

Is Physiognomy a Science? Reflections on the *Kitāb al-Firāsa* of Fakhr al-Dīn al-Rāzī

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“The face of every neighbour whom I met
was as a volume to me.”

W. Wordsworth, *The Prelude*

“There will be time

to prepare a face to meet the faces that you meet.”

T.S. Eliot, *The Love Song of J. Alfred Prufrock*

Prologue

These reflections make no claim to be a wide-ranging account of Islamic physiognomy (*firāsa*) or of its historical origins. They are, instead, an attempt, first, to reconstruct some of the fundamental ideas on physiognomy in the writings of the celebrated theologian Fakhr al-Dīn al-Rāzī (d. 606/1209); second, to draw parallels, where appropriate, between these reflections and some late medieval European scientific and physiognomical ideas; and finally to ask whether some of these ideas are of interest from the viewpoint of the contemporary history and philosophy of science. We believe that a mere reconstruction of al-Rāzī's views would be of limited interest were they not accompanied by a comparative and philosophical analysis which situates al-Rāzī's views in a wider cultural context.¹

¹ The most comprehensive recent discussion of the views of al-Rāzī and other classical Islamic thinkers on *firāsa* is in Antonella Ghersetti, “The Semiotic Paradigm: Physiognomy and Medicine in Islamic Culture”, in: *Seeing the Face, Seeing the Soul: Polemon's Physiognomy from Classical Antiquity to Medieval Islam*, Simon Swain, ed., Oxford: Oxford University Press, 2007, 281–308; see also Ghersetti's numerous other writings on Islamic physiognomy. Swain's book is fundamental on the question of origins and continuities between the Greek and Islamic traditions. On Islamic physiognomy in general see Toufic Fahd, *La divination arabe: études religieuses, sociologiques et folkloriques sur le milieu natif d'Islam*, Paris: Sinbad, 1987, 369-429; Toufic Fahd, “Firasa”, in: *Encyclopaedia of Islam*, 2nd ed., vol. 2, Leiden: Brill, 1965, 916-917; Anna Akasoy, “Arabic Physiognomy as a Link between Astrology and Medicine”, in: *Astro-Medicine: Astrology and Medicine, East and West*, A. Akasoy, C. Burnett and R. Yoeli-Tlalim, eds., (“Micrologus' Library”, 25), Florence: Edizioni del galluzzo, 2008, 119-141. The introduction to Yusuf Murad's edition of the *Kitāb al-Firāsa* (see Bibliography below) still contains much valuable material. On al-Rāzī in general, see G.C. Anawati, “Fakhr al-Din al-Razi”, in: *Encyclopaedia of Islam*, 2nd ed., vol. 2, Leiden: Brill, 1965, 751-755; John Cooper, “al-Razi, Fakhr al-Din (1149-1209)”, in: *Routledge Encyclopedia of Philosophy*, E. Craig, ed, vol. 8, London: Routledge, 1998; and, most recently, Tariq Jaffer, *Ra-*

Some theoretical considerations

In chapter 2 of *The Order of Things*, Michel Foucault attempts a reconstruction of what he terms the *episteme* of the sixteenth century in western European culture. His reconstruction yields four major “figures of knowledge” or “spheres of cognition” which he lists and analyses as follows: (1) *convenientia*: adjacency and juxtaposition, (2) *aemulatio*, reflection or duplication, (3) analogy, which “draws together all figures in the universe” and (4) sympathies, which “excite the things of the world to movement”. All four spheres tell us how the world must “fold in upon itself, duplicate itself, reflect itself or form a chain so that things can resemble one another.”²

This cognitive paradigm, though distant in time and space from Arabic-Islamic culture, must nevertheless impress a student of that culture in the period between, say, the 10th and 13th centuries, by its aptness and relevance. Research into the scientific thinking of that period reveals strikingly similar cognitive categories, widely attested in the works of natural scientists, theologians, physicians and others who concerned themselves with the investigation of human nature and its connections to the universe that envelopes it. With *‘ilm al-firāsa* (physiognomy) in particular, this paradigm offers a promising entry to the epistemic background of this science. This is so because the real value of Foucault’s analysis resides in what one might call the intellectual presuppositions that made this science possible.³

Therefore, before we come to al-Rāzī and his *K. al-Firāsa*, it would be useful to begin by highlighting some salient cognitive categories of the scientific thought of that period. Arabic terms that may be posited as cognate, and additional to, the four posited by Foucault would include: *mushākala* (sharing common attributes), *mujāwara* (adjacency), *tamāthbul* (sharing a common form), *ta’lif* (composition), *jadb* (attraction), *muṭābaqa* (congruence), *mushābaha* (similarity), *mujānasa* (sharing a common genus), *shawq* (desire; sympathy), *qiyās* (analogy), *ikhtilāf wa-ittihād al-ṭabā’i* (difference and unity of natural characteristics), *ta’thir* (influence), *tasāwī* (equivalence), *nisba* (relationship), *mumāssa* (contiguity), *tafā’ul al-‘anāṣir* (interaction of elements), *ta’alluq* (mutual dependence; attachment), *tanaṣur* (mutual confirmation), *shibh wa-iftirāq* (similitude and difference), *ittiṣāl* (connection), *muqābala* (polarity), *muhākāt* (emulation) and *intiḥā* (imprinting). It will become evident how thickly many of these terms will appear in the discussion that follows.

Many of these Arabic cognates are derived from verbal stem VI, i.e. *tafā’ala*, denoting mutual or reciprocal action. What we observe here is a world of corre-

zi: Master of Qur’anic Interpretation and Theological Reasoning, New York: Oxford University Press 2015.

² Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences*, London: Tavistock Publications, 1985, chapter 2.

³ See also the interesting and relevant observations in Keith Thomas, *Religion and the Decline of Magic*, Harmondsworth, Middlesex: Penguin Books, 1985, 264–274.

spondences and analogies, where the sciences, both natural and occult, prop each other up, where science is driven by associative thinking. One dominant scientific trope or figure widely discussed by thinkers like al-Rāzī was the mirror.⁴ Another was magnetism, which opened the door to phenomena like supernatural or prophetic healing. This doctrine of correspondences and analogies facilitated a belief in systems of divination like palmistry (*‘ilm al-kbuṭūṭ*) and physiognomy (*firāsa*). It is also not unlikely that a cosmology influenced by neoplatonism may have encouraged pantheistic thought whereby the earth itself was regarded by some thinkers like al-Rāzī as animate⁵, a vibrant and living reflection of its creator. Such a world of similitudes, of the macro and the micro, was of course, and could only be, a world of signs.

Most pertinent of all such signs or *āyāt* is the overwhelming presence of the Qur’ān itself: God-as-speech. This immediate ever-present theophany, with its own self-definition of *muhkam* and *mutashābih* verses, ensured that God’s speech would always contain both what is absolutely clear as well as what is subject to interpretation. To know God is therefore to “read” his signs as they should be read, and the commandment *iqra’* (read/recite) fortifies the constant urging to interpret the signs, to infer the existence, wisdom, omnipotence and mercy of the creator by unlocking the signs of his creation. Furthermore, the “Be! and it is” of Qur’ānic command, an illocutionary utterance, established God as the ultimate cause of all phenomena while at the same time encouraging belief in the influence of certain Qur’ānic verses, passages and prayers used as incantations, upon physical manifestations such as psychic or medical conditions.

Given this intellectual climate, how is this “reading” of the world to be done? Two aspects of generating scientific knowledge might be emphasized here: inferring the invisible from the visible (*al-istidlāl bi-l-shāhid ‘alā l-ghā’ib*) and the concept of comprehensive knowledge (*iḥāṭa*). Both were important in al-Rāzī’s scientific and theological thinking. The first principle, regarded as a sub-set of analogy, was a frequent topic of discussion and delimitation among both jurists and theologians, both Mu‘tazilites and Ash‘arites, and was of course particularly relevant to any discussion that had to do with inferring God’s existence and actions from observing the world of nature. The second, *iḥāṭa*,⁶ was often cited as a synonym of knowledge: to know is to gather together the whole ensemble of signs, to comprehensively understand the interconnectedness of things, the most vivid illustration of which is of course the Qur’ān itself.

⁴ For a similar interest in mirrors in medieval western Europe, see the discussion of Roger Bacon’s views in Robert Bartlett, *The Natural and the Supernatural in the Middle Ages*, Cambridge: Cambridge University Press, 2008, 124. For magnetism in late medieval European thought, see Thomas, *Religion*, 266, 446.

⁵ Al-Rāzī, *al-Mabāḥith al-mashriqiyya*, vol. 2, Haydarabad, Deccan: Dā’irat al-Ma‘ārif, 1343/1925, 102.

⁶ See, e.g., al-Rāzī, *al-Tafsir al-kabir*, Beirut: Dār Iḥyā’ al-Turāth al-‘Arabi, [s. a.], vol. 29, 211, *ad Q* 57:3. All translations from primary sources are by the authors.

Body and soul in al-Rāzī

Among classical Islamic thinkers, one of the earliest and most detailed discussions of the human body as a microcosm occurs in al-Jāhiz (d. 255/869).⁷ In his discussion of this concept al-Jāhiz affirms that the human body combines in itself all the elements found in the macrocosm. Thus, it was only natural for other thinkers to assert that if the human body mirrors the world in miniature, so the various bodily members such as the face, the hand or the foot mirrored the soul.⁸ In what is perhaps his most graphic description of the body and its relationship to the soul, al-Rāzī constructs the following image:

The body is like a house, fully built and equipped with all its furniture, with its doors open. The head is like the upper chamber, the holes in the head like windows... the eye like the door of the chamber, the nose like the balcony above the main gate, the lips like the door's two leaves, the teeth like gatemen, the tongue like a chamberlain... the heart like a winter chamber, the stomach like a kitchen and the bones like the wooden beams from which the house is built. The rational soul (*al-nafs al-nāṭiqā*) is like the king and ruler of the house. It sees with the eye, hears with the ear, imagines with the front of the brain, thinks with the middle of the brain and remembers with the back part of the brain.⁹

In discussing the powers of the soul, al-Rāzī rejects the arguments of the philosophers who, he claims, posit two powers for the soul, theoretical and practical, then divide these powers, assigning each act to a separate power and claiming some as corporeal, others as spiritual. Al-Rāzī argues that all these powers and cognitions must be ascribed to the substance (*jawhar*) of the soul itself, with each bodily member acting as an instrument (*āla*) of the soul and performing a specific function.¹⁰ Against Galen but in agreement with Aristotle, al-Rāzī locates the home of the soul in the heart, from which all thought and feelings proceed.¹¹

The human soul, then, is a substance (*jawhar*) distinct from all others in its essence (*mufāriq bi-dhātihī*). It is not a body (*jism*) nor a condition (*ḥāla*) in a body, though animal and vegetable souls may be described as faculties (*qiwā*).¹² The attachment of the soul to the body is described as even stronger than that between the lover and the beloved.¹³

⁷ Al-Jāhiz, *Kitāb al-Hayawān*, 'Abd al-Salām Muḥammad Hārūn, ed., vol. 1, al-Qāhira: Muṣṭafā al-Bābī al-Ḥalabī, 1965, 212 ff.; cf. *Rasā'il al-Kindī al-Falsafīyyah*, Muḥammad 'Abdul Ḥādī Abū Ridāh, ed., vol. 1, Cairo: Dār al-Fikr al-'Arabī, 1950, 260–261.

⁸ See, e.g. al-Mas'ūdī, *Murāj al-dhahab wa-ma'ādin al-jawhar*, Charles Pellat, ed., Beirut: Université Libanaise, 1966–1979, paras. 1220–1221, 1227–1228, 1237–1238, 1240–1241.

⁹ Al-Rāzī, *Kitāb al-Nafs wa-l-rūb*, Muḥammad Ṣaghīr al-Ma'sūmī, ed., Islamabad: Islamic Research Institute, 1968, 82–83; see also al-Rāzī, *al-Taḥṣīn al-kabīr*, vol. 1, Beirut: Dār Iḥyā' al-Turāth al-'Arabī, [s.a.], 187, ad Q 1, for microcosm and macrocosm.

¹⁰ Al-Rāzī, *Kitāb al-Nafs*, 77–78.

¹¹ Al-Rāzī, *Kitāb al-Nafs*, 51–74.

¹² Al-Rāzī, *Mabāḥith*, vol. 2, 232; cf. Ibn Ḥazm, *al-Fiṣal fi al-milal wa-l-awwā' wa-l-niḥal*, Cairo: Al-Maṭba'a al-Adabiyya, 1317–1320, vol. 5, 74 who argues that the soul is a body.

¹³ Al-Rāzī, *Mabāḥith*, vol. 2, 383.

This body-soul dyad is of course subject to the various natural laws that determine the arrangement of the humors. The reason why souls differ in their moral attributes – for example some are cowardly while others are courageous, some are noble, others are ignoble and so forth – is to be sought, according to al-Rāzī, either in the humors themselves or in “external effects” (*umūr kbārījīyya*) or in the substance of the soul itself.¹⁴ However, against those whom al-Rāzī calls the “Naturalists” he argues as follows:

The creation of all human souls from one soul is a clearer proof of God’s omnipotence. If things had been determined only according to nature and special characteristics, what would be generated from a single human could only be things similar in form, creation and nature. But since we observe among individual humans such diversity as the black and the white, the red and the dark, the beautiful and the ugly, the tall and the short, it follows that he who created and arranged them thus is one who exercises active choice (*fā’il mukhtār*), and not some influential nature or some determining cause.¹⁵

His objections to the “Naturalists” are further specified in the following passage:

Given the uniform effects (*tasāwī l-ta’thirāt*) of natural characteristics, of the stars, the four seasons and the four elements, the generation (*tawallud*) of bodies diverse in their natural characteristics, attributes, colours and nourishment proves that they came into being through the disposition (*tadbīr*) of one who is wise, merciful, possessed of choice, and omnipotent, not through the disposition of natural characteristics and the four elements. You will observe, for example, that an orange contains the four natural characteristics together: the skin is hot and dry, the flesh is cold and humid, the juice is cold and dry, the pip is hot and dry. That all these contradictory natures can be found in a single orange must be the result of one who exercises active choice.¹⁶

These passages, however, are not so much a refutation of natural effects as they are a theological assertion that God, and not nature, is the ultimate cause of all phenomena. This allows al-Rāzī, first, to adopt a relatively tolerant attitude towards oddities and marvels, the occult as well as the manifest, as against the more rigid views on marvels among, say, the Mu‘tazilites or the philosophers; and, secondly, it allows him to admit the secondary effects of nature, the stars, the four humors and so forth on the created world.

If we now consider those aspects of al-Rāzī’s thought which bear more directly on *fīrāsa*, the soul, we are told, is related to the body in its capacity as arranger and disposer (*tadbīr, taṣarruf*) and all bodily faculties (*al-qiwā l-badaniyya*) are controlled and managed by the soul. The “earthly animal” (*al-ḥayawān al-arḍī*) is composed of the four elements. It is wholesome if these four are harmonious but corrupt if one dominates over the others and in their bodily constitution animals are similar to humans.¹⁷

¹⁴ Al-Rāzī, *Mabāḥith*, vol. 2, 416.

¹⁵ Al-Rāzī, *Tafsīr*, vol. 9, 159, *ad Q* 4:1.

¹⁶ Al-Rāzī, *Tafsīr*, vol. 13, 91, *ad Q* 6:95; see also vol. 13, 104, *ad Q* 6:98.

¹⁷ Al-Rāzī, *Mabāḥith*, vol. 2, 234, 279, 383.

Now the soul manifests its presence through the body in a number of ways, and one such way involves the manner in which pious or impious souls can leave their mark on the body:

What this verse signifies is that which appears on the forehead by reason of much prostration, and what God causes to appear of beauty by day on the faces of those who prostrate themselves by night. This is well established (*muḥaqqaq*) to any rational person. Consider two men who spend the night, one in drinking and amusement, the other in prayer, recitation and the pursuit of religious knowledge. The following day, anyone would be able to tell apart the one who had been drinking and amusing himself from the one who was thankfully remembering God.¹⁸

This is fortified in al-Rāzī's commentary on Q 88:1-9, where the Qurʾān speaks of the faces of the damned and the blessed "on that Day", presumably the Day of Judgment. Al-Rāzī however allows that the description of the faces, some humiliated and crestfallen, others joyful and beautiful, applies not just to the after-life but to this life as well. He then adds the following comment:

Humiliation in point of fact appears on the face and that is why it is linked to the face here. This is similar to another verse "You shall see them being paraded before it, heads bowed in humiliation, and casting furtive glances" [Q 42:45]. Humiliation appears on the face because it is the opposite of arrogance whose locus is the head and brain.¹⁹ [...] "Furtive glances" means that they begin by moving their eyelids weakly and furtively, as one might observe in the case of one who is certain of execution and regards the executioner's sword but is incapable of opening his eyelids fully as he does normally when he looks upon the things that he loves.²⁰

The body-soul relationship is thus one example of how all things in the universe have their reflection and shadows. Indeed a prophet may be said to be a reflection of God because of the appositeness (*mulāqāt*), parallelism (*muqārana*) and commonality (*mujānasa*) between them.²¹ Then again, when we imagine the forms of mountains, seas and individuals, what is present to the mind and heart is of course their images, similitudes and pictures. These are like the images in a mirror, but the heart of the believer is itself like a mirror in purity, indeed purer than a mirror.²² One must thus bear in mind that, according to al-Rāzī, Qurʾānic parables and similitudes (*amthāl*) are meant to have the most profound effect on the heart, more effective than any definition of the thing-in-itself. This is because these similitudes are designed to compare the evident with the occult, the visible with the invisible, thus causing the sense (*ḥiss*) to be congruent (*muṭābiq*) with reason, which constitutes the ultimate degree of clarification.²³

¹⁸ Al-Rāzī, *Tafsīr*, 28:108, ad Q 48:29.

¹⁹ Al-Rāzī, *Tafsīr*, vol. 31, 150-51; cf. al-Rāzī, *Kitāb al-Nafs*, 82-83.

²⁰ Al-Rāzī, *Tafsīr*, vol. 27, 182, ad Q 42:45.

²¹ Al-Rāzī, *Tafsīr*, vol. 1, 264, ad Q 1.

²² Al-Rāzī, *Tafsīr*, vol. 1, 87, 92, ad Q 1.

²³ Al-Rāzī, *Tafsīr*, vol. 2, 72 ad Q 2:17.

Firāsa: definitions and epistemic principles

In his *Tafsīr*, al-Rāzī proposes to analyze synonyms of the term *‘ilm* (knowledge, science), thirty in number.²⁴ After discussing such terms as *idrāk*, *shu‘ūr*, *taṣawwūr*, *bifẓ*, *ma‘rifa*, *dirāya*, *ḥads*, *ẓann*, and so on, he reaches number twenty-nine, which he calls *firāsa*, and defines as follows:

Firāsa is inference from outward physical features (*khalq*) to inward moral states (*khulūq*). The Almighty indicated the truth of this avenue to knowledge in the following verses ... The term itself is derived from such phrases as “The wild animal detected the presence of the lamb”. It is as if *firāsa* is a form of subtle detection (*ikbtilās*) of the objects of knowledge. This comes in two forms: the first occurs to man as a passing thought (*khātīr*), the cause of which is unknown, it being a form of inspiration (*ilhām*), indeed of revelation (*wahy*)...the second form comes about through a craft (*sinā‘a*) that is learnt, which is inference from outward appearances to inward moral states. People of *ma‘rifa* [probably Sufis], when interpreting the Qur’ānic verse “Can such be compared to one possessed of certainty from his Lord, recited by a witness from him” [Q 11:17] state that “certainty” (*bayyina*) is the first form of *firāsa*, thus referring to the purity of the soul’s substance, while the “witness” (*shahīd*) is the second form, which is inference from outward appearances to inward conditions.²⁵

Concerning the verse quoted above, i.e. Q 11:17, al-Rāzī comments as follows:

One interpretation holds that the word “recited” (*yatlūhu*) does not refer to recitation of the Qur’ān at all but rather to the occurrence of this “witness” which comes after (*yatlūhu*) the “certainty”. According to this interpretation they argue that what is meant is that the outward form of the Prophet, his face and his physical features all witness to his truth, since he who looked at him using his reason recognized that he was neither mad nor a sorcerer nor a liar. Thus, the phrase “witness from him” means that all these conditions refer to the Prophet himself.²⁶

It is in these and similar passages of his *Tafsīr* and his other works that al-Rāzī establishes for *firāsa* a rational as well as a Qur’ānically sanctioned place among the various types of knowledge. Thus, when we come to his *Kitāb al-Firāsa* the definitions set forth above as well the general epistemic climate discussed earlier ought both to be kept in view.

Right at the beginning of that work, al-Rāzī attempts to establish the veracity of the inference from outward to inward by arguing that the temperament (*mizāj*) can either be the soul itself or an instrument of the soul. In either case, both outward appearance and inward moral state must be regarded as dependent upon temperament. It follows that inference from the one to the other is logically valid.²⁷

He then argues that the principles of *‘ilm al-firāsa* are derived from “natural science” while its branches and derivatives (*tafāri‘uhu*) are established through

²⁴ Al-Rāzī, *Tafsīr*, vol. 2, 203 ff., ad Q 2:31.

²⁵ Al-Rāzī, *Tafsīr*, vol. 2, 208, ad Q 2:31.

²⁶ Al-Rāzī, *Tafsīr*, vol. 17, 201–202.

²⁷ Al-Rāzī, *Firāsa*, 94–95.

experiences (*tajārib*). It is therefore like medicine, and any refutation addressed to this science must also be addressed to medicine. The term itself is linguistically derived in exactly the same words that al-Rāzī uses in *Tafsīr* 2: 208, above, including the term *ikhṭilās*, or subtle detection.²⁸ Setting aside discussion of the Sufi practice of *firāsa*, al-Rāzī turns his attention to *firāsa* as a craft to be learned, and concludes by calling it a “certain knowledge” (*‘ilm yaqīnī*) in its principles but with conjectural branches (*ẓann al-furū‘*).²⁹

To find out what precisely al-Rāzī means by *ẓann*, we need to go back to his list of the synonyms of knowledge, as in *Tafsīr*, 2:203 ff., above, where he defines *ẓann* as follows:

Ẓann is preponderant belief (*‘itiqād rājiḥ*). Since belief admits of both strength and weakness and thus is not strictly determined (*maḍbū‘*), so too the degrees of *ẓann*. That is why it has been defined as that which gives more weight in the heart to one of two polarities of belief while allowing the other polarity to be possible. *Ẓann*, when it reaches the ultimate in power, may also be called knowledge, so it is not surprising that knowledge itself is also called *ẓann*. Thus, some exegetes, in commenting on the verse “those who believe they will meet their Lord” [Q 2:46] maintain that the term *ẓann* was used here to stand for knowledge for two reasons. First, in order to emphasize that the knowledge of most people in this life, when compared to their knowledge in the after-life, is like belief when compared to knowledge; and secondly, because genuine knowledge in this life can hardly be attained except by prophets and true believers mentioned by God in the verse “who believe in God and His Messenger, then are free of doubt” [Q 49:15]. You must know therefore that if *ẓann* proceeds from strong indications (*amāra qawīyya*), it must be admitted, indeed praised, since most knowledge is of this kind. If it proceeds from weak indicators, it is reprehensible, as in the verse “conjecture (*ẓann*) can never substitute for truth” [Q 10: 36] or in the verse “some suspicions (*ẓann*) are sinful” [Q 49:12].³⁰

In a further refinement of his views on *‘ilm* and *ẓann*, al-Rāzī makes it clear that the “exegetes” mentioned in the passage above include himself, for in commenting on Q 2: 46, above, he repeats the argument that by *ẓann* in that passage *‘ilm* is intended, and explains this metaphor (*majāz*) by saying that both terms have in common the fact that they are a preponderant belief. But whereas *‘ilm* is preponderant and excludes its opposite, *ẓann* is preponderant without excluding its opposite.³¹

To round out this discussion we need to examine three or four epistemic modes that undergird al-Rāzī’s treatment of the topic in his *Kitāb al-Firāsa*. The first is *iḥāṭa*, a mode of knowledge mentioned earlier in connection with the ways in which the signs of God should be read. When applied to *firāsa*, *iḥāṭa* appears as an essential prerequisite to the proper practice of *firāsa*. According to al-

²⁸ Al-Rāzī, *Firāsa*, 96.

²⁹ Al-Rāzī, *Firāsa*, 97.

³⁰ Al-Rāzī, *Tafsīr*, vol. 2, 207.

³¹ Al-Rāzī, *Tafsīr*, vol. 3, 50.

Rāzī he who wishes to practice this craft must have comprehensive understanding (*aḥāṭa ʿilman*) of a whole body of knowledge, both logical (e.g. the rules of inference), as well as naturalistic (e.g. the structure of the human body), and a detailed grasp of its humors, nutrition and surrounding climate.³²

The second epistemic mode is *mushābaha*, which we have frequently encountered earlier as an important explanatory principle given a world whose various parts reflect each other, a world of macro-micro and a world in which revelation itself descended in order to illustrate the analogy between divine and human. In placing *firāsa* among other similar sciences, such as geomancy and palmistry, and the effects of the heavenly bodies, al-Rāzī allows for a more acute power of perception (*quwwat baṣīra*) to exist among certain people whose grasp of “real sciences” (*ʿulūm ḥaqīqīyya*) may otherwise be defective.³³ This is sometimes associated with habitat, so that certain desert dwelling nations, for example, may have developed a greater knowledge of meteorology because of a more urgent need for them to know their natural environment than city dwellers.

Six guiding principles are then outlined: congruence between states of joy or anger and facial expressions; congruence between such states and the human voice; similarity (*mushābaha*) between animals and humans where the body and temperament, common to both animals and humans, reveal in an animal its inner state immediately and without the interference of reason; fixed national characteristics of various nations; differences between male and female among both animals and humans; and analogy between one psychic state and another moral state (e.g. between anger and heedlessness, or insolence and vileness).³⁴ These indicators however are qualified by al-Rāzī in a number of important ways. In conformity with his definition of *zann*, above, al-Rāzī insists that by themselves such indicators cannot lead to anything other than a weak conjecture, which can only be fortified by a multiplication of indicators.

Hence the third epistemic principle is *tajriba*, experience. As in medicine and the science of the stars, so in *firāsa*, experience is cumulative. But neither analogy nor *tajriba* should be used alone when drawing inferences. Rather, both together must be used for purposes of detection, leading to preponderant belief (*zann ghalīb*).³⁵

The fourth epistemic principle is that of propinquity. This becomes relevant when indications are contradictory. For instance, if there are indicators from the face that a person is a coward, and from his chest and shoulders that he is courageous, the bodily organ nearest to these indicators must be given priority. The heart is the locus of the angry power, the brain of the rational power and the liv-

³² Al-Rāzī, *Firāsa*, 99.

³³ Al-Rāzī, *Firāsa*, 103.

³⁴ Al-Rāzī, *Firāsa*, 108–116.

³⁵ Al-Rāzī, *Firāsa*, 112.

er of appetitive power. Hence indicators closest to these organs should be prioritized when a verdict is being sought.

It is in his *Kitāb al-Firāsa* where al-Rāzī draws together the various strands of his scientific thought, where we see most vividly the operations of the cognitive categories that have informed our discussion above.

Is firāsa a science?

Having now examined the epistemic underpinnings of *firāsa* and its methodological toolkit, it is tempting to regard it as hopelessly mired in a pre-modern perspective on the universe. Despite some significant differences between twelfth century Islamic science and sixteenth century European science, the Foucauldian schema, outlined in section 1, with its emphasis on universal analogies and sympathies, would seem to capture aspects of the worldview associated with *firāsa* and other divinatory sciences fairly well. There seems no doubt but that terms like *mujāwara* (adjacency) and *mumāssa* (contiguity), for example, fit neatly into Foucault's first category of *convenientia* (adjacency, juxtaposition). Meanwhile, *mushākala* (sharing common attributes), *tamāthul* (sharing a common form), *muhākāt* (emulation), as well as a host of other concepts, fit into the second category of *aemulatio* (reflection or duplication). Furthermore, *jadb* (attraction), *qiyās* (analogy), *tafā'ul al-ʿanāṣir* (interaction of elements), and several others, cleave most closely to the third category of analogy, which involves drawing together all figures in the universe. And finally, *shawq* (desire, sympathy) and *ta'thir* (influence) are most congruent with Foucault's fourth category of sympathies, which entails exciting the things of the universe to movement. Instead of the strict causality that is held to be the mark of most modern scientific enterprises, we seem to have a paradigm that finds in the universe signs and echoes, and interprets features of the world as pointing to one another as though imbued with intentionality. Moreover, these resonances between different parts of the world are, for al-Rāzī, a result of divine intervention, which ensures that the diverse elements of the universe all point to one another, and ultimately, jointly designate their creator. This is a far cry from the disenchanting universe that is supposedly the mark of the modern or post-Enlightenment scientific outlook. In the universe envisaged by the science of *firāsa*, by contrast, "the world remains a great enchanted garden," as in the well-known quotation from Max Weber.³⁶

Yet, as we have already seen, in his defense of the science of *firāsa*, al-Rāzī does not rest his case on brute signs and analogies, but rather posits a causal link that underlies the relationship between facial features and aspects of character.

³⁶ Max Weber, *Sociology of Religion*, Boston: Beacon Press, 1963, 270; first published in German, 1922. In this passage, Weber is contrasting the attitude towards the world taken by the "popular religions of Asia" with that of Protestantism.

There is a purported causal mechanism relating outward features (*khalq*) to inner character (*kbulq*), for they are related as effects of a common cause, the common cause being variously described as the soul itself (*nafs*) or its instrument, the temperament (*mizāj*). In this context, the temperament is a theoretical posit in a well-established theory of humoral physiology that was widely used by physicians. If the temperament, imbalances in which were held to account for a variety of physical diseases and ailments, acts as a causal basis for the link between facial features and character traits, this goes a long way towards demystifying the relationship between outward facial signs and inward character traits. Hence, far from an enchanted world of mysterious signs and indications, we seem to have instead the mundane causal connections that are supposed to be so central to the practice of modern science.

If that is the case, then al-Rāzi's challenge that any objection to *firāsa* ought to be leveled equally against medicine, looms especially large. Though the challenge was aimed at his skeptical contemporaries, it applies with equal if not greater force today. The onus is on the critic of *firāsa* to show how it differs substantively from classical Islamic medical science in its methodology and epistemic underpinnings. To modify al-Rāzi's challenge and to bring it up to date, how can we explain the fact that the Islamic science of *firāsa* appears to modern eyes to be thoroughly delusional, while the contemporaneous science of medicine, though wrong and indeed misguided in many of its hypotheses and explanations, seems at least on the right track? The theory and practice of medicine in classical Islamic writings is riddled with error from the vantage point of modern medicine. It is nevertheless recognizable as a precursor to the modern science of medicine, while *firāsa* seems to bring us face-to-face with an alien "form of life".³⁷ One can think of this as an updated version of al-Rāzi's challenge to the skeptic: If *firāsa* relies on the same empirical method and evidentiary standards as medicine, then what accounts for the differing attitudes to the two sciences?

One way of addressing this challenge is by referring to the historical progression of the two sciences. It might be said that the reason that *firāsa* is not seen today as a precursor to modern social psychology or moral psychology, or perhaps indeed evolutionary psychology, is merely a matter of historical contingency. There is simply no uninterrupted set of texts and practices that would link this medieval science to these contemporary disciplines. A clear disparity exists between *firāsa* and modern scientific pursuits, not because of a fundamental difference in worldview. Rather, what accounts for the ostensible break or rupture is merely the absence of a set of practices that would serve to link the two areas of inquiry. This can be contrasted with medicine, which in both theory and practice, followed a fairly continuous trajectory from classical Islam to the late medi-

³⁷ The phrase is taken from Ludwig Wittgenstein, *Philosophical Investigations*, Oxford: Blackwell, 1953, § 23.

eval period in Europe, and from there to early modern medical science, and finally, to the modern science of physiology and medicine.

But that answer is not completely satisfactory because it suggests that our differing impressions of the two sciences is based, not on a reasoned argument, but on an accident of history. A more rationalist response might be that the crucial difference between *firāsa* and medicine is not that the former does not posit a causal relationship between the two main theoretical entities that it investigates, but that the posited causal link is simply absent in the case of *firāsa*. Even though al-Razī attempts to ground relations of analogy in actual causal ties between temperament and character on the one hand and facial features on the other, he was mistaken in thinking that there was a causal mechanism that would fill the gap between the two sets of phenomena. But the problem with this attempt to meet the challenge and explain the perceived difference between medicine and *firāsa*, is that the principal causal relationships that were held to exist in humoral medicine, between blood, yellow bile, black bile, and phlegm, on the one hand, and the various physiological ailments that they were posited to explain, on the other, are also nonexistent. Thus, a key set of causal laws that were held to obtain in the medical domain is also illusory, yet classical Islamic medicine appears importantly different from *firāsa* in terms of its scientific credentials.

Another response to the challenge to the skeptical interlocutor might fall back on Karl Popper's much-maligned "demarcation criterion" between science and pseudo-science.³⁸ On a Popperian conception, the crucial difference would be that the pseudo-science of *firāsa*, unlike the science of medicine, is un-falsifiable or incapable of being refuted. What grounds might there be to assert this of *firāsa*? There are certainly indications in al-Razī's text of the kind of *ad hocery* that is often associated with pseudo-scientific endeavors and shields them from refutation. Consider his pronouncements on the differences in features and character between "easterners", who are supposedly tall in stature, strong in heart, and courageous, and "westerners", who are said to be small in body and faint-hearted. In defending this ethnological claim against possible objections, he avers: "If you see an easterner with the outward appearance of a westerner, you would need to judge that he has a western character."³⁹ The proviso effectively immunizes the claim against refutation, since any counter-example to the generalization can be dealt with by saying, not that it refutes it or even constitutes an exception to it, but that it unwittingly corroborates it. A similar move occurs after al-Razī claims that differences in appearance between men and women point to differences in their character and psychic condition. He continues by saying that if the possessor of the science of *firāsa* "finds in the face of a male and the

³⁸ See Karl Popper, *The Logic of Scientific Discovery*, London: Routledge, 1992; first published in German, 1935.

³⁹ Al-Rāzī, *Firāsa*, 113.

rest of his bodily members the shape of a female, he is to judge from this his innate character and psychic condition, and vice versa."⁴⁰ That is, discovering feminine characteristics in a male does not count against the connection between maleness and certain facial and bodily features; it merely indicates that the male in question has feminine *psychological* as well as physical traits. This move again seems to render the generalization un-falsifiable. Indeed, the same argumentative strategy can be observed in the very well known and often-told story about Polemon.⁴¹ In al-Razi's version, Polemon receives a portrait of the king without knowing whose portrait it is, and affirms that it is a picture of a man with great sexual appetite. Since the king was not believed to be lascivious, this was initially taken to be a refutation of physiognomy, until that is, the king himself confirmed the diagnosis, asserting that he had protected himself from that vice through exercising self-restraint. By distinguishing innate character from acquired dispositions and outward conduct, practitioners of *firāsa* seem (again) to have at their disposal a technique that would shield their pronouncements from refutation. However, though there is some evidence to suggest that there are textbook instances of un-falsifiability in al-Razi's exposition of the theory and method of *firāsa*, it is not clear that this is unique to this branch of science. Indeed, as many of Popper's critics have observed, it is a routine feature of "normal science" to introduce *ad hoc* hypotheses to save any entrenched scientific theory, and it may indeed be the rational strategy in many instances to defend a well corroborated theory against apparent exceptions rather than surrender it to the first counter-example that might come along.⁴²

Where then does this leave us with respect to the contemporary version of al-Razi's challenge to the skeptic? If none of the answers we have canvassed are fully adequate to explain the apparent disparity between *firāsa* and medicine, perhaps we should conclude that the differences are overblown and that the challenge to the skeptic is upheld. That is one possibility, but before summarily dismissing any of these answers, it is worth bearing in mind that when it comes to some questions, even though no single answer is correct, some combination of answers might yet be justified. Despite the fact that in al-Razi's hands, *firāsa* has acquired some of the trappings of modern scientific disciplines, particularly in its emphasis on causality and the accumulation of empirical evidence, its differences with medicine are not negligible. Given the lack of a causal mechanism that would ground its central theoretical claims, the preponderance of *ad hoc* hypotheses

⁴⁰ Al-Rāzi, *Firāsa*, 115–116.

⁴¹ Al-Rāzi, *Firāsa*, 118–119. For details on the Polemon anecdote, its origin, and its various incarnations, see Gherseti, "The Semiotic Paradigm", 283–285.

⁴² The concept of "normal science" is derived from Thomas Kuhn, *The Structure of Scientific Revolutions*, Chicago: University of Chicago Press, 1970 (first published 1962), as is the claim that refutations are extremely rare in science and only occur during times of crisis, which usher in scientific revolutions.

called in to save some of its generalizations from falsification, as well as a lack of historical ties that would link its conceptual apparatus to contemporary scientific disciplines, it seems significantly different from medicine, and these differences may indeed warrant the skeptical attitude towards it that al-Razi lamented.

Conclusion

In this paper we have attempted to delineate the epistemic underpinnings of Fakhr al-Din al-Rāzī's work on physiognomy, identifying some of his main conceptual and methodological tools. In so doing, we have tried to draw parallels between his epistemic stance and that of pre-modern and early modern European inquirers, particularly as interpreted in the work of Foucault. Arguably, both traditions relied on an elaborate system of signs and symbols, imbuing the world with analogies and sympathies, rather than the causal relationships and mechanisms prevalent in modern science. Yet, physiognomy is not so easily dismissed as "pseudo-science", as al-Rāzī himself was keen to emphasize. For he challenged his skeptical and naysaying contemporaries to show that physiognomy was any different than medicine, and his challenge is not easily met. Indeed, we argue that al-Rāzī's challenge remains a live one for contemporary interpreters of pre-modern science. With hindsight, it may seem as though physiognomy and medicine are starkly different disciplines, destined for different futures, but a more nuanced look at both reveals that matters are not so simple. Nevertheless, the challenge may be more tractable if we do not think of science as being definable in terms of a rigid criterion or necessary and sufficient conditions. If science is understood, instead, as a multi-dimensional endeavor, comprising both an epistemic toolkit and a cultural practice, then the differences between medicine and physiognomy may appear more significant. On this more nuanced understanding of science, it may just be possible to explain why the former morphed into a modern scientific practice while the latter was left by the historical wayside.

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