cannot hold the inherence relation (*samavāya*) cannot act as a universal. For example, inherence and non-existence (*abhāva*) cannot hold the inherence relation. If inherenceness is a universal, then it could inhere in both itself and a particular instance at the same time, which seems difficult to image. Furthermore, non-existence-ness is not a universal because it is not a real entity. For example, the gill-lessness (non-existencehood of gills) of a dolphin is not a universal (R.R. Dravid, 1972, p.23-4). Along with non-existence, absence is also not a universal although absence like non-existence is 'related to more than one thing'. For example, the 'absence of a pot' in this room is the same 'absence of a pot' in another room despite the difference in location. However, an absence is not a universal because an absence is not related to a particular object by way of inherence (*samavāya*) (G. Bhattacharya, 1983, p. 367).

From the above distinction between *upādhis* and universals one might worry that an immediate sense-perception of an ordinary object alone may not always reveal the universal inherent in the object. But this is not a *blemish* against the Nyāya theory of sense-perception and universals, in fact it is a *beauty mark*, because it indicates their staunch *fallibilism*. An *upādhi* also has the sense of being open-ended or being *provisional* (Phillips, 2001, p. 108-09). Nyāya thinkers are aware that we are sometimes deceived by how we sense-perceive ordinary objects, we nevertheless are born with reliable sense-perceptual abilities that ultimately guide us to

certain truths about our world. However, if our sense-perceptual cognitions about the world are unchecked or unchallenged for a considerable length of time, we may slip into a narrow set of dogmatic beliefs that not only stifle our imagination but also may actually impede us from making genuine epistemic progress. Indeed, reading and writing about the long and continued struggle for epistemic progress, one begins to appreciate the philosophical grit of the Naiyāyika thinker.

Third Objection: Sense-perception is Perspectival

If our cognition is informed by our sense-perception, and our sense-perception is ultimately *perspectival* (i.e., our thoughts arise from a certain position), then it follows that our cognition must be *perspectival*. If that is the case, then how is it possible for a person to have an objective point of view concerning immanent universals? Indeed, if immanent universals are essences of concrete particulars and if our knowledge of immanent universals are obtained by sense-perception, then how can we sense-perceive essences in the world, when our sense-perception of the world, is largely influenced by our perspective i.e., personal interests, cultural bias, or our community values?

Background: To believe in universals is to believe in a “view from nowhere”, or an absolutist point of view of the world.

Should we not be concerned that believing in essences, hark back to a time when philosophers were overly certain and inflexible with their ideas? Earlier the image of Wittgenstein’s duck-rabbit was mentioned. Although we can alter our view from seeing a rabbit to seeing a duck, which depends upon our experience of seeing ducks and rabbits, we cannot simultaneously see both a duck and a rabbit. In short, certain perspectives will be *incompatible* with each other. Furthermore, even if there are universals in the world, then it seems only God

could access such entities, since only God has access to the totality of perspectives.

Reply: Our sense-perception is not limited by our personal point of view.

A realist has two convictions. One, that an object can exist independently from a person's sense-perception. Thomas Nagel's expression, "the view from nowhere" can mean that the observer has no view of the object, and yet the observer believes that the object exists (1986, p. 14). Two, that our sense-perception of an object is accurate and non-erroneous. In short, my sense-perception of an object is faithful. Although I am looking at an object from a particular perspective (i.e., a particular point of view), that this view is accurate and faithful to the object.

Now the word "perspective" is from the Latin verb form "*perspicere*", which means "to look over or inspect thoroughly, survey, scan, scrutinize, etc".¹⁴⁶ In Greek the word *optika* or *optikos* means "*of or for sight*", thus *optics* is understood a theory of sight. Also, optics is an investigation of the study of light (*Meta.* 1077a8-a14); in particular how it travels in straight lines, and how it is reflected in dense mediums.¹⁴⁷ In chapter two, I had mentioned sense-data theory and how we require an explanation to why our sense-data are organized as such. As I move about circling a table, my sense-data experience of the table can be characterized as light reflecting as straight lines that seem remarkable coherent. This suggests that an independent realm outside my experience, having its own spatial patterns. Not only is there a spatial pattern of the object itself, but also I have certain spatial relation to the object. If I move to and from the observed object, one does not conclude the object is actually getting larger and smaller

¹⁴⁶ Please see, Oxford Latin Dictionary Facile VI Pactus-Qualiercumque, Edited by P.G.W. Glare, Oxford at The Clarendon Press, 1977.

¹⁴⁷ Please see, A Greek-English Lexicon, Compiled by Henry George Liddell D.D. and Robert Scott D.D. A New Edition Revised and Augmented throughout by Sir Henry Stuart Jones D. Litt. With the assistance of Roderick McKenszie M.A. with the cooperation of many scholars. Volume II. Oxford At Clarendon Press 1925.

respectfully, but that the distance between the observer and the object has changed (Humer, 2001, p.120-121). The angular size of the object relative to one's position has increased as you move towards the object. A keen observer not only recognizes how the object "apparently" increases in size as one moves toward the object but also how certain ratios along certain dimension of the object (e.g., a table) are maintained.

The above characterization is nothing new to Renaissance thinkers like Marsilio Ficino (1443-1499) or Nicholas of Cusa (1401-1464). In chapter one I tried to explain Ficino's analogy of where the base cone represents our rational soul while the sun represents universals. The light rays of the sun come to us via the aperture, which represent ours eyes. The light rays as particulars are contracted tightly in the pupil and are transmitted to the rational soul. It is in the rational soul where the true magnitude of the sun i.e., universals are truly judged.

But how do we come to judge these universals? Perhaps Ficino's insight reveals another way to access universals. Indeed, to access a universal is to recognize, via sense-perception the universal inherent in the particular object. If we can draw upon Ficino's analogy, then even though there are moments where the sun shines light through the aperture at different heights, which in turn alter the height of the cone you experience, nevertheless the ratio between the sun's cone and the cone in your rational soul will be equal. In other words, when we sense-perceive a range of similar objects, the commonality (i.e., the universal) is the ratio that is shared in each object.

Now you might think that this suggests that our mind is on par with the Creator. Although I do not think that is quite right, I do think our mind must share some similar power or capacity to God. Nicholas of Cusa writes in *The Layman on Mind*,

If all things are in the divine mind as in their precise and proper truth, then all things are in our minds as in an image or similitude of the proper truth, that is, conceptually. This is because cognition occurs by means of similitude. All things are in God, but they exist in

Him as the exemplars of things. In our mind they exist as the similitude of things (Albertini, 2004, p. 378).

When Cusanus says, “similitude of the proper truth, that is, conceptually”, I take him to mean the universal. The universal is triggered by the particular that we subjectively experience. “It is important to Nicolas of Cusa (who in this aspect followed closely in the Aristotelian tradition) that there be nothing in the mind that is not also existing in reality. This is why the mind needs to be stimulated by the physical things to start its cognitive work” (Albertini, 2004, p. 379).

Indeed, one of the best ways for the mind to start its *cognitive work* (i.e., to sense-perceive the universal) is by looking at a painting. A painting can remind us of the representational power of art. A painting not only illustrates an artist’s intention object, but also reveals *how* the artist sees the world from their personal perspective. One of the most curious ways to see the world is through anamorphic paintings. Although an anamorphic painting is a distorted and unreadable image when seen frontally, its true shape appears if reflected in a certain mirror or in an oblique angle. Such puzzling paintings can truly dazzle the sense-perceiver.

If you are in Rome at the Trinità Dei Monti convent, you will see one of the largest and rare anamorphic frescoes in the world. The fresco is allegedly painted by Father Jean-François Niceron of the Minim Order (1613-1646).¹⁴⁸ The image depicts Saint Francis of Paula in prayer kneeling under a tree (Fig. 4.1). This image can be seen if one stands by the corridor, however, if one stand immediately in front of the fresco, the saint disappears and an image of a marine

¹⁴⁸ Here I say “allegedly” because some authors think that Maignan painted the anamorphic image of Saint Francis of Paula. Please see Felice Varni (2004), *Felice Varni: Point of View*, p. 107. Also please see Lyle Massey (2007), *Picturing Space, Displacing Bodies: Anamorphosis in Early Theories of Perspective*, p. 149-150.

landscape with a bay appears (Fig. 4.3). The scene is thought to be the region where the Saint Francis of Paula lived.¹⁴⁹

Now the viewer has to make an effort to see an anamorphic image. In Niceron's fresco, one has to stand in a particular location in order to get the full effect of the image. In 15th Century Italy, artists were highly influenced by geometry. By following certain geometric rules an artist can create an illusion as if an image is lifted from the wall. In an anamorphic image an artist designates a certain position for the viewer to see an image. If the viewer alters her perspective, they may lose the representation to a distortion (Fig. 4.2). Although there is a distortion in one position, another image may be revealed (Fig 4.3).

Not unlike seeing a universal in a particular, we need to be in the right position in order to see the universal inherent in the particular. If we alter our position or perspective, then we might not recognize the manner in which the object is being expressed. For example, when we see a series of letter m's; *m*, *m*, *m*, we can sense-perceive the universal *m-ness*. But if we rotate our position 90 degrees clockwise, then we might see the number "3" or 90 degree counterclockwise we see the letter "E". If we completely rotate our position we might see the letter "w". But if that is the case, then how can we know which universal is inherent in the object since the particular object seems to contain three *incompatible* universals? Similarly, how can we know what is the true content of Jean-François Niceron's fresco, since the image depicts two images: one, Saint Francis of Paula in prayer, or two, a marine landscape?

The above question does not consider how paintings have relegated parts. There are

¹⁴⁹ Please see Jen Smith, *Anamorphic frescoes in Rome* September 1, 2014. Accessed March 6, 2015. <http://medmeanderings.com/categories/art-and-music/2014/09/anamorphic-frescoes-rome/>. Also please see John Frawley in his Vimeo Video *Niceron exhibition real - Trinità Dei Monti – music from "Curious Perspectives"* March 2014. Accessed March 6, 2015. <https://vimeo.com/87970552>.

many images in Niceron's fresco. When we move closer to the image we see a marine landscape that is relegated to a certain *part* of the fresco. On that *part* of the fresco, the content of the painting is being expressed as a marine landscape. Likewise when we see the fresco in an oblique manner we see a large part of the fresco expressed as Saint Francis of Paula in prayer. Thus, there is no incompatibility of images, because the content of the painting is relegated to certain parts of the painting.

But what if the *entire* object or image drastically alters its appearance as we change our position when we look the object or image (e.g. the letter "m" to the letter "w")? Does this mean the object or image has more than one universal within it? Or does it mean the universal is somehow dependent on the location of the observer? In other words, it seems that some objects or images have within them the possibility of holding more than one universal. If so, then how will we be able to determine the 'real' essence of the object or image? At this point, it is important to distinguish a painting from an ordinary object. Although an object can *look* like some object that does not mean it *is* that thing (i.e., identified as that thing). For example, a line can look like a point when seen in certain way, but a line is not a point.

What about the letter "m"? Suppose the letter "m" is rotated 180 degrees, the letter "m" now looks like the letter "w". So does this mean two distinct universals can inhere in a single particular image? I think it is important to understand that the letter "m" is a conventional symbol that can be expressed in a variety of ways. For example, in Devanagari the letter "m" can be expressed as "म". The universal inheres in the particular conventional expression. If we learn to read scripts that are not Roman Scripts, we can come to see the universal m-ness in variety of ways. Now, if we rotate the conventional symbol "m" to "w", then the conventional symbol has changed. If we are familiar with the letter "m" and the letter "w", then we see the universal m-

ness when we see a particular “m”, *and* we see the universal w-ness when we see a particular “w”. Thus the conventional symbol when seen in different ways, it has within it the potential to express more than one universal. Thus it is not the case that the universal is somehow dependent upon the person. Not unlike Wittgenstein’s duck-rabbit image, it is possible that a conventional symbol to contain more than one universal.

When we quickly look at an object or a painting we may have over looked a certain *part* of the object due to our personal bias. Sometimes we may need to look again at the image we are evaluating. If an object or a painting appears to alter its image from different perspectives, then we may need to step back, and look more carefully at the image. In fact a sustained sense-perceptual investigation may be required. “Sustained” in the sense that we may require observing how the object interacts with other objects, or inspect the intrinsic structure of the object, or perhaps observe our position relative to that object. If we do not bear in mind our relative position to the object, then we might get confused at how a *line* could look like a *point*, or how a *curve* could look like a straight line. Although our perspective of an object may puzzle us, it is not impossible to fix. In the end, having faith on the reliability of our sense-perceptions maybe our best way to detect the nature of an object.



Fig. 4.1



Fig. 4.2



Fig. 4.3

Chapter VI. Conclusion

Legend has it that Diogenes remarked he could see a table but not tableness [i.e., the universal as the common shared property of all tables], to which Plato retorted that although Diogenes had eyes he had no intelligence (Lazerowitz, 1955, p. 80). Plato's poke at Diogenes overlooks what philosophers worry about when they think about universals. Namely, universals are simply too intangible and remote for those who live in the world. For Plato it is intellect that gives us access to universals but for me some universals are directly sense-perceived once we have learned to recognize the relevant class properties. It is not so much that Diogenes suffers from some mental deficiency, rather Diogenes is simply not aware of the fact that his recognition of *the* table as *a* table indicates that he saw the universal table (i.e., tableness) inherent in the particular table.

One way to be introduced to universals is through understanding general terms e.g., common nouns and adjectives. Common nouns like a "circle" or "dog" and adjectives like "round" or "wise", pick out particular circles and wise people. The process of picking out particular qualities or objects and collecting them into a group or class assumes that there is something common to which the general term applies. As S. Bhattacharya says, "a self-identical common property as the ground for the application of a general term" (1985, p. 190). This is called the universal. Not only are they common, but also they are "wholly" present (i.e. immanent) in many at the same time. In other words, the universal is an entity that is present in the many, not as parts in a whole but singularly present in the many. Thus, by existing in many particulars at the same time, an immanent universal offers an explanation of why various concrete particulars are in fact common.

Now, the way universals are related to the many is by being inherent (via instantiation)

within their particulars. Not only are universal and particulars real, but the inherent relation must also be real.

If particulars are regarded as shadows or copies or appearances, then their relation to the corresponding universals will be a relation between shadows and real things, between copies and originals, or between appearance and reality. Although these relations differ among themselves considerably, still it is clear that there cannot be any ontologically real relations between them, for a real relation can only hold between or among reals (S. Bhattacharya, 1985, p. 201).

Although universals are ontologically unlike their concrete particulars, the instantiation relation binds a universal to their various particulars in a way that does not require another relation. In short, instantiation acts like metaphysical glue. However, if all the various particulars of a universal no longer exist, then a universal can still exist uninstantiated. Although an uninstantiated universal is causally inert, an instantiated i.e., immanent universal is causally relevant because it establishes the nature of a concrete particular.

When we know a particular object we also can come to know the immanent universal although we may not be aware of it. Not unlike seeing this equation $“(x-h)^2 + (y-k)^2 = r^2”$, we are actually seeing the nature of a circle. Initially we may not recognize the math equation of a circle, thus *it may take time to learn what we are actually seeing*. But once we come to learn what a circle is, we can immediately see it. Thus, our sense-perceptual abilities help us acquire what we need in order to know a universal.

Can we make mistakes when we come to recognize universals? The universal-friendly realists in the Western tradition, classical and modern alike, generally preferred reason to sense-perception as the means of knowing universals because they found sense-perception too prone to mistakes. But as Descartes' and Hume from both sides of a divide admit, errors in reasoning are just as common as errors in sense-perception. Therefore, the claim to have been directly

acquainted with a universal does not get any less secure if we rely on sense-perception rather than on the intellect. In the end, I think it is wise to be a fallibilist about both of these ways of knowing, i.e., sensing and reflecting, perceiving and reasoning, if, at all, we can sustain such a fundamental distinction between them.

My attempt in this dissertation has been to work out in detail, in the face of the strongest possible objections, the epistemology of our access to immanent universals. My thesis is that universals unlike Plato's Forms are more like Aristotle's or Nyāya-Vaiśeṣika general properties, which can directly be sense-perceived by playing a causal role in our experience of concrete propertied particulars. Universals can be objects of seeing, hearing touching, and even smelling and tasting because they can cause our sensory experience. But can universals be causes?

I begin by examining causality. First, in what sense is an immanent universal a cause, and second how do we detect them? I argue that an immanent universal can be thought as a formal cause, in the Aristotelian sense, insofar as explaining why some event occurred. For example, if we want to know why a building had burnt down, then one possible answer is the flammable nature (i.e., the universal *flammability*) of the component materials of the building. Now, we should not only think of immanent universals as a possible explanation of why an event occurred, but more specifically think of how an immanent universal constrains an object. When I say, "constrains an object" I mean the limit of an object's causal power that is responsible for an outcome of an event. Thus, the universal *flammability* (and not *wetness*) of a particular material possesses a causal power to burn the building. What about our interaction with universals? Well, assuming the cause is distinct from the effect, if the effect is the "cognitive experience of some object", then it should be no surprise that *the object* is an important causal factor in my cognitive experience of it. Furthermore, the object would not be that object, that

kind of object – a bird or a dog, a flower, rather than a butterfly - unless the universal were inherent in it. Thus, if I sense-perceive a particular apple, then it is due to the apple being an apple (i.e., universal appleness). The mode of my knowing appleness is through my sense-perception of the apple, and not some malevolent demon or some massive matrix computer. Now, if we are unfamiliar with the particular object, then it may take time to learn and to remember what we are looking at. As Jayanta Bhaṭṭa reminds us, although both remembrance and recognition use memory, recognition focuses on a *current* sense-perception of an object. Our ability to recognize a universal refers to a process of re-identifying a set of current sensory stimuli in a certain way that must hold the common property that links the past with the present, without it we could not have the feeling of resemblance or similarity, which is typical of recognition.

But we have to always remember that we can make errors when we come to recognize universals. We can certainly minimize mistakes by being aware not only how our mind can be deceived by certain illusions, but also how personal bias might mislead us to believe things that do not actually exist. Thus our apparently ambitious claim that we can directly perceive some universals with the claim comes with the modesty and caution that the noble pursuit of objective general features must be tempered with the recognition that failure is always possible.

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