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Challenges to an Aristotelian Tradition
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# Contents

1 **Introduction** .......................................................... 1  
Véronique Decaix and Ana María Mora-Márquez

2 **Aristotle and Alexander of Aphrodisias on Active Intellectual Cognition**  .......................................................... 13  
Frans A. J. de Haas

3 **Selective Attention Beyond Activity: Robert Kilwardby’s Theory of Perception** .................................................. 37  
Elena Bălțuță

4 **Cognition as Intellectual Constitution: Dietrich of Freiberg in Discussion with Thomas Aquinas** .................................. 57  
Véronique Decaix

5 **From Agent to Active Sense: Was There an Augustinianism-Averroisant?** .......................................................... 79  
José Filipe Silva

6 **Three Jesuit Accounts of Cognition: Differences and Common Ground in the *De Anima* Commentaries by Maldonado, Toledo and Dandini (1564–1610)** .................................................. 103  
Anna Tropia

7 **Epistemic Responsibility in an Occasionalist World: Malebranche’s Theory of Judgment** .................................................. 133  
Stephan Schmid

8 **A Note on Stumpf’s History of Active Intellection**  .................. 163  
Hamid Taieb

9 **Explaining Sherlock’s Glance. On the Perception of Historical Past** .......................................................... 175  
Vincent Grondin
Chapter 1
Introduction

Véronique Decaix and Ana María Mora-Márquez

Abstract In this introduction, we explain how the chapters in this volume give support to the idea that different accounts of active cognition in the history of philosophy directly or indirectly respond to Aristotle’s account of cognition in his De anima.

It is a common opinion that, under the influence of Aristotelian doctrine, in the history of philosophy human cognition has too often been explained in passive or receptive terms. This collection of essays aims to draw attention to some historical accounts that, to the contrary, challenge the Aristotelian doctrine. The general aim of the volume is, then, to show how epistemological, psychological, and moral concerns raised by Aristotle’s theory of cognition are related to the emergence and development of active accounts of cognition in the history of Western philosophy.

In the first part of the volume, five essays discuss direct challenges to Aristotle’s theory of cognition, mainly in the reception of his De anima from late antiquity to the so-called second scholasticism (sixteenth and seventeenth centuries). In the...
second part, we present three case-studies aiming to illustrate how seemingly self-contained discussions in the modern period and the early twentieth century are, in fact, historically and doctrinally related to the direct challenges presented in Part 1.

The eight essays in this volume are organised in chronological order so as to highlight the historical appropriations, variations, and criticisms of Aristotle’s theory of cognition, regarding both sensation and intellection. The active-passive dichotomy will present itself as a useful explanatory tool to investigate human cognition, not least because it will unveil the implicit but continuous background that links ancient and medieval philosophical discussions to those in modern and contemporary philosophy, including German phenomenology.

**Part 1**

Aristotle’s account of cognition provided the foremost model for later explanations of the mechanisms of human cognition. In *De anima II.5*, Aristotle describes sensation as kind of affection (*paschein*) involving a sort of alteration (*alloisis*) of the organ by the sense object.\(^1\) Sensation is thus understood as a kind of motion, triggered by the sense object, which is then seen as the efficient cause of sensation. Thereafter, in III.4, Aristotle establishes an analogy between intellection and sensation suggesting that intellection is also a passive process brought about by the intelligible object.\(^2\) In III.5, however, he seemingly attributes some productive power to the intellect, by saying that, as everywhere else in nature, in the soul there is a principle analogous to matter (*pathêtikos*) and a productive principle analogous to the agent cause (*poiētikos*).\(^3\)

Chapters 4 and 5 of *De anima III* are undoubtedly the most famous and controversial of Aristotle’s philosophical output. Myriad interpretations of them have been put forward in the history of philosophy trying to explain the distinction between the material and productive principles of the soul. The most notorious attempts are those by Alexander of Aphrodisias and Themistius\(^4\) in late antiquity, Avicenna and Averroes\(^5\) in the Arabic medieval tradition, and Thomas Aquinas and Duns Scotus in the Latin medieval tradition. Famously, the Latin medieval tradition, in critical discussion with both Alexander and Averroes, will call these two principles ‘the possible intellect’ and the ‘agent intellect’.

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\(^1\) For Aristotle’s account of sensation, see Sorabji (1992), Everson (1997), Burnyeat (2002). See also Sorabji’s critique of Burnyeat’s position, in Sorabji (2001).


\(^4\) See Moraux (1978) and Magrin (2011).

Understanding the nature and function of the productive principle of the soul has been the most arduous task for interpreters of the *De anima*. Notably, it is still a disputed question whether the soul itself triggers some of its cognitive acts, which acts would that be, and how they relate to the seemingly passive processes that are sensation and intellection. In the first contribution to this volume, devoted to Aristotle and Alexander of Aphrodisias, Frans de Haas shows, first, that for Aristotle no act of sensation is genuinely productive, that is, active, in the sense of not being efficiently caused by the sense object. Second, he shows the same for intellection: There is no agency from the part of the soul in this cognitive process. Third, he puts forward the controversial suggestion that the intricate productive principle of III.5 is nothing more than actual sensation and progressively refined universal concepts. As far as Aristotle is concerned, then, de Haas shows that all our cognitive acts are efficiently caused by their objects. De Haas’ thought-provoking interpretation notwithstanding, an ancient and venerable tradition solves these conundrums by positing cognitive acts as efficiently caused by the soul itself.

Theophrastus (c. 371–287 BCE), Aristotle’s successor at the Lyceum, might have been the first to discuss problems arising from claims in *De anima* III.4–5. In particular, he might have raised the questions whether the efficient cause of intellection is the intelligible object or rather the productive principle of the soul, and whether one can coherently attribute to the soul passive and productive principles. About five centuries later, Alexander of Aphrodisias proposes that the productive principle, which he calls the productive intellect (*noûs poiêtikos*), be understood in the light of a passage from *On the Generation of Animals*, where Aristotle talks of an intellect that enters “from without”. Thus, Alexander understands the productive intellect as a separate divine entity, “the first cause, which is the cause and principle of existence of all the other things.” Thanks to the intervention of this separate intellect, the human intellect is able to trigger, i.e., be the efficient cause of, its own act of intellection. As de Haas shows, Alexander’s motivation is most likely related to the moral concern that humans be responsible for their thoughts and actions, which would not be possible if they had no agency at all in their cognitive acts.

Alexander’s ontological separation of the productive intellect is rebutted by Themistius (d. 387 CE), who in his commentary on *De anima* argues that such a productive principle must be an integral part of the human soul, as it is a defining feature of the human being. Ontological separation, however, had a good fortune in

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6See Barbotin (1954), Ierodiakonou (2016), De Haas in this volume.
7See Ierodiakonou (2016).
10See Moraux (1942) and Tuominen (2006, 2010).
the Arabic tradition, especially in al-Fārābī, Avicenna and Averroes, through whom the idea was transmitted to the Latin Middle Ages.\textsuperscript{12}

In a similar fashion, and despite substantial disagreements in other respects, Plotinus\textsuperscript{13} (204/5–270 CE) posits that Intellect (\textit{Noûs}) is the same in being as its activity and object of intellection.\textsuperscript{14} Human beings are embodied images of their paradigms in Intellect, and their rational part, the higher soul, participates of Intellect and does what Intellect does.\textsuperscript{15} Consequently, human intellection is essentially an activity whereby the rational person turns to Intellect and assimilates itself to it.\textsuperscript{16}

It is an undisputed fact that Augustine’s psychology draws heavily on the “books of the Platonics”,\textsuperscript{17} that is, on Plotinus and his followers, and hence Augustine is a fundamental vector of transmission of Neoplatonic ideas to the Middle Ages. In his early philosophical dialogues, Augustine claims that the mind, which is immaterial and immortal, is superior to anything in the material realm, and hence cannot undergo change triggered by bodily things.\textsuperscript{18} This dualism of soul and body leads Augustine to endorse an active theory of cognition according to which the soul, thanks to its attention and swiftness, is in and of itself capable of producing images of its cognitive objects without suffering any kind of affection. In other words, the soul is capable of producing its proper acts and objects spontaneously and separately.

This account is coherent with the psychology that he develops in \textit{De trinitate}, IX–XV, where the human soul is presented as the worldly image of the divine trinity (in a way that echoes Plotinus’ idea of a likeness between the higher soul and the Intellect).\textsuperscript{19} In the human soul, Augustine finds three images of the divine trinity that comprise, in general, a cognitive faculty, its proper cognitive object and the will. The highest of these psychological trinities, the one discussed in \textit{De trinitate}, XV, involves the intelligence, the eternal realities kept in the human memory, and the will (\textit{intelligentia, memoria, voluntas}). Augustine posits, then, a difference between the implicit cognition of an object (\textit{nosse, notitia}) in the memory and its explicit cognition (\textit{cogitare, cogitatio}) when, led by the will, the intelligence reactivates a \textit{notitia} in the memory and produces a concept (\textit{verbum}).\textsuperscript{20} Now, superior faculties can eventually turn to the objects of inferior faculties, but not the other way around. Thus, the intelligence can turn to sense images, which are the proper object of the \textit{phantasia}, a material power. But the \textit{phantasia} cannot turn to the eternal.

\textsuperscript{12}See Davidson (1992).
\textsuperscript{13}On the controversy about the relation between Alexander and Plotinus, see Schroeder (1984).
\textsuperscript{15}See Gerson (2018).
\textsuperscript{16}See Hutchinson (2018, 143).
\textsuperscript{17}Augustine, \textit{Confessionum}, VII, 8, VII, 20.
\textsuperscript{18}Cf. Augustine, \textit{De quantitate animae}, XXIII, 41: “[…] quod patitur sensus non laetere animam […]”; see O’Daly (1987).
\textsuperscript{19}See, e.g., Wassmer (1960); cf. Augustine, \textit{De civitate dei}, X, 2, 1.
realities kept in the memory, for Augustine denies any access whatsoever of the lower material realm to the higher spiritual realm. Consequently, all our cognitive capacities are, for Augustine, active, for their passivity would imply an affection in something higher by something lower.

Both Augustine’s and Arabic (in particular Averroes’ and Avicenna’s) cognitive psychology had an enormous impact in the theological and philosophical production of the late Middle Ages so as to significantly affect the way in which scholastics understood Aristotle’s account of human cognition. In medieval interpretations of Aristotle’s *De anima*, disputed questions on the soul, or theological accounts of the divine trinity, many theologians and Masters of Arts combined in their own way the Arabic material and the Augustinian triad intelligence/memory/will. In combining these philosophical resources they had recourse to the Aristotelian distinction between the material and the productive principles of the soul. These interactions yielded a variety of active accounts of cognition.

The contributions by Baltuta, Decaix, Silva and Tropia are devoted to noteworthy accounts of the medieval period and the second scholasticism, which take issue with the Aristotelian idea of a soul that is receptive of cognition. Scholastic authors raise the question whether the soul is passive or active in the cognitive processes of both sensation and intellection. Regarding sensation, Robert Kilwardby shows that thanks to its selective attention the soul is not passive in sensation, as Baltuta explains in her contribution. But her article criticises the active-passive dichotomy as insufficient to fully account for Kilwardby’s theory of sensation. A closer look into selective attention, i.e., the mechanism whereby the soul is capable of focusing on precisely one object, is also necessary in order to understand how sensation actually works according to Kilwardby. John of Jandun and John Buridan, in turn, ask whether it is necessary to posit an agent sense in addition to the five external senses. In his contribution, Silva shows that Averroes’ idea of an agent sense, as it is endorsed by John of Jandun, is closely connected to Augustine’s active account of sensation. Buridan rejects the need for such an agent sense, but he also rejects the idea that the sense object is the efficient cause of sensation and gives this role to the soul itself. Regarding intellection, the Thomist idea that it is an affection is challenged even within the Dominican order, in particular by Dietrich of Freiberg (1250–1320), who puts forward a constitutive power of the human intellect, as Decaix explains. He has, then, been considered as a forerunner of Kant (Flasch 1972). The main challenge for Dietrich is to understand the assimilation of an intelligible form in a way that does not result in intellectual passivity, so as to reconcile the Aristotelian model with the metaphysical superiority of the human soul. Consequently, his active account is enriched with Augustinian elements, such as intellectual constitution, which put the accent on the soul’s capacity to approach its cognitive objects.

The medieval discussions provided the bases of further developments in the second scholasticism, notably those found in the sixteenth-century Jesuit colleges and in the authors known as the “Coinimbricenses” (because of their affiliation to the University of Coimbra). Silva engages these later discussions in what concerns
sensation, and Tropia engages them in what concerns intellectual cognition. Her contribution argues for a “Jesuit trend” from 1500 onwards in understudied authors from the generation previous to Francisco Suárez. Her comparative analysis of the commentaries on the *De anima* by Juan Maldonado, Francisco Toledo, and Girolamo Dandini shows that they commonly (i) rely on a separation of the intellectual and the sensory levels, (ii) reject any kind of intermediary object in cognition, and hence (iii) posit direct active intellection. They also allow the possibility of intellectual cognition of singulars. Interestingly, all these active accounts are concomitant with a rejection of the distinction between an agent and a possible intellect.

**Part 2**

The second part of this volume aims to illustrate how later philosophical traditions, in which the discussions could be seen as disconnected from the explicit challenges to the Aristotelian tradition from late antiquity to the second scholasticism, have in fact those earlier discussions silently in the background.

To see this more clearly, let us take a step backwards to the Franciscan medieval tradition, where Augustinism more decisively takes the upper hand. A paradigmatic case is Peter John Olivi (1248–1298),

\[21\] who eagerly adopts the Augustinian model intelligence/memory/will instead of the Aristotelian model that posits passive cognitive faculties:

\[22\] to understand and to desire, inasmuch as they are taken actively, denote our mind and potencies rather than their objects or some other agents, for we say that we desire and understand, but the objects are said to be understood and desired.

As the linguistic use indicates, intellection and acts of will are mental acts produced by the soul itself and not by their objects or other external causes. In particular, the will directs the cognitive faculties to their objects so as to be a necessary condition for our cognitive acts:

\[23\] regardless of the extent to which a cognitive potency has been informed by a disposition and a form different from the cognitive act, [this potency] cannot proceed to its cognitive act unless it actually turns first to the object so that the consideration of its intention is actually turned and directed to it.

\[21\] For Olivi’s theory of cognition, see Toivanen (2013).

\[22\] Peter John Olivi, *In Sent.*, II, q.58, 413: “Sed intelligere et velle, secundum hoc quod active sumuntur, potius denominant mentem nostram et potentias nostras quam objecta sua vel quam aliqua alia agentia, nos enim dicimur volentes et intelligentes, objecta vero solum dicuntur intellecta et volita”.

\[23\] Peter John Olivi, *In Sent.*, II, q.72, 9: “[... ] quantumcumque potentia cognitiva per habitum et species ab actione cognitiva differente sit informata, non potest in actionem cognitivam exire, nisi prius intendat actualiter in objectum, ita quod aspectus suae intentionis sit actualiter conversus et directus in illud.”
Furthermore, the will is, for Olivi, the efficient cause of our cognitive acts, the object being only a terminative cause:

[...] not everything that is necessarily required for the production of something is its efficient cause [...]. And, thus, I say that the objects of free will [...] are not required for their free acts for producing or co-producing something with respect to them, but only for giving a term to the consideration of the acting potency [...].24

As Dominik Perler has explained,25 in this account the intentional relation established by the will between the cognitive act and the object is a primitive one that cannot be reduced to other relations and notably not to a causal one. Olivi’s rupture with the Aristotelian tradition is unmistakable, as in his account the cognitive object is no longer the efficient cause, let alone the formal cause, of our cognitive acts, but simply their intentional content.

It is noteworthy that one crucial motivation behind Olivi’s departure from the Aristotelian tradition is of moral character, as for him considering our cognitive faculties as essentially passive inevitably threatens the freedom of our will and with it the very possibility of moral responsibility:

[...] the potencies have in themselves enough active power over their acts without any cooperation or co-efficiency from the objects or forms [...] because almost all the arguments with which one proves or can prove that the intellectual potency and the inferior potencies are not sufficiently active with respect to their acts can also be used to prove the same thing about the will [...] inasmuch as it is free [...]. But to accept these arguments is the same as saying that the reasons concluding that the will is in no way free are true and necessary [...] which is the same as destroying [...] our faith, law, grace, guilt, and everything that is good.26

Olivi’s dismissal of the Aristotelian tradition and adoption of the Augustinian model are, thus, fundamentally driven by concerns regarding our moral responsibility with respect to our actions and beliefs.27

Olivi’s moral concerns, which find precedent in authors as early as Alexander of Aphrodisias, are also unsettling for Descartes (1596–1650) and Malebranche (1638–1715), as Stephan Schmid shows in his chapter. And like Olivi, Descartes and Malebranche also resort to Augustinian ideas in order to develop an epistemology

24Peter John Olivi, In Sent., II, q.58, 419: “[...] non omne quod necessario praeexigitur ad productionem alicuius est causa effectiva ipsius [...]. Et sic dico quod objecta voluntatis liberae [...] non praeexiguuntur ad eius actus liberos ad aliquid efficiendum seu coefficientium in ipsis actibus, sed solum ad terminandum aspectum potentiae agentis [...]”.
26Peter John Olivi, In Sent., II, q.58, 477–478: “[...] potentiae habent per se sufficientem virtutem activam suorum actuum absque aliqua cooperatione seu coefficientia facta ab objectis seu speciebus [...] quia fere omnes rationes quibus probatur aut probari potest potentiam intellectivam et alias potencias inferiores non esse sufficienter activas respectu actuum suorum possunt aequae bene adduci ad probandum hoc ipsum [...] de voluntate, in quantum est libera [...]”. Approbare autem sic huiusmodi rationes est idem quod dicere illas rationes esse veras et necessarias quibus concluditur voluntatem nullo modo esse liberam [...]. Quod est destruere [...] omnem fidem et legem et gratiam et culpam et omne bonum.”
27See Decaix (Forthcoming).
that leaves room for moral and epistemological responsibility such that we can be held accountable for our deeds and beliefs. Schmid starts by explaining Descartes’ voluntarist theory of judgement according to which we are responsible for our wrong beliefs insofar as we acquire them when we willingly exceed the limits of our intellect. In Descartes’ account, a central element of Olivi’s cognitive psychology comes also to the fore: Our will is the cause of our cognitive acts. Interestingly, even Descartes’ (in)famous occasionalist successor, Nicolas Malebranche, was adamant about the activity of our minds and our responsibility with respect to the acts we are engaging in. This, however, leads to the puzzle, taken up by Schmid, as to how Malebranche can consistently reconcile his commitment to the activity of our minds and their moral and epistemological responsibility with his occasionalist view that only God can be a true cause. The solution that Schmid suggests is that Malebranche develops a fascinating, yet under-appreciated non-causal theory of judgment according to which our judgments do not consist in causing any acts of assent, but rather in settling on certain ideas revealed to us by God by ceasing to examine them any further.

Also, some active accounts of cognition stemming from the so-called “Brentano School” (at the dawn of twentieth century) arise in a direct historical relation to scholastic discussions as those described by Baltuta, Decaix, Silva, and Tropia. Recall, for instance, that Brentano wrote his Habilitationschrift in 1895–1896 on the productive intellect (noûs poiëtikos). As Hamid Taieb shows in his note devoted to the German phenomenological tradition, Carl Stumpf, Brentano’s student and Husserl’s mentor, claims that the contents of concepts and judgements are produced by the cognitive acts themselves. This position echoes some medieval forerunners of Brentano’s immanenstism, e.g., the Averroist account of Siger of Brabant (a. 1270s), according to which the intellect must produce itself its immanent universal object given that everything outside the intellect is material, and hence particular and unintelligible. Stumpf presumably finds precedents of such an account in the works of Thomas Aquinas, Duns Scotus, and Francisco Suárez, to whom he attributes active accounts of intellection. Taieb calls into question the labelling of Scotus’ and Suárez’s accounts as active, and proposes instead Aquinas’ theological output, with its clear indebtedment to Augustine, as a more suitable source. Be that as it may, Taieb’s historiographical note serves the purpose of showing that the discussions on the activity or passivity of human cognition in the phenomenological tradition are historically connected to scholastic discussions such as those presented in Part 1. The scholastic discussions provide, then, historical and doctrinal underpinnings for later discussions as, for instance, those between Wittgenstein and Husserl about the nature of intentionality.

In the final essay, Grondin turns in particular to the discussion between Wittgenstein and Husserl regarding historical perception, i.e., the perception of historical objects. Wittgenstein rejects the passive account according to which correct percep-

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28Brentano (1867).
29See Mora-Márquez (2019).
tion is an intentional mental state caused by external stimuli. He, thus, rejects (i) that intentional relations can be reduced to causal relations; and (ii) that perception can, therefore, be explained in terms of causal relations. Wittgenstein relies on Hume’s analysis of causality in order to rule out causal explanations of perception, as the aboutness of perception is a necessary relation but causation is not. Thus, Wittgenstein sides with Husserl in rejecting the reduction of intentionality to a causal relation. This rejection is in Husserl led by the conviction that all ‘objects’, rather than causing the phenomenological experience, are constructed by it. Following in Stumpf’s footsteps, Husserl argues that mental states actively produce and assimilate their objects so that the personal history of the perceiver plays a decisive role in this production. This holds for material objects, as a table, as much as for historical or social objects, as the Rosetta Stone and the French constitution. Against this, Wittgenstein takes an anti-phenomenological stance, because accounts as Husserl’s threaten (i) the binary character of the relation of intentionality, which links mental states and their objects; and (ii) external realism, and hence the possibility of demarcating correct from incorrect perception. Grondin ends by defending the advantages of a Husserlian account; one towards which Wittgenstein seems to be more sympathetic in later works (cf. *On Certainty*). However, in the view here reconstructed by Grondin, Wittgenstein rather understands the aboutness of mental states as a primitive relation established by the perceiver with regard to objects that are somehow available to her. This results in an essentially active account of perception, which is nonetheless committed to external realism, very much in the way Peter John Olivi understood the intentionality of our cognitive acts seven centuries earlier.

This collective volume takes, thus, a new perspective, through the active-passive dichotomy, over accounts of cognition in the history of Western philosophy spanning a broad range of periods (from antiquity to the twentieth century). Its essays present the active doctrines put forward by neglected but important authors, such as Robert Kilwardby, Dietrich of Freiberg, John of Jandun, Blaise of Parma, Juan Maldonado, Francisco Toledo, Girolamo Dandini, Nicolas Malebranche, and Carl Stumpf, and also it shows unexpected common backgrounds and implicit connections between the different periods. It is our hope that it will contribute novel perspectives to the already existing literature on the history of philosophy of mind and cognition.30

Editorial note: The list of references hereafter contains prominent ancient and medieval works which are cited often in several of the contributions (i.e., Aquinas, Augustine, Averroes, Scotus, and Suárez).

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References


Decaix, V. (Forthcoming). L’aiguillion de l’affect. Le sens de la conscience chez Pierre de Jean Olivi.


Introduction


Chapter 2
Aristotle and Alexander of Aphrodisias on Active Intellectual Cognition

Frans A. J. de Haas

Abstract Since Antiquity, “active cognition” has been a problematic notion in Aristotelian scholarship. Part of the problem is the definition of what counts as “active”. In the first part of this paper I shall offer a short survey on various contenders for “active” perceptual cognition defended in recent interpretations of Aristotle, by way of introduction to the more complicated problems of “active” intellectual cognition. In the second part of the paper I will offer—in outline—my interpretation of Aristotle’s theory of intellectual cognition, which takes the most recent findings in the area of perceptual cognition as a starting point. Here I pursue the analogy that Aristotle sets up between perception and intellection throughout the De anima. In the third part of the paper I shall examine a number of influential accounts of active intellectual cognition found in the corpus of Alexander of Aphrodisias, in particular Mantissa 2–5 (also known as De intellectu). These accounts each develop the analogies offered in Aristotle’s De anima III.5 in their own way.

2.1 The “Activity” of Perceptual Cognition in Aristotle

According to Aristotle all cognition, both perceptual and intellectual, has different stages of “activity” or rather “actuality”, “actualisation”, or “completion” (energeia, entelecheia) which correspond to preceding stages of potentiality. At birth all healthy and unimpaired animals are composites of a soul that possesses the power of perception in (first) actuality, and a body equipped with the necessary sense organs. Each organ is ready to perceive its own special objects (the eyes see colour, the...
ears hear sounds, etc.) in terms of a well-defined range of qualities (e.g., light-dark, high-low pitch, bitter-sweet, hot-cold). This entails that right from birth most animals can immediately begin to use their various senses successfully when the circumstances permit: e.g., they will see, provided there is light, they are not asleep, and their eyes are open. Each individual instance of such use of the power of perception constitutes a (second) actuality of perception which in no way diminishes the power; in Aristotle’s terms it is a completion or preservation rather than an alteration proper. However, Aristotle’s notion of *energeia* is not equivalent to the modern notion of “activity”: affections like “being moved” and “being cut” are as much *energeiai* (actualisations of a potentiality) as “imparting motion” and “cutting”.

At the same time it is clear, too, that grammatically active terms like “to perceive” or “to use” are not a proper indication of “activity” in the required sense of the word either. For, famously, Aristotle assigns to the objects of perception (colours, sounds) the role of actualising the potentialities of the sense organs and the perceptual power of the soul so that they receive, or rather get assimilated to, the perceptual forms: from potentially like these forms they become actually like them. In this way the perceptual objects play a double role: they function as the phenomenal content of the act of perceiving (the form that is actually being perceived) and as the causal origin of the process of assimilation. The colour of an apple initiates a motion through an external transparent medium (air, water) which affects the internal medium, the transparent eye fluid. From there a continuous chain of events transports the perceptual form to the central organ of perception around the heart where it is consciously perceived. Unfortunately, the physiological and functional details of this chain of events have to be pieced together from various hints in the Aristotelian corpus which do not provide us with a fully satisfactory story.

As efficient cause the object is fully actualised at the beginning of the process the result of which is the actualisation of its form in another substrate. In their role of efficient causes the perceptible forms are characterised as “capable of initiating motion” (*kinêtikon*) or “capable of producing” (*poiêtikon*) certain “products” (*erga*). As cause of the formal content of perception they are described as *logoi* which are fully determined by their formal features alone at the moment they are actually perceived by the central organ of perception located around the heart.

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2See Aristotle, *De anima* II.4–12. For comprehensive discussions of the senses and their respective objects see, e.g., Johansen (1997) and Everson (1997).
3See Aristotle, *De anima* II.5.417a30–b16.
4See Aristotle, *De anima* III.7.431a4–7; III.8.431b24–432a2.
7See Aristotle, *De anima* II.5.417b18–27; II.7.418a26–b3 and 419a10–11 (colour) (with *Sens.* 2.438b2–16; *Sens.* 3.439a6–b1); *De anima* II.8.420a3–19 (sound); II.10.422b15–16; III.7.431a17–20 (despite the state of the text); *Sens.* 6.445b3–13.
8See Aristotle, *De anima* II.12, esp. 424a21–28; 424b1–3. Corcilius (2014, 37) claims that when *logoi*, which he takes to be proportions, are actually perceived in the central organ there is no