

THE LATE MEDIEVAL DEBATE ABOUT THE NATURE OF PHENOMENAL REALITY IN FRANCISCAN THEOLOGY AND ISLAMIC THOUGHT AND ITS GREEK SOURCES

EL DEBATE TARDOMEDIEVAL SOBRE LA NATURALEZA DE LA REALIDAD FENOMENAL EN LA TEOLOGÍA FRANCISCANA Y EL PENSAMIENTO ISLÁMICO Y SUS FUENTES GRIEGAS

Oleg Bychkov

St. Bonaventure University

Abstract

The tendency to question the accuracy of sensory perception is found in various medieval theological traditions, including Franciscan and Islamic. In both these traditions, the source of the idea that we cannot trust our sensory perception seems to have been the Greek commentaries on Aristotle. However, both traditions go beyond ideas contained in Greek Aristotelian literature and independently develop similar arguments and come to similar conclusions about the reliability of sensory perception.

Keywords

Medieval; Franciscan; Islamic; Sensory Perception; Reality

Resumen

Encontramos la tendencia a cuestionar la precisión de la percepción sensorial en diversas tradiciones teológicas medievales, incluyendo la franciscana y la islámica. En ambas tradiciones, parece que los comentarios griegos a la obra aristotélica están en el origen de la idea de que no podemos confiar en nuestra percepción sensorial. Sin embargo, ambas tradiciones van más allá de las ideas contenidas en la literatura aristotélica griega y desarrollan de manera independiente argumentos similares y llegan a conclusiones similares sobre la fiabilidad de la percepción sensorial.

Palabras clave

Medieval; franciscano; islámico; percepción sensorial; realidad

1. Introduction

The field of neuroscience recently revealed the stunning fact that the “brain generates its own reality, even before it receives information coming in from the eyes and the other senses”.¹ This process is called building an “internal model”² or making “predictions, or ‘best guesses’, about the causes of sensory signals”.³ What results is a “kind of waking dream – a controlled hallucination – that is both more than and less than whatever the real world really is”⁴ or a “top-down, inside-out neuronal fantasy that is reined in by reality, not a transparent window onto whatever that reality may be”.⁵ This “neuronal fantasy” or a “hallucination” that consists of “perceptual best guesses” that are controlled in a waking state by sensory input is so pervasive that according to Seth “you could even say that we’re all hallucinating all the time. It’s just that when we agree about our hallucinations, that’s what we call reality”.⁶ The process of building this “waking dream” blurs the boundaries between “abnormal” hallucination and “normal” perception as “both share a core set of mechanisms in the brain. The difference is that in ‘normal’ perception, what we perceive is tied to – *controlled by* – causes in the world, whereas in the case of hallucination, our perceptions have, to some extent, lost their grip on the causes”.⁷ Thus “what we call ‘hallucination’ is what happens when perceptual priors are unusually strong, overwhelming the sensory data so that the brain’s grip on their causes in the world starts to slide”⁸ and “hallucination can be thought of as uncontrolled perception”.⁹ Neuroscientists such as Eagleman¹⁰ use a number of examples such as visual illusions, hallucinations, and dreams to support the discovery that our brain creates a phenomenal picture of “external reality” in our mind that, first, can persist quite independently of sensory input and, second, can be generated in more or less the same way no matter whether the source of interpreted signals is external or internal.

Although seemingly novel, this article will demonstrate that these recent findings in neuroscience merely affirm what has been argued by theologians and philosophers in certain traditions for thousands of years. The exact nature of what we refer to as external reality was called into question perhaps earliest of all in the Hindu and Buddhist traditions, for different theological and philosophical reasons. Both Hindu and Buddhist theologians and philosophers doubted the reliability of sensory perception and presented

¹ David Eagleman, *The Brain: The Story of You* (New York: Vintage Books, 2017), 56.

² Eagleman, *The Brain*, 56-57.

³ Anil Seth, *Being You. A New Science of Consciousness* (New York, N.Y.: Dutton, 2021), 84.

⁴ Seth, *Being You*, 79.

⁵ Seth, *Being You*, 88.

⁶ Seth, *Being You*, 92.

⁷ Seth, *Being You*, 89.

⁸ Seth, *Being You*, 128.

⁹ Seth, *Being You*, 89.

¹⁰ Eagleman, *The Brain*, 56-57.

what we call external reality as an illusion. In support of this belief, they relied on a number of common examples, such as visual illusions, dreams, hallucinations, sensory perception affected by diseased organs and so forth.¹¹ In the Mediterranean tradition the same train of thought was picked up most vocally by the Greek Sceptics, for yet another set of philosophical reasons.¹² Both Pyrrhonian and Academic Scepticism thrived in both Greek and Latin Mediterranean traditions until the official acceptance of Christianity in the Roman Empire. These forms of Scepticism even made it into some early Christian writers such as Augustine as part of the polemic against pagan authors, and they relied all along on examples of perceptual experiences that signal the lack of reliability of sensory perceptual processes.

This skeptical train of thought as well as the debates around it all but disappeared from the Western European intellectual tradition after the demise of the pagan Western Roman empire. However, as scholastic theological debates in Western Europe in the 1300s became much more advanced, the reliability of sensory perception was questioned once again in the context of the debate about just how much of reality can be known by the human mind, which preceded the discussion whether the human mind can know God in commentaries on the *Sentences* of Peter Lombard. Notably Franciscan theologians were at the forefront of the reinvented debate about the reliability of the sensory perception of external reality. Medieval Franciscan theologians do not inherit the debate from the Greek or ancient Latin sources directly (with one exception) but from the Islamic tradition (both Arabic and Persian). It is also most interesting that similar debates develop in the medieval Islamic tradition in parallel to Franciscan scholastic debates and unbeknownst to Franciscan theologians. In constructing their arguments both Franciscan theologians and their late medieval Islamic counterparts rely on examples of visual illusions, dreams, and hallucinations.

The current study will begin by looking at the late medieval Franciscan debates about the reliability of sensory perception. It will continue by analyzing the common sources – both Greek and early Islamic – of debates about the nature of phenomenal reality¹³ and

¹¹ About the discussion of phenomenal reality and reliability of sensory perception in Buddhism see Louis de la Vallée Poussin, “Documents d’abhidharma: la controverse du temps”, *Mélanges chinois et bouddhiques* 5 (1936-1937): 1-158, at 27-47 and Collett Cox, “On the Possibility of a Nonexistent Object of Consciousness: Sarvāstivādin and Dārṣṭāntika Theories”, *The Journal of the International Association of Buddhist Studies* 11/1 (1988): 31-87. References to the same discussion in the Nyāya tradition in Hinduism can be found in Cox, “On the Possibility of a Nonexistent Object”, 69, n. 1.

¹² There is a good chance that Pyrrho could have absorbed the main idea and some of the arguments from either Buddhist or Hindu ascetics on his documented trip to Northern India as part of the retinue of Alexander Macedo, although this is a topic for another study. See Christopher I. Beckwith, *Greek Buddha: Pyrrho’s Encounter with Early Buddhism in Central Asia* (Princeton and Oxford: Princeton UP, 2015) and Richard Stoneman, *The Greek Experience of India: from Alexander to the Indo-Greeks* (Princeton and Oxford: Princeton UP, 2019), 346-357.

¹³ The term “phenomenal reality” (from the Greek φαίνομαι, to appear) here is used in the sense in which it is used in 20th-century phenomenology: to denote the apparent picture of reality that

the reliability of sensory perception for both late medieval Franciscan theologians and late medieval Islamic theologians and philosophers by tracing the examples that both groups use to substantiate their claims or counterclaims about the reliability of sensory perception of “external reality”. It will end by examining developments in the later medieval Islamic version of the debate that parallel discussions in Franciscan circles in the 1300s, again by discussing contexts of examples of sensory experiences that seem to undermine its reliability in the work of two prominent medieval Islamic theologians and philosophers Fakhr al-Dīn al-Rāzī and Khwājah Naṣīr al-Dīn al-Ṭūsī. It is important for the history of ideas to show that what neuroscience recently discovered about the nature of phenomenal reality and the reliability of sensory perception was suggested a long time ago without the benefit of present-day science but based purely on observations of perceptual experiences. So, the study will conclude by outlining common threads in the understanding of the nature of sensory perception in these historical traditions and modern neuroscience. Ultimately, the study will defend the claim that once one begins debating the nature of the phenomenal picture of reality that we experience, no matter what one’s official “dogmatic” stance is on this matter, inevitably it becomes clear that our phenomenal experience can be created and persist independently from the senses and whatever we call “external reality”. Specifically, the view that our sensory system somehow communicates “true” or “objective” information about the “world out there” (direct perceptual realism)¹⁴ is severely undermined.

2. The Debate Around Phenomenal Reality in Franciscan Circles in the 1300s

The debate among Western theologians, and specifically in Franciscan circles, is well documented.¹⁵ The crux of it consists in what could be called, using present-day philosophical terminology, an analysis of the nature of our phenomenal experience of external “reality”, including its sensory perception, such as the visual experiences of color or shape. Naturally, visual illusions present a particularly suitable opportunity for analyzing the status of the phenomenal picture in the human mind. Just as ancient and

is created in our mental awareness and that includes not only visual information but also sounds and other sensations. The term does not communicate anything about the veracity of this picture or its correspondence with things “out there”.

¹⁴ Direct perceptual realists claim that correct or “objective” information from external things somehow reaches our mind directly during the act of sensory perception.

¹⁵ See Oleg Bychkov, “The Status of the Phenomenal Appearance of the Sensory in Fourteenth-century Franciscan Thought after Duns Scotus (Peter Aureol to Adam of Wodeham)”, *Franciscan Studies* 76 (2018): 267-285. Researchers specifically focus on the issues of scepticism, certitude of sensory cognition, intentionality, and the positions of externalism or internalism in medieval cognitive theories: See Katherine H. Tachau, *Vision and Certitude in the Age of Ockham* (Leiden: Brill, 1988); Henrik Lagerlund (ed.), *Rethinking the History of Skepticism: The Missing Medieval Background* (Leiden and Boston: Brill, 2010); Gyula Klima (ed.), *Intentionality, Cognition, and Mental Representation in Medieval Philosophy* (New York: Fordham University Press, 2015), specifically essays by Panaccio and Karger.

medieval discussions about the nature of reality resemble some recent revelations in neuroscience, so the medieval scholastic debate in Franciscan circles about reality and the reliability of sensory perception exhibits striking similarities with present-day philosophical debates about these issues.¹⁶ Namely, participants in the Western medieval version of the debate fall roughly into the same categories as those in present-day debates. The majority, both then and now, consider sensory cognition to be a relation between the external thing and the sensory or cognitive faculty thus falling either into the direct perceptual realist camp or into the relationist camp to various degrees.¹⁷ Franciscan theologians such as William of Ockham (d. 1347) in his later work, Walter Chatton (d. 1343), and Adam of Wodeham (d. 1358) fall into those two camps. The antirealist position that our entire phenomenal picture is a mental construct and does not have to correlate with “things out there” faces steep opposition in the Middle Ages, as it does in modern times and in the present. Scholars such as Peter Aureol (d. 1322) or the early Ockham, who either hold this position or appear to hold it, are forced to modify their stance in favor of direct realism, as in the case of Ockham, or something like relationism as in the case of Aureol. Ultimately, the sharpest and subtlest minds, such as Aureol and Wodeham, whatever their doctrinal stances, are forced to accommodate the undeniable dialectic of our experience of sensory perception, namely, that on the one hand our phenomenal picture is not exactly the same as external things, and yet on the other hand somehow it is, for it allows us good practical contact with them.¹⁸

Some questions raised by Peter Aureol, the most controversial of this group of Franciscans, exemplify the issues related to the status of the phenomenal picture of the world that were discussed in Franciscan circles in the 1300s. These questions include: What is the status of the phenomenal appearance of something when we have a case of sensation, the most prominent case being that of vision? Is the phenomenon “out there” or only in our mind, or in between? And is it generated by some object “out there” or by our mind? And is there a way to tell? In other words, are phenomenal appearances simulations generated by the mind, true reflections of something “out there”, or a case of interaction between our mind and what is “out there”? The issue can also be recast in terms of the question of intentionality. What are these “stand-ins” for what we instinctively take to be “external objects”: are they “things out there”? or are they something internal to our mind? or are they both? and how is this phenomenon of “standing in for something” to be thought? Aureol gives this mysterious entity of

¹⁶ See Gary Hatfield, *Perception and Cognition. Essays in the Philosophy of Psychology* (Oxford: Clarendon Press, 2009); Mazviita Chirimuuta, *Outside Color. Perceptual Science and the Puzzle of Color in Philosophy* (Cambridge, MA and London, England: MIT Press, 2015).

¹⁷ Relationists are those who view sensory experiences strictly as interactions – relations – between sensory objects and sensory faculties.

¹⁸ The debate and its intricacies are documented in my article, Bychkov, “The Status of the Phenomenal Appearance”, 267-285. Specifically, I attempt to demonstrate that although Aureol actually tries to adjust his model to something like a relationist point of view, ultimately his attempts are incoherent and his model remains antirealist, whatever his overt claims may be.

phenomenal appearance an array of names that later begin to be used by all other parties to the debate: “apparent being”, “objective being”, “intentional being”, and so forth.

Fourteenth-century Franciscans also use a number of examples that cast doubt on the reliability of the sensory perception of “reality”. Typical examples include visual and other sensory illusions when one perceives arguably something that is not there; hallucinations; and dreams that are also phenomenal experiences of something that seemingly does not exist. Such examples are used by all camps, either to prove that our perception of reality is unreliable and that there is no way to establish what is ultimately real, or, after refutations, to demonstrate that one can trust our sensory perception of reality and can establish what is real. Such examples are scarce in scholastic texts in the early 1300s but gradually accumulate to dozens and dozens towards mid-1400s, e.g., in the work of Bero Magni.¹⁹ The aforementioned four Franciscan scholars who debated the reliability of sensory perception and the nature of phenomenal reality in the 1300s all used a number of such examples.

Aureol either is the clearest representative of the antirealist position, or his position was interpreted as such by his contemporaries.²⁰ He claims that when we are having a phenomenal experience, such as that of color, we are dealing with a special type of being (“apparent”, “intentional”, “conspicuous”, and so forth), which can exist independently from external objects even under natural conditions. “The act of the intellect is terminated at a thing that is posited in formed, intentional, and apparent being”. Using the example of seeing a rose, Aureol claims that the act of intuitive cognition “does not terminate at a rose that really exists, but at a formed, conspicuous, and apparent being”.²¹

¹⁹ Robert Andrews, *Bero Magni de Ludosia, Questions on the Soul. A Medieval Swedish Philosopher on Life* (Stockholm: Sällskapet Runica et Mediaevalia, Centre for Medieval Studies and Stockholm University, 2016), 134-227, specifically at 155, 325.

²⁰ Aureol’s position has been thoroughly examined in multiple studies since the 1940s and is well known: see Philotheus Boehner, “*Notitia intuitiva* of Non Existentis According to Peter Aureoli, O.F.M. (1322)”, *Franciscan Studies* 8 (1948): 388-410; Katherine H. Tachau, “Peter Aureol on Intentions and the Intuitive Cognition of Non-existentis”, *Cahiers de l’Institut du Moyen-Âge grec et latin* 44 (1983): 122-150; Dominik Perler, “Peter Aureol vs. Hervaeus Natalis on Intentionality. A Text Edition with Introductory Remarks”, *Archives d’histoire doctrinale et littéraire du Moyen Âge* 61 (1994): 227-262; Dominik Perler, “What Am I Thinking About? John Duns Scotus and Peter Aureol on Intentional Objects”, *Vivarium* 32/1 (1994): 72-89; Dallas G. Denery II, “The Appearance of Reality: Peter Aureol and The Experience of Perceptual Error”, *Franciscan Studies* 55 (1998): 27-52; Dominik Perler, “What Are Intentional Objects? A Controversy Among Early Scotists”, in *Ancient and Medieval Theories of Intentionality*, edited by D. Perler (Leiden, Boston and Köln: Brill, 2001), 203-226; a chapter in Tachau, *Vision and Certitude*, 85-112; most recently, Russell L. Friedman, “Act, Species, and Appearance: Peter Auriol on Intellectual Cognition and Consciousness”, in *Intentionality, Cognition, and Mental Representation*, edited by G. Klima (New York: Fordham University Press, 2015), 141-165. My article Bychkov, “The Status of the Phenomenal Appearance”, 267-285 cited above shows in detail that the position that Aureol attempts to assume (whether successfully or not) is much more nuanced and can probably be characterized as “relationist”; see there.

²¹ *Scriptum* 1, dist. 2, sectio/qu. 10, C, a. 4d; Peter Aureoli, *Scriptum super primum Sententiarum*, vol.

This simulated reality, for example, “the reality of vision, does not require a real presence of an existent [external] object” but can exist by itself. It is only the falsity or “truth of vision” that “requires” this real absence or presence, “because the truth of vision adds to the reality of vision a relation of conformity to a [real external] thing”.²² The “presential mode” in visual cognition is maintained whether the object of vision is present or absent.²³ For example, speaking of visual illusions and using the example of the dove’s neck common in Cicero and Augustine,²⁴ Aureol claims that the “colors of the dove’s neck or other [false] appearances do not actuate [the sense of] vision”²⁵ because strictly speaking they are not present in the real thing and cannot act on our vision, and yet they are generated within our phenomenal picture. Ultimately it is hard to avoid the conclusion that Aureol, as early as in the fourteenth century, comes close to portraying phenomenal experiences as simulations generated by the mind that can exist independently of external objects.

To prove his point, Peter Aureol uses the following examples: residual images that remain in our phenomenal field after we have seen a bright object while the object is no longer present;²⁶ phenomenal experiences of non-existent things produced by dreams²⁷ or emotions such as fear, i.e., hallucinations;²⁸ sensory experiences produced by defective sensory organs, such as bloodshot eyes that make objects appear red;²⁹ a false perception of movement of objects on the shore while on a moving boat; a circle produced in one’s visual field by a rotating object, such as a torch, which is another case of a residual or trace image;³⁰ a stick appearing broken if semi-submerged in water; a doubling of a visual object if one applies pressure to one of the eyeballs; and the perception of different colors on a dove’s neck depending on the angle of vision.³¹

2, edited by E.M. Buytaert (St. Bonaventure, NY: The Franciscan Institute, 1956), 548, n. 91.

²² Peter Aureol, *Scriptum* 1, Prooemium, sectio 2, C, resp., art. 3; Aureoli, *Scriptum super primum Sententiarum*, vol. 1, edited by E.M. Buytaert (St. Bonaventure, NY: The Franciscan Institute, 1952), 200, n. 91; see 203, n. 100.

²³ Aureol, *Scriptum* 1, Prooemium, sectio 2, C, resp., art. 3; vol. 1, 204, n. 106; see Aureol, *Scriptum* 1, dist. 2, sectio/qu. 10, C, a. 4d; vol. 2, 548, n. 95.

²⁴ See Augustine, *Contra academicos* 2.12.27, and Cicero, *Academica* 2.7.19 and 2.25.79.

²⁵ Aureol, *Scriptum* 1, dist. 2, sectio/qu. 10, C, a. 4d; vol. 2, 549-550, n. 99.

²⁶ Aureol, *Scriptum* 1, Prooemium, sectio 2, C, resp. art. 3; vol. 1, 198-9, n. 82.

²⁷ Aureol, *Scriptum* 1, Prooemium, sectio 2, C, resp. art. 3; vol. 1, 199, n. 83; vol. 1, 202-3, n. 99.

²⁸ Aureol, *Scriptum* 1, Prooemium, sectio 2, C, resp. art. 3; vol. 1, 199, n. 84.

²⁹ Aureol, *Scriptum* 1, Prooemium, sectio 2, C, resp. art. 3; vol. 1, 199, n. 86.

³⁰ Aureol, *Scriptum* 1, dist. 3, q. 14, resp. art. 1; vol. 2, 696, n. 31.

³¹ Aureol, *Scriptum* 1, dist. 3, q. 14, resp. art. 1; vol. 2, 697, n. 31. Robert Greystones is a stand-alone thinker who is not well known in the Middle Ages but makes a particularly strong case for scepticism. See Robert Andrews, Jennifer Ottman, and Mark G. Henninger (eds.), *Robert Greystones on Certainty and Skepticism. Selections from His Commentary on the Sentences* (Oxford: Oxford University Press, 2019). He uses some of the same examples as the Franciscan theologians discussed in this study, such as: the circle created by whirling a flaming torch (Prologue q. 1, n. 142, p. 70); Augustine’s example of afterimages from *De Trin.* 11 (Prologue q. 1, n. 143, p. 70); the

Although William Ockham eventually becomes as rigorous an opponent of Aureol's "apparent being" as one can be, his earlier model of phenomenal experience as a certain *fictum* that exists in "objective being" was interpreted by his critics, notably Walter Chatton, as identical to that of Aureol.³² Curiously, the power of Aureol's position was such that even Chatton, his most ardent critic, succumbs partially to this position by admitting that residual images can continue even naturally for a short period of time after the external thing is gone.³³ Even though he, as just about everybody else at that time, attempts to distance himself from Aureol's position by stating that afterimages cannot be *initiated* in the absence of external things, the bare fact of their brief *continuance* in the absence of an external thing cannot but lead to the same conclusion that they are independent simulations. In brief, Aureol pioneered a bold position that something is generated in the mind that is not necessarily a real-time reflection of external things. Although Aureol's position seems to have impacted several other Franciscans, an extreme position of this sort, such as that of Berkeley or Hume in modern times, made most scholars uncomfortable even then. So the predominant current of early fourteenth-century Franciscan thought ran against Aureol's model, or at least against what they thought his model was.

Although his earlier theory of *fictum* was reminiscent of Aureol's position, Ockham is perhaps the only true representative of direct perceptual realism among the four Franciscan theologians: a position sometimes referred to as "externalist".³⁴ Ockham rejects any intermediate between the external thing and the cognitive faculty. He rejects the sceptical position of the "ancients" – also shared by Aureol in his opinion – that "all things are as they appear".³⁵ A non-white thing appears to be white directly "by the apprehension or the act of the [cognitive] faculty without any intermediate" (such as "apparent being") only when the senses provide an occasion for deception and "a thing

stick in water that appears bent (Prologue q. 1, n. 192, p. 96); the afterimages that appear when we walk into a darkened room (Prologue q. 1, n. 146a, p. 72; *Quaestio disputata* 1, n. 45, p. 208); the apparent movement of trees on the shore to the sailor; the world seems to rotate after one has stopped spinning (*Quaestio disputata* 1, n. 48, p. 210).

³² See Ockham, *Ord.* 1, d. 2, q. 8 (*OTh* 2, 268ff; 271-2), and Tachau, *Certitude*, 149. On Chatton's interpretation of this position see Tachau, *Certitude*, 202, with reference to Chatton, *Rep.* I, d. 3, q. 2. Ockham will be cited according to the edition: William of Ockham, *Scriptum in librum primum* [etc.] *Sententiarum. Ordinatio*, Opera Theologica 1, 4, edited by G. Gál et al. (St. Bonaventure, NY: The Franciscan Institute, 1967, 1979), further abbreviated as *OTh* 1 and 4; Chatton will be cited according to the editions: Walter Chatton, *Reportatio et Lectura super Sententias: Collatio ad Librum Primum et Prologus*, edited by J.C. Wey (Toronto: Pontifical Institute of Mediaeval Studies, 1989); Walter Chatton, *Reportatio super Sententias, Liber I, distinctiones 1-9*, edited by J.C. Wey and G.J. Etzkorn (Toronto: Pontifical Institute of Mediaeval Studies, 2002).

³³ Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 86-97.

³⁴ See Tachau, *Certitude*, 147, 151-152, 202, and Claude Panaccio, "Ockham's Externalism", in *Intentionality, Cognition, and Mental Representation*, edited by G. Klima (New York: Fordham University Press, 2015), 166-185, at 180-181 and 183.

³⁵ Ockham, *Ord.* 1, d. 27, q. 3 (*OTh* 4, 250).

is judged to be such as it is not”; when there is no deception, however, “a thing is judged [to be exactly] as it is”.³⁶ Ockham’s position is well documented. To be sure, he shares the general concession that God could cause a phenomenal picture of a thing without that thing being actually present.³⁷ However, to affirm the absolute infallibility of the senses under natural conditions seemed untenable even to such perceptual realists as Chatton.

Although Chatton avoids Ockham’s radical trust in the reliability of sensory perception, his position also fits the direct perceptual realist model. Thus intuitive intellectual cognition is different from abstractive in that it is only sustained by the presence of the object.³⁸ Further, what Scotus and Aureol call *esse obiectivum* is not distinct from the act of perception or cognition itself: “intuitive act does not put the thing into some [mode of] being that is distinct from the act of vision and the thing itself that is seen.”³⁹ The language of a thing “being” in the soul is improper or metaphorical speech.⁴⁰

Direct perceptual realism can also be attributed to Adam Wodeham.⁴¹ Wodeham’s position certainly sounds like direct perceptual realism: “we receive evident and certain assent by which the intellect judges that this thing exists after some visible whiteness is shown [to us].”⁴² Wodeham rallies against the position that vision can be caused in the absence of a really existing object.⁴³ The direct realist position is proven from experience. Wodeham argues that as whiteness will be seen even if one brackets all other “diminished being” except for the act of seeing, “it is superfluous to put there this sort of diminished being”; “we do not experience anything emanating as a medium between vision and a thing that is seen out there”.⁴⁴ Trying to explain away the example of a circle that is perceived when a stick is rotated – which does not have real existence, therefore suggesting the mental simulation model – Wodeham points out that in order to have some “being” this circle must have its being independently from vision. However, “although

³⁶ Ockham, *Ord.* I, d. 27, q. 3 (*OTh* 4, 251).

³⁷ See Ockham, *Ord.* I, Prologue, q. 1.

³⁸ Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 1, 81.150-155.

³⁹ Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 87.25-26.

⁴⁰ See Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 88.65-70, a position that Tachau (*Certitude*, 188) thinks is close to that of Radulphus Brito: “minus videtur inconveniens concedere quod ipsemet actus videndi sit esse obiectivum rei extra...”; Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 89.83-86: “ipsa cognitio potest dici aliquod esse obiecti per extrinsecam denominationem, quia est qua posita verum est dicere quod res est cognita; et hoc non est nisi cognitionem illam esse in anima...”

⁴¹ Elizabeth Karger, “Adam Wodeham on the Intentionality of Cognitions”, in *Ancient and Medieval Theories of Intentionality*, edited by D. Perler (Leiden, Boston and Köln: Brill, 2001), 287, views Wodeham as a “direct realist”.

⁴² Wodeham, *Lectura secunda 1*, Prologue, qu. 1; Adam de Wodeham, *Lectura secunda in Librum Primum Sententiarum. Prologus et Distinctio prima, Distinctiones II-VII*, edited by R. Wood and G. Gál (St. Bonaventure, N.Y.: St. Bonaventure University, 1990), 10.

⁴³ Wodeham, *Lectura secunda 1*, Prologue, qu. 3, 71.

⁴⁴ Wodeham, *Lectura secunda 1*, Prologue, qu. 4, 90.

the ocular vision itself is not the apparition itself, nevertheless this vision cannot be circumscribed, because this apparition is constituted out of it as of its part".⁴⁵

Rejecting Aureol's "apparent being", Wodeham sides with Chatton in affirming that afterimages, one of Aureol's proofs of the existence of "apparent being", are not as clear and not quite the same as when the object is actually in the line of sight.⁴⁶ He attributes these afterimages to the impact of the sensory species. Thus reexamining the example of light passing through a stained glass window used by Ockham and Chatton, Wodeham observes, in a direct realist fashion, that "the fact that I see redness that is produced on the wall from the passing of the ray of the sun through red [stained] glass does not make me conclude that I see the glass but only that I see that redness".⁴⁷ In other words, our vision includes situational awareness, or the perception that there is no direct line of sight to an object, which saves us from the error of "seeing" the original object in the case of an afterimage. Our vision takes into consideration the position of the body vis-à-vis the object.⁴⁸ The answer to one of the questions Wodeham poses would exactly distinguish a direct perceptual realist model from any other: "Is any apparent or visual being caused by vision that is distinct from vision and the object of vision?"⁴⁹ Following Chatton, Wodeham explains authoritative statements about "things having being in the soul" in the sense that the "cognition itself [of the object] is called a certain 'being' of the object", which is, according to him as it was for Chatton, "metaphorical and improper speech".⁵⁰ Thus objects of sensory cognition do not have any other being of a different mode, against that which Aureol claims: there is only the object of perception and the faculty of perception. The apparition of the object is the process of perception itself.⁵¹

Overall, the difference between the positions of Ockham on the one hand, and those of Chatton and Wodeham on the other, is that the latter two are less extreme and more sensitive to actual sensory experience. Chatton and Wodeham do not accept absolute reliability of the senses; however, neither do they accept that our phenomenal picture is generated without any contact with external reality (this is their dogmatic position irrespective of actual human experiences of perception).

As part of the polemic against Aureol Ockham, Chatton, and Wodeham use some of the same examples as Aureol: residual images;⁵² dream images;⁵³ delusions and

⁴⁵ Wodeham, *Lectura secunda* 1, Prologue, qu. 4, 106.

⁴⁶ Wodeham, *Lectura secunda* 1, Prologue, qu. 3, 75.

⁴⁷ Wodeham, *Lectura secunda* 1, Prologue, qu. 3, 76.

⁴⁸ Wodeham, *Lectura secunda* 1, Prologue, qu. 3, 78.

⁴⁹ Wodeham, *Lectura secunda* 1, Prologue, qu. 4, 84.

⁵⁰ Wodeham, *Lectura secunda* 1, Prologue, qu. 4, 89.

⁵¹ Wodeham, *Lectura secunda* 1, Prologue, qu. 4, 84, 88, 89, 96. See a direct realist position expressed in Wodeham, *Lectura secunda* 1, dist. 1, q. 1, 186 in another debate against Ockham.

⁵² Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 91.150-158, 92.175ff; Wodeham, *Lectura secunda* 1, Prologue, q. 3, par. 3, 68-69, 73, 75.

⁵³ Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 95.255-266, 96.282-285, 96.289-292; Wodeham, *Lectura secunda* 1, Prologue, q. 3, par. 3, 68-69, 73, 75, 80.

hallucinations in certain psychological states;⁵⁴ a false perception of movement of objects on the shore from a moving boat;⁵⁵ a false circle created in the air by a moving object;⁵⁶ a stick appearing broken in water;⁵⁷ varied colors perceived on a dove's neck;⁵⁸ diseased sensory organs causing sensory distortions;⁵⁹ visual illusions.⁶⁰

But how does Ockham – as well as Chatton and Wodeham who follow him on that⁶¹ – explain sensory illusions? They are errors of “judgment” in a higher sensory faculty.⁶² However, the judgment these scholars have in mind is “judgment” in the sense in which Augustine uses the term in application to the senses. This concerns the immediate “judgment” (we would, perhaps, call it “response” or “reaction”) that results, e.g., in a phenomenal picture of a circle when a rotating stick is present. So blaming everything on this sort of “judgment” and shifting the generation of sensory illusions from one sensory system to another seems to be simply an evasion. Technical arguments as to where exactly in the sensory system the circle is generated do not eliminate the factual reality: the result is the same, because experientially we have a true visual experience of a circle, and not a rational judgment about it (the rational judgment, in fact, tells us there is no circle). It is difficult to see, then, if one truly pays attention to our sensory experiences, how the extreme position that there is no intermediate being between the external thing and our visual experience can be maintained. First, if our phenomenal experience is nothing but mental simulation, intermediate reality is all we see. And even if one believes that there is external reality behind it, one's model still needs to include something in between that can account for the phenomenal picture that sometimes does not correspond to this external reality, although is mostly dependent on external reality.

Before we continue tracing the common examples in late medieval Franciscan theological debates that seem to suggest the lack of reliability of sensory perception, to sum up, examples of questionable phenomenal apparitions in the Franciscan debate in the 1300s fall into several major categories as regards to how they challenge our perceptual belief in external reality: sensory illusions, i.e., perceptual objects appearing as something else or differently while they are still there; persistence of perceptual

⁵⁴ Wodeham, *Lectura secunda* 1, Prologue, q. 3, par. 3, 68–69, 73, 75, 80.

⁵⁵ Ockham, *Ord.* 1, d. 27, q. 3 (*OTh* 4, 245); Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 93.194–213, 94.224–236; Wodeham, *Lectura secunda* 1, Prologue, q. 4, par. 7, 97ff.

⁵⁶ Ockham, *Ord.* 1, d. 27, q. 3 (*OTh* 4, 246–247); Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 93.194–213, 94.224–236; Wodeham, *Lectura secunda* 1, Prologue, q. 4, par. 10, 103–104.

⁵⁷ Ockham, *Ord.* 1, d. 27, q. 3 (*OTh* 4, 247); Chatton, *Reportatio et Lectura*, Prologue, q. 2, a. 2, 93.194–213, 94.224–236; Wodeham, *Lectura secunda* 1, Prologue, q. 4, par. 11, 106; and *Lectura secunda* 1, dist. 2, q. 1, 28.

⁵⁸ Ockham, *Ord.* 1, d. 27, q. 3 (*OTh* 4, 248); Wodeham, *Lectura secunda* 1, Prologue, q. 4, par. 11, 107.

⁵⁹ Wodeham, *Lectura secunda* 1, Prologue, q. 3, par. 3, 68–69, 73, 75.

⁶⁰ Wodeham, *Lectura secunda* 1, Prologue, q. 3, par. 3, 82.

⁶¹ E.g., Chatton in *Reportatio et Lectura*, Prologue, q. 2, a. 2, 93, and Wodeham in *Lectura secunda* 1, Prologue, q. 2, 48 and q. 3, 80ff.

⁶² Ockham, *Ord.* 1, d. 27, q. 3 (*OTh* 4, 245); also *Ord.* 1, Prologue, qu. 1, art. 6 (*OTh* 1, 70).

objects in the waking state after the sensory input is over and the object is no longer there (which can be determined by other means); perception of objects in the waking state by one person that others do not perceive (hallucinations); and perception of objects in a state of sleep where there should be no sensory perception. The first type at least can be explained by some sort of perceptual distortions (even though from the point of view of present-day neuroscience some of them cannot as they are simply “false predictions”), so the most convincing types of examples that seem to prove that external “reality” is a mental construct are the last three, which will be the main focus for the remainder of this study.

3. The Greek and Islamic Sources of Medieval Debates About Phenomenal Reality

While the immediate sources of such examples in the West in the mid-1300s and 1400s can be traced to contemporary debates,⁶³ the initial origins of these examples are less clear. Medieval Western scholastics had no direct access to any Greek texts that contain Sceptical debates or examples of sensory perception that undermine our ability to know reality (not to mention Buddhist or Hindu texts). Nor do their texts exhibit any awareness of the two major Latin texts that contain such examples, namely Cicero’s *Academica* and Augustine’s *Contra Academicos*.⁶⁴ Both texts survived in some form throughout the Middle Ages but were not widely available or known.⁶⁵

What first comes to mind as a potential source of examples of visual illusions and distortions for medieval authors, both Western Christian and Islamic, are treatises on optics by so-called perspectivists. These texts are of Greek origin and go back to Ptolemy (who draws on Euclid), whose *Optics* was translated into Arabic and later into Latin and available in both the West and the Islamic world. The more common and widely available text was *Optics* by al-Haytham, which draws heavily on Ptolemy and was also translated into Latin and widely available in the West. The most prominent perspectivist Roger Bacon in his *Perspectiva* draws on both Ptolemy and al-Haytham.⁶⁶ As will be shown below,

⁶³ The four aforementioned Franciscan scholars bounce them off each other, and Andrews traces many of Bero Magni’s abundant examples to late medieval authors. No such examples are detectable in most early scholastics from the 1200s.

⁶⁴ Fourteenth-century Franciscans, instead, use Augustine’s *De Trinitate*, which contains a very limited number of such examples, such as the one of residual images. Of course one could gain some awareness of the position of Academic Sceptics who doubted the reality of sensory objects, as well as of some of their examples (such as an oar appearing broken in water, false movement of objects on the shore, and the states of dreaming and insanity), from Augustine’s *De Trinitate* 15.12.21, as did Ockham in *Ord.* 1, prol., q. 1, a. 1 (*OTh* 1, 43.11-13), but these are only brief references that lack any discussion.

⁶⁵ E.g., see L.D. Reynolds (ed.), *Texts and Transmission: A Survey of the Latin Classics* (Oxford: Clarendon, 1983). For more information, see bibliography to Oleg Bychkov, *A Propos of Medieval Aesthetics: A Historical Study of Terminology, Sources, and Textual Traditions of Commenting on Beauty in the Thirteenth Century* (PhD Thesis, University of Toronto, 1999).

⁶⁶ On Bacon and his relevance to the medieval Western debate about phenomenal reality see

later medieval Islamic authors also draw on al-Haytham in similar discussions. All three treatises – Ptolemy’s *Optics*, Al-Haytham’s *Optics*, and Bacon’s *Perspectiva*⁶⁷ – describe the following optical illusions that partly coincide with those mentioned in the Franciscan debate about reality and partly with those that appear in the late medieval Islamic debates that are discussed later: a spinning top or a potter’s wheel containing different colors appears to be of a homogenous color;⁶⁸ fast moving point-like objects such as shooting stars or a torch appear as lines or leave long traces;⁶⁹ faraway objects such as the moon or the stars appear to move against clouds or to travel along side us when we move;⁷⁰ residual images; colored objects skew perception of color in other objects;⁷¹ transparent media take on colors of objects behind them or in them;⁷² doubling of objects, naturally or if one squints;⁷³ stationary objects on the shore observed from a ship appear to be in motion.⁷⁴

Ptolemy and al-Haytham share the example of stationary objects appearing as moving and vice versa.⁷⁵ Ptolemy’s treatise adds the examples of objects that appear closer or farther than they are⁷⁶ and the effect of the “broken” oar in water.⁷⁷ Al-Haytham adds the following examples: the dimness of sight affects perception;⁷⁸ faraway objects appear smaller;⁷⁹ objects close to the eye appear larger;⁸⁰ several objects appear as one and one as several.⁸¹ Two examples are shared by al-Haytham and Bacon: multicolored

Tachau, *Certitude*, 23.

⁶⁷ Albert Lejeune (ed.), *L’Optique de Claude Ptolémée dans la version latine d’après l’arabe de l’émir Eugène de Sicile* (Leiden: Brill, 1989), 2nd ed.; Al-Ḥasan Ibn Al-Haytham, *Kitāb Al-Manāẓir, Books I-II-III <On Direct Vision>*, edited by A. I. Sabra (Kuwait: The National Council for Culture, Arts and Letters, 1983); Roger Bacon, *Perspectiva*, edited by D. C. Lindberg (Oxford: Clarendon Press, 1996).

⁶⁸ Ptolemy, *Optics*, §96, 60-61; al-Haytham, *Optics*, Bk. 3, ch. 7, n. 235, 511-512; Bacon, *Perspectiva*, Part. II, dist. 3, c. 1, 202.122-134.

⁶⁹ Ptolemy, *Optics*, §96, 60-61; al-Haytham, *Optics*, Bk. 3, ch. 7, n. 222-225, 506-508; Bacon, *Perspectiva*, Part. II, dist. 3, c. 1, 200.98-108.

⁷⁰ Ptolemy, *Optics*, §99, 62-63; al-Haytham, *Optics*, Bk. 3, ch. 4, n. 7, 388; ch. 7, n. 32-33, 430-431; Bacon, *Perspectiva*, Part. II, dist. 3, c. 6, 228.509-510, 230.521.

⁷¹ Ptolemy, *Optics*, §107, 66; al-Haytham, *Optics*, Bk. 3, ch. 6, n. 27, 409-410; Bacon, *Perspectiva*, Part I, dist. 5, c. 1, 60.20-30; Part. II, dist. 3, c. 1, 202.116-121; Part. II, dist. 3, c. 2, 206.174-178.

⁷² Ptolemy, *Optics*, §109, 67-68; al-Haytham, *Optics*, Bk. 3, ch. 6, n. 16, 404-405; Bacon, *Perspectiva*, Part I, dist. 6, c. 3, 84.212-215; Part. II, dist. 3, c. 1, 202.114-116.

⁷³ Ptolemy, *Optics*, §115ff, 71ff; al-Haytham, *Optics*, Bk. 3, ch. 7, n. 258-259, 520-521; Bacon, *Perspectiva*, Part I, dist. 5, c. 2, 64.75-78; Part II, dist. 1, c. 3, 170.156-164; Part II, dist. 2, c. 3, 188.

⁷⁴ Ptolemy, *Optics*, §132, 79; al-Haytham, *Optics*, Bk. 3, ch. 7, n. 81, 453; Bacon, *Perspectiva*, Part. II, dist. 3, c. 6, 232.563-566.

⁷⁵ Ptolemy, *Optics*, §98, 62; al-Haytham, *Optics*, Bk. 3, ch. 7, n. 34, 432.

⁷⁶ Ptolemy, *Optics*, §115ff, 71ff.

⁷⁷ Ptolemy, *Optics*, §120, 72-73.

⁷⁸ Al-Haytham, *Optics*, Bk. 3, ch. 6, n. 29, 410; ch. 7, n. 250, 517.

⁷⁹ Al-Haytham, *Optics*, Bk. 3, ch. 7, n. 13, 419.

⁸⁰ Al-Haytham, *Optics*, Bk. 3, ch. 7, n. 24, 426-427.

⁸¹ Al-Haytham, *Optics*, Bk. 3, ch. 7, n. 31, 430.

objects perceived as homogeneously colored or colors not being perceived as they are;⁸² flat objects appear three-dimensional and three-dimensional objects appear flat.⁸³ Finally, Bacon adds the example of the dove's neck appearing to be of various colors.⁸⁴

However, despite one's initial hunch, although Ptolemy and al-Haytham (and Bacon for the Western tradition) do provide some of the examples of visual illusions for both Franciscan⁸⁵ and Islamic debates about phenomenal reality, optical treatises contain no in-depth philosophical analysis of the implications of these illusions for our experience of phenomenal reality as this was not their primary purpose. Most of explanations of illusions there are very technical and have to do with the various conditions that impede and distort normal visual perception such as distance to the object, the angle of vision, visual obstructions, etc. Also, given their focus on optics and the geometry of vision, they do not engage dream perception or hallucinations and therefore exclude a number of examples that are crucial to the debate about reality. Therefore, optical treatises ultimately end up being of limited use as sources for the debate.

At the same time, the texts that the aforementioned Franciscan theologians do quote and refer to in the 1300s in the context of their debates about the reliability of sensory perception⁸⁶ belong to Islamic commentators of Aristotle, such as Ibn Rushd (Averroes), or Islamic philosophers who have been influenced by Aristotle, such as Ibn Sīnā (Avicenna). Those texts were widely available and used in Latin translations beginning with the late 1100s and early 1200s. Naturally, examples related to sensory perception in the Peripatetic tradition mostly come from commentaries on Aristotle's *De anima* or texts that have been influenced by the tradition of commenting on the *De anima*, as this is where sensory perception and lower cognitive faculties are discussed. However, Aristotle's *De anima* itself contains very few examples of this sort, as Aristotle did not seem to be interested in the debate as to whether our sensory powers deliver an accurate picture of reality. His main point is that the perception of primary qualities,⁸⁷ such as color, by individual senses is always accurate, but their interpretation by higher cognitive powers

⁸² Al-Haytham, *Optics*, Bk. 3, ch. 5, n. 1, 390; see Bacon, *Perspectiva*, Part. II, dist. 3, c. 1, 202.122-134.

⁸³ Al-Haytham, *Optics*, Bk. 3, ch. 7, n. 8 and 11, 415-416, 418; see Bacon, *Perspectiva*, Part. II, dist. 3, c. 3, 210.241-212.264.

⁸⁴ Bacon, *Perspectiva*, Part I, dist. 5, c. 1, 62.38-41.

⁸⁵ Even earlier Franciscan authors such as Scotus clearly knew optical treatises and used some of their examples, although rarely. Thus in *Rep.* II, dist. 13, q. un. (Oxford, Merton College 61, f. 172r-v) Scotus specifically mentions Al-Haytham, Euclid and perspectivists and uses the examples of a ray of light being colored while passing through stained glass, bright colors coloring other objects, etc. Out of the four Franciscans in question, Wodeham definitely uses examples that match closely those used in optical treatises, such as a white sail appearing as black at distance; one object appearing as two; large things appearing as small; a part of one object appearing as part of another; something at rest appearing as moving (Wodeham, *Lectura secunda* 1, Prologue, q. 4, par. 12, 109), and trees appearing as growing downwards if reflected in water (Wodeham, *Lectura secunda* 1, dist. 2, q. 1, 28).

⁸⁶ Apart from the example of residual images that they borrow from Augustine's *De Trinitate* 11.2.

⁸⁷ Which Aristotle thought were really present in physical objects.

(such as the “common sense”) and attribution to particular substances can be wrong, which accounts for all sensory illusions and deceptions.⁸⁸ For example, one could take yellow sticky substance for bile, while it could be honey.⁸⁹ While the attribution may be wrong, the perception of the primary quality, i.e., the color yellow, is correct. Aristotle also briefly discusses “unreal” representations in dreams.⁹⁰

Therefore, Islamic scholars must have obtained the examples elsewhere. Although they had access to a wide variety of Greek philosophical material in Arabic translations, Ibn Rushd’s commentaries on Aristotle’s *De anima* and Ibn Sīnā’s psychological texts, as well as some of the latter’s correspondence where he mentions his sources, contain no references to Greek Sceptical debates about these issues. Neither scholar seems to use examples that are directly reminiscent of those contained in optical treatises. However, both Ibn Rushd and Ibn Sīnā do refer to and discuss several Greek commentators of Aristotle, whose texts were available to them in Arabic translations. Therefore it is these texts that are the most likely sources of relevant examples that expose the unreliable nature of sensory perception.

The three key Greek commentators of Aristotle who are named and known by Ibn Sīnā and Ibn Rushd and are mentioned in *De anima* commentaries by Ibn Rushd are Alexander of Aphrodisias (2nd-3rd c. AD), Themistius (4th c. AD), and Philoponus (5th-6th c. AD). All three uphold Aristotle’s view that the senses are always right about their proper objects (i.e., primary qualities), and errors in sensory perception come from the common sense misidentifying the subjects of these qualities.⁹¹ Alexander of Aphrodisias’s selection of examples is the poorest; the examples that are closest to those that make their way into Islamic and fourteenth-century Western scholastic debates about sensory perception are things not always appearing to be of the same color depending on conditions (similar to the dove’s neck example), false representations that result from disease, emotions, and dreams, and relativity of perception of motion.⁹² Themistius is a bit more prolific as well as specific, providing, among others, examples of sickness altering one’s sense of taste, perceiving a yellow substance either as honey or as bile, a stick submerged in water appearing broken, and images of non-existent objects in dreams.⁹³ Philoponus is the most prolific and provides multiple examples, some of which

⁸⁸ Aristotle, *De an.* 3, 428b 18-22.

⁸⁹ Aristotle, *De an.* 3, 425a 30-b4.

⁹⁰ Aristotle, *De an.* 3, 428a 4-9, 11-18.

⁹¹ Ivo Bruns (ed.), *Alexandri Aphrodisiensis praeter Commentaria Scripta Minora: De Anima Liber cum Mantissa*, Supplementum Aristotelicum 2.1 (Berlin: Reimer, 1887), 41.13-42.3; Leonhard von Spengel (ed.), *Themistii paraphrases Aristotelis librorum quae supersunt* (Leipzig: Teubner, 1998, reprint), 57.17-24, 31-35 (Γ, 418a 6-19); Michael Hayduck (ed.), *Ioannis Philoponi in Aristotelis De anima libros commentaria*, Commentaria in Aristotelem Graeca 15 (Berlin: Reimer, 1897), 313.15-21, 27-32 (418a 11). The same position is shared by Al-Haytham, ch. 5, n. 1.

⁹² Bruns, 41.13-42.3, 42.16-18, 70.9-16, 70.14-19, 71.18, 71.15-26.

⁹³ Spengel, 71.36-72.3 (Δ, 422b 9); 81.36-39, 82.1-6, 20-31 (E, 425a 8-b 4); 89.36-90.5 (E, 427b 21-428b 2); 91.18 (E, 428b 2-429a 11).

match very well what both Islamic commentators and fourteenth-century Franciscan scholastics discuss. Philoponus (similar to treatises on optics) lists conditions of correct sensing, such as sense organs not being diseased and being located in a suitable position as regards their objects and at an appropriate distance from them. The examples include, among many others, colors on the neck of a dove, stationary objects appearing to move from a moving boat, identifying substances as honey or resin upon perceiving yellow color, objects submerged in water appearing different (larger), and representations of non-existing things in dreams.⁹⁴

Shifting to Islamic philosophers and commentators of Aristotle, Ibn Sīnā (970-1037), according to his correspondence, was aware of and read Alexander of Aphrodisias, Themistius, and Philoponus not only late but also early in life.⁹⁵ Although strictly speaking Ibn Sīnā has produced no commentary on Aristotle's *De anima*, certain sections from two of his major works – the *al-Najāt* (the book of *Salvation*) and *al-Shifā'* (the book of *Healing*) – are usually referred to as *De anima* (or *Book Six of Natural Philosophy*).⁹⁶ Ibn Sīnā employs the examples of the following sensory illusions that match those used by the three aforesaid Greek commentators of Aristotle: a drop of rain falling down is perceived as a straight line and a rotating point is perceived as a circle;⁹⁷ a dress or the neck of a dove is perceived as being of different colors, diseases affect taste, hearing and vision;⁹⁸ an image of the sun remains in the eye;⁹⁹ a yellow substance is perceived as honey;¹⁰⁰ hearing non-existing sounds or seeing colors in certain psychological states, such as sleep, disease, fear, and insanity; images perceived in dreams; sensory perception being affected by the movement of surrounding things.¹⁰¹

⁹⁴ Hayduck, 315.28-30 (418a 23); 314.11-15; 454.16-22, 26-28 (425a 13); 455.14-18, 22-25; 455.30-456.11; 486.34-487.5 (427a 17).

⁹⁵ See Dimitri Gutas, *Avicenna and the Aristotelian Tradition: Introduction to Reading Avicenna's Philosophical Works* (Leiden: Brill, 1988), 60, 62, 289.

⁹⁶ Ibn Sīnā's texts are referred to according to the following editions: Majid Fakhry (ed.), *Avicenna, Kitāb al-Najāt* (Beirut: Dār al-'āfāq al-jadīda, 1982) and Ján Bakoš (ed.), *Psychologie d'Ibn Sīnā (Avicenne) d'après son oeuvre aš-šifā'. I. Texte arabe* (Prague: Editions de l'Académie tchécoslovaque des Sciences, 1956).

⁹⁷ Ibn Sīnā, *De anima* of the *Shifā'* 1.5 (Bakoš, 44-45; 3.7, Bakoš, 138).

⁹⁸ Ibn Sīnā, *De anima* of the *Shifā'* 2.2 (Bakoš, 63-64).

⁹⁹ Ibn Sīnā, *De anima* of the *Shifā'* 3.7 (Bakoš, 138).

¹⁰⁰ Ibn Sīnā, *De anima* of the *Shifā'* 4.1 (Bakoš, 160).

¹⁰¹ Ibn Sīnā, *De anima* of the *Shifā'* 4.1 (Bakoš, 158, 166-167). At least some of these examples in Islamic thought date to earlier periods, although they probably have the same Greek sources. Thus Hadi Rabiei from Art University, Tehran, alerted me of the occurrence of the following examples in al-Fārābī (870-950?): diseased states, such as fever, affecting one's taste (Fauzi M. Najjar [ed.], *Al-Fārābī's The Political Regime (al-Siyāsah al-madaniyyah)* [Beirut: Imprimerie Catholique, 1964], 83); straight or circular lines being drawn in the common sense by fast moving objects; dream images of non-existing things; and visual and auditory hallucinations in the state of fear: Al-Fārābī, *Fuṣūṣ al-ḥikam*, edited by M. H. Al Yāsīn (Qom: Bīdār, 1405/1985), 83-5, faṣṣ 52.

أبي نصر الفارابي، فصوص الحكم، المحقق محمد حسن آل ياسين، قم: بيدار، ١٤٠٥.

Ibn Rushd (1126-1198) in his Long Commentary on the *De anima* (شرح or تفسير) mentions Alexander of Aphrodisias twice in Book 1, once in Book 2, and has a long discussion of his position in Book 3. He mentions Themistius twice in Book 1 and twice in Book 2, and has a long discussion of his position in Book 3. He was also familiar with Philoponus.¹⁰² It is Ibn Rushd's commentary on the *De somno et vigilia*, however, that is most fully used by fourteenth-century Franciscan theologians.¹⁰³ This text contains observations on sleep, to the effect that one has a full sensory experience in dreams, as well as on false dreams about desired objects.¹⁰⁴ The passage on one's sensory perception during the states of dreaming, fear, and sickness is quoted by Peter Aureol in full from a medieval Latin translation:

And it occurs to a person [in sleep] that they perceive sensory data, and those [data] were not present outside (لم يكن موجودة خارجا), because their meanings (معاني) happened to be in the organs of the senses. And there is no difference as to whether those meanings arise from the outside (من خارج) or from the inside (من داخل). And [something] similar to this happens during the waking state to a frightened or sick person, and this is due to the excess of activity of the imaginative power in these states.¹⁰⁵

A number of examples about dreams and sensory illusions are contained also in the Long Commentary on the *De anima*:¹⁰⁶ a yellow substance can be taken either for honey or bile;¹⁰⁷ experiences of non-existent things in dreams;¹⁰⁸ the senses being correct about their proper objects (i.e., primary qualities) and wrong about accidental qualities;¹⁰⁹ a

¹⁰² Amos Bertolacci, "Arabi, ebrei e bizantini", in *Storia della filosofia occidentale*, vol. 2: *Medioevo e Rinascimento*, edited by G. Cambiano et al. (Bologna: Il Mulino, 2014), 111-145, at 143.

¹⁰³ References are according to the following edition: Harry Blumberg (ed.), *Averrois Cordubensis Compendia librorum Aristotelis qui Parva naturalia vocantur*, *Corpus Commentariorum Averrois in Aristotelem. Versiones Arabicae 7* (Cambridge, Massachusetts: The Medieval Academy of America, 1972).

¹⁰⁴ Blumberg, 52.7-8 (453b 26-27); 54.12-55.10 (458a 25-32); 68.9-69.7 (461a 25-b 3); 91.4-92.1.

¹⁰⁵ Ibn Rushd, *De somno et vigilia* (Blumberg, 69.10-71.1). Translation from the Arabic. All translations in this essay are mine unless otherwise indicated. Again, al-Fārābī expresses a similar idea in *Fuṣūṣ al-ḥikam* (83-4) using some of the same words: "this power also is capable of producing in it internal images in sleep, so that the percept (مدرک) in truth is what is pictured (يُصوّر) in it, regardless whether it came into it from the outside or originated in it from the inside, so what is pictured in it happens to be seen (مشاهدا)..." Note that Ibn Rushd provides an explanation of this phenomenon that is very close to Anil Seth's model of "perceptual priors" in such states being "unusually strong, overwhelming the sensory data" (as quoted above).

¹⁰⁶ References are according to Crawford's edition of the Latin text (the Arabic original has not survived): F. Stuart Crawford (ed.), *Averrois Cordubensis Commentarium Magnum in Aristotelis De anima libros* (Cambridge, MA: The Medieval Academy of America, 1953). References are also given to an Arabic reconstruction from the Latin: *Averroes, Grand Commentaire sur le Traité de l'Ame d'Aristote*, translated by B. Gharbi (Tunis: Académie Tunisienne des Sciences des Lettres et des Arts "Beit Al-Hikma", 1997).

¹⁰⁷ Ibn Rushd, *De anima 2*, text. com. 134 (Crawford, 332-335; Gharbi, 200-201).

¹⁰⁸ Ibn Rushd, *De anima 2*, text. com. 156 (Crawford, 366-367; Gharbi, 218).

¹⁰⁹ Ibn Rushd, *De anima 2*, text. com. 161 (Crawford, 374; Gharbi, 226).

perfectly real picture of a thing in the imagination (خيال) can come either from the senses or from ideation (فكر).¹¹⁰

Although fourteenth-century Franciscan authors such as Peter Aureol, as opposed to thirteenth-century authors, do not refer to Ibn Sīnā as often as they do to Ibn Rushd, many of them could be qualified as “Scotists” to some extent¹¹¹ and they were certainly familiar with the texts of Scotus. Scotus himself only occasionally uses such examples in his discussion of perception, but he does use some of Ibn Sīnā’s examples of visual illusions in his commentary on the *De anima*,¹¹² e.g., about a drop of rain appearing as a line, a circle created by a rotating object, and the perception of motion from a moving boat that appear in *De anima* of the *Shifā’* 1.5, 3.7, and 4.1.¹¹³ Some of the aforementioned four Franciscan authors in their debates about sensory perception also use the famous example from Ibn Sīnā about the sheep and the wolf.¹¹⁴ The fact that the sheep instinctively reacts to a particular shape (the “wolf shape”) with fear according to Walter Chatton in *Reportatio* 1, dist. 3, qu. 1, art. 2, n. 38, 40 (p. 218-19) can lead to a sensory deception: the sheep would be frightened by the “wolf shape” even if it were created falsely, e.g., by making a sheep look like a wolf. Ibn Rushd is used more frequently and directly: e.g., Aureol uses Ibn Rushd’s examples of altered sensory perception during the states of dreaming, fear, and sickness from the latter’s commentary on *De somno et vigilia* quoted above. It is clear from the lists of the examples, however, that even if Islamic authors are not always directly quoted or cited, many examples are exactly the same, and since there is no evidence of direct access to Greek or Latin sources of such examples (apart from Augustine for some examples), the most likely sources were Ibn Sīnā and Ibn Rushd, with some examples coming from treatises on optics.¹¹⁵

As it happens, both Ibn Sīnā and Ibn Rushd seem to emphasize the two aforementioned observations that are crucial to the view that external “reality” is a mental construct: first, that our phenomenal perception of things persists (according to ancient and medieval Aristotelians, in the common sense or the imagination) even after those things have ceased to function as proper objects of sensory perception;¹¹⁶ second, that our phenomenal experience of things is the same no matter whether the

¹¹⁰ Ibn Rushd, *De anima* 3, text. com. 33 (Crawford, 476; Gharbi, 288).

¹¹¹ See Caroline Gaus, *‘Etiam realis scientia’: Petrus Aureolis konzeptualistische Transzendentalienlehre vor dem Hintergrund seiner Kritik am Formalitätenrealismus* (Leiden and Boston: Brill, 2008), 1-18.

¹¹² References according to the following edition: C. Bazán et al. (eds.), *B. Iohannis Duns Scoti quaestiones super secundum et tertium De anima* (St. Bonaventure, New York: The Franciscan Institute, 2006).

¹¹³ See references to the edition of Ibn Sīnā above. Scotus, *De an.* qu. 9, n. 11-12, and qu. 10, n. 16 (Bazán, 74-75, 85).

¹¹⁴ The example appears in Ibn Sīnā’s *De anima* of the *Najāt* (Fakhry, 200) and *De anima* of the *Shifā’* 1.5 and 4.1 (Bakoš, 43 and 160).

¹¹⁵ As mentioned above, the examples of illusions from optical treatises are less decisive in the debate about the relative independence of phenomenal reality from external inputs.

¹¹⁶ E.g., in Ibn Sīnā, *De anima* of the *Shifā’* 1.5 (Bakoš, 44-45), see above.

source of this experience is outside of us, as in the waking state, or inside of us, as in dreams.¹¹⁷

Both of those ideas, however, are already contained in Greek commentators of Aristotle, e.g., in the following passage from Alexander of Aphrodisias's *De anima*:

Now the traces (ἐγκαταλείμματα) that arise from the sense in act become the substrate of the imaginative power, being, as it were, internal sensory objects (αἰσθητὰ ἐντός), just as they function as external sensory objects (αἰσθητὰ ἐκτός) to the sensory [power]. Now such traces in act are called 'sense,' inasmuch as they are the products of the sensory act. And sensing in act amounts to having this form in oneself from objects of sense that exist outside. As for the imaginative power, it is the same as the sensory [power] as far as their substrate is concerned (κατὰ τὸ ὑποκείμενον), but is different conceptually. Now it is the sensory [power] to the extent that it is receptive of objects of sense that are separate from that, which has [this power], and are present (παρόντων), while the imaginative [power], to the extent that the other [i.e., the sensory power] is in act as regards the objects of sense that exist externally, in the same way [is in act] as regards imaginary objects in the body that has this [imaginative power], which act as sensory objects to it, even if [proper] sensory objects are no longer present (εἰ καὶ μὴ παρείη ἔτι τὰ αἰσθητὰ).¹¹⁸

It seems, then, that Ibn Sīnā and Ibn Rushd echoed these ideas that appear in Greek commentators of Aristotle, and their texts served as the means of transmitting these ideas to the fourteenth-century Franciscan tradition, where they were amplified and generated a full-blown discussion about the reliability of sensory perception and the true nature of our phenomenal experience, which ultimately seems to be independent from the senses and "external reality" – the discussion that existed neither in Greek commentators nor in Ibn Sīnā and Ibn Rushd to that extent.

4. The Debate About Phenomenal Reality in Later Medieval Islamic Thought¹¹⁹

As the discussion of the reliability of sensory perception and thus, if by implication, of the nature of phenomenal reality in Greek commentators of Aristotle, via Islamic sources such as Ibn Sīnā and Ibn Rushd, generated a heated debate in Franciscan theology in the 1300s, so it did in Islamic theology and philosophy in the late 1100s to late 1200s. It is curious that both debates independently exhibited similar patterns and trains of thought.

¹¹⁷ E.g., in Ibn Rushd's *De somno et vigilia* (Blumberg, 69.10-71.1), quoted above. Ibn Rushd expresses the same idea that a perfectly real picture of a thing in the imagination (خيال) can come either from the senses or from ideation (فكر) in the Long Commentary on the *De anima* 3 (Crawford, 476; Gharbi, 288).

¹¹⁸ Alexander of Aphrodisias, *De anima* (Bruns 68.31-69.11).

¹¹⁹ This section could not have been written without the assistance of Hadi Rabiei from Art University, Tehran, who not only alerted me of the existence of the debate but also carefully checked my translations from the Arabic and Persian and offered valuable comments.

The most notable debate took place between Fakhr al-Dīn al-Rāzī (1149?-1210), a Sunnī (Ash‘arite) theologian although somewhat independent in his views who studied under Majd al-Dīn al-Jīlī, who also taught Shihāb al-Dīn al-Suhrawardī (1154-1191),¹²⁰ and Khwājah Naṣīr al-Dīn al-Ṭūsī (1201-1274), a Shī‘ī (Imāmīyyah) philosopher of Peripatetic orientation. Both thinkers draw on Ibn Sīnā, of whom Fakhr is mostly critical and whom Khwājah vigorously defends. Some of Khwājah’s works are dedicated primarily to refuting Fakhr’s arguments against Ibn Sīnā. The best known instance of their debate is commentaries on Ibn Sīnā’s *al-Ishārāt w’al Tanbīhāt* (*Remarks and Admonitions*), Fakhr’s *Sharḥ al-Ishārāt* and Khwājah’s *Sharḥ*.¹²¹ The debate between Fakhr and Khwājah about phenomenal reality, and more precisely about how exactly external reality is perceived or known by the mind, is illustrated in their commentaries on *al-Ishārāt* where they draw on some of Ibn Sīnā’s examples of visual illusions to bolster their respective claims and, just like Franciscans in the 1300s, seem to fall into distinctive epistemological camps that can be roughly defined as “relationists” and “phenomenalists”. However, another instance of the debate between Fakhr and Khwājah about phenomenal reality that contains the maximum number of examples of sensory illusions and other relevant mental experiences – and thus is more relevant to the present study – comes from a different context: Fakhr’s *al-Muḥaṣṣal* (*The Compendium*) and Khwājah’s critical work about it titled *Talkhīṣ al-Muḥaṣṣal* (*A Summary of the Compendium*).

5. The Issue of God’s Knowledge; “Presential” Knowledge

While in late medieval Franciscan theology the debate about the reliability of sensory perception seems to have originated with the position that God can create any phenomenal experience without any external object generating it, the context of the epistemological positions of Fakhr and Khwājah seems to have been the debate in medieval Islamic theology about God’s ability to know particulars. Ibn Sīnā famously denied that God can know particulars as according to his Aristotelian epistemology knowing involves an imprinting (انطباع) of an image or form (صورة) in the knower, and this would imply change in God.¹²² Al-Ghazālī (1058-1111) considered this view heretical

¹²⁰ Fathalla Kholeif, *A Study on Fakhr al-Dīn al-Rāzī and his ‘Controversies in Transoxiana’* (Beyrouth: Dar el-Machreq Éditeurs, 1966), 17.

¹²¹ Hamid Dabashi, “Khwājah Naṣīr al-Dīn al-Ṭūsī: The Philosopher/Vizier and the Intellectual Climate of his Times”, in *History of Islamic Philosophy*, edited by S. H. Nasr and O. Leaman, Routledge History of World Philosophies 1 (London and New York: Routledge, 2001), 527-584, at 546, 548-549.

¹²² The discussion can be found in *al-Ishārāt*, Part 3, 7th Class, Chapters 15-21, Ibn Sīnā, *Remarks and Admonitions, with the Commentary by Researcher Naṣīr al-Dīn al-Ṭūsī and the Commentary on the Commentary by the Most Learned Qutb al-Dīn al-Rāzī*, vol. 3 (Qom: Nashr al-Balaqḥah, 2013), 301-313ff.

ابن سينا، الإشارات والتنبيهات، مع الشرح للمحقق نصير الدين الطوسي وشرح الشرح للعلامة قطب الدين الرازي، ج ٣، ٢، قم: النشر البلاغة، ١٤٣٥.

See Hasan Hasani, *Study and Judgments in Disputed Issues between two Islamic philosophers Khajeh Nasir Tusi and Imam Fakhr Razi* (Tehran: University of Tehran Publishing Institute, 1954), 241.

and refuted it, seemingly having no problem with some change in God.¹²³ However, for most Islamic theologians and philosophers the notion of change in God was unacceptable, and some developed ways of reconciling the idea of knowing particulars with the absence of change in the knower. Notably, Suhrawardī developed a theory of knowledge as a “presential-illuminative” (حضورى اشراقى) “relation” (اضافة) that makes things directly present to the knower. “Temporal knowledge in a way that requires change [is] impossible (ممتنع) in the truth of the Necessary Being”; however, “if his [the knower’s] knowledge were presential-illuminative, not by means of images in his self (ذات), then if the thing were to cease (بطل), for example, and if the relation ceased, there doesn’t have to be a change in himself”.¹²⁴ As no change in the illuminative relation involves a change in the knower, the problem of God’s knowledge of particulars is solved. Presential-illuminative cognition in Suhrawardī applies not only to God’s cognition, but also to the self’s cognition of oneself. In *Intimations* (كتاب التلويحات) Aristotle in a dream instructs Suhrawardī as follows: “You are a perceiver (مدرك) of yourself, so your perception of yourself [is] by yourself.”¹²⁵ In the case of presential-illuminative knowledge there is no change in the perceiver: “As for the aforementioned illuminative knowledges, if they are acquired after not existing, then something happens to the perceiver that didn’t exist: and this is the illuminative relation, nothing else, and there is no need for correspondence.”¹²⁶ However, humans know external things when they are reflected in the mind as imprinted images or forms that correspond to external objects: “when a perceiver (مدرك) knows (علم) something... if [something] happens (حصل) [to the perceiver], then it is necessarily due to correspondence (مطابقة)... knowledge by way of images (العلم الصورى) necessarily will be like that.”¹²⁷ An external thing can be united to a mental image of it, which is not identical to it in every respect, through semblance or resemblance (مثال) in content and identity (هوية) in form.¹²⁸ The illuminative relation illumines this

حسنى، حسن، بررسى و داورى در مسايل اختلافى ميان دو فيلسوف اسلامى خواجه نصير طوسى و امام فخر رازى، تهران، مؤسسه انتشارات دانشگاه تهران، ۱۳۷۳.

¹²³ Al Ghazālī, *The Incoherence of The Philosophers (Tahāfut al-Falāsifah): A Parallel English-Arabic Text*, edited by M. E. Marmura (Utah: Brigham Young University Press, 2000), no. 13 at 160-163.

¹²⁴ Suhrawardī, *Paths and Havens* (كتاب المشارع و المطارحات), in *Shihaboddin Yahya Sohravardi, Oeuvres philosophiques et mystiques*, vol. 1, edited by H. Corbin (Tehran: Institut d’Etudes et des Recherches Culturelles, 1993), 488.

¹²⁵ Suhrawardī, *Intimations*, in Corbin, *Shihaboddin Yahya Sohravardi*, vol. 1, 70.

¹²⁶ Suhrawardī, *Paths and Havens* (Corbin, vol. 1, 489).

¹²⁷ Suhrawardī, *Paths and Havens* (Corbin, vol. 1, 489).

¹²⁸ Mehdi Ha’iri Yazdi, *The Principles of Epistemology in Islamic Philosophy: Knowledge by Presence* (Albany: SUNY Press, 1992), 48; Morteza HajjHuseini, “An Examination and Analysis of Opinions of Muslim Philosophers about the Definition of Knowledge, from Ibn Sīnā to Ṣadr al-Mutālahīn”, *Journal of the Faculty of Literature and Human Sciences* 98 (Winter 1381/1962): 79-164, at 81-82; حاج حسینی، مرتضی، “بررسی و تحلیل آراء فیلسوفان مسلمان در مورد تعریف علم از ابن سینا تا صدر المتألهین”، *مجله دانشکده ادبیات و علوم انسانی، دانشگاه تهران*، ش ۹۸، (زمستان ۱۳۸۱)، ۷۹-۱۶۴.

A. Haqqi and M. Zekhtareh, “A Study in Brentano’s Intentionality and its Comparison with Fakhr Al-Razi’s Theory of Relation”, *Comparative Theology* 1/4 (Winter 2011): 39-52, at 40; على حقی، ملیحه زختاره، پژوهشى در حيث التفاتى برنتانو و تطبيق آن با نظريه اضافه فخر رازى، الهيات تطبيقى، دوره ۱،

correspondence.¹²⁹

6. The Nature of Knowledge in Fakhr and Khwājah; Commentaries on *al-Ishārāt*

The division into “presential” (حضورى) and “acquired” (حصولى) knowledge becomes generally accepted in medieval Islamic thought.¹³⁰ The question becomes what exactly is included under either type, where there are some disagreements. Both Fakhr and Khwājah seem to have shared the view of “presential knowledge” as far as God’s knowledge is concerned, even though in many respects they do not share Suhrawardī’s ontological and epistemological framework.¹³¹ On the issue of God’s knowledge Khwājah prefers Suhrawardī’s model of knowledge “by presence” to that of Ibn Sīnā.¹³² As far as the human knowledge of external things is concerned, however, Khwājah’s epistemology is mostly Avicennian, i.e., that of the “imprint” of form.¹³³ Fakhr’s epistemology is much harder to pinpoint. In order to preserve God from change in the process of cognition of particulars, Fakhr maintains that knowledge is a specific type of relation, no change in which affects the knower. God’s knowledge cannot amount to an imprint in some

شماره ۴، شماره پیاپی ۴، تاریخ: ۱۳۸۹/۱۲، صفحه ۳۹-۵۲.

Muhammad Javad Pashai and Muhammad Zabihi, “Examination and Criticism of Mental Being from Fakhr Razi’s Point of View”, *Philosophical-Theological Research* 13/3 (Serial Number 51, Qom, Iran, Spring 2012): 205-228, at 208-209.

محمد جواد پاشایی، محمد ذبیحی، نقد و بررسی وجود ذهنی از دیدگاه فخر رازی، پژوهش‌های فلسفی-کلامی، دوره ۱۳، شماره ۳، شماره پیاپی ۵۱، خرداد ۱۳۹۱، صفحه ۲۰۵-۲۲۸.

¹²⁹ According to Yazdi, *The Principles of Epistemology*, 52, 54, “knowledge by correspondence always emerges from its rich and ever-present source, which is knowledge by presence” and the human mind “illuminates from the depth of its own presential knowledge the rays of its immanent act of knowledge by correspondence”. A more detailed discussion of Suhrawardī’s theory of presential-illuminative knowledge can be found in Yazdi, *The Principles of Epistemology*, 43-56, and Hossein Ziai, “Shihāb al-Dīn Suhrawardī: Founder of the Illuminationist School”, in *History of Islamic Philosophy*, edited by S. H. Nasr and O. Leaman, Routledge History of World Philosophies 1 (London and New York: Routledge, 2001), 434-464, esp. at 437-438.

¹³⁰ Knowledge-by-presence grasps the essence of the thing with no “intermediate being between the knower and the known”. Acquired knowledge roughly aligns with knowledge by correspondence as it requires an “attainment of an image of the thing in the intellect”, which serves as an intermediary between the external thing and the knower: Ali AllahDadi Hazaveh and Ali Allah Bedashti, “An Analysis and Study of Fakhr Razi’s and Khwaja Nasir Tusi’s Theory Regarding Notion and Assertion”, *Philosophical-Theological Research* 23/2, Issue 88 (Summer 2021): 5-26, at 9.

علی العادى هزاره، علی اله بداشتی، تحلیل و بررسی نظریه فخر رازی و خواجه نصیر الدین طوسی درباره تصور و تصدیق پژوهش‌های فلسفی-کلامی، ۲۳ (۸۸)، ۲۶-۵.

¹³¹ For a more detailed discussion on the issue of God’s knowledge of particulars in Fakhr and Khwājah see Hasani, *Study and Judgments*, 241-244.

¹³² Dabashi, “Khwājah Naṣīr al-Dīn al-Ṭūsī”, 549; Hasani, *Study and Judgments*, 117-118; Yazdi, *The Principles of Epistemology*, 24.

¹³³ See HajjHuseini, 80: Khwājah “regarded mental images (صور ذهنی) as [shadowy] apparitions of external things, which indicate (دلالت دارند) [external things] because of likeness (مشابهت) to external things”.

material cognitive faculty as God is immaterial and therefore would not know himself or the things he acts on.¹³⁴ However, Fakhr extends the understanding of knowledge as a relation to human knowledge as well. The human self's knowledge of itself seems to be direct and "presential", following Suhrawardī's model. Thus, Fakhr attempts to prove that the concept of knowledge is self-evident through the observation that "I know necessarily that I am a knower of my existence".¹³⁵ The situation with Fakhr's understanding of the human knowledge of things other than the human self is less clear. Fakhr objects to the concept of knowledge as an impression (انطباع) of an image or form (صورة) in the mind or as an occurrence (حصول) of the "truth" of the object in the mind and upholds only the idea that knowledge is a "relation" (إضافة).¹³⁶ According to Fakhr, it has been "established... that perception does not consist in impression itself, but in truth it is a relative-relational state (حالة نسبية إضافية). So we know intuitively (بالديهية) that when we see someone (زيديا), then there is a special relation (نسبة خاصة) to that [person] in our visual powers".¹³⁷ "It is impossible for that, which is understood, and that, which is imagined, to be impressions in the mind or the imagination."¹³⁸ For example, "vision (الإبصار) consists in the relative condition (حالة إضافية) that arises between the visual power and the object of vision (المرئي) that exists externally, without the picture of the object of vision being imprinted (تتطبع) in the visual power... And the same can be said of hearing, taste, smell, and touch".¹³⁹ Just like many fourteenth-century Franciscan theologians of the perceptual realist persuasion, Fakhr rejects the phenomenist position that the "object of vision is its [the external thing's] representation (مثال) and apparition (تسبح)" because of the threat of scepticism as "this casts doubt on the clarity of the most necessary and robust sciences (فإنه تشكك في أجلي العلوم الضرورية و أفواها)".¹⁴⁰

However, the extreme view that the human knowledge of external objects is merely a relation presents considerable problems that Khwājah is quick to point out.¹⁴¹ For example, Fakhr himself indicates the problem with the perception and knowledge of things that "can occur in the absence (عند عدم) of objects of perception externally". Indeed, a "relation (إضافة) to a thing requires the existence (وجود) of this thing. So if this thing does

¹³⁴ Fakhr al-Dīn Muḥammad al-Rāzī, *Commentary on Remarks and Admonitions, Introduction and Emendation* by Alirezā Najfzādeh (Iran: Association of Cultural Artifacts and Honors, 1384/1964), 229, subsequently Fakhr, *Sharḥ al-Ishārāt*.

رازى، فخر الدين محمد، شرح الاشارات و التنبیها، مقدمه و تصحيح علي رضا نجف زاده، ايران، انجمن آثار و مفاخر فرهنگى، ۱۳۸۴.
¹³⁵ A. Nūrānī (ed.), Naṣīr al-Dīn al-Ṭūsī (1201-1274), *Talkhīṣ al-Muḥaṣṣal*, *Wisdom of Persia* 24 (Institute of Islamic Studies, McGill University) (Tehran: Haidari Press, 1980), 155, similar to Suhrawardī's passage from *Intimations* (Corbin, vol. 1, 70) quoted above.

¹³⁶ *Talkhīṣ al-Muḥaṣṣal*, 156, HajjHuseini, 82, Hasani, *Study and Judgments*, 113; for a general discussion of the relative being of perception in Fakhr see Haqqi and Zekhtareh, 40ff.

¹³⁷ Fakhr, *Sharḥ al-Ishārāt*, 233.

¹³⁸ Fakhr, *Sharḥ al-Ishārāt*, 221.

¹³⁹ Fakhr, *Sharḥ al-Ishārāt*, 218.

¹⁴⁰ Fakhr, *Sharḥ al-Ishārāt*, 233.

¹⁴¹ Hasani, *Study and Judgments*, 108, 109, 116.

not exist externally, it is impossible for the perception to consist of a relation to it".¹⁴² Khwājah echoes the same point.¹⁴³ Initially Khwājah seems to agree that "it is possible" that the perception of "sensory objects that are perceived only if they were existent" is a "relation in the perceiver to those" sensory objects;¹⁴⁴ there has to be an image for the perception of objects that do not exist externally. However, according to Khwājah even a relation to existing external things poses a problem. While it is easy to characterize the correspondence of a mental image "to the outside" or a lack thereof as either knowledge or ignorance, no relation takes into account such correspondence with external objects, as no relation exists externally, "so perception in the sense of 'relation' will not be knowledge or ignorance".¹⁴⁵ Khwājah's definitive refutation of the relational model of knowledge is similar to the one used by both ancient and modern sceptics in all cultures: "if in one place its [perception's] nature indicated that it [perception] is something other than relation, to which relation is added, it is known for sure that [the truth of perception], wherever it were, is not the same as relation."¹⁴⁶

Also, unlike Suhrawardī, Fakhr is reluctant to describe exactly what sort of "relation" the human knowledge of external things is.¹⁴⁷ Both Fakhr and Khwājah agree that the perceiver or knower is the soul. According to Fakhr, it is the rational soul that is the perceiver of both particular and universal perceptions,¹⁴⁸ for which he has a "solid argument".¹⁴⁹ However, because of his relationist understanding of knowledge Fakhr, against the Aristotelian tradition, denies any need to theorize the internal senses.¹⁵⁰ Khwājah agrees that the soul is the perceiver but defends the need for theorizing the internal senses.¹⁵¹

The discussion about the existence of the internal senses such as the common sense and the imagination is crucial to the issue of phenomenal reality as it is virtually impossible to defend the position that there is never a mental image of perceived reality in the mind at a certain point. Instead of using Ibn Sīnā's model of the internal senses,

¹⁴² Fakhr, *Sharḥ al-Ishārāt*, 218-219.

¹⁴³ Khwājah, *The Commentary (Sharḥ) on al-Ishārāt*, in Ibn Sīnā, *Remarks and Admonitions, with the Commentary by Researcher Nasīr al-Dīn al-Tūsī and the Commentary on the Commentary by the Most Learned Qutb al-Dīn al-Rāzī*, vol. 2 (Qom: Nashr al-Balaqah, 2013), 313-314, subsequently Khwājah, *Sharḥ*.

ابن سینا، الإشارات والتنبيهات، مع الشرح للمحقق نصير الدين الطوسي وشرح الشرح للعلامة قطب الدين الرازي، ج ٢، ٣، قم: النشر البلاغة، ١٤٣٥.

¹⁴⁴ Khwājah, *Sharḥ*, 317.

¹⁴⁵ Khwājah, *Sharḥ*, 316. It is curious that while Suhrawardī uses the same trait of the illuminative relation – i.e., that it cannot be true or false as it excludes correspondence – positively, Khwājah uses it against the theory of knowledge as a relation.

¹⁴⁶ Khwājah, *Sharḥ*, 18.

¹⁴⁷ *Talkhīṣ al-Muḥaṣṣal*, 157 (he uses the term تعلق in this particular instant), Hasani, *Study and Judgments*, 113.

¹⁴⁸ Fakhr, *Sharḥ al-Ishārāt*, 222, 250, 254-255; see Hasani, *Study and Judgments*, 137.

¹⁴⁹ Fakhr, *Sharḥ al-Ishārāt*, 264-265.

¹⁵⁰ Fakhr, *Sharḥ al-Ishārāt*, 246ff.

¹⁵¹ Khwājah, *Sharḥ*, 311-312, 321; Hasani, *Study and Judgments*, 138.

Fakhr theorizes that there could be one power (i.e., the soul) that accounts for multiple categories of perceptions.¹⁵² Again, eliminating the image (or “phenomenal being” in Aureol’s terminology) as an intermediary would solve the theological problem of God’s knowledge of particulars but also remove the philosophical threat of scepticism.¹⁵³ Fakhr examines Ibn Sīnā’s famous example of a descending drop of rain creating a line and a rotating object creating a circle in our phenomenal experience and gives a very accurate Avicennian explanation that there must be a physical internal power where that line or circle are as the immaterial soul can receive no such impressions.¹⁵⁴ This phenomenological observation is almost impossible to explain away no matter what epistemological view one holds, which pushes Fakhr to defend absurd positions such as that those lines or circles can form physically in the air¹⁵⁵ or that colored objects can color the adjacent air,¹⁵⁶ all of which are easily refuted by Khwājah.¹⁵⁷

Further, if the soul is one side of the relation and there is no intermediary, what does the soul relate to? Fakhr seems to be inconsistent as to whether human knowledge is a relation between the soul and the mental image of an object or between the soul and an external object directly. Thus in the *Investigations of the East* (المباحث المشرقية) he holds that “knowledge is a kind of special relation between the soul and the imprinted form”,¹⁵⁸ in *al-Muḥaṣṣal* he “does not seem to believe in the existence of a mental form and considers science as a relation between the knower and the outside”,¹⁵⁹ and his “final view” in *Sharḥ al-Ishārāt* is “that the truth of perception is a relative relation between the knower and the known, but with respect to this knowledge as to whether the relation... is to the received shape, intelligible shape, or to its external being, there is no clarity (بيان روشنى ندارد).”¹⁶⁰ “And the truth according to us is that perception does not consist in the occurrence of this form itself, but in a relational state (حالة نسبية إضافية) either between the intellectual power and the essence of the image that exists (الموجودة) in the intellect, or between the former and the thing that exists externally.”¹⁶¹

¹⁵² Fakhr, *Sharḥ al-Ishārāt*, 247.

¹⁵³ “If it were conceivable as regards something that we see (نشاهد) for it not to exist externally, his example would be conceivable in all objects of visual experience (مشاهدات). And this necessarily will amount to removal of safeguards from the existence of objects of sensory experience, and this is sophistry and folly” (*Sharḥ al-Ishārāt*, 249).

¹⁵⁴ Fakhr, *Sharḥ al-Ishārāt*, 247-248. The view that Fakhr subsequently refutes.

¹⁵⁵ Fakhr, *Sharḥ al-Ishārāt*, 250.

¹⁵⁶ Fakhr, *Sharḥ al-Ishārāt*, 249.

¹⁵⁷ The discussion about visual illusions that involve reflection off colored surfaces goes back to Greek commentators of Aristotle and appears in both Ptolemy and al-Haytham.

¹⁵⁸ Pashai and Zabihi, “Examination and Criticism of Mental Being”, 213.

¹⁵⁹ Pashai and Zabihi, “Examination and Criticism of Mental Being”, 215.

¹⁶⁰ Pashai and Zabihi, “Examination and Criticism of Mental Being”, 216; see Hasani, *Study and Judgments*, 106, 114.

¹⁶¹ Fakhr, *Sharḥ al-Ishārāt*, 226.

7. The Discussion of Self-Evidence of Assertions in *al-Muḥaṣṣal*

Fakhr's epistemological position in *al-Muḥaṣṣal*,¹⁶² which is most interesting for its analysis of phenomenal experiences, must be viewed in the context of the division of knowledge in medieval Islamic thought into presential and acquired.¹⁶³ Acquired knowledge was usually seen as consisting of "conception" (تصور) and "assertion" (تصدیق), the latter often viewed as conception with the addition of judgment.¹⁶⁴ Conception and assertion are two foundational concepts in medieval Islamic epistemology.¹⁶⁵ Fakhr shares the basic division of knowledge into conception and assertion.¹⁶⁶ However, for Suhrawardī the notions 'conception' and 'assertion' do not apply to God's knowledge and to our knowledge of ourselves (that is, to presential-illuminative knowledge): "as for what belongs to the knowledge of the First and knowledges of perceivers of themselves, they do not in truth belong to conceptions and assertions."¹⁶⁷ Given Fakhr's views of presential knowledge, it is safe to assume that he would agree with this position. As far as human knowledge that goes beyond ourselves is concerned, whereas medieval Islamic logicians customarily divide both conceptions and assertions into self-evident and acquired, Fakhr claims that all conceptions are self-evident, i.e., not acquired, as "in many of his logical writings"¹⁶⁸ Fakhr "claims that all of human conceptions are self-evident and it is not at all possible to acquire a conception in the manner of a definition".¹⁶⁹ This clearly goes against the traditional position that is supported by Khwājah who disagrees with Fakhr.¹⁷⁰

¹⁶² Cited according to A. Nūrānī's edition of Khwājah Naṣīr al-Dīn al-Ṭūsī's *Talkhīṣ al-Muḥaṣṣal* abbreviated as Khwājah, *Talkhīṣ al-Muḥaṣṣal*; Fakhr's text is copied together with Khwājah's comments (and this is the only form in which it has survived) so the texts of both authors are cited using the same edition of *Talkhīṣ al-Muḥaṣṣal*.

¹⁶³ AllahDadi Hazaveh and Allah Bedashti, "An Analysis and Study", 9.

¹⁶⁴ AllahDadi Hazaveh and Allah Bedashti, "An Analysis and Study", 8, 10.

¹⁶⁵ Al-Fārābī was the first to use this division, which is later picked up by Ibn Sīnā in *al-Ishārāt* (AllahDadi Hazaveh and Allah Bedashti, "An Analysis and Study", 8) and his logic (*Najāt*, ch. 2, Yazdī, *The Principles of Epistemology*, 46): "Every piece of knowledge and apprehension is either by conception (تصور) or confirmation (تصدیق). Knowledge by 'conception' is the primary knowledge which can be attained by definition or whatever functions as definition. This is as if by definition we understand the essence of human being. Knowledge by 'confirmation' on the other hand is that which can be acquired by way of 'inference.' This is as if we believe the proposition that 'for the whole world there is a beginning.'"

¹⁶⁶ "When we perceive the truth, either we consider it by itself, without judgment about it, either negative or positive: this is conception; or we judge about it negatively or positively, and this is assertion" (Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 6). Fakhr expresses a similar view in other works, see AllahDadi Hazaveh and Allah Bedashti, "An Analysis and Study", 11-12.

¹⁶⁷ Suhrawardī, *Paths and Havens*, Corbin, vol. 1, 489.

¹⁶⁸ See Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 6.

¹⁶⁹ Akbar Faydei, "Fakhr Razi's Logical Innovations and His Challenges to the Avicennian School of Logic", *Knowledge* 76/1 (Spring and Summer 1396/2017): 127-145, at 130.

اکبر فایدئی، اندیشه‌های منطقی فخر رازی و طرح چالش‌های نوین او در مکتب منطقی سینوی، شناخت ۷۶/۱، بهار و تابستان ۱۳۹۶، ص ۱۲۷-۱۴۵.

¹⁷⁰ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 8ff.

Fakhr proves by two arguments that conceptions cannot be acquired, one of which is that it is not possible to obtain a full definition of a compound essence, as this can be achieved only by means of defining all of its parts, which is pretty much impossible.¹⁷¹ This position in fact is similar to Suhrawardī's, who undermines the value of conceptions by claiming that the knowledge of a full conception is required, which is obviously impossible.¹⁷²

As far as assertions are concerned, according to Fakhr some are self-evident and some are acquired,¹⁷³ so acquired knowledge is limited to non-self-evident assertions. Ultimately, however, all assertions are based on self-evident assertions,¹⁷⁴ of which there are three types: sensory experiences, awareness of one's own mental states, and self-evident axioms. One's awareness of his or her mental state is the least important as it is not shared. According to Fakhr, the two remaining categories of self-evident assertions are treated differently by four different schools of thought. The first school includes those who admit both sensations and self-evident axioms; they are the majority that includes Fakhr himself. The second school includes those who criticize sensations only but recognize self-evident axioms; they can be broadly characterized as Platonists.¹⁷⁵ Fakhr presents a lengthy list of their arguments against the reliability of sensory perception but does not refute them. The third school includes those who only admit sensations and reject self-evident axioms. They consider thoughts to be derivative from sensations and deny the possibility of knowledge without the senses.¹⁷⁶ The representatives of the fourth school, the Sophists, reject both sensations and axioms.¹⁷⁷ After describing the fourth school Fakhr answers why he does not refute their arguments (and one assumes the arguments of the Platonists earlier on): because doing so will achieve their purpose of sowing doubt. He also states – a standard defense against scepticism – that their arguments do not make us treat either sensory perceptions or self-evident axioms any differently. He promises to provide “detailed answers” to these arguments later but never seems to deliver.¹⁷⁸

¹⁷¹ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 7-9; see Faydei, “Fakhr Razi's Logical Innovations”, 130.

¹⁷² “From the illuminationist position, things cannot be defined as such because of the impossibility of discretely enumerating all the essentials of a thing. Thus, there must be some prior illuminationist foundation of knowledge” (Ziai 446, see details at 446-447).

¹⁷³ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 10, 12.

¹⁷⁴ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 12.

¹⁷⁵ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 12. Curiously, Fakhr includes among them not only Plato but also Aristotle, Ptolemy, and Galen who supposedly acknowledge only intelligible things as certain (Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 12). As Khwājah (Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 13) is quick to point out, this seems to be false at least in application to Aristotle. The only explanation of Fakhr's position could be that he somehow sides with Islamic Neoplatonists such as al-Fārābī, who, similar to pagan Neoplatonists, tried to achieve a “harmonization of the opinions of Plato and Aristotle” (Yazdi, *The Principles of Epistemology*, 10).

¹⁷⁶ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 26-44.

¹⁷⁷ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 45.

¹⁷⁸ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 46.

Of most importance here are Fakhr's arguments on behalf of the second school of thought, the Platonists, that attempt to undermine the reliability of sensory experiences by presenting a number of phenomenal experiences that appear to provide false knowledge. As Fakhr never refutes these arguments, it falls to Khwājah to refute them: as a true Aristotelian he is ready to oblige despite the fact that they do not represent the position of Fakhr, who is the primary object of his attack. As Khwājah cannot really deny instances of sensory illusions, his main line of defense is that sensory experiences "cannot be characterized as being certain or not, or true or false, or right or wrong" as these are characteristics of "intellectual judgments". Thus errors – a standard Aristotelian position – belong not to the senses, which make no errors, but to higher cognitive faculties.¹⁷⁹

Fakhr's arguments on behalf of the Platonists¹⁸⁰ include a list of "errors" of sensory judgment, such as sensory illusions, as well as other examples of phenomenal experiences that seem to suggest that our phenomenal picture of external reality that is formed by sensory experience is unreliable. The ensuing critique by Khwājah is reminiscent of the debate about phenomenal reality in Franciscan circles in the 1300s. Unlike the examples used in Franciscan circles in the 1300s, the majority of Fakhr's examples on behalf of the Platonists can be traced to optical treatises of Ptolemy and al-Haytham, especially judging by Khwājah's very technical explanations of these examples based on optical geometry. The following examples occur in both Ptolemy and al-Haytham: one thing (such as the moon) is perceived as two, as in the cases of pressing one of the eyeballs, squinting, and reflections in water;¹⁸¹ multiple things are perceived as one, e.g., different colors merge into one color on a rotating millstone;¹⁸² fast moving objects leave traces such as lines and circles in one's visual field;¹⁸³ perceiving a moving object, such as one's shadow, as motionless, and a motionless object, such as a river bank, as moving when sailing on a ship;¹⁸⁴ things seem to move in the direction that is opposite to their actual motion, such as a star or the moon seen against moving clouds.¹⁸⁵ The following examples occur in al-Haytham: small things appear to be large (at a distance in the dark, in water, at close range);¹⁸⁶ upright things can look upside down, as trees reflected in a river;¹⁸⁷ things appear crooked in crooked mirrors;¹⁸⁸ some transparent substances, such as ice or glass, appear white when they are broken up or cracked.¹⁸⁹ Many of the aforementioned examples, of course, are of low importance to the issue of phenomenal reality, for the reasons explained previously. Fakhr's Platonist also uses the more relevant examples of

¹⁷⁹ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 12, 13.

¹⁸⁰ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 14ff.

¹⁸¹ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 17.

¹⁸² Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 18.

¹⁸³ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 18; this example also occurs in Ibn Sīnā.

¹⁸⁴ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 19.

¹⁸⁵ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 19.

¹⁸⁶ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 14-15.

¹⁸⁷ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 20.

¹⁸⁸ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 21-22.

¹⁸⁹ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 24-25.

dream images and hallucinations in certain mental states¹⁹⁰ that probably come from Ibn Sīnā. He also uses the examples of mirages and magical tricks¹⁹¹ that are very common in Hindu and Buddhist discussions of reality as an illusion but whose source in *al-Muḥaṣṣal* is uncertain.

The discussion of these examples, however, reveals the perennial philosophical struggle to account for our phenomenal experiences of “external things” that do not in fact correspond to anything in external reality. Whereas Fakhr rejects the internal senses and in any case provides no refutation of “Platonic” arguments, Khwājāh’s explanations of many of these examples are based on the operation of the internal senses, similar to Ibn Sīnā’s account. For example, the case of different colors merging into one color on a rotating millstone is explained as follows: “Everything that the senses perceive is conveyed to the common sense... So if the vision perceived a color and quickly shifted to another color, a trace (أثر) of the first color would be in the common sense together with the perception of the second color, and the observer would see the two, as it were, together, and perhaps there is no time between the two for the soul to distinguish one of the two in it from the second, and it operates as if the two [were] mingled...”¹⁹² In other words, there is a capacity in the common sense to retain and hold images of past sensory things that have since ceased to be perceived. Of course, Khwājāh, as other defenders of the reliability of sensory perception, denies that we have a case of sensory perception of non-existent things here. One can observe, however, that he cannot deny that we still have an *experience* of non-existent things.

The Platonists, on the other hand, as presented by Fakhr, are eager to prove that “we may perceive what is non-existent (معدوم) as existent (موجودا)” as in the cases of mirages, magical tricks, and the falling drops of rain and rotating torches.¹⁹³ Khwājāh’s Avicennian explanation of trace lines and circles in the visual field confirms that our mind is capable of causing the persistence of phenomenal objects that have since ceased to be perceived: “what the vision perceives in the position, in which the moving thing is moving [now], is in continuity with what the common sense perceived from its existence (كون) in another position previously and stored in it [in the common sense], and the soul perceives as united (يدرك جميع) what is in two organs [i.e., in two different faculties] and reckons it as one united thing.”¹⁹⁴

To present the Platonic position, Fakhr even uses the opinion of Ash‘arite theologians that accidents such as colors are not capable of persisting on their own but that God recreates them at every instant. Of course we still perceive colors as continuously existing, thus the “sense may be absolutely certain about the continuity in the thing, although this is not the case, because the sense does not differentiate between the thing

¹⁹⁰ Khwājāh, *Talkhīṣ al-Muḥaṣṣal*, 23.

¹⁹¹ Khwājāh, *Talkhīṣ al-Muḥaṣṣal*, 18.

¹⁹² Khwājāh, *Talkhīṣ al-Muḥaṣṣal*, 18.

¹⁹³ Khwājāh, *Talkhīṣ al-Muḥaṣṣal*, 18.

¹⁹⁴ Khwājāh, *Talkhīṣ al-Muḥaṣṣal*, 18-19.

and its likeness, and due to this a confusion happens between the thing and its likeness, so in the estimation of the continuous succession of likenesses the sense perceives a single, continuous existence”.¹⁹⁵ Although this scenario is theologically based, it accurately accounts for the way our perception works, for example, in the case of magical tricks when we fail to notice quick substitutions of objects. Khwājah’s explanation¹⁹⁶ is that in such cases it is our intellectual judgments about continuity that are in error; however, one cannot deny that whatever is responsible for the error, our phenomenal experience is one of continuity.

While previous scenarios deal with the phenomenal persistence of something that has been perceived at a certain point, in the cases of dreams and hallucinations we experience what we think are sensory perceptions where there is no sensory input whatsoever. Employing a traditional sceptical train of thought, Fakhr’s Platonist uses the specific case of dreaming to question the reliability of sensory perception generally: “a dreamer sees something in a dream and is absolutely certain of its certainty; then it becomes evident to them in the waking state that this certainty was invalid. And if that is conceivable, then why is it not conceivable here for it to be a third situation, in which we are shown the delusion of what we saw in the waking state?”¹⁹⁷ Khwājah’s explanation¹⁹⁸ lays the blame for the deception on the “soul” instead of the senses, but cannot deny that the mechanism of phenomenal appearance is the same whether the source is internal or external: “The dreamer sees in his or her imagination, just as the one awake sees, except that since the one awake is familiar with judgments of the waking state, he or she judges that one of these states [is] real [and] the truth, and the other unreal and not the truth. And since the dreamer is unaware of the sense perception, he or she reckons that the real is that, which they see in the imagination. And this is not due to a sensory error, but this is an error in the soul from the lack of distinction between the thing and its likeness in the case of being disconnected from the thing.”¹⁹⁹

The example of mental states that cause hallucinations is similar to the one about dreaming. According to Fakhr’s Platonist, “someone affected by pleurisy sees images, which do not exist externally (قد يتصور صوراً لا وجود لها في الخارج). And he or she sees (يشاهد) them and judges that they have existence (وجود), and screams out of fear of them; and this indicates that it is possible for a condition (حالة) to be present in a human being, on account of which they see what is not really existent externally (يرى ما ليس بموجود في الخارج)

¹⁹⁵ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 22.

¹⁹⁶ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 22.

¹⁹⁷ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 23.

¹⁹⁸ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 23.

¹⁹⁹ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 23. See Khwājah, *Sharḥ*, 312: “the truth represented to the perceiver” (الحقيقة المتمثلة عند المدرك) “[is] either an image (صورة) extracted (منزعة) from the outside if the perception is acquired (مستفاد) from the outside, or an image [whose] origin occurs in the perceiver, regardless whether the external [image] is acquired [apart] from it or not.”

(موجوداً).”²⁰⁰ Khwājah²⁰¹ attempts a standard defense of the senses by perceptual realists, i.e., that the senses never perceive what is not there: “due to being absorbed by the imagination and unaware of sensory perception, their soul judges in the same way as a dreamer would judge. And in all these cases no state occurs to a human being, on account of which they would see what is not really existent, so they would not *see* that, but rather *perceive* something by their imagination, disregarding the senses together with that.”²⁰² Again, no matter what one calls the phenomenal experience of a thing that has no external existence, one cannot deny the experience.

Fakhr’s Platonist presses on by applying the same logic that one specific case of false perception puts into question sensory perception in general: “and if that is conceivable, then why is it not conceivable for it to be like that in that, which healthy people see [...]?” So any of these scenarios “can only be clarified by a careful examination, if possible, so no assertion (حزم) about an existence of a sensory thing should be permissible except after a rational examination of this evidence. And this indicates that the mere judgment of the senses is not acceptable”.²⁰³

As the phenomenal evidence is undeniable, Khwājah at this point also attempts to restore trust in the reliability of sensory perception by rational means, except that it leads him to the opposite conclusion: “as for the permissibility of error in what the healthy see due to its permissibility in what a dreamer and a sick person perceive, the clear intellect rejects it. And we did not establish trust in the sensory data by evidence, but we say: the clear intellect requires it”. Khwājah admits that ultimately he cannot account for these phenomenal experiences and that he provides those explanations of illusions simply because the “intellect has judged that this is an error in the mind, not for the purpose of proving the validity of what we perceive by the senses”. However, “had we established the validity of the judgment through the certainty of the external sensory data through evidence”, Fakhr’s Platonist’s point would have been valid.²⁰⁴

While presenting the case of transparent substances appearing white, Fakhr’s Platonist seems to anticipate and thwart Khwājah’s overly technical explanations²⁰⁵ in principle by pointing out that explaining *why* a sensory error happens (in this case, according to Khwājah, who seems to follow al-Haytham, by “false inference”) does not eliminate the *fact* that the phenomenal picture is wrong: “this does not detract from our intention, because” the explanation “is only a clarification of the cause, on account of which we see snow as white, although in its essence it is not white.”²⁰⁶

²⁰⁰ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 23. Galen describes pleurisy as causing fever, so perhaps it is the fever that causes hallucinations?

²⁰¹ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 23.

²⁰² Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 23; my italics.

²⁰³ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 23–24.

²⁰⁴ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 24.

²⁰⁵ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 25.

²⁰⁶ Khwājah, *Talkhīṣ al-Muḥaṣṣal*, 24.

As a result of this cross-generational “debate”, the two parties come to opposite conclusions. According to Fakhr’s Platonist, “it has been proved in these ways that the judgment of the senses may be invalid or may be true. And if this is so, reliance on their judgment is not permissible... but rather a different judge, who is above him [the “suspect” that stands for the senses – O.B.], is necessary in order to distinguish his correctness from his error. And according to this assessment, the sense is not the primary judge...”²⁰⁷ And according to Khwājāh, “it has become obvious that the sense has no judgment about any of the matters, so the statement that the judgment of the sense may be mistaken is rejected...”²⁰⁸

8. Conclusion

What the medieval debate about phenomenal reality shows is a remarkable continuity of understanding of the nature of sensory perception in ancient Greek, medieval Latin (specifically Franciscan), and medieval Islamic texts,²⁰⁹ which also resonates with the findings of present-day neuroscience. The two main trends of arguments, just as they do in present-day philosophical debates about the nature of sensory perception, defend either some type of phenomenism – an “image/apparition” model where what we ultimately become aware of in sensory perception is some sort of a mental construct – or some sort of a direct perceptual realist view, where what we become aware of is the external object of perception itself. The relationist view is a variation of the latter that claims that sensory perception is simply the process itself of relating to or interacting with an external object. The present analysis shows that medieval debates about the nature of sensory perception severely undermine both the direct perceptual realist and purely relationist views. One must note that they do that no matter what the stated doctrinal position of the debater is or whether their arguments are successful or not.

The examples of at least some visual illusions, but certainly of afterimages, hallucinations and dreams show that at least at some point what we “perceive” is a mental image that is independent from any external reality. The logic “if in this situation then why not in all situations” that was first applied by Hindus and Buddhists and continued in medieval Islamic and Franciscan thought but was not definitive in the Middle Ages is confirmed by contemporary neuroscience. The latter shows definitively that there is simply no known mechanism of any direct contact with an object of perception. According to Anil Seth’s convincing model, all our experience of awareness is a continuously generated “hallucination” that is controlled by inputs from the sensory but also other, purely internal systems. Depending on which input is stronger, the

²⁰⁷ Khwājāh, *Talkhīṣ al-Muḥaṣṣal*, 25.

²⁰⁸ Khwājāh, *Talkhīṣ al-Muḥaṣṣal*, 26.

²⁰⁹ The question about how the debate relates to Hindu and Buddhist sources remains to be answered in a different study.

phenomenal picture may be more or less disconnected from whatever influences it from the outside. However, it is never in direct contact with any external objects, and this is why it can exist independently. In fact, it always exists independently. The examples of its independent existence are not exceptions, they are the proofs of the rule. It is quite remarkable that this mechanism was described pretty much in the same terms in medieval Islamic thought and subsequently in medieval Franciscan thought.

Thus, again, no matter what their stated doctrinal position is, every party to the medieval debate has to acknowledge – if implicitly – that some phenomenal picture of external reality is created in the mind that is more or less independent from what is outside. No matter what the cause, images can persist in the mind and be created without sensory input. Some type of phenomenalism or “image/apparition” model is necessary to account for our phenomenal experience no matter how much it undermines the certainty of knowledge. And yet this acknowledgement can be used to argue for opposite positions, both in medieval Franciscan and medieval Islamic thought: for example, that sensory perception is unreliable and one must establish what is real by other means, or that sensory perception is mostly reliable, and exceptional cases can be explained away by other means.

Oleg Bychkov
obychkov@sbu.edu

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