


## Continuity and Boundaries in Human–Animal Comparison in the Context of al-Jāhiz’s *Kitāb al-Ḥayawān*

Câhız’ın *Kitâbü’l-Hayevân* Adlı Eseri Bağlamında İnsan-Hayvan Karşılaştırmasında Süreklilik ve Sınır

Şeyma Nur Tan<sup>1</sup> 

<sup>1</sup>(PhD Student), İstanbul 29 Mayıs University, Social Sciences Institute, Department of Philosophy, İstanbul, Türkiye

Corresponding author /

Sorumlu yazar : Şeyma Nur Tan

E-mail / E-posta : tans20@29mayis.edu.tr

### ABSTRACT

In the modern era, various disciplines have conducted interdisciplinary research on animal cognition and the evolution of language ability to investigate the similarities and differences between human and nonhuman animals. The central issues raised in these studies have their roots in philosophical literature. Al-Jāhiz (born 776, died 868/869), an Arabic prose writer, theologian, and litterateur, stands out in this literature for his determinations that deviate from the dominant paradigm of his time. In his *Kitāb al-Ḥayawān*, al-Jāhiz, on the one hand, supposes a kind of continuity between human beings and nonhuman animals by highlighting certain similarities in terms of their abilities of *istidlāl* (inference, deduction, reasoning based on effective cause) and *nuṭq* (the process of making sounds by organs of speech). On the other hand, he keeps the boundaries by mentioning the fundamental difference between humans in terms of these two abilities within the framework of the book’s central concept of *marātib* (creation ranks). Through a methodological and contextual analysis of the work, this study examines how the continuity and boundaries between human and nonhuman animals are reconciled in al-Jāhiz’s thought and what this way of thinking means for fundamental questions in contemporary linguistics and philosophy of mind.

**Keywords:** Cognition, linguistics, *istidlāl*, *nuṭq*, *marātib*

### ÖZ

Modern dönemde çeşitli bilim dalları tarafından disiplinler arası bir biçimde yürütülen hayvan bilişine ve dil yetisinin evrimine yönelik araştırmalarda, insan ve insan-olmayan hayvanlar arasındaki benzerlikler ve farklılıklar ile bunların dayanakları araştırılmaktadır. Bu çalışmalarda öne sürülen temel soruların kökeni, felsefi literatürde çok eskiye dayanır. Bu literatür içerisinde, bulunduğu dönemin hakim paradigmasından ayrılacak tespitleriyle, Arap edebiyatının en önemli nesir yazarlarından ve Mu'tezile kelâmcılarından biri olan Câhız (d. 776, ö. 868/869) ön plana çıkar. Câhız, hayvan tür ve davranışlarını tecrübeyi esas alan bir yöntemle incelediği, en önemli eseri sayılabilecek *Kitâbü'l Hayevân* adlı eserinde, bir yandan akıl yürütme/çıkarımında bulunma (*istidlâl*) ve konuşma/söyleyiş (*nuṭk*) kabiliyetleri açısından insan ve insan-olmayan hayvanlar arasında belirli benzerlikleri öne çıkararak bir çeşit süreklilik öngörürken, bir yandan da kitabın dayandığı varlık/yaratılış mertebeleri (*merâtib*) düşüncesi çerçevesinde bu iki yeti açısından insanın temel farklılığına değinerek sınırları korur. Bu çalışmada, Câhız’ın *Kitâbü'l Hayevân* adlı eserinin yöntemsel ve içeriksel olarak incelenmesiyle, insan ve insan-olmayan hayvanlar arasındaki süreklilik ve sınırların Câhız düşüncesinde nasıl uzlaştırıldığı ve bu düşünce biçiminin çağdaş dilbilim ve zihin felsefesi tartışmalarının temel soruları açısından anlamı ele alınacaktır.

**Anahtar Kelimeler:** Biliş, dil yetisi, *istidlâl*, *nuṭk*, *merâtib*.

Submitted/Başvuru : 14.09.2023

Revision Requested/  
Revizyon Talebi : 23.11.2023

Last Revision Received/  
Son Revizyon : 02.12.2023

Accepted/Kabul : 05.12.2023



This article is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0)

## Introduction

Do animals have a human-like language faculty? If so, what are the similarities and differences with the human language faculty? What is the cognitive level of animals? Is it qualitatively distinguishable from human cognition? Can we speak of an animal mind theory?

Many people have simple versions of these questions in their heads when they encounter the emotions and reactions of animals in everyday life. For many years, a clear boundary between humans and animals was envisioned in the philosophical literature, and this line, which was maintained by names such as Descartes, was broken by names such as Hume and Darwin. Moreover, ideas that humans have commonalities with animals in terms of their mental and linguistic abilities began to emerge.<sup>1</sup> Although these two lines have their own followers in the modern period,<sup>2</sup> comparative studies on language ability and animal cognition, which have increased especially in the last two decades, have progressed from a naturalistic perspective, based on the human–nonhuman animal continuum. Animal cognitive systems, behavior, physiology, and language abilities are studied alongside philosophical debates in fields like ontology, epistemology, and ethics.

Modern research on animal cognition often investigates the factors behind animals' goal-directed behavior. Which animal behaviors are cognitive, what kind of cognitive mechanisms animals possess, and what processes lead to behavior in animals are the main questions that guide researchers. Furthermore, questions such as how animals use representation<sup>3</sup> (do they have cognitive maps, number concepts, or metacognition), how they learn<sup>4</sup> (by association, trial and error, or social imitation), and how they solve problems<sup>5</sup> (do they use logical inference, causal reasoning, or future planning) are investigated by many disciplines.

In addition to these studies on animal cognition, research on the evolution of language ability has received increased attention in the last two or three decades, with studies based on empirical data from living species and inferences made from extinct species. In this sense, the basic theses in the article published by Hauser, Chomsky, and Fitch (HCF)<sup>6</sup> (2002) article on the nature of the language faculty, who possesses it, and how it evolved, and the correspondence that developed within the framework of Pinker and Jackendoff's (PJ)<sup>7</sup> response (2004) to these basic theses are important in terms of the literature. In the context of the "only recursion" hypothesis, HCF, focusing on the recursive computational part that provides syntax in language, argue that even if animals have communication systems, they cannot be called "language" because they lack the creative dimension. Hence, in terms of faculty of language in narrow sense (FLN)<sup>8</sup> which includes only recursion, there is a discontinuity in human language ability against non-linguistic animals. Contrary to PJ, they argue that its use in communication is a secondary effect after its emergence in the evolutionary process, not because it emerged with the need for communication. Meanwhile, PJ's main thesis<sup>9</sup> is that although animals have faculty of language in broad sense (FLB)-like mechanisms, only humans have a linguistic adaptation to the need for communication, and the scope of what is unique to humans in terms of language ability extends beyond recursion.

Animal cognition and the evolution of language faculty have been studied in this manner; however, philosophical questions such as whether animals have desires or beliefs, what the relationship between language and thought in animals is, and whether animals are rational have come to the fore.<sup>10</sup> In this context, scientific research conducted through observation and experimentation and conceptual analyses of the qualities attributed to animals are essential for philosophical investigations into the animal mind to progress. From this perspective, al-Jāhiz's position, which deviated from the dominant way of thinking at the time and explained the human–animal difference based on continuity within the animal genus, is intriguing.

In his *Kitāb al-Hayawān* Al-Jāhiz (born 776, died 868/869), a theologian, litterateur, and one of the most renowned Arabic prose writers, sets out from a universal and theological semiotic understanding that states that all beings are indicators/signs (*dalīl*) pointing to the wisdom (*ḥikma*) of God. Additionally, in contrast to approaches denying the

<sup>1</sup> For discussions on anthropomorphism or anti anthropomorphisms, see, Kristin Andrews and Susana Monsó, "Animal Cognition", The Stanford Encyclopedia of Philosophy (Spring 2021 Edition), Edward N. Zalta (ed.), erişim 14 Eylül 2023, <https://plato.stanford.edu/archives/spr2021/entries/cognition-animal/>

<sup>2</sup> For these so-called "bottom-up" and "top-down" approaches, see Robert W. Lurz, "*The philosophy of animal minds: an introduction*", The Philosophy of Animal Minds, Ed. Robert W. Lurz, (New York: Cambridge Uni. Pr., 2009), 5.

<sup>3</sup> See Elisabeth Camp, "A language of baboon thought?", *The Philosophy of Animal Minds*, Ed. Robert W. Lurz (New York: Cambridge Uni. Pr., 2009), 108-110.

<sup>4</sup> See Joseph Call, "Descartes' two errors: Reason and reflection in the great apes", *Rational Animals?*, Ed. Susan Hurley and Matthew Nudds (USA: Oxford Uni. Pr., 2006), 274-277.

<sup>5</sup> See Michael Rescorla, "Chrysippus' dog as a case study in non-linguistic cognition", *The Philosophy of Animal Minds*, Ed. Robert W. Lurz (New York: Cambridge Uni. Pr., 2009), 69

<sup>6</sup> It will be abbreviated as HCF throughout the article.

<sup>7</sup> It will be abbreviated as PJ throughout the article.

<sup>8</sup> The components of language competence are: *Faculty of language in broad sense* (FLB) and *Faculty of language in narrow sense* (FLN), which is a recursive computational system. FLB is formed by the combination of FLN with the sensory-motor and conceptual-intensional internal systems. For detailed information, see Marc D. Hauser, Noam Chomsky and W. Tecumsek Fitch, "The Faculty of Language: Who Is It, Who Has It, and How Did It Evolve?", *Science*, New Series, Vol. 298, No. 5598 (2002), 1570-1571.

<sup>9</sup> Steven Pinker, Ray Jackendoff, "The faculty of language: what's special about it?", *Cognition* 95 (2005), 204-205.

<sup>10</sup> Andrews and Monsó, "Animal Cognition".

existence of the language faculty in animals, a commonality between humans and animals is mentioned regarding the ability to speak (*nuṭq*). As a result, the intermittent sounds made by animals should be regarded as a form of communication and speech, as their needs are communicated through them. The faculty that distinguishes humans from the rest of the world, on the other hand, is *istidlāl*, or their awareness that everything and their very existence is an indication/sign, as well as their ability to establish relationships between signs and use them in a complex way to create new signs.

However, even though al-Jāhiz mentions a commonality between humans and animals in terms of the ability of *nuṭq* and a clear difference in terms of the ability of *istidlāl* at the very beginning of his work, he also mentions that the ability of *nuṭq* in the absolute (*muṭlaq*) sense and in all situations is only in humans and animals use this ability by derivation (*ishtiqaq*) from humans, while at the same time, he mentions that the ability of *istidlāl*, which he had initially presented as a clear difference that distinguishes humans from animals, is also present in some animals. When the lines about both humans and animals having speech and reasoning/inferencing (*nuṭq* and *istidlāl*) in common are considered together with the lines that tell the ability of *istidlāl* is a clear distinction between the two and also the ability of *nuṭq* presents absolutely in humans, it becomes interesting how the continuity and difference between human and animal are reconciled in al-Jāhiz’s thought.

Within the framework of these questions, this study will first examine how human–animal continuity and difference are reconciled in the context of al-Jāhiz’s *Kitāb al-Ḥayawān*, both in terms of methodology and content, and then reveal the possible contributions of his classification of animals’ methodology and content to contemporary linguistics and philosophy of mind debates.

### 1. Al-Jāhiz’s Categorization of Animals According to Nuṭq and Dalāla

Al-Jāhiz, who rose to prominence in the ninth century A.D. with his scholarly and literary works, is widely regarded as a scholar who grew up under the influence of Mutazilite theology (*kalām*). Despite his affinity for theology, al-Jāhiz did not write in a purely theological style, arguing that the study of nature and the ancient philosophical heritage should be included in the science of theology.<sup>11</sup> His works clearly show that he used Greek and pre-Islamic Arabic literature in the context of the quotations he made or the ideas he discussed. Furthermore, given his writings’ methodological and contextual innovations, there is merit in the claim<sup>12</sup> that he evaluated the ideas on which he relied within the framework of the criteria he considered necessary for scientific discourse, and that he was involved in his time’s efforts to establish a new and independent science.

Al-Jāhiz’s extraordinary authorship is expressed in quotes such as “Every age has its own al-Jāhiz”<sup>13</sup> and while there have been criticisms of his writings’ unsystematic nature,<sup>14</sup> which makes them difficult to read in their entirety on a large scale,<sup>15</sup> interest in him has continued both in his time and in the modern period. His seven-volume *Kitāb al-Ḥayawān*, an encyclopedic work, stands out in this context, as does his work on language and literature, *Kitāb al-Bayān wa-l-tabyīn*. Although in *Kitāb al-Ḥayawān*, he mostly made observations and studies on living creatures, both works emphasized the means of communication. Al-Jāhiz was also the first person in scientific history to address the theory of biological evolution in its entirety.<sup>16</sup>

In *Kitāb al-Ḥayawān*, al-Jāhiz, who conducts detailed examinations of various animals such as dogs, birds, and ants using works written on the subject, oral narrations such as poems and tales, and his own observations, also bases all of his animal examinations on the concept of *marātib* for the classification of creatures, which he introduces in work. According to this, humans are classified as a microcosm due to their speech and reasoning abilities and sociality. To that end, while determining the boundary between living beings that evolved with humans, he also investigates the divine origin of the linguistic tools used by humans within a continuity that occurs among all creatures through the common denominator of being alive. In other words, to reveal the characteristics that make humans special, the projections or commonalities of these characteristics in other living beings, especially animals, are explained, and the continuity and the elements that determine the boundaries within living beings are analyzed through concepts such as “*dalāla*” (indication), “*nuṭq*,” and “*mustadill* or *istidlāl*.”

<sup>11</sup> Ömer Türker, *İslam Felsefesine Konusal Giriş* (Ankara: Bilay Yay, 2020), 19.

<sup>12</sup> George Saliba, “Al-Jāhiz and the Critique of Aristotelian Science”, *Al-Jāhiz: A Muslim Humanist for our Time*, Ed. Arnim Heinemann, John L. Meloy, Tarif Khalidi and Manfred Kropp (Würzburg: Ergon Verlag, 2009), 49-50.

<sup>13</sup> Josef Van Ess, “el-Cahiz ve Erken Mu’tezile Kelâmı”, trans. Mustafa Köse, Marife, Yaz 2015, 15/1, 207.

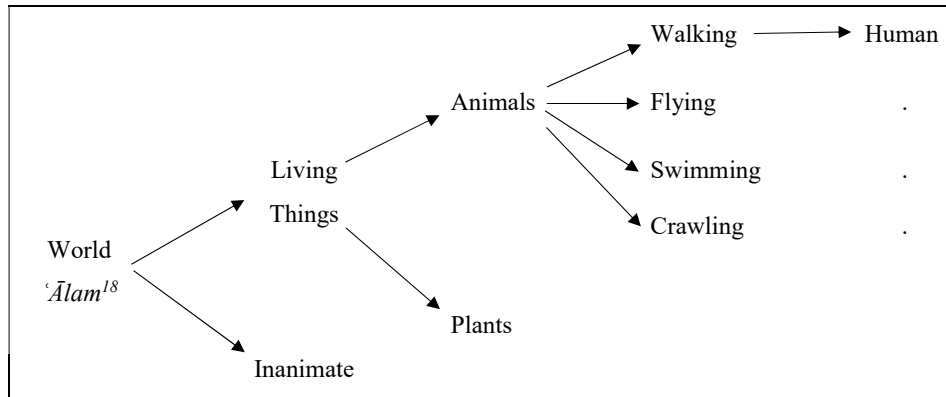
<sup>14</sup> Lale Behzadi, “Al-Jāhiz and his Successors on Communication”, *Al-Jāhiz: A Muslim Humanist for our Time*, Ed. Arnim Heinemann, John L. Meloy, Tarif Khalidi and Manfred Kropp (Würzburg: Ergon Verlag, 2009), 126.

<sup>15</sup> Susanne Enderwitz, “Culture, History and Religion: A propos the Introduction of the Kitāb al-hayawān”, *Al-Jāhiz: A Muslim Humanist for our Time*, Ed. Arnim Heinemann, John L. Meloy, Tarif Khalidi and Manfred Kropp (Würzburg: Ergon Verlag, 2009), 229.

<sup>16</sup> Mehmet Bayraktar, “Cāhiz ve Biyolojik Evrimciliğin Doğuşu”, trans. Mehmet Vural, *Kelam Araştırmaları*, 10 (2012), 117.

When it comes to the *Kitāb al-Ḥayawān*, the first part that attracts the most attention in the literature is the introduction, in which the creatures are classified with a new classification. Before introducing the reader to his own classification, al-Jāḥiẓ presents various perspectives on creature classification. One of these is the view that,<sup>17</sup> after categorizing creatures as living and non-living (*nāmi wa jamād*) based on growth, categorizes living things as animals and plants (*ḥayawān wa nabāt*) and categorizes animals as walking, flying, swimming, and so on, and includes humans in the classification as animals that walk (see Table 1). The author criticizes this classification for making it difficult to find some animals, such as ostriches and bats, and for placing humans on the same level as less or more advanced animals, and then presents his own classification in the remainder of the text.<sup>18</sup>

**Table 1.** An example from *Kitāb al-Ḥayawān* of the existing divisions of the 'ālam



First, al-Jāḥiẓ, who focuses on the ability of *nuṭq*, diverges from the classical view that divides animals into *nāṭiq* and *ṣāmīṭ* (speechless), since most animals can express themselves with intermittent sounds.<sup>19</sup> Accordingly, those who are *ṣāmīṭ* are those other than animals because animals are generally capable of speech. According to al-Jāḥiẓ, who categorizes animals as *faṣīḥ* (Eng. eloquent) and *'ajam* (Eng. foreign speaker), the human being is *faṣīḥ*, regardless of whether he speaks Persian, Hindi, or Roman. *'Ajam* refers to all vocalizers whose will is unknown outside of their own species, such as barking, crowing, and braying. This distinction, based on the fact that all animals have a certain ability to communicate and convey certain meanings, goes beyond the usual conceptualization of *faṣīḥ* (capable of clear and full expression)–*'ajam* (incapable of clear and full expression) as Arabic speakers and non-Arabic speakers. However, through the analogy between human communication with animals and human communication with foreign language speakers, one can deduce that human–animal communication is possible to a certain extent. For example, humans can often understand the needs of animals, such as horses, donkeys, and cats, by the sounds they make, and they can distinguish that different sounds refer to different needs. This is analogous to adults understanding the different needs of a crying baby or that crying refers to something different than laughing. In summary, according to this understanding, which assumes a certain continuity among animals in terms of their ability to speak (*nuṭq*), it is not the organ of speech or appearance that distinguishes human beings.

Departing from the *nuṭq* axis in determining the boundary between humans and nonhuman animals, al-Jāḥiẓ moves on to a different classification of existence based on *dalāla* and *istidlāl* (see Table 2):

Wisdom has been made to exist in everything in the universe. It can be seen that the universe/realm (*'Ālam*) is divided into those who are endowed with wisdom but do not reason this wisdom and its result, and those who are endowed with wisdom and reason this wisdom and its result. While the rational and the non-rational are equal in terms of indicating wisdom, the distinction between the two groups is that one is *dalīl* (indicator/sign) but *ḡayr mustadill* (does not bring evidence or rational argument), while the other is *dalīl* and *mustadill* (the one who has the faculty of *istidlāl*). While all *mustadills* are *dalīl*, not all *dalīls* are *mustadill*. At this point, all animals and even all inanimate things, except human beings, agree in terms of the existence of *dalāla* and the absence of *istidlāl*, while only human beings combine both *dalāla* and *istidlāl* in themselves.<sup>20</sup> (Translated into English by the author)

According to al-Jāḥiẓ, with its very existence, everything created, including humans, is a *dalīl* (indicator/sign) to a higher being, whereas only humans are *mustadill*. That is, they are aware that everything and their very existence are

<sup>17</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, Ed. Muhammad B. 'U. Al-Sud, (Lebanon: Dar Al-Kotob Al-Ilmiyah, 2011), v. 1, 24-25 (The references of this study are to the printed source, but those who wish can also access it from the following link: access 14 September 2023, <https://shamela.ws/book/23775/>)

<sup>18</sup> The universe or all that exists. *Ālam* does not mean all things that exist; rather all existents except God.

<sup>19</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 1, 27-28.

<sup>20</sup> Al-Jāḥiẓ, *Kitāb al-ayawān*, v. 1, 28.

<sup>21</sup> Notably, there is no indication in this classification of how to distinguish between plants and non-living things.

**Table 2.** Al-Jāhiz’s classification of existence in terms of “*Dalāla*,” “*Nuṭq*,” and “*Istidlāl*”<sup>21</sup>

	<b>Inanimate</b>	<b>Plants</b>	<b>Nonhuman</b>	<b>Human</b>
From the Point of <i>Dalāla</i>	<i>Dalīl</i>	<i>Dalīl</i>	<i>Dalīl</i>	<i>Dalīl</i>
From the Point of <i>Nuṭq</i>	<i>Şāmit</i>	<i>Şāmit</i>	<i>Ajam</i>	<i>Faşīḥ</i>
From the Point of <i>Istidlāl</i>	<i>Ġayr mustadill</i>	<i>Ġayr mustadill</i>	<i>Ġayr mustadill</i>	<i>Mustadill</i>

*dalīl*s/signs. This means that although animals, other than humans, can make various intermittent sounds to express their needs, it is only humans who realize that the signs they use are indicators; that is, they point to certain meanings and then establish relationships between signs and use them in a complex way to create new indicators.

At this point, the author introduces “*bayān*” (a formal announcement or declaration of intention) as a means for *mustadill* to point to various aspects of his reasoning and the conclusions of his reasoning. He presents the division of *bayān* into the elements that signify meaning, as al-Jāhiz explains not only in this work but also in *Kitāb al-Bayān wa-l-tabyīn*<sup>22</sup>. These are *lafz* (speech/expression), *ḥaṭ* (writing), *‘aqd* (finger account), *işāra* (sign), and (with his later addition) *nuşba* (attitude).<sup>23</sup> As it appears here, *bayān* encompasses all means, verbal or non-verbal, through which understanding is achieved and meaning is explained: spoken/heard, visually perceived, calculated, and written.<sup>24</sup> To summarize, everything in the universe is part of a semiotic system of signs, and the *bayān* is the means by which this system is opened.

The question that arises is what kind of a relationship is envisaged between the faculties of *nuṭq* and *istidlāl*, and in attributing these faculties to humans and animals, such that in the faculty of *nuṭq*, a certain continuity between humans and animals is assumed. In contrast, in the faculty of *istidlāl*, a clear distinction that allows classification can be made. Moreover, immediately following these lines and in certain parts of the rest of the work, al-Jāhiz continues to emphasize the human–animal continuity in the ability of *nuṭq* by mentioning the complexity of animals’ linguistic abilities. He also provides information that animals have not only *nuṭq* but also a certain amount of *istidlāl* ability. To understand how this situation is reconciled, we must look at how animal–human similarities and differences are addressed in the examples of animal language and thought abilities.

To begin, in order to examine continuity in terms of *nuṭq* ability, it should be noted that the linguistic distinction between human and animal is not seen as an absolute distinction when looking at the conceptualization of *faşīḥ–’ajam* in al-Jāhiz’s thought. In the definition of the *’ajam*, it is said that “one whose expressions are not understood except by members of his own species,” which is not a categorical distinction because it is only from the perspective of other

<sup>22</sup> In this work, *bayān* is explained in more detail in terms of “*ma’nā* (meaning) and *dalāla*”: “The meanings that exist in people’s *şadr* (chest), that are conceived in their minds, that puzzle their souls, that are attached to their memories, that speak their thoughts, are veiled, hidden, closed and distant... These meanings only come to life when they are mentioned, reported and used... The meaning will emerge to the extent of the clarity of the sign and the accuracy of the sign. The clearer and more meaningful the *dalāla* and the clearer and more nonambiguous the sign, the more useful and effective it will be... *Bayān* is the comprehensive name of all kinds of verbal or non-verbal means that unmask this meaning and tear the veil.” (Translated into English by the author) (See, Al-Jāhiz, *Kitāb al-Bayān wal-tabyīn*, Ed. Muwaffaq Sahabuddin, (Lebanon: Dar Al-Kotob Al-Ilmiyah, 2009) v.1, 52-53, for online access 14 September 2023, <https://shamela.ws/book/10614> )

<sup>23</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 29

<sup>24</sup> Fathi Hasan Malkawi, “Thought and Language”, *Mapping Intellectual Building and the Construction of Thought and Reason*, Tr. Banan F. Malkawi, International Institute of Islamic Thought (London: Washington, 2020), 145.

species members (similar to the inability of people who do not speak the same language to understand each other).<sup>25</sup> Moreover, the ability of bayān is a common ability between humans and animals, although it is a natural capacity in animals as an intrinsic ability, whereas in humans, it has qualitative differences due to its cultural interaction and learning aspect.<sup>26</sup>

In this context, al-Jāḥiẓ praises the sounds that animals make due to their laryngeal structure, their strong and all-proportionate *mahrağs* (pronouncing words clearly and carefully), and the naivety of their ability to communicate. He states that this capacity, which animals reach without any teaching, gradation, suggestion, or training, and completely natural and intuitive improvisation, is at a level that even the most temperamentally superior human cannot reach by study or improvisation, or by force, or by gradation.<sup>27</sup> According to al-Jāḥiẓ, human beings are incapable of attaining the same level that animals naturally attain, regardless of their level of preparation or specialization in the necessary tools to do so.

Apart from the introduction, one of the chapters in which al-Jāḥiẓ elaborates on the ability of animals to speak is the chapter in which he responds to the debates about the communication and speech of birds.<sup>28</sup> There, he objects to those who believe that birds' ability to communicate with the sounds they make cannot be referred to as *nuṭq* ability, arguing that because they are both used to understand each other's needs and are composite sounds emanating from the mouth and tongue, they can be called bayān and *nuṭq*. Accordingly, these sounds, like human language, are articulated, formed, composed, and ordered (*Ar. muqaṭṭa'a, muṣawwara, mu'allafa, munazzama*) and allow them to understand what they want to convey to each other. These languages' incomprehensibility from a human perspective is analogous to a particular human language's incomprehensibility to speakers of another language. However, just as the limits of human needs determine the level of complexity of human language, the meanings that birds can express are proportional to their needs, so birds do not require a more complex and advanced language.

In another chapter, al-Jāḥiẓ investigates animal phonetic diversity as a subset of linguistic complexity via various animals, particularly the exceptional phonetic diversity of cats. As a result, just as human languages differ in terms of phonetic complexity, so do animal sounds. The sheep/goat can produce the letter "*mā*," the dog can produce the letters "*ayn*," "*fā*," and "*qāf*," the crow can produce the letter "*qāf*," and the parrot can produce many more letters. However, if the sounds they make at night are listened to and noticed, it is observed that cats make the most sounds.<sup>29</sup> According to al-Jāḥiẓ, given the number of sounds cats make, if these animals had sufficient need, intellect, and capacities, and if the individual phonemes they make were combined, an appropriately formed, intermediate language would be obtained.<sup>30</sup> In other words, if animals had hypothetical reasoning and moral agency, and the separate phonemes they uttered were all combined to produce meaningful utterances, cat language would be in the middle of the spectrum of languages.<sup>31</sup> Consequently, the phonetic complexity of felines is considerable, given that the vocalization of an animal species comprises the closed set of letters (phonemes) it can produce.<sup>32</sup> By establishing a hierarchy of animal languages according to their phonetic complexity and subsequently providing instances of human languages (African and Khuzistan languages<sup>33</sup>) that exhibit both simple and complex phonetic structures, al-Jāḥiẓ conceptualizes a phonetic spectrum in both animal and human languages that spans from simple to complex.

However, it should be remembered that, according to al-Jāḥiẓ, linguistic complexity is not determined solely by phonetics, but rather by the number of meaningful expressions. Although cat language has as many phonemes as human languages, similar to the speech ability of birds, cats have fewer expressions by combining these phonemes because they have fewer communicative needs. Therefore, it can be said that the low needs of cats determine the level of complexity of the language despite the rich potential phonetic structure.

Al-Jāḥiẓ, who compares animals and humans in terms of animal speech along a continuum ranging from simple to complex, defines the faculty of *istidlāl* as unique to humans in the work's introduction and distinguishes nonhuman animals from humans as *ğayr mustadill*. However, he only briefly alludes to the faculty of *istidlāl* in animals in the

<sup>25</sup> Sarra Tlili, "From An Ant's Perspective: The Status And Nature Of Animals In The Quran" (Dissertation, Near Eastern Languages and Civilizations, Degree of Doctor of Philosophy, University of Pennsylvania, 2009), 68.

<sup>26</sup> Richard McGregor, "Religions and the Religion of Animals", *Comparative Studies of South Asia, Africa and the Middle East*, Vol. 35, No. 2 (2015), 224.

<sup>27</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 1, 30.

<sup>28</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 4, 34.

<sup>29</sup> The reason why al-Jāḥiẓ argues that, contrary to popular belief, the sounds made by cats are more than those made by birds such as parrots may be the direct relationship he establishes between *lafẓ* (expression) and *ma'nā* (meaning). Accordingly, the sounds made by cats are made out of their needs and to convey a meaning, whereas parrots can make various sounds without any intention of conveying a meaning due to imitation.

<sup>30</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 3, 155-156.

<sup>31</sup> Jeannie Miller, "Man is Not the Only Speaking Animal: Thresholds and Idiom in al-Jahiz", *Arabic Humanities, Islamic Thought: Essays in Honor of Everett K. Rowson*, Ed. Joseph E. Lowry and Shawkat M. Toorawa (Leiden, Boston: Brill, 2018), XXIX - 514 pp., 100.

<sup>32</sup> Miller, "Thresholds and Idiom in al-Jahiz", 97.

<sup>33</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 3, 156.

subsequent chapters. To illustrate, within a segment devoted to pigeons, the author alludes to the presence of *istidlāl* while enumerating their characteristics, which comprise reliable guidance and dependable memory and recall.<sup>34</sup> As evidence of their knowledge and reason-based deduction/reasoning ability (*istidlāl*), he cites the methods they use to find their way to or back from their destinations, such as the position of the sun in the sky or the wind, or the position of the stars if they are sent at night. Given that the ability to add and subtract in pigeons requires both short-term and long-term rule-based memory,<sup>35</sup> contemporary research on this topic suggests that, as al-Jāhiz studies, such abilities necessitate a specific inferential problem-solving capability.

In an additional chapter wherein he establishes a connection between animal language and cognition, al-Jāhiz, drawing from the Qur’anic anecdote concerning Solomon understanding the ant’s words, asserts that the ant identified Solomon, differentiated him personally, directed the ants alongside him toward the most reliable endeavors, and could discern between soldier and non-soldier material.<sup>36</sup> According to al-Jāhiz, ants are also capable of a certain level of *bayān*, speech, and logic. One of the cognitive prerequisites of logic is the ability to differentiate between encountered objects; hence, ants exhibit intelligent perception, exceptional judgment, and a degree of prudence that can be rivaled or even surpass that of humans.<sup>37</sup> In the same vein, al-Jāhiz includes the parable of Solomon and the Hudhud (hoopoe), wherein he asserts that the Huthuth possesses the ability to discern between a king and a commoner, as well as superior reasoning and justification capabilities compared to the majority of human beings.<sup>38</sup> However, even though the animals mentioned in these parables are said to possess a certain amount of reasoning power, they are also exceptional in their own species (just as not every hoopoe is the same as Solomon’s<sup>39</sup>). Nevertheless, even to a certain extent, such proofs of animals’ reasoning abilities appear to contradict the sharp distinction he initially made between humans and animals in terms of the faculty of *istidlāl*.

The last example from the *Kitāb al-Ḥayawān* on the cognitive abilities of animals is the chapters that examine dogs’ attention to distinguish the differences between various situations and their perception of time. First, al-Jāhiz describes an observation he made on a friend’s dog,<sup>40</sup> noting that just as the dog can tell the difference between a cook sharpening a knife and someone else sharpening a knife and react accordingly, and that it stops reacting when the smell of meat does not come after the sharpening of the knife, demonstrating how learning in animals progresses from estimation to knowledge through memory and recollection. With another example,<sup>41</sup> al-Jāhiz demonstrates that animals can learn the concept of time and distinguish between different times<sup>42</sup> by demonstrating that a dog visits a house where more meat is slaughtered at a specific time on Fridays but not on other days of the week.

An analogy can be drawn between his assessment of early infants and al-Jāhiz’s judgment that animals possess a certain degree of *’aql* (reason) and reasoning ability (*istidlāl*). He ascribed early infants a certain degree of reason.<sup>43</sup> According to al-Jāhiz, in response to the question “When did you acquire reason?” one of the hakhams (wise individuals) stated, “The hour I was born.” The remaining portions of the text contain al-Jāhiz’s enumeration of a newborn’s needs: its fearful cries, its hungry requests for food, and its silent eating. Through the language of the respondent, he deduces that these are the only needs of a newborn, and that an individual who is aware that those needs are fulfilled at that moment does not need more reason.<sup>44</sup> Subsequent to this segment, the author elucidates the distinction between human beings and birds by asserting that the capacity for birds to communicate verbally (*nuṭq*) is a product of their resemblance to humans, and that in reality, it is humans who engage in verbal communication under all circumstances.<sup>45</sup> These lines provide insight into how al-Jāhiz harmonizes the notions of continuity and distinctions between animals and humans with regard to their rationality and capacity for speech (i.e., the faculties of *nuṭq* and *istidlāl*).

In fact, al-Jāhiz, while distinguishing between *faṣīḥ* and *’ajam* in the section “Classification of Animals” section of

<sup>34</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 2, 105.

<sup>35</sup> See, Scarlett Howard, Aurore Avargues-Weber, Jair E Garcia, Adrian G Dyer, “Numerical cognition in honeybees enables addition and subtraction”, *Science Advances*, 5, February (2019), 2.

<sup>36</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 2, 263-264.

<sup>37</sup> Tlili, “From an Ant’s Perspective”, 67.

<sup>38</sup> Miller, “Thresholds and Idiom in al-Jahiz”, 110.

<sup>39</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 197.

<sup>40</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 315.

<sup>41</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 316.

<sup>42</sup> Yunus Cengiz, *Doğa ve Öznellik - Cāhiz’in Ahlak Düşüncesi* (İstanbul: Klasik Yay., 2015), 91.

<sup>43</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 4, 34.

<sup>44</sup> At this point, an analogy can be drawn between Al-Jāhiz’s attribution of reason to early childhood and his attribution of reason to animals in proportion to their needs. In modern studies, since early infancy is pre-linguistic, it is analyzed comparatively with non-linguistic cognition in animals in terms of not having propositional knowledge. For example, in this context, studies on early childhood of humans and chimpanzees have shown that chimpanzees are better at capturing visual stimuli, while in humans, young individuals have better photographic memory, but lose it during cognitive development. Since humans are capable of learning from the experience of others, communication is more important than immediate memory. The evolutionary tradeoff hypothesis explains this situation as humans, with limited brain capacity, lose functions such as photographic memory in order to acquire language during development. See, Tetsuro Matsuzawa, “Symbolic Representation of Number in Chimpanzees”, *Current Opinion in Neurobiology* (2009), 19, 97.

<sup>45</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 4, 35.

his introduction, states that no animal can go beyond these two because speech is a general expression for the animal genus. Consequently, although the term “*nāṭiq*” is used for humans in all senses, when animals, including humans, are referred to as a group, they are named according to their best known and most powerful aspects.<sup>46</sup> However, the designation of animals as *nāṭiq* is not absolute, but only to the extent that they resemble human speech. In other words, al-Jāḥiẓ states that the use of the term “*nāṭiq*” for animals other than humans is a derivational/idiomatic (*isthiqāqi*) usage based on their resemblance to humans.<sup>47</sup> However, animal vocalization deserves this term because it exceeds a certain level of complexity. In this context, remembering that al-Jāḥiẓ distinguished between *lafẓ* and *ma'nā* (expression and meaning) and studied linguistics in a way that emphasized mostly verbal elements helps to explain why he focused on vocalization as a criterion for attributing the ability to speak to animals.

The situation is slightly different in terms of *istidlāl*. Although animals other than humans have some intelligence and reasoning ability, it has not yet reached the level that would qualify them to be called *mustadill*. Al-Jāḥiẓ gives the example of a person who is right in his opinion two or three times but has not reached the level of being called genius or intelligent, or a person who is wrong two or three times but has not reached the level of being called unintelligent or foolish.<sup>48</sup> To attain the state of intelligibility (*mustadill*), the faculty of *istidlāl*, which pertains to the ability to reason, should not be limited to specific components of cognition. Rather, it should operate as a foundational component of the overall decision-making mechanism.

In al-Jāḥiẓ's thinking, there is continuity among animals, including humans, in terms of qualities such as speech and reasoning (*nuṭq* and *istidlāl*). Within this continuum, those who exceeded a certain threshold and possessed that ability under all conditions, i.e., humans, deserved to be referred to in an absolute sense with the qualities of *nāṭiq* and *mustadill*. Nonhuman animals that have met a certain amount of the specified criteria have also been referred to as *nāṭiq*, but because non-humans (and newborn babies) cannot meet the specified amount in terms of *istidlāl*, the term *mustadill* is reserved for humans. In the following section, we will look at where the ability to reason as an attribute unique to humans appears in al-Jāḥiẓ's thought and what such a system means methodologically and contextually for the study of cognition and linguistics.

## 2. A METHODOLOGICAL AND CONTEXTUAL ANALYSIS OF AL-JĀḤIẒ'S CLASSIFICATION

Al-Jāḥiẓ's positioning of human beings as the absolute *nāṭiq* and *mustadill*, while envisioning a commonality among the creatures in terms of *dalāla*, and a continuity among animals in terms of their ability of *nuṭq* and *istidlāl*, is actually related to both how he viewed the creatures as a whole and how he saw the relationship of each part to the whole. This idea's central concept is “*ḥikmat*” (Eng. wisdom), meaning that everything created is created according to wisdom. The second word used by al-Jāḥiẓ in this context is “*maṣlaḥa*” (Eng. expediency). As a term, *maṣlaḥa* means “something being suitable for the purpose, ... good, appropriate, convenient, useful, beneficial, leading to what is good”<sup>49</sup>. According to al-Jāḥiẓ, *maṣlaḥa* is closely related to the fact that everything has wisdom from the beginning to the end of the world, as it is the mixing of good with evil, harmful with beneficial, unpleasant with pleasant, evil with sublime and many with few.<sup>50</sup>

Al-Jāḥiẓ explains the situation with a thought experiment for the disappearance of *maṣlaḥa*.<sup>51</sup> In according to this, just as pure/unadulterated evil would mean the end of creation, pure/absolute goodness would render the test meaningless, eliminating the need for thought. Absence of thought implies lack of wisdom. As a result, when choice (*taḥyīr*) disappears, so does justification (*tamyīz*). There will be no knowledge in this case because there will be no certainty, hesitation (*tawakkuf*), or learning in the world. There will be no righteous man on earth, who lives in the glory of the truth, or a defeatist man, who lives in the humiliation of falsehood, in such a situation, where there is no meaning to prevent harm or benefit. Souls are hopeless in this state, and desires are not branched/diversified. He who is unaware of desire is unaware of despair, and he who is unaware of despair is ignorant of security. As a result, because everything in the world is for the human being who has reason (*'aql*) and moral agency (*istiṭā'a*), when everything is equalized and the good is lost due to the disappearance of appeal, the meaning of creation is lost because thought and wisdom have vanished.

The basis of al-Jāḥiẓ's mention of the superior qualities of animals while also mentioning the qualities that distinguish

<sup>46</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 1, 27.

<sup>47</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 3, 154.

<sup>48</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 1, 139.

<sup>49</sup> İbrahim Kafi Dönmez, “Maslahat”, TDV İslâm Ansiklopedisi, erişim 14 Eylül 2023, <https://islamansiklopedisi.org.tr/maslahat/>.

<sup>50</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 1, 134.

<sup>51</sup> Al-Jāḥiẓ, *Kitāb al-Ḥayawān*, v. 1, 134.



humans from animals throughout the work is such a doctrine of *maşlahā*, in which the human being is at the center as a microcosm.<sup>52</sup> However, each component is equally important to the whole. Accordingly, the *maşlahā* is integrated into the whole, and the blessing is completed by its unification. As a result, because everything is made up of parts, the whole is also destroyed if one of them is destroyed. In such a system, in terms of *dalāla*, a mountain is not superior to a pebble or a beautiful-looking peacock to an unpleasant (*qabīḥ*) pig.<sup>53</sup> In other words, there are hidden signs that point to wisdom in things that appear small or worthless as well as things that appear beautiful or pleasing.

Although al-Jāhiz explains the difference of human beings in the system with their being *mustadill*, when discussing the superiority of human beings over other animals,<sup>54</sup> he emphasizes the human being’s possession of moral agency (*istiṭā’a*) as the main difference. According to al-Jāhiz, while the existence of *istiṭā’a* necessitates the existence of *’aql* (intellect) and knowledge, the opposite is not true, that is, the existence of *’aql* and knowledge necessitates the existence of moral agency.<sup>55</sup> To better understand the human–animal distinction in this context, examining how the relationship between *istiṭā’a* and *’aql* is positioned in al-Jāhiz’s general concept of nature will be useful.

Throughout *Kitāb al-Ḥayawān*, species’ general and distinctive nature is emphasized to reveal similarities and differences between animals. In al-Jāhiz’s thought, every animal shares a general nature (*ṭabī’a*) with other animals and a distinctive nature (*ġarīza*) that distinguishes it from other animals. Meanwhile, *ṭab* refers to the primary qualities, *ġarīza* refers to the secondary qualities that can only exist after the primary qualities and distinguish one species from others.<sup>56</sup> Together, these tendencies in the nafs (psyche; soul; spirit; pneuma) cause animal movement. According to this conception of the nafs as a collection of nature/dispositions, all sentient beings share the natures of nourishment, sexuality, and news giving and receiving. The existence of continuity in animals in terms of the ability of *nuṭq* is based on al-Jāhiz’s observation the nature of giving and receiving news as a common tendency for animals. In contrast to these common animal natures, humans have a distinct nature (*ġarīza*), including the ability to think (*istidlāl*).<sup>57</sup>

As previously stated, animals’ actions are influenced by their dispositions/natures. To elaborate, the desire of the dispositions in the souls (both *ṭabī’a* and *ġarīza*) to reveal themselves and adopt an appropriate orientation creates needs, and within the context of these needs, animals desire what is beneficial to them and avoid what is harmful in order to cause movement.<sup>58</sup>

If only common natures (*ṭabī’a*) are the source of needs, and if they activate and reach sufficient strength, the soul is obliged to act following these natures, i.e., in the case of animals, if no intellect has exceeded a certain amount, the soul cannot prevent a nature in motion.<sup>59</sup> However, as previously stated, in al-Jāhiz’s opinion, feature distinguishing humans from other animals is *istiṭā’a*. Accordingly, although animals, except for humans, act with *tashīr*, i.e., they must necessarily tend toward the actions demanded by their nature, humans act with *tamqīn*, i.e., they can utilize the needs arising from their nature in different ways.<sup>60</sup> Here, based on *istiṭā’a*, there is the ability to think as a distinguishing characteristic in human beings. Therefore, the ability of *istidlāl*, which has reached a certain consistency, is required for the existence of *istiṭā’a*.

In other words, because both common natures such as eating and drinking, as well as the faculty of thinking as a distinguishing quality, determine human needs, humans do not act out of necessity, that is, they act with *tamqīn*. Therefore, although *istiṭā’a* is the feature that allows human obligation and distinguishes him from other living beings, what allows him to have *istiṭā’a* is that he is *mustadill*.

To summarize, we can find both the nature of the functions of signs and the importance of the human being who, as a sign himself, can make sense of signs, interpret them, and discuss them for the whole<sup>61</sup> in al-Jāhiz’s following words on *ma’rifā* (knowledge) and *istidlāl*: “Without the use of *ma’rifā*, *ma’rifā* would have no meaning, just as without the use of signs by *istidlāl*, there would be no meaning in the placement of signs.”<sup>62</sup> Therefore, in this semiotic system based on wisdom and comprised *dalīls*/signs, the human being has a distinct position due to his having *istiṭā’a* and being a *mustadill* person, and because these distinctive characteristics of the human being require *dalīls*/signs to be read in order to have meaning, each part, no matter how small or large, is equally important because they are *dalīls*.

<sup>52</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 139.

<sup>53</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 135.

<sup>54</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 3, 286.

<sup>55</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 3, 287.

<sup>56</sup> Cengiz, *Doğa ve Öznellik*, 46-47.

<sup>57</sup> Cengiz, *Doğa ve Öznellik*, 64-69.

<sup>58</sup> Cengiz, *Doğa ve Öznellik*, 83.

<sup>59</sup> Cengiz, *Doğa ve Öznellik*, 89.

<sup>60</sup> Cengiz, *Doğa ve Öznellik*, 70.

<sup>61</sup> James E. Montgomery, *Al-Jāhiz: In Praise of Books* (Edinburgh: Edinburgh Uni. Pr., 2013), 419.

<sup>62</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 312.

The fact that everything has wisdom by virtue of its creation is linked to the fact that each sign/*dalīl* and the one who can read that sign/*dalīl* are required for the sake of *maṣlaḥa*.

We can examine what this holistic perspective put forward by al-Jāḥiẓ means in terms of human–animal continuity and boundaries in the context of language thought in animals and what it foresees for ongoing studies from two perspectives: methodological and contextual.

1. First of all, if we look at the methodology that al-Jāḥiẓ follows throughout the *Kitāb al-Ḥayawān*, it is evident that while the apparent objective of the project appears to be providing a comprehensive categorization of animals, this formal undertaking is founded upon a classification method that would unveil the connection between *'aql*, *'ālam*, and the interpretation process (which enables the human to decipher the cipher concealed within the *'ālam* by wisdom).<sup>63</sup> For this rationale, al-Jāḥiẓ commences by asserting that both living and non-living entities harbor the signifiers of wisdom and communicate with the interpreter.

Although al-Jāḥiẓ is based on continuity regarding signs/*dalīls*, he does not make the differences with the usual discrete clusters. In this context, when al-Jāḥiẓ's epistemology is analyzed, it is said that he accepts the objective and subjective sides of knowledge and deals with human beings in the middle of this binary distinction, conducts his investigations mostly through experience, and does not consider the sharp distinction of true/false as sufficient in epistemological terms.<sup>64</sup> For this reason, in al-Jāḥiẓ's epistemology, discussions, disagreements, and interpretations are part of the linguistic activity that human beings are responsible for.<sup>65</sup> It is his effort to read signs in order to fulfill this responsibility that constitutes the centrality of human beings in *kozmos*.

For al-Jāḥiẓ, knowledge is knowing the nature of things, but of this infinite number of natures, only what is manifested and experienced can be known. (al-Jāḥiẓ's emphasis on experience and observation stems from this.) God placed the signs/*dalīls* within the framework of creation with wisdom for these things in creatures. Human beings, under the influence of their natures, such as thinking, fear and lust, turn to these signs/*dalīls* to the extent that they are interested in them and try to read these signs/*dalīls* in different ways. In this context, it is clear that al-Jāḥiẓ, who believes that the truth (*ḥaqīqa*) of something cannot be fully encompassed and can only be approximated, does not include definitions of even the concepts he uses most frequently in his works and that hold a central position in his thought (because it would claim to reveal their essence in full).<sup>66</sup> In *Kitāb al-ayawān*, for example, there are no definitions of concepts such as *istidlāl*, *nuṭq*, and *'aql*. Instead of defining these concepts, al-Jāḥiẓ makes determinations about them by bringing evidence from as many observations, oral narrations, or written works on the subject as possible and making inferences from these pieces of evidence. For this reason, in this study, terms such as *istidlāl* and *nuṭq* were tried to be read through their usage throughout the work.

In Ricca's terms,<sup>67</sup> instead of a superficial classification based on the usual exclusionary logic of "either/or," al-Jāḥiẓ takes a semiotic approach, emphasizing the multi-categorical existence of qualities and implicit expressions based on his own inclusive logic of "and/and." In this context, al-Jāḥiẓ invites the reader to expand his knowledge by following the different and infinite categorizations of *'ālam*, using the fact that *'ālam* contains signs that stimulate this semiotic transformative process as the first premise. Based on this premise, human rationality determines the categories through which it will view *'ālam* in continuity.

For example, when it comes to human–animal differentiation, al-Jāḥiẓ does not make the distinction based on *nuṭq* as is customary, but states that there is a commonality between human and animal when viewed from the axis of *nuṭq*, and presents a more relative perspective by considering *nuṭq* in terms of whether or not it can be understood outside its own genus. At this point, al-Jāḥiẓ, who methodically determines absolute and relative axes, goes beyond the classical line and considers the world from various perspectives by making classifications from the axes of *dalāla* and *istidlāl* after *nuṭq*. As a result, the positions of things in the classification change depending on the axes chosen. al-Jāḥiẓ uses this method in his research on the concepts themselves. For example, in his analysis of the concept of *istidlāl*, he investigates the existence of *istidlāl* in various animals by determining different qualities such as using signs to navigate or distinguishing others.

Methodologically, al-Jāḥiẓ does not approach classification solely by determining different categories. Furthermore, by imagining a spectrum from simple to complex in the categories determined, he recognizes the multi-valued existence of different species on different axes.<sup>68</sup> For example, when it comes to reasoning ability or language complexity, he

<sup>63</sup> Mario Ricca, "Signs across Races - Al-Jahiz's Cosmo-Semiosis and His Trans-Racial Mapping of the 'Human'", *Calumet – Intercultural Law and Humanities Review* 8 (2016), 24.

<sup>64</sup> Josef, Van Ess, "el-Cāhiz ve Erken Mu'tezile Kelāmi", 214.

<sup>65</sup> Lale, Behzadi, "Al-Jāḥiẓ and his Successors on Communication", 132

<sup>66</sup> *Cengiz, Doğa ve Öznellik*, 18.

<sup>67</sup> Ricca, "Signs across Races", 23-24.

<sup>68</sup> Ricca, "Signs across Races", 26.

considers both the different values taken among different animal species and the different values taken within human beings as they develop from infancy to maturity. One example is that the value of Solomon’s hoopoe is much higher than that of other animals, or the fact that in some respects human abilities in the early infancy stage are considered to be close to animal value.

Al-Jāhiz, who sees living beings as a continuum, paints a multifaceted picture with mathematical expressions like “quantity, proportionate to, reaching, falling short of, exceeding, of middling status.”<sup>69</sup> Accordingly, in spectra such as the complexity of language, which is a continuum, crossing a certain threshold determines possession of that characteristic in absolute terms. The species that exceeds this divinely determined threshold is the absolute owner of that trait, while those who have not crossed that threshold in the spectrum use it through derivation from its absolute owner. Human beings’ obligation is explained in this context by the fact that they are *nāṭiq* and *mustadill* in the absolute sense, that is, they have exceeded the threshold of ‘aql that is sufficient for them to have responsibility. The distinction between intelligent (‘*āqil*) and non-intelligent (*gayr ‘āqil*) is based on whether one is above or below that threshold.

Methodologically, al-Jāhiz conducts studies on the classification of animals in the following manner: he establishes distinct categories based on the subject under investigation, classifies species into multi-valued categories based on those categories and various variables, and gains an intuitive understanding of the fundamental concepts by supplementing these studies with a substantial number of observations and supplementary evidence. It was feasible to elucidate the continuity between animals and the boundaries that delineate species using this approach.

2. Second, if we examine the content of al-Jāhiz’s classification, we can see that he placed the concepts of *dalāla* and *istidlāl* at the heart of his concept of *marātib*. The fact that in a commonality in terms of speech (*nuṭq*) al-Jāhiz first distinguishes between ‘*ajam-faṣīḥ*, and then refers to human beings as absolute *nāṭiqs*, and then identifies the element that distinguishes human beings in the classification as their being *mustadill*, may imply that he bases the faculty of *istidlāl* on the ability of outward speech (*nuṭq*). This inference is also consistent with his statements about physiological and intellectual needs. According to al-Jāhiz, while all animals need to receive and transmit information, the complexity of this need is determined by the needs, and humans have a creative and cumulative language ability with a high level of complexity due to the need to express their high needs on the semantic plane. In other words, human beings’ semiotic awareness and ability to establish complex relationships between signs/*dalīls* come before their ability to speak eloquently.

3. Al-Jāhiz’s emphasis on meaning can also be seen in his distinction between *lafz* and *ma’nā* (expression and meaning). Al-Jāhiz argues in a passage about the teaching of names to Adam that it is impossible to teach a name without its meaning or without what is implied by a *dalīl* (i.e., without what is indicated by a sign), and that because the *lafz* (expression) is the body of the *ma’nā* (meaning) and the meaning is the soul of the *lafz*, if names are taught without meaning, something useless and lifeless will be given.<sup>70</sup> According to al-Jāhiz, a word can only be referred to as a name if it conveys significance, and while significance can exist independently of its designation, a name is inherently dependent on its meaning. Therefore, instructing names entails teaching meanings. This does not imply that all possible meaning combinations are taught, i.e., what goes beyond the utility and purpose of providing a general definition has no name until man reifies it and incorporates it into the field of knowledge. Therefore, man has been given a finite number of primordial names, and through his ability to speak, he can generate an infinite number of names from this finite number of names as required by the ends of the matter. These lines indicate that al-Jāhiz bases semantic access on syntactic faculties.

Not only does the content of al-Jāhiz’s statements suggest that what distinguishes humans from animals is the complexity of their semantic and syntactic faculties, but he also makes statements about the qualitative difference between humans and animals in terms of these faculties. For example, it is interesting to note that al-Jāhiz uses the term “*ism*” (name) only in the context of human language, whereas he insists on using “*suwar*” (picture; form; image) or “*lafz*” when talking about meaningful animal vocalization.<sup>71</sup>

This qualitative distinction can also be found in human and animal learning. Although animals can instinctively create complex artifacts (such as a spider’s web) that humans can hardly do with effort, this instinctive knowledge is distinct from humans’ flexible capacity for reasoning and learning. Although humans are innately less knowledgeable, their high level of learning ability allows them to achieve a higher level of knowledge than animals by accumulating or increasing their experience. As a result, while a spider can build a web that a human cannot, it cannot build a bee hive, but a human being, despite being essentially neither a carpenter, merchant, or farmer, can learn any craft or technic

<sup>69</sup> Miller, “Thresholds and Idiom in al-Jahiz”, 107

<sup>70</sup> Jeannie Miller, “What It Means To Be A Son: Adam, Language, And Theodicy In A Ninth-Century Dispute”, *The Canadian Society for Syriac Studies*, 16 (2016), 68-69.

<sup>71</sup> Miller, “Thresholds and Idiom in al-Jahiz”, 102.

thanks to his cumulative and creative learning power.<sup>72</sup> This demonstrates the creative aspect of human learning ability. At this point, one may recall modern studies on how animals' learning or inference abilities differ qualitatively from human beings,<sup>73</sup> or the existence of different representational systems in animals that operate through imaginary/iconic or maps or diagrams, unlike human beings.<sup>74</sup> To summarize, while the faculty of reasoning and the ability to speak as its manifestation ensures the continuity of animal species, the level of quantitative and qualitative complexity of these faculties distinguishes humans from others by elevating them to the level of *mustadill*.

## CONCLUSION

When al-Jāhiz's idea of *marātib*, which he put forward on the axis of the abilities of *dalāla*, *istidlāl*, and *nuṭq* and against the backdrop of the doctrine of *maṣlaḥa*, is analyzed in terms of the point reached by modern linguistics and animal cognition studies, aspects that transcend its time can be seen. First, in terms of linguistic studies, we should emphasize the significance of al-Jāhiz's association of intellect/'*aql* with the ability to bring evidence/*dalīl*. Because bringing evidence/*dalīl* requires an awareness that himself and the things are signs/ *dalīls*, that is, that they point to a meaning, as previously stated, the development of semantics, that is, meaning and signification, precedes the complexity of language syntax in al-Jāhiz's thought.

In the linguistic tradition, HCF focused on the mechanism of recursion and stated its main thesis as the uniqueness of FLN to humans, which only involves recursion. According to this viewpoint, the competence acquired by humans through the recursion mechanism did not arise from needs such as communication (i.e., it was not an adaptation for communication), but rather emerged in the brain and was used for communication, and it was the element that privileged human language competence. However, for al-Jāhiz, the level of complexity that emerges in human language syntax stands out as a byproduct of necessity. Because of its being *mustadīl*, which distinguishes human from nonhuman animals, and thus its awareness of meaning, human beings need to share this meaning. Because of its high level of complexity, it is able to do so via the recursion mechanism in natural language syntax, which enables the formation of complex signs in the most efficient way<sup>75</sup> possible in a sign string. When we consider that al-Jāhiz did not consider the ability of *bayān* solely based on lafz, but considered various means of communication, including signs, to be equally important, we can see that for al-Jāhiz, the fulcrum of language-cognition was the meaning, not the literal elements.

Second, when we consider the importance of objectivity in the study of animal cognition, it is possible to say that al-Jāhiz occupies a more intermediate position when compared to the new sharp positions in old or contemporary studies. Al-Jāhiz, by placing man's being intelligible/'*āqil* in the absolute sense as the basis of his classification, makes sharp quantitative and qualitative distinctions between man and animal, even though he occasionally mentions animal characteristics similar to our own, demonstrating that al-Jāhiz avoids anthropomorphism. Furthermore, although humans have a distinct position from other animals in al-Jāhiz's thought, because the reason for this distinction is their *mustadill*, it becomes critical to read the evidence, and thus the existence of the *istidlāl* makes sense with the existence and correct reading of the signs/*dalīls*. Following the doctrine of *maṣlaḥa* established in this way, al-Jāhiz speaks of continuity despite the existing qualitative differences between animals, even though he accepts the level of complexity of human faculties as different. This may imply that al-Jāhiz's anthropocentrism is limited or that he avoids anti-anthropomorphisms.

In conclusion, although al-Jāhiz's *Kitāb al-Ḥayawān* presents some challenges for researchers due to a lack of clear definitions and a systematic sequence, as well as its frequent use of quotations and examples from various sources, it is a work that should be emphasized much more due to its originality and intellectual innovations in terms of the period in which it was written. Furthermore, in the context of human–animal comparative studies, both its rich content and its difficult method can bring different perspectives to both the linguistic tradition and animal cognition research. Despite the fact that al-Jāhiz emphasizes increasing learning experience and employs as many observations as possible in his work, he lacks the tools of observation and experimentation that modern studies have. More fruitful results will be obtained in this context when the starting points and theoretical groundwork on which his work is based are enhanced with modern tools.

The necessity of further readings of al-Jāhiz's thought, which differs from the clear distinctions offered by the tradition in which it is situated with its emphasis on continuity, yet preserves clear distinctions due to the distinct qualitative

<sup>72</sup> Al-Jāhiz, *Kitāb al-Ḥayawān*, v. 1, 30.

<sup>73</sup> See, Joseph Call, "Descartes' two errors: Reason and reflection in the great apes", *Rational Animals?*, Ed. Susan Hurley and Matthew Nudds (USA: Oxford Uni. Pr., 2006), 253-254 & 274-275.

<sup>74</sup> See, Elisabeth Camp, "A language of baboon thought?", *The Philosophy of Animal Minds*, Ed. Robert W. Lurz (New York: Cambridge Uni. Pr., 2009), 108-110.

<sup>75</sup> At this point, one may recall Church's thesis that recursive functions denote all efficient computable functions. See, George S. Boolos, John P. Burgess, Richard C. Jeffrey, *Computability and Logic* (New York: Cambridge Uni. Pr., 2007), 63.

and quantitative differences it bears, within the framework of concepts such as *dalāla*, *istidlāl*, and *nuṭq* is clear in the context of our subject. Questions such as determining the different dimensions of the ability to reason, the functioning of the ability to learn in humans and animals, and the foundations of creativity in humans, and finally, how to understand semantically being evidence/signs and the awareness of other evidence/signs which is in the grounds of the syntax of language, stand out in the context of this study and can direct further readings.

---

**Peer Review:** Externally peer-reviewed.

**Conflict of Interest:** The author has no conflict of interest to declare.

**Grant Support:** The author declared that this study has received no financial support

**Hakem Değerlendirmesi:** Dış bağımsız.

**Çıkar Çatışması:** Yazar çıkar çatışması bildirmemiştir.

**Finansal Destek:** Yazar bu çalışma için finansal destek almadığını beyan etmiştir.

---

### ORCID ID of the author / Yazarın ORCID ID’si

Şeyma Nur Tan 0000-0002-8993-1316

### REFERENCES / KAYNAKLAR

- Al-Jāhiz, *Kitāb al-Bayān wal-tabayīn*, Ed. Muwaffaq Sahabuddin, Lebanon: Dar Al-Kotob Al-Ilmiyah, 2009. (for online access 14 September 2023: <https://shamela.ws/book/10614>)
- Al-Jāhiz, *Kitāb al-Ḥayawān*. Ed. Muhammad B. ‘U. Al-Sud. Lebanon: Dar Al-Kotob Al-Ilmiyah, 2011. (for online access 14 September 2023: <https://shamela.ws/book/23775/>)
- Allen, Colin. “Transitive inference in animals: reasoning or conditioned associations””. *Rational Animals?*, Editor Susan Hurley and Matthew Nudds, 176-197. USA: Oxford Uni. Pr., 2006.
- Andrews, Kristin and Monsó, Susana. “Animal Cognition” The Stanford Encyclopedia of Philosophy (Spring 2021 Edition). Editor Edward N. Zalta, Erişim 14 Eylül 2023 <https://plato.stanford.edu/archives/spr2021/entries/cognition-animal/>
- Bayrakdar, Mehmet. “Câhız ve Biyolojik Evrimciliğin Doğuşu”. *Kelam Araştırmaları*, 10 (2012): 117-126.
- Behzadi, Lale. “Al-Jāhiz and his Successors on Communication and the Levels of Language”. *Al-Jāhiz: A Muslim Humanist for our Time*. Editor Arnim Heinemann, John L. Meloy, Tarif Khalidi, and Manfred Kropp, 125-132. Würzburg: Ergon Verlag, 2009.
- Boolos, George S., Burgess, John P. , and Jeffrey, Richard C.. *Computability and Logic*. New York: Cambridge Uni. Pr., 2007.
- Call, Joseph. “Descartes’ two errors: Reason and reflection in the great apes”. *Rational Animals?*, Editor Susan Hurley and Matthew Nudds, 253-283. USA: Oxford Uni. Pr., 2006.
- Camp, Elisabeth. “A language of baboon thought?”. *The Philosophy of Animal Minds*. Editor Robert W. Lurz, 108-127. New York: Cambridge Uni. Pr., 2009.
- Cengiz, Yunus. *Doğa ve Öznellik - Câhız’ın Ahlak Düşüncesi*. İstanbul: Klasik Yay., 2015.
- Descartes, Rene. *Yöntem Üzerine Konuşma*. Translated Özcan Doğan. Ankara: Doğubatu Yay., 2014
- Dönmez, İbrahim Kafi. “Maslahat” TDV İslâm Ansiklopedisi. Erişim 14 Eylül 2023, <https://islamansiklopedisi.org.tr/maslahat/>
- Enderwitz, Susanne. “Culture, History and Religion: A Propos the Introduction of the Kitāb al-hayawān”. *Al-Jāhiz: A Muslim Humanist for our Time*. Editor Arnim Heinemann, John L. Meloy, Tarif Khalidi, and Manfred Kropp, 229-237. Würzburg: Ergon Verlag, 2009.
- Hauser, Marc D., Chomsky, Noam, and Fitch, W. Tecumsek. “The Faculty of Language: Who Is It, Who Has It, and How Did It Evolve?”. *Science* 298, No. 5598 (2002): 1569-1579.
- Howard, Scarlett, Avargues-Weber, Aurore, E Garcia, Jair, and G Dyer, Adrian. “Numerical cognition in honeybees enables addition and subtraction”. *Science Advances* 5, 2019: 1-6.
- Jamieson, Dale. “What do animals think?”. *The Philosophy of Animal Minds*. Editor Robert W. Lurz, 15-34. New York: Cambridge Uni. Pr., 2009.
- Kacelnik, Alex. “Meanings of rationality”. *Rational Animals?*, Editor Susan Hurley and Matthew Nudds, 6-46. USA: Oxford Uni. Pr., 2006.
- Lurz, Robert W.. “*The philosophy of animal minds: an introduction*”, *The Philosophy of Animal Minds*, Editor Robert W. Lurz, 1-14. New York: Cambridge Uni. Pr., 2009.
- Malkawi, Fathi Hasan. “Thought and Language”. *Mapping Intellectual Building and the Construction of Thought and Reason*. Translator Banan F. Malkawi. London, Washington: International Institute of Islamic Thought, 2020: 136-171.
- Matsuzawa, Tetsuro. “Symbolic Representation of Number in Chimpanzees”. *Current Opinion in Neurobiology* 19 (2009): 92-98.
- McGregor, Richard. “Religions and the Religion of Animals”, *Comparative Studies of South Asia, Africa and the Middle East*, 35, (2015): 222-231.

- Miller, Jeannie. "Man is Not the Only Speaking Animal: Thresholds and Idiom in al-Jahiz". *Arabic Humanities, Islamic Thought: Essays in Honor of Everett K. Rowson*. Editor Joseph E. Lowry and Shawkat M. Toorawa, 94-121. Leiden, Boston: Brill, 2018.
- Miller, Jeannie. "What It Means To Be A Son: Adam, Language, And Theodicy In A Ninth-Century Dispute". *The Canadian Society for Syriac Studies 16* (2016): 60-79.
- Montgomery, James. E.. *Al-Jâhiz: In Praise of Books*. Edinburgh: Edinburgh Uni. Pr., 2013.
- Pellat, Charles. *The Life and Works of Jâhiz*. Translator D. M. Hawke. London: Routledge & Kegan Paul Ltd., 1969.
- Pinker, Steven and Jackendoff, Ray. "The faculty of language: what's special about it?", *Cognition 95* (2005): 201-236.
- Rescorla, Michael. "Chrysippus' dog as a case study in non-linguistic cognition". *The Philosophy of Animal Minds*. Editor Robert W. Lurz, 52-71. New York: Cambridge Uni. Pr., 2009.
- Ricca, Mario. "Signs across Races - Al-Jahiz's Cosmo-Semiosis and His Trans-Racial Mapping of the 'Human'". *Calumet – Intercultural Law and Humanities Review 8*, (2016): 21-40.
- Saliba, George. "Jahiz and the Critique of Aristotelian science". *Al-Jâhiz: A Muslim Humanist for our Time*. Editor Arnim Heinemann, John L. Meloy, Tarif Khalidi, and Manfred Kropp, 39-50. Würzburg: Ergon Verlag, 2009.
- Shettleworth, Sara J. and Sutton, Jennifer E.. "Do animals know what they know?". *Rational Animals?*. Editor Susan Hurley and Matthew Nudds, 284-308. USA: Oxford Uni. Pr., 2006.
- Tlili, Sarra. "From an Ant's Perspective: The Status and Nature of Animals in the Quran". Dissertation in Near Eastern Languages and Civilizations, Degree of Doctor of Philosophy, University of Pennsylvania, 2009.
- Türker, Ömer. *İslam Felsefesine Konusal Giriş*. Ankara: Bilay Yay., 2020.
- Van Ess, Josef. "el-Câhiz ve Erken Mu'tezile Kelâmı". Translated Mustafa Köse. *Marife 15/1* (2015): 207-218.

### How cite this article / Atıf Biçimi

Tan, Seyma Nur. "Continuity and Boundaries in Human–Animal Comparison in the Context of al-Jâhiz's *Kitâb al-Hayawân*" *Felsefe Arkivi- Archives of Philosophy*, 59 (2023): 97-110. <https://doi.org/10.26650/arcpc.1360652>