

Illusion as Mislocated Seeing

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Uddyotakara on Illusion: *Vārttika* on *Nyāya-sūtra* 4.2.35-37

An illusion (*mithyopalabdhi*) perceives (*adhyavasāya*) a person in a tree-stump, an illusion which knowledge undermines, without undermining the object itself, the thing that has characteristics common to both persons and tree-stumps. We do not conclude that the stump does not exist. It's the same with experiences of things in dreams, which are undermined by waking experience, again without undermining the object itself, the thing that has characteristics in common. (4.2.35; NyV. 492.3-6).

Illusion has a defining mark (*nimitta*) – but what is it? The defining mark is perception of what is common, non-perception of what is particular, and imputation of of a feature not present. (NS 4.2.36; NyV. 492.8–9).

The reality (*tattva*) is the stump; the imputed counterpart (*pradhāna*) is the person. Illusion is the “imputing” (“assigning”/“burdening”) (*adhyāropa*) of reality with the imputed. (NS 4.2.37; NyV. 492.12)

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- **[object selection]** selecting an object in virtue of perceptible properties common to both illusion and genuine perception (*sāmānya-darśana*),
- **[imputation]** “burdening” the experienced object with an imputed feature it does not have (*avidyamāna-viśeṣa-adhyāropa*),
- **[masking]** blindness to perceptible properties that would break the illusion (*viśeṣa-adarśana*).

Three Accounts of Illusion

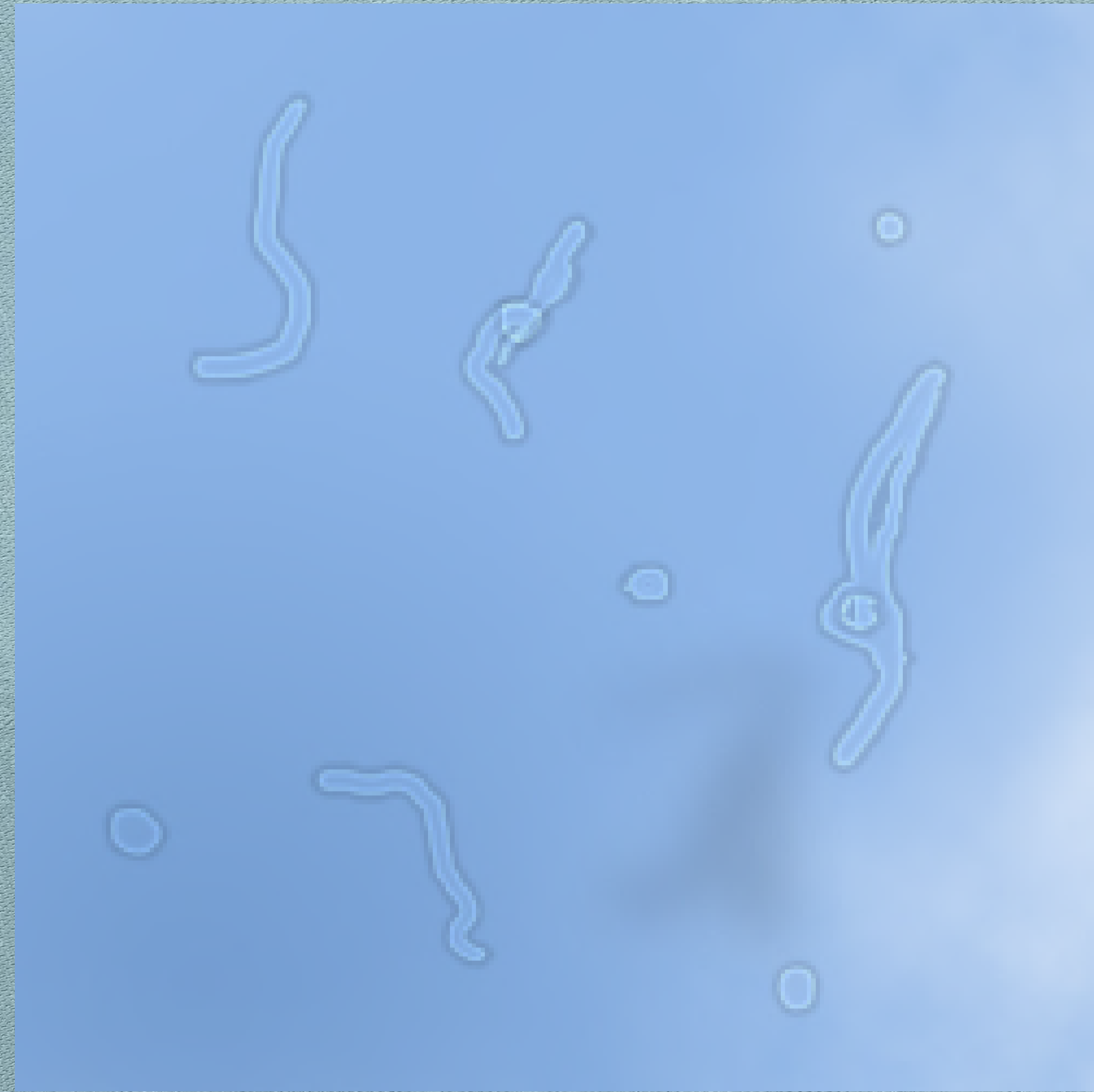
- ◆ Disjunctivism: “The minimal commitment of a view that can be labelled a disjunctivist theory of perception is that veridical perceptions [, illusions] and hallucinations differ mentally in some significant respect—i.e., that there are certain mental features that veridical perceptions have that [illusions and] hallucinations cannot have” (Soteriou 2020, 8).
- ◆ Objective Looks Theory: There are, strictly speaking, no such things as perceptual illusions. In any case where an object *o* appears *F* it is objectively the case that *o* looks *F*-ish, where the *F*-ish look worn by the object is as much an objective, albeit situational, property of that object as any of its other properties.
- ◆ Mislocation Theory: The Nyāya theory is that looks are mind-independent properties with which the misperceiver is acquainted, but that, contra objective looks theory, they are not properties of the object being misperceived.

Characterisations of Illusion

“As standardly conceived, an illusion is an experience of an object o appearing F where o is not in fact F ” (Kalderon 2011, 751).

“A *visual illusion* may be characterized as a perceptual experience in which a physical object, o , looks F , although o is not actually F .” (Brewer 2011, 102)

An illusion is a “perceptual situation in which a physical object is actually perceived, but in which that object appears other than it really is” (Smith 2002, 23).



Dharmakīrti's Non-cognitive Illusions

Taxonomies of Illusion

“There seem to be at least three kinds of illusions: first, those in which environmental conditions (lighting, the medium of sound or light transmission, the presence of surrounding objects, etc.) are responsible for a perceived object appearing other than it is. *Environmental illusions* of this sort cover many familiar cases of illusion discussed by philosophers and psychologists, including the appearance of a straight stick partially submerged in water, lighting illusions, and the Müller-Lyer illusion. A second set of cases involve *cognitive illusions*, for example: when one is looking for a friend in a crowd, other people who are superficially similar in appearance can briefly look just like the individual being searched for. Finally, *physiological illusions* involve the improper functioning of a subject’s perceptual system, such as cases of objects appearing distorted or discoloured when under the influence of drugs or sleep deprivation” (Genone 2014, 340).

Taxonomies of Illusion: *Nyāya-sūtra* 4.2.32/5

Nyāya-sūtra 4.2.32 seems to provide examples of three types of illusion:

“Or, it’s like magic, cities of Gandharvas, or a mirage.” (NS 4.2.32)

The three cases are further described by Vātsyāyana under *Nyāya-sūtra* 4.2.35:

“Illusions of magic and the like have a material basis (*upādāna*). Magic is what happens when a magician produces in the observer the illusion of an object similar to the one being used in the trick. Or one has an experience of a far-off city in something [such as a cloud] which looks similar to a city, for there would be no such experience without the cloud. And when the sun’s rays shine on the heat radiating from the earth, one has the illusion of water, because something is seen in common (*sāmānya-grahaṇāt*; Jhā: ‘flickering’). There would be no such experience without [the hot earth and sun’s rays]. The defining mark (*nimitta*) of illusion is a specific condition in terms of where, when and for whom.” (Ny.Bh. 275.15-9)



“Cognitive” Illusion

The City of Gandharvas

“A city of Gandharvas is the Indian equivalent of a castle in the sky, a cloud formation in the distance that looks like a castle or a city” (Dasti and Phillips 2017, 65).

Make-perceive: the augmentation of reality by means of the superimposition of a mental image; “noticing a constellation is a hybrid, visual-imaginative experience: it involves both *seeing* the stars in the constellation and *imagining* the lines that connect them at the same time.” (Briscoe 2018, 153-4)

Matilal calls this category “***imaginative illusions***”: “it seems that the Nyāya explanatory model fits in very well with what we may call *imaginative* error. The standard examples are a 'shell-silver' situation and a 'rope- snake' situation. The role of similarity and imaginative attribution is almost paradigmatic in such cases” (Matilal 1986, 211).

Is Error Doxastic?

Error resides not in the perceptual experience but in post-perceptual judgements made on its basis:

“What then is an illusion? Though the cases differ in kind, they are alike in that they are opportunities for being misled” (Kalderon 2011, 774).

“Conditions in the environment can contribute to objects appearing in ways that lead us to believe that they have properties they lack” (Genone 2014, 362).

[No Perceptual Error] Naive realism entails that there is no error in perceptual experience as such. Perceptual experience sometimes misleads perceivers into making erroneous judgements on its basis.

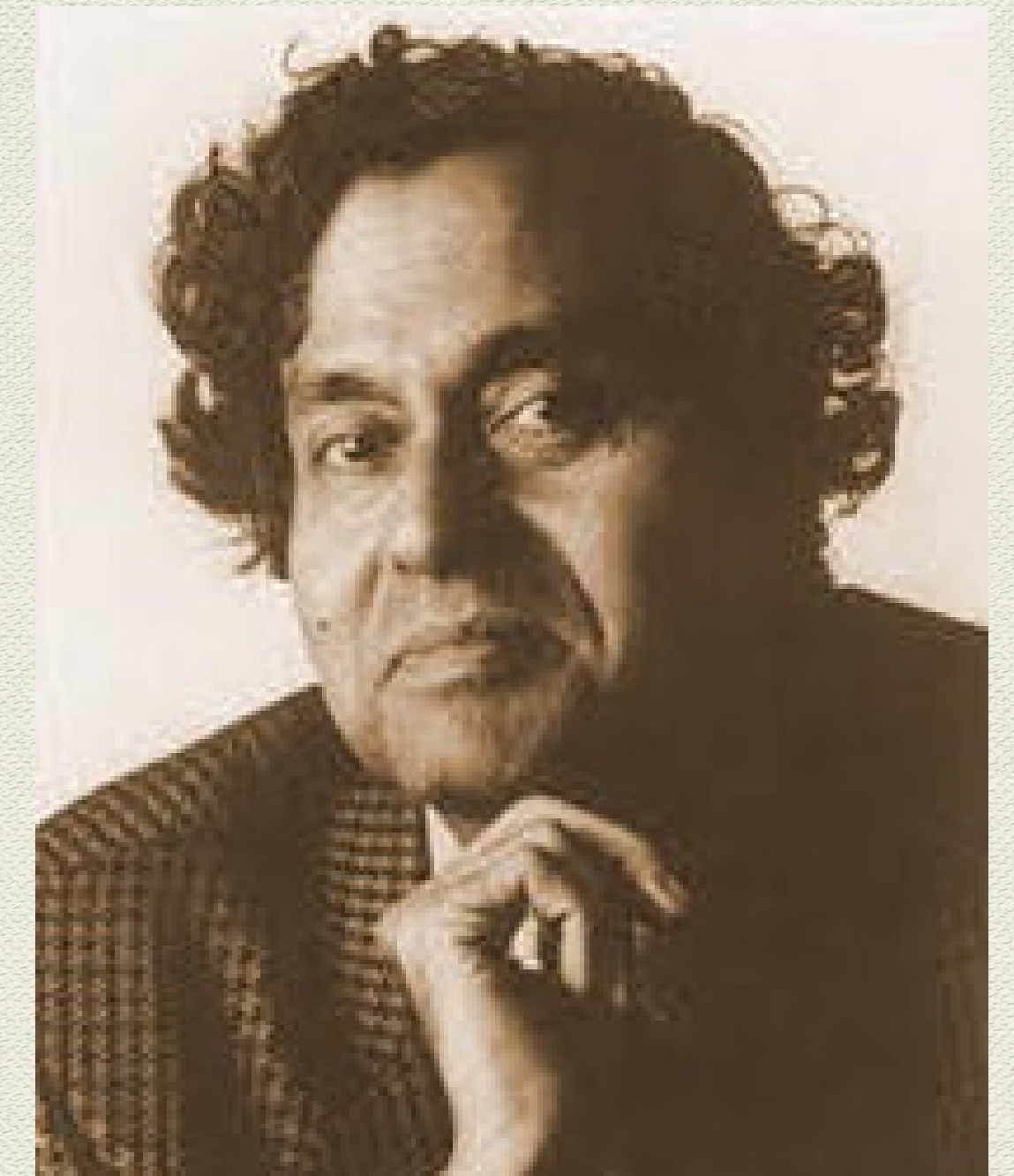
“It becomes highly counter-intuitive if in order to account for or explain the phenomenon of perceptual illusion we simply say that there is no perceptual illusion for which explanation may be needed” (Matilal 1986, 218)

Illusion as Mislocation: Vātsyāyana

“The imputed feature (*pradhāna*) is determinately experienced in a location, as this in that. So the tree-stump, which though not a person is determinately experienced as a person, is the location of the imputed feature. If there isn't a perception (*upalabdhi*) of a person, there would be no determinate experience (*vyavasāya*) of what is not a person as a person. So too in the determinate experience of dreams, such as “I saw an elephant” or “I saw a mountain”, an imputed feature must be determinately experienced in a location” (NyBh. 275.1-4 under Ny.S 4.2.34)

Illusion as Mislocation: Matilal

“Nyāya invokes the service of past experience and memory. The revived memory triggered by the similarity of a shared character brings in its wake the object of the past experience [...] and in this way it appears in perception (or rather misperception) as a characteristic or qualifier” [...] “These features [...] are not odd sorts of entities such as sense-data. They are attributable to the material object we see, or the physical environment etc. They are not sense-impressions private to the percipient but rather in most cases observable features of the external world.” [...] Thus, “... in its simplest form, the ‘mislocation’ theory asserts that error or perceptual illusion is the mislocation of a real F in a real x. The basic assumption in this theory is that nothing appears in our visual perceptual awareness which is not also existent or real.” (1986, 203-209).

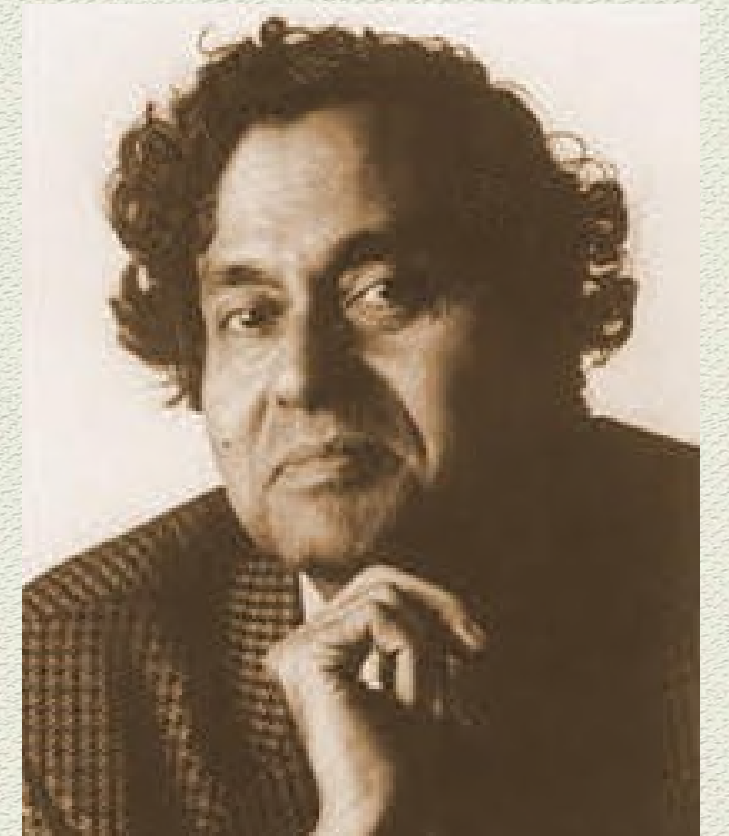


Illusion as Mislocation: Tenets

- that Illusions are always partial or “anchored”;
- that we have perceptual access to features of objects not in our present environments [**Anomalous Acquaintance with Absent Features**]; and
- that perceptual error is error in “allocation”, now understood in terms of the binding in attention of the feature presented in (2) with the anchor presented in (1) [**Feature-Binding Error**].

Anomalous Acquaintance and Synaesthetic Effects

“It is contended by Nyāya that even such reports as 'I see sweet honey' or 'I see (visually) fragrant flowers', or 'I see cold ice' would be correct reports of visual perception as long as the particular, the 'nucleus' of the object-complex, is visually presented. In these cases the attributive or qualifying element, sweetness or fragrance, may not be the objects of the visual perception in the ordinary manner. But the mind picks it out from the memory- bank and this revived awareness presents it to the visual faculty; the sense and the object get connected here, though not in the normal way. In this way the resulting awareness becomes perceptual. Hence the correct report: 'I see the fragrant jasmine.’” (1986, 289)



	emotions	flavors	graphemes	kinetics	lexeme	music note	music sound	odors	orgasm	pain	pers.	phon.	prop.	sound	spat. loc.	temp	time	touch	vision/color
emotions	black																		
flavors		black																	
graphemes			black																
kinetics				black															
lexeme					black														
music note						black													
music sound							black												
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orgasm									black										
pain										black									
personality											black								
phoneme												black							
prop.													black						
sound														black					
spatial loc															black				
temp																black			
time																	black		
touch																		black	
vision/color																			black

Seventy-five types of synesthesia. The left hand column is inducers; the top row is concurrents. White indicates the type has been documented; red indicates no case of this type has yet been recorded; black signifies that this would not be a type of synesthesia.

Sellars on Amodal Completion and Synaesthetic Effects

Consider the snow seen on a distant mountain. It looks cool. Do we see the whiteness of the snow, but only *believe in* its coolth. Perhaps this is sometimes so; but surely not always. Sometimes actual coolth is present in the experience, as was the *white* inside the apple and the *red* on the opposite side. Once again, we do not see the coolth of the snow, but we see the snow *as* cool; and we experience the actual coolth as we experience the actual whiteness of the snow. An actual coolness is bodily present in the experience as is an actual volume of white. Let us combine our results into one example. We see the cool red apple. We see it *as* red on the facing side, as red on the opposite side, and *as* containing a volume of cool white apple flesh. We do not see *of* the apple its opposite side, or its inside, or its internal whiteness, or its coolness, or its juiciness. But while these features are not *seen*, they are not *merely* believed in. These features are present in the object of perception as actualities. They are present by virtue of being imagined.

(Sellars, 1978)

Feature-Binding Misfires

Consider a humble animal whose consciousness stops at sentience. One imagines its mental life to consist of nothing but a flux of sensory qualities. In a widely repeated and ancient image, its stream of mental processes is filled by variegated qualia, which over time pop up, bob along, combine, recombine, and ultimately sink back down into the muck. A mental life of pure sensation would be nothing but a stream, flux, a flow of such stuff. ... But this picture, ancient and widely repeated as it is, radically underestimates the sophistication needed by even the simplest animal. An animal whose mental life is a pure flux of qualities ... could not distinguish matte red next to glossy green from matte green next to glossy red... [The ability to do this] marks a significant threshold in the complexity of one's psychological organization. To pass it one needs somehow to focus the attribution of qualities, so that one can distinguish a scene containing a red square from one containing something that is red and something else that is square. (Clark 2000, 79)



Feature-Binding Misfires: Anne Triesman

“Focal attention provides the ‘glue’ which integrates the initially separable features into unitary objects. Once they have been correctly registered, the compound objects continue to be perceived and stored as such. However with memory decay or interference, the features may disintegrate and ‘float free’ once more, or perhaps recombine to form ‘illusory conjunctions’” (Treisman and Gelade 1980: 98).

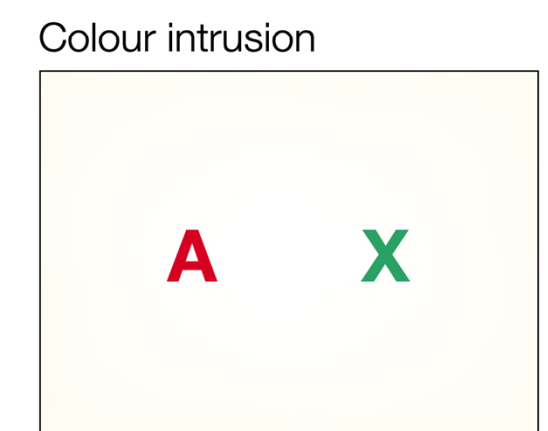
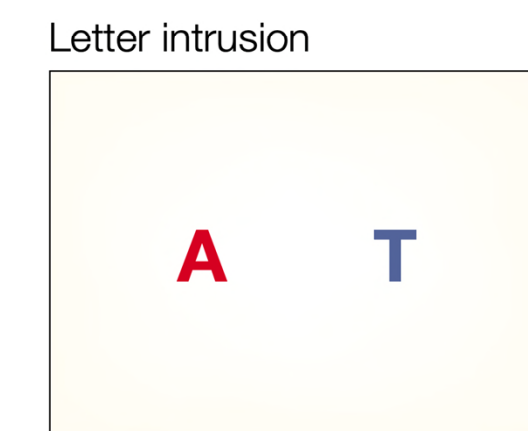
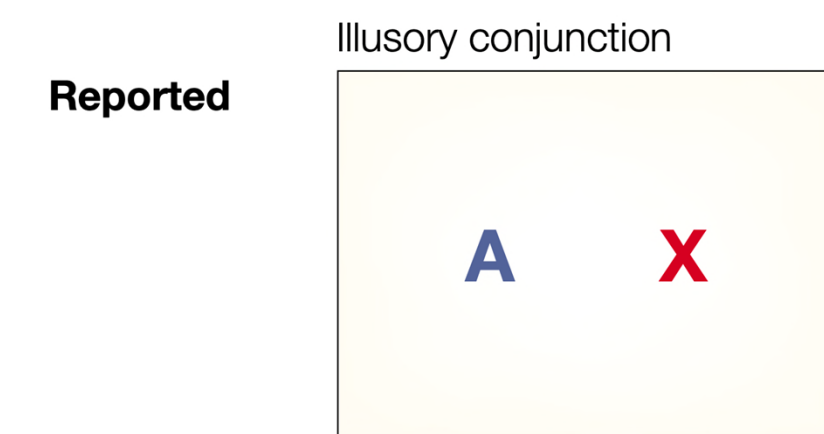
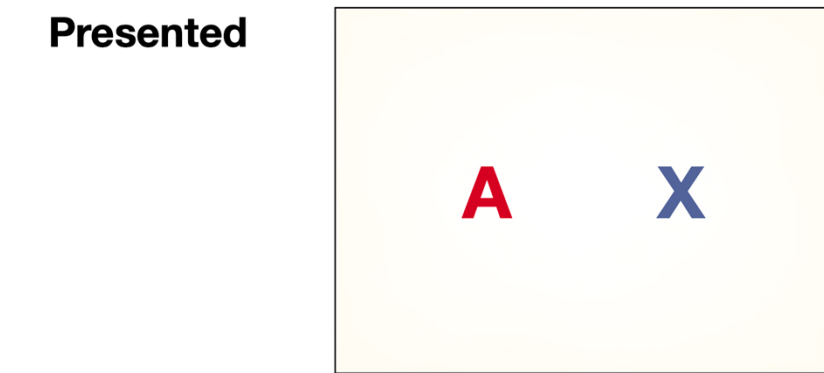
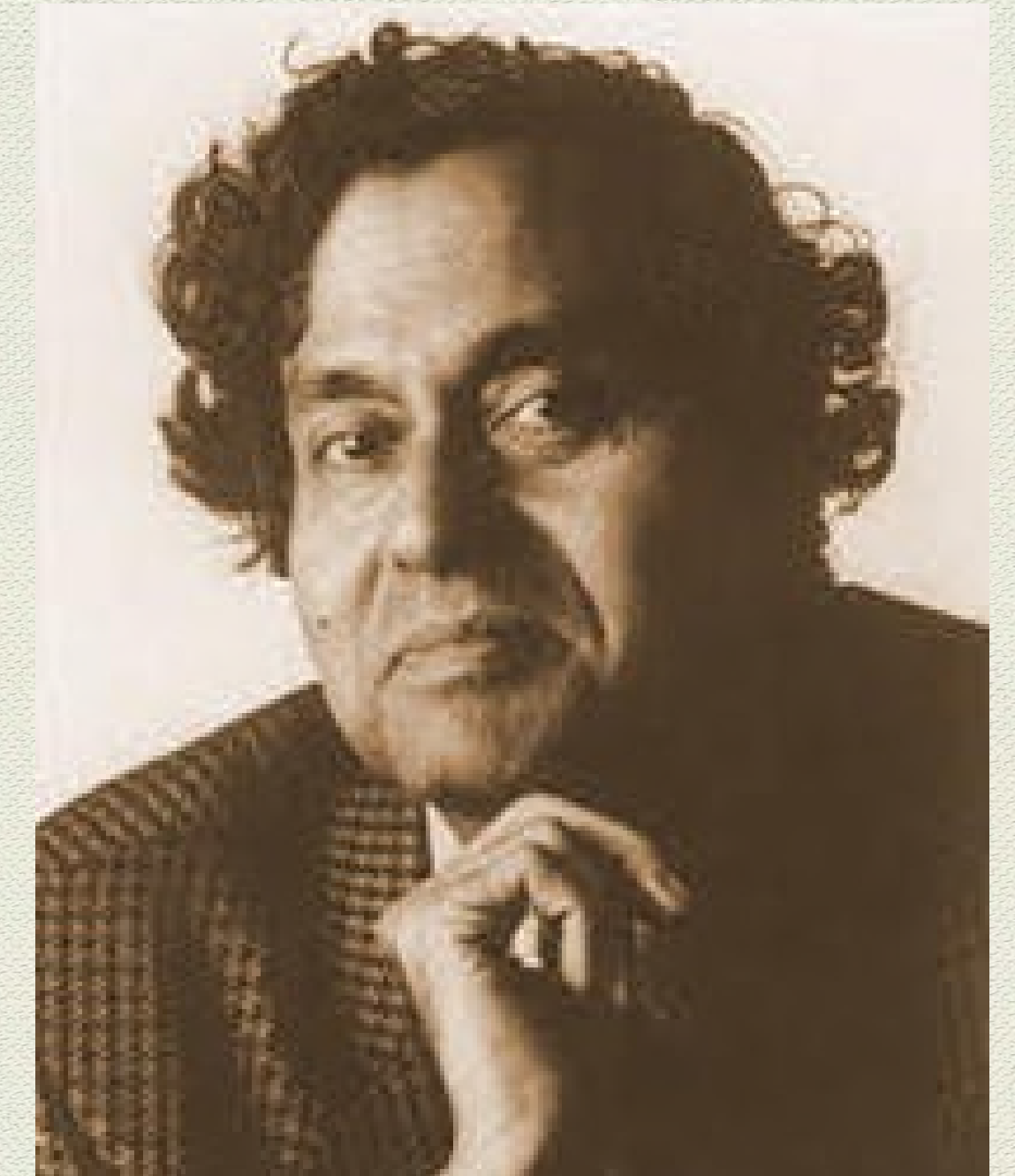


Figure 1 | **Illusory conjunctions.** Features such as colour and shape (letters in this figure) can recombine to form an illusory conjunction in perception. Illusory conjunctions can be corrected for guessing by using intrusion errors (for example, the report of another letter or colour in the stimulus set). Intrusion errors seldom occur, for either normal perceivers or patients with spatial deficits. More elaborate corrections for guessing have been proposed (REF. 18), but true illusory conjunctions, like the example shown, have still been supported.

The Nyāya Theory in a Nutshell

“The mind takes the wrong signal from the (physical) sensory reaction and picks out a wrong 'qualifying' element from the memory-bank and this revived awareness generates next the non-veridical perceptual awareness which may be reported as: 'This is a snake' or 'I see a snake'. In such cases we wrongly attribute a 'qualifying' element to a perceived particular - an element that is not present in the external state of affairs. This is still a perceptual error according to Nyāya, for part of the sensorily perceived object-complex is picked out by the visual sense-faculty while the other part is supplied by revived memory. In fact the 'nucleus' is sensorily given in the ordinary way while the attributive elements are given in an out-of-the-ordinary way.” (1986, 289).



Brewer's Theory

A visual illusion is “an experience in which a physical object, o , looks F , although o is not actually F ”, and he then claims that “illusions come about in cases in which the direct objects of experience have such similarities with paradigm exemplars of kinds of which they are not in fact instances” (Brewer 2011, 102).

In a case of visual illusion in which a mind-independent physical object, o , looks F , although o is not actually F , o is the direct object of visual perception from a spatiotemporal point of view and in circumstances of perception relative to which o has visually relevant similarities with paradigm exemplars of F although it is not itself actually an instance of F (Brewer 2011, 105).

Nyāya vs. Brewer

“The paradigms “are instances of the kinds in question, whose association with the terms for those kinds partially constitutes our understanding of those terms, given our training in the acquisition of the relevant concepts. They are paradigm exemplars of the kinds in question relative to our grasp of the concepts for those kinds.” (Brewer 2011, 104).

That is not the role which the mislocation theory assigns to instances of the kind *F*, the kind which an object looks to be in an illusion. This role, rather, is one of previous acquaintance grounding an ascriptional skill: I visually recognise *snake* in the rope as a result of my previous exposure to snakes.

Distinguish between two distinct roles that instances of a kind can play in perceptual experience:

- One is to serve as the paradigmatic exemplars of the kind through which we learn a concept of, and a name for, the kind.
- The other is to serve as the grounding experience for a ascriptional capacity with respect to further instances of the kind in question, a skill that can and sometimes does misfire.

Objective Looks and Infallibilism

“The feature that is actually present in our experience of a straight stick in water is a feature that infallibly corresponds to a property the stick actually does possess, namely the objective feature of objective sticks that triggers visual systems like ours to produce the particular kind of percept it produces. (We lack a name for this property, but following the pattern set above, we could call it bentishness.) Our experience, therefore, does not have the content “the stick is bent”. It rather presents to us a bentish stick, something it cannot fail to do, given the openness of perception and the manifest bentishness of the stick.” (Antony 2011, 335).

Dignāga as an Objective Looks Theorist

Dignāga: perceptual experience is *kalpanāpodha*
(*Pramāṇasamuccaya* PV 1, v.2)

“Erroneous cognition (*bhrānti-jñāna*) is not a true perception because it arises conceptually constructing, for example, water, etc., out of such things as vapor floating over sand. Cognition of empirical reality (*samvṛti-sat-jñāna*) is not a true perception because it superimposes something extraneous upon things which are only empirically true (*samvṛti-sat*), and thus functions through the conceptualization of forms of these [extraneous things].” (PSV 1, v.7; Hattori 1966, 28)

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Thank You!



Illusion: magic, mirage