


Closely Related, but Different

Some Arabic Writers on the Human–Ape Relationship

Contact

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Abstract Several medieval Arabic zoographical writers include the ape (*qird*) in their texts on animals, and many of them share the idea that apes are similar to humans. This paper will discuss some stances taken on this similarity, with a focus on the philosophical motivation given in each case, that is, whether the ascribed similarity is argued for on morphological, habitual, temperamental, or other grounds. Through this particular focus and by consulting a broader set of texts, the article builds on previous scholarship on apes in Islamicate societies. The sources considered range from older *adab* (roughly, “*belles-lettres*”) material, such as that found in al-Jāhiz’s (8th/9th century CE, Iraq) ‘K. al-Ḥayawān’ (‘Book of Animals’), to Aristotle’s biological writings and Galen. The paper briefly addresses implications for the supposed borderline between humans and animals (for example, the use of apes as substitutes for humans in dissections). The question arises of whether, according to the authors considered, this divide is fixed or rather blurred, with a possible overlap between already existing established species. Another related question is whether this borderline can be transgressed in a way reminiscent of Darwinian evolutionary theory by allowing for a temporal development of one species into another, a claim made by some scholars, at least with regard to al-Jāhiz.

Keywords Apes; Arabic; Human–Animal Studies; Similarity; Zoography

1 Introduction

Many pre-modern authors note a similarity between apes and humans. The observation occurs as far back as Antiquity as well as in medieval (or, rather, classical) Arabic times, and not only in works by primarily zoographical writers.¹ In what follows, the focus will be on determining the exact nature of the similarity between apes and humans and the underlying philosophical rationales given for this similarity. Among the authors to be considered are some whose remarks on apes have been neglected so far, for example, al-Waṭwāt. An initial hypothesis was that it would be possible to find at least (an elaboration on initially) Aristotelian thoughts that found their way into Arabic authors by means of translations, *adab* material, and theologically motivated influences. This has, roughly, proved to be true. As a general result, the ascribed similarities found so far can be classified as imitation of humans by apes, morphological or habitual similarities between humans and apes, sharing (a) nature(s) or natural dispositions, and brain similarities. Also, risibility—that is, real risibility, not merely making sounds of laughter—is, as this paper will argue, one of the characteristics that apes share with humans. Some authors name several kinds of similarity at the same time. Among these, one may see different levels of closeness between apes and humans, with mere imitation being the least kind of similarity. A similarity due to temperament, however, is not found in any of the authors considered so far.² Nonetheless, this study reveals that the texts taken into consideration clearly offer additions to the Aristotelian stances. The following selection of authors and texts took some inspiration from MALIK, ZIERMAN, and DIOGO and is based on availability of texts and roughly grouped by topic without any claim to exhaustiveness. The texts are arranged in chronological order in Table 1.

1 See Janson 1952, pp. 73–106, for a European context. Regarding Arabic literature, Viré 1986 gives an overview. Kruk 1995 gives an account of apes in society broadly, as does Cook 1999 based on a tradition as discussed in Ibn Qutayba; see Iskandar 1981 for al-Marwazi.

2 Such as would have been expected in the case of Ibn Abi l-Ash'ath's methodological approach to classifying animals and explaining their behaviour. Unfortunately, his work on animals is incomplete, and apes are not included. Al-Waṭwāt, though, who also does not include an explanation of similarity by temperaments, even though he used Ibn Abi l-Ash'ath as a source, likely did not have access to a complete or any other version of the text. See also Janson 1952, p. 77, for Hildegard of Bingen mentioning the ape's temperaments, though without being a direct reason for similarity.

Table 1 | Kinds of similarity

Author	Temporal period	Text considered	Similarity consisting (primarily, if several explanations offered) of	Ascribes laughing?	Jahizian verbs?
Aristotle	d. 322 BCE	'History of Animals', 'Parts of Animals' (also Arabic translation thereof)	sharing in nature/shape		
Aelian	d. ca. 223 CE	'Animals'	imitating		
Ibn Qutayba	d. 889 CE, Iraq	'Interpretation of Disagreement between Traditions' ('Ta'wil mukhtalif al-ḥadīth')	understanding		
Al-Jāḥiẓ	d. 896 CE, Iraq	'Book of Animals' ('K. al-Ḥayawān')	morphological, habitual, imitating	×	×
Brethren of Purity (Ikhwān al-Ṣafā')	fl. 10th c. CE, Iraq	'Epistles' ('Rasā'il')	soul imitating		
Ibn Abi l-Ash'ath	d. 975 CE, Iraq	'Animals' ('K. al-Ḥayawān')	imitating		
Miskawayh	d. 1030 CE, Iran	'Lesser Attainment' ('al-Fawz al-aṣghar')	closeness on scale and in disposition		
Avicenna	d. 1037 CE, Iran and eastward	'Animals' ('K. al-Ḥayawān') of the 'Healing' ('al-Shifā')	sharing in disposition		
Rāghib al-Isfahānī	fl. ca. bef. 1018 CE, Iran	'Lectures of the Educated' ('Muḥādarāt al-udabā')	habitual	×	×
Al-Marwazī	fl. ca. bef. 1125 CE, Iran	'Natures of Animals' ('Ṭabā'i' al-ḥayawān')	sharing nature	×	
Al-Qazwīnī	1283 CE, Iran	'Pureness of the Hearts' ('Nuzhat al-qulūb')	characteristics		

Table 1 | (continued)

Author	Temporal period	Text considered	Similarity consisting (primarily, if several explanations offered) of	Ascribes laughing?	Jahizian verbs?
Barhebraeus (Bar Hebraeus, Bar 'Ebrāyā)	d. 1286 CE, Turkey, Iran	'Animals' and 'Ethics' of the 'Cream of Wisdom'	imitating some manners		
Al-Watwāt	d. 1318 CE, Egypt	'Pleasures of Thinking' ('Mabāhij al-fikar')	composition of natures, closeness on scale	×	×
Al-Nuwayrī	d. 1333 CE, Egypt	'Ultimate Aim' ('Nihāyat al-Arab')	composition of natures		
Al-Damirī	d. 1405 CE, Egypt	'Greater Life of Animals' ('Ḥayāt al-ḥayawān al-kubrā')	dispositions	×	×
Al-Iskandarānī	fl. ca. 1889 CE, Egypt, Syria	'Demonstrations' ('al-Barāhin')	brain		×

2 Imitation

In some authors, the similarity between ape and human is first and foremost seen in an imitation, as is the case in one of the more important Arabic works of zoology, Ibn Abī l-Ash'ath's 'Book on Animals', which is distinguished by its peculiar taxonomical threefold approach that divides animals into ruling (= human), ruled (= domesticated), and neither ruling nor ruled (= wild). It is also notable for its use of the Galenic concept of humoral mixtures to further subdivide animals and explain their behaviour. Apes are not treated in a chapter of their own, perhaps because the work is unfinished (at least as it has come down to us).³ Nonetheless, some remarks on apes are found in the context of discussing the inhabitants of climatic zones and their temperaments. A list of typical character traits of several animal species closes with a passage on an animal's "imitating and eagerness, such that its actions receive admiration, as in the case of the ape. None of these

³ Kruk 2001, p. 157.

animals acts differently in this at all".⁴ Imitation is mentioned again somewhat further on: "As this occurs in approximation of the temperament of wildness. For every jackal is deceiving, every ape imitating (*muḥākin*), and every hare timid".⁵ It seems that temperaments are at least responsible for the habit of imitating in general, but not for the similarity between animal and human itself. Another author, al-Marwazī, also points out that "imitation, which is in the ape's nature (*ṭabī'a*), is something peculiar to the ape. No other animal shares with it in this".⁶ The closeness to humans is implied without being made explicit here.

Imitation is also found in at least one instance in the Syriac reception of Arabic zoological material, namely, that of Avicenna and Aristotle by Barhebraeus, who dedicates some lines to apes and humans. In the section on ethics in the Syriac philosophical summa 'Cream of Wisdom', Barhebraeus mentions the apes' mimicking of humans in the context of comparisons made with would-be philosophers: "Or the ape, which imitates some manners of humans".⁷ But the motif of similarity to humans is not introduced in the 'Book of Animals' in the 'Cream', although it can be found in his two main sources. One might wonder whether this is due to the author's Christian background.

The imitation of humans by apes as in Ibn Abī l-Ash'ath is similar to that in Aelian, as it is based on the ape's character, which Barhebraeus leaves rather open. Aelian, who might have had an indirect influence on some Arabic writers (such as, perhaps, by means of different versions of the 'Physiologus', even though no direct translation of the former work is attested), repeatedly stresses the active imitation of humans by apes. This would be a similarity by acting, which is ascribed to the ape's adaptable nature. That is, it is not that the ape's nature is similar to a human's but that it is prone to imitate humans.⁸ In Aelian, the ape is also characterised in a less positive light than in many other writers, for it is said to be ill-intended when imitating others.⁹

Imitation as one among several actions of the ape occurs also in al-Jāḥiẓ's 'Book of Animals' ('K. al-Ḥayawān')¹⁰ and in many later authors who rely on him. Imitation of acting, as it does not require any further similarity or overlap between the imitator and the imitated, might be considered the least level of similarity.

4 Ibn Abī l-Ash'ath: K. al-Ḥayawān, p. 41, literally, "has opposites to these actions", that is, an action that is characteristic of the respective animal. I am indebted to Nicolas Payen for discussing these passages and their Galenic background with me.

5 Ibid., p. 59.

6 Al-Marwazī: Ṭabā'i' al-ḥayawān, fol. 62a.

7 Barhebraeus: *Butyrum sapientiae*, Ethics, no. 3. 1. 2, p. 54 (translation slightly modified).

8 Aelian: *On the Characteristics of Animals* XVII, 25, vol. 3, pp. 352–356; V, 26, vol. 1, p. 318.

9 Ibid. VII, 21, vol. 2, pp. 128–130.

10 Al-Jāḥiẓ: K. al-Ḥayawān, vol. 4, p. 98.

3 Behavioural Similarity

In some authors, the similarity between ape and human is primarily a behavioural one, that is, certain habits are not found with apes because of their active imitation of humans but because they naturally share them with humans. However, even though this is not explained in detail by all authors, this kind of similarity would require some shared inner source of these similar behaviours, like a similar nature or innate character traits that lead to similar behaviour, which would be hereditary and, therefore, lasting.

It seems that, beginning with the Arabic prose writer al-Jāhiz, the ape started to be credited with a literally recurring set of habitual characterisations like squatting, but also jealousy, monogamy, risibility, and other typically human behaviours. In addition to being given their own chapter, apes are found throughout his voluminous ‘Book on Animals’: “The ape laughs (*yadhaku*), rejoices, squats (*yuqī*),¹¹ and imitates (*yahkī*) [others]. It takes food into its hands and puts it into its mouth”.¹² Also, “in the ape, monogamy and jealousy are combined. These are two noble characteristics whose combination is among the advantage of humans over the other animals”. Similar to a human, an ape has to learn to swim first before being able to actually swim when thrown into water.¹³ These verbs characterising the ape recur with many later authors, in many of them unexpectedly; for example, in al-Iskandarānī, where imitating is even equated with squatting,¹⁴ and in al-Waṭwāt.¹⁵

In al-Marwazī, morphological similarities of the face in nose, ears, and teeth are mentioned as well.¹⁶ After repeating the Aristotelian point of the ape having eyelashes, he also adds that “its laughing and blinking of the eye is like [that] of a human”.¹⁷ Even though he does not reproduce the Jahizian list of verbs, laughing nonetheless enters. Also mentioned are the practice of monogamy and the experience of jealousy as points of similarity (*munāsib*) with humans; they are extended by “playfulness, laughing (*duḥūk*), and love for sexual intercourse”.¹⁸

Al-Damīrī lists other habitual similarities such as being receptive to learning, having to learn to swim like a human (see above), acquaintance with humans,

11 For a negative connotation and discussion of this Arabic verb regarding a tradition, see Abū ‘Ubayd: *Gharīb al-ḥadīth*, vol. 1, p. 266. The topic is already found in Aristotle: *History of Animals* II, 8, 502b1–3; Peck and Balme, vol. 1, p. 105; Balme, p. 101.

12 Al-Jāhiz: *K. al-Ḥayawān*, vol. 4, p. 98. Eating with the hands also recurs at *ibid.*, vol. 7, p. 207.

13 *Ibid.*

14 Al-Iskandarānī: *K. al-Barāhin*, fol. 598.

15 Al-Waṭwāt: *Mabāhij al-fīkar*, p. 284.

16 Al-Marwazī: *Ṭabāʾiʿ al-ḥayawān*, fol. 61b.

17 *Ibid.*, fol. 62a.

18 *Ibid.*

and walking on two legs for a short time (which is an addition to the *yūqʿī* that is included in the already familiar list of verbs).¹⁹ This upright posture, which occurs in Aristotle,²⁰ is also found in al-Marwazī.²¹

4 Outer Similarity

Some authors lay the focus on a formal outward similarity, which would be a higher rank of similarity than imitation, as there is an outer bodily resemblance, not just an imitation that does not necessarily imply morphological similarity. It may, therefore, be seen as on par with habitual similarity. For example, al-Jāhīz states that there is a partial facial similarity between apes and humans found with no other animal.²² Outward and behavioural similarity as well as laughter are mentioned again elsewhere:

You already know the internal similarity (lit. “similarity of the belly”) of dogs with humans as well as the outward similarity (lit. “similarity of the back”) of a human with an ape.²³ You see this in its look, the blinking of its eye, its laughing, its imitating, its hand and fingers, their lifting and lowering, and how it takes hold [of something] with them.²⁴

But he also mentions that “it has fingers and finger-nails”.²⁵

While such morphological similarity was only one of al-Jāhīz’s main focuses, some authors lay more stress on it. In the ‘Epistles of the Brethren of Purity’

19 Al-Damīri: *Greater Life of Animals*, vol. 2, p. 330. Walking on two legs as a human characteristic is also found, though in a report (attributed to ‘Abd al-Aʿlā al-Qāṣṣ) and without reference to the ape, in al-Jāhīz: *K. al-Ḥayawān*, vol. 7, p. 207. Upright posture is also one of several uniquely human marks for Aristotle: *Les parties des animaux* IV, 10, 686a24–686b2, pp. 134f.). The argument for this is reconstructed by Lennox 2001, p. 317.

20 Aristotle: *History of Animals* II, 8, 502b20–23; Peck and Balme, vol. 1, p. 105; Balme, p. 102.

21 Al-Marwazī: *Ṭabāʾīʿ al-ḥayawān*, fol. 62a.

22 *Ibid.*

23 One could also understand the similarity to be between the front part or belly of dogs and humans as well as the back of humans and of apes. According to Aristotle’s ‘*History of Animals*’, humans are distinguished from dogs by having hair also on the front part of the body. Apes have it both on the back (as quadrupeds) as well as on the front (being human-like in appearance). It is possible that al-Jāhīz alludes to this comparison, even though the hairy belly could be understood as opposing Aristotle’s human uniqueness in this regard.

24 Al-Jāhīz: *K. al-Ḥayawān*, vol. 1, p. 215.

25 *Ibid.*, vol. 4, p. 98. Parts of al-Jāhīz’s characterisation, though without explicitly mentioning a similarity with humans, are also found in al-Rāghib al-Isfahānī: *Muḥāḍarāt al-udabāʾ*, vol. 2, p. 682.

(‘Ikhwān al-Ṣafā’), an anonymous group of Isma’ili scholars of the 10th century CE heavily influenced by Neoplatonism, we find the (morphological) similarity between both human and ape: “For due to the nearness of the shape of its body to that of a human, its (the ape’s) soul imitates (*tuḥākī*) the actions of the human soul, and this is evident about it”.²⁶ Note that here, bodily similarity leads the ape’s soul to imitate human actions, so that an outer similarity in shape leads to a similarity in habits; whereas one might have expected inner similarity, such as by nature or innate character traits, to yield similar outward behaviour.

5 Inner Similarity

5.1 Inner Morphological Similarity

Morphological similarity is not limited to outward appearance: at least two authors also include inner structural analogies by which the morphological similarity receives even more weight. Sharaf al-Zamān al-Marwazī in his ‘Nature of Animals’ includes the (roughly Aristotelian) motif of the ape being used as a substitute for dissections:²⁷ “The intestines of apes resemble those of humans in every respect. Galen cut apes open and dissected their intestines in order to learn by them on human anatomy [...]”.²⁸ This is here directly connected with Galen and not with anatomists in general.²⁹ In al-Waṭwāt’s ‘Pleasures of Thinking’, however, Galen is omitted in this regard: “Also the intestines of apes are similar to those of man, which frees anatomists from the need to dissect humans”.³⁰

5.2 Nature, States, and Dispositions

Most of the authors considered here explain similarity by using related terms such as nature, states, or dispositions. The difference between these terms should, however, be addressed. Especially the ascription of similarity to nature can be

26 Ikhwān al-Ṣafā’: Rasā’il, vol. 3, p. 228. The motif of the imitating ape also appears in the part on the animals before the king, see Ikhwān al-Ṣafā’: The Case of the Animals versus Man, p. 154. In general, the verb *ḥky* (III) can also mean “to be similar”, though this does not seem intended here.

27 Aristotle: History of Animals II, 9, 502b25–26: Peck and Balme, vol. 1, p. 107; Balme, p. 102. Aristotle states that apes resemble humans when dissected, though not that they are used as substitutes for humans.

28 Al-Marwazī: Ṭabā’i’ al-ḥayawān, fol. 62a.

29 See Iskandar 1981, p. 286, n. 129, and McDermott 1938, pp. 92–94.

30 Al-Waṭwāt: Mabāhij al-fikar, p. 284.

considered of a higher rank than morphological or behavioural similarities. Although it will lead to both, it also includes a certain inherence (since it is related to the ape's essence) as well as hereditariness.

According to Aristotle's 'History of Animals',³¹ some animals partake (ἐπαμφοτερίζει) in the nature (φύσις) of humans and quadrupeds, which he exemplifies with ape, monkey, and baboon. The Greek verb "partake" is also used in a famous passage in 'History of Animals', i.1, declaring man to be both solitary and gregarious.³² In the extant Arabic translation, this sentence is rendered as "some animals share a nature (*mushtarik al-ṭabi'a*), that is, [they share] in what is between the nature of man and quadrupeds".³³ Following this, Aristotle lists several instances of morphological similarity regarding teeth, face, and eyelashes. One might wonder what "sharing a nature" means here. Perhaps no individual specific nature is meant, as quadrupeds are not a species (also not one of the greatest genera in the sense of the list given in 'History of Animals', i.6). Rather, one might think of similar characteristics as if having the same individual specific nature due to nearness on the Aristotelian scale of nature. Aristotle exemplifies this with apes having a hairy back as quadrupeds have, but also a hairy front part as humans have, for apes are also humanlike in form.³⁴

This thought occurs similarly in the 'Parts of Animals',³⁵ where the same verb for sharing is employed, but with regard to "shape" (μορφῆ), not nature. The extant Arabic translation renders this as *ṣūratuhū mushtarika*, a term that is rather associated with form (εἶδος, as allowing for distinguishing species from each other) rather than just shape (which is often rendered as *shakl* in this regard).³⁶ In this way, the similarity receives slightly more weight than it would if the text were to speak only of 'shape', but no shared individual nature is implied.

Authors who are primarily considered philosophers in the Aristotelian tradition also discuss the nature of the ape. A prominent example is Avicenna (Ibn Sīnā), who mentions in the section on animals of his 'Healing' a "shared disposition" (*hay'a*) that inclines the ape to both the form of humans and that of "predators"

31 Aristotle: History of Animals II, 8, 502a16: Peck and Balme, vol. 1, p. 103; Balme, p. 100.

32 Aristotle: History of Animals I, 1, 488a7: Peck and Balme, vol. 1, p. 15; Balme, p. 58; see also the discussion of other usages by Aristotle in Peck and Balme, vol. 1, pp. lxxv–lxxvii.

33 Filius 2019, p. 143.

34 Aristotle: History of Animals II, 8, 502a22–26: Peck and Balme, vol. 1, p. 103; Balme, p. 100; the Arabic is less obvious on this due to paraphrasing, cf. Filius 2019, p. 144.

35 Aristotle: Les parties des animaux IV, 10, 689b31, p. 144.

36 One reviewer pointed out the early origin of the Arabic translation and, thus, an ambiguity in usage of the Arabic term. This is indeed also mirrored in Filius's index, p. 493, with slightly more instances of the Arabic term in rendering εἶδος.

(*sibā*).³⁷ By speaking of similarity in ‘disposition’, using a term that in Arabic can denote outer shape as well as character traits, he is more ambiguous than Aristotle and, perhaps, more focussed on morphological similarity. Indeed, in the immediately following sequel, Avicenna provides an Aristotelian list of morphological similarities. Also, the reference specifically to predatory animals rather than to quadrupeds in general is worth noting. This seems to distance the ape a bit further from the human.³⁸

Similarly, in al-Marwazī, the ape is said to “share in a nature” (*mushtarik al-ṭabīʿa*) that lies between the nature of humans and quadrupeds (note the use of ‘nature’ here rather than ‘disposition’, a detail closer to Aristotle’s text than to Avicenna’s).³⁹ In al-Damīrī’s famous ‘Greater Life of Animals’, the ape is likewise said to be “similar” (*shabīh*) to man in most of its “dispositions” (*ghālib ḥalātihi*).⁴⁰ The already familiar list of verbs from al-Jāḥiẓ reappears together with the ape’s use of its hand. Morphological similarities, monogamy, and jealousy reappear here, too; the latter are said to be “character traits” (*khaṣla*) that are otherwise peculiar to humans. However, the term al-Damīrī uses, *ḥāla*, is even more ambiguous, as it could also include acquired habits.

Apes briefly appear in Ḥamdullāh al-Mustawfī l-Qazwīnī’s Persian work ‘Entertainment for the Hearts’. The ape “has an understanding for funny (*muḍḥik*) movements and is capable of many instructions. There are many human characteristics (*ṣefāt*) in it”.⁴¹ The similarity is here in attributes or characteristics only, but these are not further qualified with such concepts as necessity or naturalness.

When bringing up the familiar Jahizian list of characteristics, that is, the ape as laughing, rejoicing, squatting (*yuqṭ*), imitating, and using its hand, al-Waṭwāt additionally calls the similarities to humans “dispositions” (*ḥalāt*).⁴² In Muḥammad b. Aḥmad al-Iskandarānī’s ‘Demonstrations’ (19th century CE),⁴³ one reads the following concerning the apes of Guinea: “This species is extremely similar (*aqrabu shabahan*) to humans and strongly resembling (*ashaddu mushākalatan*) them in traits (*khilaqan*) and disposition (*khulqan*). [...] Some say that this species

37 Avicenna: *Animals*, p. 29.

38 In both cases, apes are considered impermissible to eat, see, for example, Allen 2016, p. 257.

39 Al-Marwazī: *Ṭabāʿiʿ al-ḥayawān*, fol. 61b.

40 Al-Damīrī: *Greater Life of Animals*, vol. 2, p. 330.

41 Al-Qazwīnī: *Nuzhat al-qulūb*, p. 34. He translates this part as “It is a quick-witted animal, with pretty tricks, droll, capable of being taught many things, and with many human traits” (p. 24).

42 Al-Waṭwāt: *Mabāhij al-fikar*, p. 284.

43 Even though no longer belonging to the classical period, he has been included here as a representative for modern influences. On him, see Elshakry 2016, pp. 179 f.

of animal is similar to humans in all dispositions, except for upright posture”.⁴⁴ However, regarding apes in general, “being similar” (*shabīh*) to humans is argued for by the majority of dispositions, which is explained with the Jahizian verbs; “imitating” is here equated with “squatting”.⁴⁵

6 Scale of Nature

In addition to the ape’s resemblance to the human in their respective natures or dispositions, some writers explicitly (that is, more explicitly than Aristotle in case of the ape) locate these natures in proximity to each other on an Aristotelian scale of nature. One philosopher who does so is al-Miskawayh. In his ‘Lesser Attainment’, he sets out a natural scale, on which he places “apes and those animals that are similar to them, which are close (*qārabat*) to humans by human disposition (*khilqa*).⁴⁶ There is only little between them and humans”.⁴⁷ The ape, when it passes beyond this boundary, becomes a human.⁴⁸ However, he also says that apes are far below humans on the scale. Nonetheless, he uses a real conditional, not an irreal one.⁴⁹

A similar thought about proximity on a scale of nature also occurs in the above-mentioned ‘Brethren of Purity’ (see Section 4). In a nearby passage to the one cited above, elephants are treated, “and these animals are at the outmost animal degree that is adjacent to the degree of humans, according to obvious human virtues”.⁵⁰ It is quite likely that apes and horses are meant to be included among “these animals”, as they were just mentioned in the preceding lines. This would place them on the border between the animal kingdom and humankind. But the passage also shows that apes are not unique in this regard.

⁴⁴ Al-Iskandarānī: K. al-Barāhīn, fol. 595. This part is not in the printed edition, for which see Elshakry 2016, p. 363, n. 61.

⁴⁵ Al-Iskandarānī: K. al-Barāhīn, fol. 598.

⁴⁶ One reviewer rightly pointed out that the Arabic term can also render μορφή, especially in some earlier translations, which would then reduce the similarity to outward morphology. However, as psychological capacities are mentioned in the following, the term seems to be used in a broader sense here.

⁴⁷ Al-Miskawayh: Al-Fawz al-aṣghar, p. 96.

⁴⁸ Ibid.

⁴⁹ For apes approaching the realm of humans by imitating them in Miskawayh’s ‘Refinement of Character’, see Adamson 2022, p. 14.

⁵⁰ Ikhwān al-Ṣafā’: Rasā’il, vol. 3, p. 229.

Among the somewhat later authors, al-Waṭwāt uses the motif of a continuous scale. To philosophers as “theologians” (*mutakallimūn*)⁵¹ he ascribes the claim that the ape displays a composition of natures, sharing those of the human and the “wild animal” (*bahīma*). Apes occupy a middle position on a “continuous scale” (*tadrīj*) of nature from wild animals to man, since they “resemble” (*yuhākī*) humans in both “form” (*ṣūra*) and action.⁵² It is noteworthy that al-Waṭwāt describes the ape as partaking in multiple natures, those of the human and the wild animal, rather than having a single hybrid nature. The same Arabic root (*ḥky*) is used for both the ape’s similarity as well as its active imitation. The similarity itself is seen in its morphology as well as its habits.

Al-Waṭwāt’s work in general found a reception by the Egyptian encyclopaedist Shihāb al-Dīn al-Nuwayrī in his ‘Ultimate Aim’, which is also the case for the entry on the ape. Al-Nuwayrī repeats the ape’s composition of natures of human and wild animals, the “theologians”, and the ape’s receptivity for education and learning.⁵³ He also distinguishes the kind of apes in similar words, but additionally identifies those of Nubia and Ethiopia with the mythological *nasnās*.⁵⁴ Noteworthy, however, is al-Nuwayrī’s omission of risibility, the Jahizian list of verbs, and the scale of nature in comparison to al-Waṭwāt.

7 Intellectual Similarity

Intellectual abilities and understanding occur in several authors with different emphasis. For example, Ibn Qutayba’s ‘Interpretation of Disagreement between Traditions’ (9th century CE), which is primarily a work on traditions (*aḥādīth*), mentions apes in passing: “For [apes] are, according to what I have taught you, most jealous among quadrupeds (*bahāʿim*; or “wild animals”) as well as closest to humans in understanding”.⁵⁵ Though the primary context is the interpretation of a tradition on adultery, apes are characterised as the most jealous wild animal, while their closeness to humans is due to intellectual capabilities and their quick understanding; the author does not discuss further details or criteria. Though

51 That is, philosophers on theological topics, an expression usually not associated with Aristotle, Galen, or Avicenna.

52 Al-Waṭwāt: Mabāhij al-fīkar, p. 284.

53 Al-Nuwayrī: Nihāyat al-Arab, pt. 9, vol. 5, p. 206.

54 Ibid., vol. 9, pp. 206 f. On the *nasnās*, see Viré 1986.

55 Ibn Qutayba: Taʿwīl, p. 238; see Coope 1999, p. 51.

the point of commonality with humans is not jealousy, as such, but the level of understanding, this argument might nonetheless be influenced by al-Jāḥiẓ.⁵⁶

In al-Waṭwāt, again, the ape is able to learn: “It is receptive for education and instruction”.⁵⁷ For al-Marwazī, too, apes are tameable. They are also characterised as being receptive for education.⁵⁸ Al-Waṭwāt furthermore distinguishes the kind of apes found in Nubia and Ethiopia as being quick in understanding.⁵⁹ Those from the north, which, for the most part, show human forms and appearances, have an extremely high capacity to grasp and understand when being spoken to, although they cannot speak themselves.⁶⁰

With regard to intellectual abilities, al-Jāḥiẓ mentions the proverb “cleverer than a young ape”, which he transmits without ascription to a particular author (“People say”). Though apes are described as deficient in intelligence when compared to humans, they are still distinguished from other animals by their high intelligence. Another passage touching on the same point discusses whether the hoopoe has sufficient responsibility for its actions so that it may enter Paradise. Al-Jāḥiẓ says that we should not believe this “unless according to all men, the hoopoe reaches a level of knowledge reached by a young ant, an ant, a louse, an elephant, an ape, a pig, or a dove”.⁶¹ However, the ape is not singled out here but is listed as one among an apparently not-so-small number of animals with extraordinary abilities. Nonetheless, it is a remarkable statement, as the hoopoe has a positive role in the Qur’ān, whereas the ape and the pig bear rather negative associations.⁶² Elsewhere, al-Jāḥiẓ states:⁶³ “There are marvelous things in both ape and bear”.⁶⁴ These two animals reappear in yet another passage: “The bear, the ape, the elephant, and the dog are those animals that have understanding, imitate [others], are clever, and learn, so that they increase in learning in these things that we mentioned”.⁶⁵ As proof of intelligence, al-Jāḥiẓ mentions swimming (or ability, as a necessary acquisition of this skill is omitted in the context of natural instinct and similarity to humans): “A dog is by far a better swimmer than a snake, the ox is not better in it. This is a virtue of the ape, together with many instances

56 A quick simian understanding is also found in al-Damīri: *Greater Life of Animals*, vol. 2, p. 330.

57 Al-Waṭwāt: *Mabāhij al-fikar*, p. 285.

58 Al-Marwazī: *Tabā’ī’ al-ḥayawān*, fol. 62a.

59 Al-Waṭwāt: *Mabāhij al-fikar*, p. 285.

60 *Ibid.*

61 Al-Jāḥiẓ: *K. al-ḥayawān*, vol. 4, p. 80.

62 Tlili 2012, pp. 123–127; see pp. 182f. for a list and discussion of occurrences.

63 For ape and bear in combination as negatively portrayed, see Ziolkowski 2017, p. 29.

64 Al-Jāḥiẓ: *K. al-ḥayawān*, vol. 1, p. 210.

65 *Ibid.*, vol. 6, p. 316.

of cleverness of the ape, while it is [also] similar to a human”.⁶⁶ The ape is also, if not capable of speaking, at least able to understand human language: “You might have seen an entertainer working with apes (*qarrād*) addressing it in all ways of speaking and the ape obeying him in all this”.⁶⁷ Also, the ape “appreciates companionship with humans and understands many things by instruction”.⁶⁸

In the ‘Epistles of the Brethren’, apes are not unique in this regard, as one reads elsewhere in the work that the elephant is able to understand human speech due to its intelligence,⁶⁹ which is reminiscent of al-Jāḥiẓ’s similar, above-mentioned claim for the ape. The ape is also able to discern the commanded and forbidden, which is similar to al-Jāḥiẓ’s discussion of the hoopoe.

A notable new point made by al-Iskandarānī is that the ape’s brain is very similar to that of a human: “in their brain (*dimāgh*) is most of [what is found in the brain of] a human”.⁷⁰ Unfortunately, the author does not elaborate on this any further (for example, whether this is due to similarity by (relative) size, composition, number of synaptical connections), but simply goes on to mention facial similarities. However, this is an organic foundation for similarity in actions showing a certain understanding which is not found with other authors considered so far.

8 Risibility

One byproduct of this brief comparison is the frequent recurrence of Jahizian (or shared earlier) lore in many later authors (in some of whom this is unexpected), as seen in the verbatim repetition of sets of verbs and formulations.⁷¹ One of these verbs seemingly credits the ape with an ability to laugh. This is not a trivial point, because from an Aristotelian perspective, only rational beings are able to laugh, which is why “risibility” is found only in humans.⁷² There are several possible explanations for this divergence from Aristotelian orthodoxy:

⁶⁶ Ibid., vol. 2, p. 180.

⁶⁷ Ibid., vol. 7, p. 218. On the entertainer working with apes, see Graefe, Jacob, Kahle et al. 1914. I owe this reference to Nicholas Payen.

⁶⁸ Al-Jāḥiẓ: K. al-Ḥayawān, vol. 4, p. 98.

⁶⁹ Ikhwān al-Ṣafā’: Rasā’il, vol. 3, p. 229.

⁷⁰ Al-Iskandarānī: K. al-Barāhīn, fol. 600.

⁷¹ The occurrence in al-Marwazī is somewhat unexpected due to his Aristotelian leaning (see Kruk 1999 on these two authors as his sources; however, Iskandar 1981, p. 274, had already noticed several instances of al-Jāḥiẓ as an influence). Also unexpected is the absence in Ibn Abī l-Ash’ath.

⁷² Cf., e. g., Aristotle: Les parties des animaux III, 10, 673a8, p. 97.

- a) Our authors may actually believe that apes possess risibility.
- b) They may be using the term in a broader or metaphorical sense, for instance, to mean simply that the ape makes sounds that resemble human laughter.
- c) The ape may be considered as intentionally imitating human laughter.
- d) We may need to understand the verb or participle as causative: the ape does not laugh, but induces laughter in those who see it.
- e) The verb may be intended as passive, meaning that the ape is being laughed at.

One piece of evidence in favour of this final reading might be seen in Galen's description in 'On Usefulness of the Parts' of an ape's limbs as being reminiscent of a human's, without matching our expectations of the ape's behaviour.⁷³ For this reason the ape is, one might say, 'ridiculous'. However, there is, at least in the case of al-Jāhīz, grammatical evidence that the ape actively laughs.⁷⁴ Furthermore, the other verbs on the list are in the active voice. Therefore, the occurrence of the verb in the Jahizian versions is taken to be in the active voice in an intransitive sense. Yet Ibn Abī l-Ash'ath's version, which is more obviously under Galenic influence and likely employs the causative sense, is considered an exception. An important statement by Ibn Abī l-Ash'ath is that apes are likely not laughing themselves, but, rather, they are laughable (vocalising the verb as passive rather than active), especially due to their mimicking of humans:

The contrary of these things exists in a human when the organs of his body do not match. He will be longwinded (*tāla nafasuhū*)⁷⁵ and be something evil, wondrous, and ridiculous (*mudhak*). Likewise, the ape is not evil(-minded), except that it has a soul that effects that it imitates actions of humans. [And, likewise, for] incongruent organs,

⁷³ Cook 1999, p. 67, n. 102. Also, the Arabic translation seems to employ passive voice; see Paris, Bibliothèque nationale de France, MS Arabe 2853, fol. 20r. I am indebted to Nicolas Payen for this reference.

⁷⁴ This is due to the verbal noun at Al-Jāhīz: K. al-Ḥayawān, vol. 1, p. 215, while the verb is ambiguous in the non-vocalic form.

⁷⁵ This unvocalised version is found in the edition as well as in the manuscript; Oxford, Bodleian Library, MS Huntington 534, fol. 417a. One might, however, be initially inclined to read rather (*munāsibatān*) *li-tūli nafsihī* ("corresponding to the excellence of his soul") or, less obviously, *ṭālat (pro tāla) nafasuhū* ("his soul will be excellent"). I am indebted to Abdurrahman Mihirig for discussion.

so that something wondrous arises, and similarly for the other ridiculous motions.⁷⁶

The mismatch between bodily organs and soul that induces laughter in the onlooker is already found in Galen.⁷⁷ One might also detect here an answer to Aelian's remarks on the discussion of whether the ape's imitative behaviour is connected to evil-mindedness. It seems likely that Ibn Abi l-Ash'ath has drawn on this material, though the exact route of influence remains to be determined.

One might wonder whether al-Jāḥiẓ intentionally changed the sense (even though he was versed in the Aristotelian background). Assuming an active voice might be justified by this verb's attribution to the ape already being found in the 'Tāj al-'arūs' and repeated in Lane's 'Lexicon', where it is rendered as "uttering a cry while showing the teeth".⁷⁸ Consulting older Arabic dictionaries, it proves that the passage that made it into the 'Tāj' seems to derive at least from the earlier 'al-Ṣiḥāḥ' by al-Jawharī (d. 1002/8 CE), where "when it makes a sound" (*idhā ṣawwata*) is added.⁷⁹ The 'Tāj al-'arūs' offers a further explanation: the ape shows its teeth when laughing; paradoxically, this lexicon has already explained that laughter is peculiar to humans.⁸⁰ A slight but significant difference is that the 'Ṣiḥāḥ' says the ape shows its teeth "when" it laughs, whereas the 'Tāj' simply equates (*ayy*) "laughter" and "showing teeth". So, apparently, this would not be real laughter, which would remain proper to humans.⁸¹ However, explanations in historical dictionaries cannot be imposed upon the respective zoographical authors (even though they show an awareness of the un-Aristotelian stance by employing this verb for apes). As apes are frequently said to excel at mimicking humans, assuming that 'laughing' is "being able to imitate human laughter" (that is, its sound, not just facial expression as in human laughter) seems possible as well, though it does not seem likely due to the absence of any indication for this as an intended understanding. As the verb is used in the context of human similarity, with the ape doing things that usually humans do (such as taking things into its hand, standing upright, rejoicing, and being jealous, not just pretending to do so or doing something resembling these human actions), the ape's action here can

⁷⁶ Ibn Abi l-Ash'ath: K. al-Ḥayawān, p. 145.

⁷⁷ Galen: De usu partium I, vol. 1, pp. 58 f. For the ape as 'quasi-human' in this regard in older Greek texts, see also Halliwell 2008, p. 301, nt. 94.

⁷⁸ Lane 1997, s. v. *ḍhk* (said of an ape, translation slightly modified), v. 1771.

⁷⁹ Al-Jawharī: Al-Ṣiḥāḥ, vol. 4, p. 378.

⁸⁰ Al-Zabīdī: Tāj al-'arūs, vol. 7, p. 156.

⁸¹ A guffawing (root *qhqh*) is also found in a verse by al-Mutanabbī, see Payen 2022, p. 73. The latter half of this verse is also found in al-Rāghib al-Iṣfahānī's version: Muḥāḍarāt, vol. 2, p. 682.

best be understood as its actively laughing in the literal ‘human’ sense, even when this is at odds with the Aristotelian system, or at least a peculiar modification of it, by which, perhaps, the ape is granted a distinguished role in it.⁸²

9 Evolution

Finally, one may ask whether the similarity between apes and humans as discussed in the chosen authors can be connected to the concept of evolution. The borderline between the species of apes and humans and a possible transgression by development is a frequent topic in questions of evolution.⁸³ The compatibility of the latter with Islamic doctrine has been often discussed,⁸⁴ and it has even been argued that classical Arabic writers anticipated the ideas of Charles Darwin.⁸⁵ This would, of course, constitute a violation of the eternity of the species assumed in Aristotelian science and might undermine the special role of humans in God’s creation.⁸⁶ Does the information discussed above add to any of these debates?

⁸² It should be noted that philosophers who stand more in the Peripatetic tradition like Avicenna or Barhebraeus do not use this example, although al-Marwazī does and might be seen as distancing himself from Aristotle by this. The Arabic version of Galen might have influenced al-Jāhīz in his formulation. On Desiderius Erasmus’ granting that dogs and apes laugh as well, with speech being the real human proprium, see Gibson 2006, p. 15, with p. 163, n. 5; see also Joseph 2020, p. 104. Gilhus 2009, pp. 4 f., distinguishes several theories of human laughter but does not pursue the ape connection further. Morris 2017, pp. 110–112, sketches the development of laughter in humans and refers to a chimpanzee’s equivalent sound. Al-Jāhīz, even if understood as granting risibility here, does not, in general, ascribe rationality to non-human animals but, according to Miller 2017, sometimes forms of speaking in a wider sense. (I am indebted to Nadja Germann for discussing this latter point.) In Abū l-Layth al-Samarqandī’s (10th c. CE) Qur’ān commentary ‘Baḥr al-‘ulūm’ (‘Sea of Knowledge’), the bat is mentioned as laughing as a human does: Al-Samarqandī: Tafsīr al-Samarqandī, vol. 1, p. 269, on Q. 3:49 and the bird made from clay. (I am indebted to Nicolas Payen for this reference.)

⁸³ Nonetheless, among classic scholarship, Mivart 2021, p. 172, repeatedly stresses the fact that there is not one species of ape that can be considered a human ancestor but, rather, humans share certain ratios and arrangements of organs each with different species of apes (such as facial proportions with one species but those of the extremities or the brain with another). For historical scholarship on anthropoid apes and their brain functions, see Köhler 2022.

⁸⁴ Apart from the Qur’ānic turning of humans into apes by God as a punishment for disbelief; for a collection and discussion, see Jalael 2009, pp. 64–69.

⁸⁵ See, for example, the collection of material in Malik, Ziermann and Diogo 2017, and in Shanavas 2010, pp. 107–127; also Stott 2013, pp. 43 f. (and p. 313 for an overview of an early ascription to al-Jāhīz).

⁸⁶ The issue at stake is a broader one, as evolution does not necessarily have to include humans but might refer to other species only, which need not become extinct to transform into a new one. Several approaches are diligently distinguished and discussed by Malik 2021. Also,

Starting with the Arabic version of Aristotle's 'History of Animals', the mention of a 'shared nature' could gesture at an idea of evolution, but it is far more likely that this is a non-technical use, as supported by the parallel in the 'Parts of Animals'.⁸⁷ The same applies to al-Marwazī, who also speaks of a 'nature' shared between humans and apes. Avicenna's use of 'disposition' rather than 'nature' seems still weaker, while the Brethren do talk of a 'scale of nature' but recognise only an imitation of humans by apes, not a transformation of apes into humans. Among our authors, only al-Waṭwāt and Miskawayh really come close to evoking evolutionary ideas. The former suggests that a single species may possess more than one nature (as al-Nuwayrī also does) and has the idea of a continuous scale; but in the context of discussing apes, he does not explore the relationship between these natures (such as an actually resulting nature, while others are only potentially present; different engaged natures; etc.) or, crucially, suggest that species can gain or lose natures. There is, despite this, no indication of the ape's not having an actual unique (or non-hereditary) essence. Miskawayh does speak about an ape becoming a human, yet he also explicitly states that even the highest animal nature falls far short of humanity. In short, while it would be well worth looking more closely at al-Waṭwāt's broader treatment of nature,⁸⁸ nothing we have seen here supports the idea that apes could evolve into humans.⁸⁹

Addendum

The similarity between apes and humans in Ibn Abī l-Ḥawāfir's (d. 1301 CE, Egypt) 'Wondrous Things in the Usefulness of Animals' ('Badā'i' al-akwān fī manāfi' al-ḥayawān', ms. Dublin, Chester Beatty, Ar. 4352, fol. 114v–115v; see on this text Remke 2007) is primarily seen in dispositions (*ḥālāt*). He also reproduces the Jahizian verbs, receptivity for instruction, sociability, and understanding when being addressed. Certain kinds of apes have a quick grasping and also

Jalael 2009 distinguishes several concepts such as species extinction, establishing of new species, and human evolution, all of which he considers acceptable under Islamic beliefs.

⁸⁷ But still, Aristotle does allow for hybridisation in the 'History of Animals', despite the eternity of single species and also for fertile hybrids, that is, second-level hybridity (the barren mule being the exception rather than the rule).

⁸⁸ If understood in a wider sense, this would still fit the Aristotelian model.

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morphological similarity with humans (those in Slavonic countries). Part of Ibn Abī l-Ḥawāfir's entry on the ape seems to have found its way into al-Damīri later due to resembling wordings.

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