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Estimative Power as a Social Sense

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1 Introduction

The estimative power has been discussed in modern scholarly literature probably more than any of the other internal senses. Philosophers and intellectual historians have generally considered it as one of the most fascinating powers of the soul, due to the complexity and sophistication of its functions and the way it resonates with contemporary trends of emphasising the complexity of animal psychology. Yet, one of its functions has been decidedly left in the margin: its role as the *explanans* of the sociability of humans and other animals.

Modern scholars sometimes point out, mostly in passing, that the estimative power had this role in medieval philosophy. Especially those working on Avicenna's (980–1037) psychology remind us that in addition to being responsible for the reaction of a sheep that perceives a wolf, the estimative power accounts for the behaviour of the sheep in relation to its lamb—a behaviour that can be characterised as friendship or sociability.¹ However, research usually focuses on higher level cognitive functions that broaden the scope of the perceptual process (accidental perception, perception of harmfulness), on metaphysical and epistemological questions concerning the key term *intention*, on the logic and structure of emotional reaction to perceived objects, on animal cognition, etc.² The merits and philosophical interest of these studies cannot be questioned, but at the same time, passing over the analysis of the social function of the estimative power is startling. The present chapter aims to fill this gap by focusing on medieval discussions concerning estimation as a social sense—as the power that is partially responsible for the sociability of animals that live together in smaller or larger groups.³

There are two remarks that need to be made before we can go on. The first of them is terminological. I use 'sociability' as an umbrella term, which refers to a number of psychological, metaphysical, biological, ethical and even theological traits and properties that explain the existence and forms of social life of human beings and other social animals—from the most intimate relations within a fami-

¹ See Dominik Perler, "Why Is the Sheep Afraid of the Wolf? Medieval Debates on Animal Passions," in *Emotion and Cognitive Life in Medieval and Early Modern Philosophy*, ed. Martin Pickavé and Lisa Shapiro (Oxford: Oxford University Press, 2012), 35; Deborah Black, "Imagination and Estimation: Arabic Paradigms and Western Transformations," *Topoi* 19 (2000): 68.

² The literature on the estimative power in Avicenna and his Latin followers is voluminous. One may begin with Dag Nikolaus Hasse, *Avicenna's De Anima in the Latin West: The Formation of a Peripatetic Philosophy of the Soul 1160-1300* (London/Turin: The Warburg Institute/Nino Aragno Editore, 2000), 127–53. A useful philosophical analysis is Anselm Oelze, *Animal Rationality: Later Medieval Theories 1250–1350* (Leiden: Brill, 2018), esp. 52–120.

³ Peter von Moos has analysed the social role of the *sensus communis* in psychological and theological discussions of the middle ages. He mentions the estimative power, but his approach is quite different from the one adopted here: the social element is related to the early traces of the modern notion of common sense as some kind of shared understanding in which people can be reasonably expected to agree. See Peter von Moos, "Le Sens Commun Au Moyen Âge: Sixieme Sens et Sens Social. Aspects Épistémologiques, Ecclésiologiques, et Eschatologiques," in *Entre Histoire et Littérature: Communication et Culture Au Moyen Âge* (Firenze: Sismel/Edizioni del Galluzzo, 2005), 525–78.

ly to the institutional level of a political community, and everything in between. Due to the breadth of the concept, it would be pointless even to try to consider every aspect of medieval discussions concerning sociability.⁴ Instead, I concentrate on those ideas that have something to do with the estimative power.

The other remark also concerns the scope of the present contribution. Medieval theories of the internal senses have been discussed in modern scholarship, and I simply presume that the reader is fairly well acquainted with the basic functions of the estimative power, the mechanism of its operations, and the general psychological framework in which it played a central role—all of which were largely invented by Avicenna and embraced by Latin authors. In other words, I leave aside the metaphysical, epistemological, and psychological details of the theories that figure in this essay. After all, they are less relevant for my purposes than the social function of the estimative power.⁵ Yet, it may be worthwhile to recall that it is a power of the sensory soul, which allows non-human animals to perceive the significance of an external thing to themselves—it makes a kind of perceptual judgment that the perceived object is useful, harmful, or relevant for the well-being of the perceiver in some other way.

My central claim is that the estimative power plays an important explanatory role for the social behaviour of humans and other social animals. This claim is approached from two perspectives and in two contexts. I begin by rummaging through medieval discussions concerning the internal senses in order to find traces of the social function, in section two. Then, in section three, I turn to medieval discussions concerning gregarious and political animals and read them through the general theory of the estimative power. By juxtaposing these two perspectives—philosophical psychology and political philosophy—I hope to give a broader analysis of the social function of the estimative power than I could do by concentrating only on one of them. The result is a kind of an intersection between theories of internal senses and medieval political philosophy.

2 Estimation and Social Relations

As I already mentioned, medieval Latin discussions concerning the social function of the estimative power have not been subjected to a systematic analysis before. There may be a simple explanation for the neglect: medieval philosophers rarely make anything of the positive affections or the social function of the estimative power. One might expect that they would have made a fair amount of philosophically interesting remarks, but they did not. This fact raises a question: Why did they pass over the possibility of elaborating on this issue? One possible reason is that their intention was to

⁴ For instance, the theological idea of original sin had an important explanatory role in medieval theories of human sociability, as medieval authors often considered political power as a remedy for the fallenness of humankind (see, e.g. Herbert A. Deane, *The Political and Social Ideas of St. Augustine* (New York/London: Columbia University Press, 1963); Paul Wheatman, “Augustine and Aquinas on Original Sin and the Purposes of Political Authority,” *Journal of the History of Philosophy* 30, no. 3 (1992): 353–76.). A comprehensive exposition of medieval theories of sociability would have to take this idea into account, but it can be left aside here.

⁵ In particular, I pay no attention to terminological differences. Medieval authors used *aestimativa*, *vis aestimativa*, *aestimatio*, and (often in relation to humans) the variants of *vis cogitativa*. It was quite typical to consider the latter as the human counterpart of the animal estimation. For discussion, see Carla di Martino, *Ratio Particularis: Doctrines Des Senses Internes d’Avicenne À Thomas d’Aquin*, Études de Philosophie Médiévale 94 (Paris: Librairie Philosophique J. Vrin, 2008); Juhana Toivanen, *Perception and the Internal Senses: Peter of John Olivi on the Cognitive Functions of the Sensitive Soul* (Leiden/Boston: Brill, 2013), 231–45.

explain what the estimative power is, and for this purpose, it is sufficient to give one example—the sheep and its behaviour when it sees a wolf. Philosophers aimed at presenting a general psychological theory, and they did not feel the urge to provide a comprehensive list of *all* forms of animal behaviour that the estimative power explains, let alone to enter a detailed discussion concerning them.

Whatever the case, the topic is fortunately not a complete dead end. Despite the relative silence about the social function of the estimative power, there is a sufficient amount of material for raising philosophically relevant and interesting points and questions.

As far as I know, the idea that the estimative power is responsible for the ability to be social towards other beings first arises with Avicenna. He presents, in his *De anima*, two examples that are supposed to illustrate what the operations of the estimative power are and how it functions. In the translation by Dominicus Gundissalinus (c. 1110–c. 1190) and Avendauth these examples are as follows:

Then there is the power of estimation [...] which is in a sheep that discerns that the wolf is to be avoided, and that its own lamb is to be cared for (*miserendum*).⁶

[...] and the concord (*concordia*) that a sheep apprehends⁷ in its fellow, and in sum, the intention (*intentio*) by which the sheep rejoices in the company of its fellow [...]⁸

Grasping the enmity of the wolf is relevant for the sheep, because it acts on the basis of a desire for self-preservation; in order to survive, one must avoid murderous and other harmful things. The psychological mechanism begins with the perception of the sensible qualities of the wolf, which is accompanied by an estimation (i.e., a judgement) that the wolf is harmful. This estimative judgement arouses fear, which causes the flight of the sheep. The Latin translation employs the technical term *intentio* (Arabic: *ma'ānī*), which should not be confused with the modern notion of intentionality, and which does not signify any special type of property that inheres in the object. Instead, it refers to a judgement about the significance of the perceived object that the estimative power makes.⁹ Without going into the metaphysical and psychological details that surround this concept, we may suppose that (1) the judgement that the sheep makes in relation to the lamb, and (2) the judgement of concord between it and its fellow sheep, are exact opposites of the (3) judgement of enmity that it makes in relation to the wolf. This means that these estimative acts cause positive emotions, presumably some kind of love. Sheep love their flock, enjoy being with other sheep, love their offspring, and have an emotional desire to take care of them.

⁶ “Deinde est vis aestimationis [...] quae est in ove diiudicans quod ab hoc lupo est fugiendum, et quod huius agni est miserendum.” (Avicenna, *Avicenna Latinus: Liber de Anima Seu Sextus de Naturalibus*, ed. S. Van Riet, vol. 1 (Louvain/Leiden: E. Peeters/Brill, 1972), 1.5, 89.) *Miserere* means literally “to feel compassion”, “to pity.”

⁷ *Apprehendere* is a general term that covers an array of cognitive operations ranging from sense perception to intellectual understanding. Medieval Latin authors often use it in relation to the estimative power, probably because they want to emphasise that, strictly speaking, the estimative act is not a perception.

⁸ “[...] et concordia quam apprehendit de sua socia et omnino intentio qua gratulatur cum illa [...]” (Avicenna, *Liber de Anima*, vol 2, 4.1, 7.) Dominik Perler translates *concordia* in this context as “sociability” (Perler, “Why Is the Sheep Afraid,” 35), and although the translation is far from literal, it grasps the social aspect of the term well.

⁹ Dimitri Gutas, “The Empiricism of Avicenna,” *Oriens* 40 (2012), 430–31. On estimative judgement, see Oelze, *Animal Rationality*, 100–129.

As is well-known, the Latin translation of Avicenna's *De anima* had an enormous influence on later philosophical discussions concerning psychological issues. Medieval Latin authors follow Avicenna's lead, and although they often concentrate on the reaction to the hostile wolf, many of them also mention the affective properties (*intentiones*), which are relevant for sociability. Human beings and other animals perceive both friendliness and hostility (*amicitia et inimicitia*).¹⁰ However, many medieval authors (but not all¹¹) think that *intentiones* are a kind of affective properties that inhere in the object and actualise the estimative power, even though they cannot be perceived by external senses. In other words, they tend to reify *intentiones*. The estimative power is a natural and innate ability to perceive these insensible properties, and it explains the behaviour of animals—and to some extent also that of humans.¹² For instance, Roger Bacon (1210/14–92) claims that: “[...] and conversely, the species (*species*) of the friendly and harmonious substance of another sheep soothes the organ of the estimative power, and therefore one sheep does not flee another.”¹³ He does not elaborate further the social function of the estimative power, but there is no reason to doubt that his idea can be generalised. Animals have the ability to perceive other animals as their friends, just as they grasp the hostility of their enemies.¹⁴

The other Avicennian example that was transmitted to Latin authors pertains to the relation between a sheep and its offspring, and it can be seen as a basis for another social function, namely, the care for another. Gundissalinus follows Avicenna's scheme closely in his *Tractatus de anima*, and he mentions both (1) taking care of the lamb and feeling compassion for it, and (2) the concord that one has with one's fellows.¹⁵ As usual, neither of these functions is explained in detail, but some infor-

¹⁰ “Et huius quidem virtutis sedes est medius ventriculus cerebri. Hec virtus est instrumentum virtutis, que proculdubio in animali est occulta apprehensiva vel estimativa; ipsa quidem est virtus, qua ovis iudicat, quod lupo est inimicus et filius est dilectus, et hoc iudicium secundum modum existit non rationale. Amicitia enim et inimicitia non sunt sensu percepte, non ergo eas comprehendit nisi virtus alia [...]” (John of la Rochelle, *Tractatus de Divisione Multiplici Potentialium Animae*, ed. P. Michaud-Quantin, *Textes Philosophiques Du Moyen Age* 11 (Paris: Vrin, 1964), 2.35, 110.)

¹¹ For instance, Peter Olivi argues that *intentiones* are not a special kind of objects (Peter of John Olivi, *Quaestiones in Secundum Librum Sententiarum*, ed. B. Jansen, *Bibliotheca Franciscana Scholastica Medii Aevi* 4-6 (Florence: Collegium S. Bonaventurae, 1922) (hereafter *Summa II*), q. 64, vol. 2, 603–606; see Toivanen, *Perception and the Internal Senses*, 335–8 (note that I have changed my mind with respect to Avicenna's view).

¹² “Et sic est de multis que sunt nociva et contraria complexioni animalium, et eodem modo de utilibus et convenientibus. Nam si agnus numquam viderit agnum, currit ad eum et libenter moratur cum eo, et sic de aliis. Bruta igitur aliquid sentiunt in rebus convenientibus et nocivis. [...] Nam oportet quod sit magis activum et alterativum corporis sentientis quam lux et color, quia non solum inducit comprehensionem, sed affectum timoris vel amoris vel fuge. Et hec est qualitas complexionis cuiuslibet rei qua assimilatur alii in natura speciali vel generali, per quam ad invicem confortantur et vigorantur [...]” (Roger Bacon, *Perspectiva*, ed. D.C. Lindberg, *Roger Bacon and the Origins of Perspectiva in the Middle Ages* (Oxford: Clarendon Press, 1996), 1.1.4, 12–13.)

¹³ “[...] et e contrario species substantie amice et convenientis alterius ovis confortat organum estimative, et ideo non fugit una ovis aliam.” (Roger Bacon, *De Multiplicatione Specierum*, ed. David C. Lindberg, *Roger Bacon's Philosophy of Nature: A Critical Edition, with English Translation, Introduction, and Notes, of De Multiplicatione Specierum and De Speculis Comburentibus* (Oxford: Clarendon Press, 1983), 1.2, 24–25.) Bacon uses here another technical term, *species*, which refers to a form of the object that transmits the information from the object to the perceiver.

¹⁴ “Ad hoc dicendum quod amicitia et inimicitia est in animalibus mediante estimativa, que est suprema in istis [...]” (Peter of Spain, *Questiones Super Libro De Animalibus Aristotelis*, ed. F.N. Sánchez, *Medicine in the Medieval Mediterranean* (Farnham/Burlington: Ashgate, 2015), 8.2, 240.)

¹⁵ “[...] vis quae est in ove diiudicans quod ab hoc lupo est fugiendum et quod huius agni est miserendum.” (Dominicus Gundissalinus, “The Treatise De Anima of Dominicus Gundissalinus,” ed. J.T. Muckle, *Mediaeval Studies* 2 (1940) (hereafter *De anima*): 9, 71.) “Sed quae non sunt sensibiles ex natura sua sunt sicut inimicitiae

mation concerning the former can be found in Gundissalinus' explanation of emotions. In short, he accepts Avicenna's theory of emotions, and conceptualises the reactions of the concupiscible power as acts of desiring pleasurable and useful things.¹⁶ However, there are also more complex cases:

Sometimes in animals there is found an affection, not to their concupiscence, but like the affection of a mother for her son and the affection of a wife for her husband and like the affection of someone who desires to get out of a cage or shackles. [...] All these follow estimative powers, for they [scil. animals] do not desire before they have estimated the desired <thing>.¹⁷

Apparently Gundissalinus thinks that affections of this kind are not typical concupiscible desires. He provides a lengthy and somewhat convoluted argument, the point of which seems to be that they can be considered desires, even though they do not aim for anything that is directly pleasant for the subject.¹⁸ One possible reading of the passage is that he is talking about a desire for the good of another. A mother takes care of her son due to an affection (*affectus*), even though the well-being of the son is at least potentially distinct from her own well-being. Similar affections are attributed to non-human animals, and they result from the judgements of the estimative power. As Thomas Aquinas (1225–74) later explains, animals are incapable of conceptualisation, and thus the sheep lacks the concept of 'offspring' and may not even grasp the lamb as an individual. The estimative power allows it only to perceive the lamb as something to be nursed and taken care of.¹⁹ But this means that the sheep has a cognitive power that explains its social behaviour. Certain affections that arise on the basis of estimative perception are social by their nature.

A similar approach with minor variations can be found in several medieval works. For instance, John of la Rochelle explains that sheep judge by their estimative powers that they should live together (*cohabitare*) with their offspring.²⁰ The terminological shift underlines the social function of the estimative power. Another example is John Blund's (c. 1185–1248) *Tractatus de anima*, which brings together the two aspects of the estimative function:

et militia et quae a se diffugiunt sicut hoc quod ovis apprehendit de lupo, et concordia quam habet cum socia sua." (Ibid., 9, 73.) There is a difference in wording: Avicenna Latinus speaks about "concordia quam apprehendit de sua socia," and Gundissalinus about "concordia quam habet de socia sua." I do not think that the difference is philosophically significant.

¹⁶ Gundissalinus' view can be found in *De anima*, 9, 80–81. For discussion, see Simo Knuuttila, *Emotions in Ancient and Medieval Philosophy* (Oxford: Clarendon Press, 2004), 226–36.

¹⁷ "Aliquando autem invenitur in animalibus affectus non ad concupiscentias suas, sed sicut affectus matris circa filium suum et uxoris circa virum suum et sicut affectus eius qui desiderat exire a carcere vel a compedibus. [...] Hae autem omnes sequuntur virtutes aestimativas, non enim appetunt nisi postquam aestimaverint volitum." (Gundissalinus, *De anima*, 9, 81.) The text quotes almost verbatim Gundissalinus' own translation of Avicenna, but the translation uses *caveis* instead of *carcere*. The latter term refers to a human prison rather than to an animal cage, whereas the former is used more in relation to animals.

¹⁸ The example of escaping is particularly odd. One might think that getting free would be pleasant for the subject; it is also unclear why the situation is not explained in terms of an irascible passion away from a harmful thing, the shackles. For discussion on the same passage in Avicenna, see Knuuttila, *Emotions*, 222–24.

¹⁹ Thomas Aquinas, *Sentencia Libri De Anima*, Opera Omnia Iussu Leonis XIII P.M. Edita 45/1 (Rome/Paris: Commissio Leonina/Les Editions du Cerf, 1984), 2.13, 122; Robert Pasnau, *Thomas Aquinas on Human Nature: A Philosophical Study of Summa Theologiae Ia 75-89* (Cambridge: Cambridge University Press, 2002), 270–72; Oelze, *Animal Rationality*, 57–69.

²⁰ "Est autem estimativa, sicut dicit Avicenna, vis ordinata in summo concavitate medie cerebri, apprehendens intentiones sensibilibus, sicut est vis in ove, diiudicans quod a lupo est fugiendum, et quod cum agno cohabitandum." (John of la Rochelle, *Summa de Anima*, ed. J.G. Bougerol, Textes Philosophiques Du Moyen Age 19 (Paris: Librairie Philosophique J. Vrin, 1995), 2.101, 248.) Otherwise the point is familiar, but John uses the term *cohabitatio*, which suggests that the estimative power incites the sheep to live with its lamb.

[...] estimation is a power placed in the middle ventricle of the brain in order to perceive non-sensed intentions which are in individual and sensed things. It judges [...] that this lamb, which is the lamb of this sheep, should be looked after. The Commentator (Avicenna) calls an intention an individual quality which is not picked up by sensation, which is either harmful or useful to a thing. Harmful, such as that quality which is in a wolf and because of which the sheep flees from it; useful, such as that property which is in the sheep and because of which the lamb approaches it.²¹

On the one hand, the sheep grasps the lamb as something to be looked after and taken care of. On the other hand, the lamb perceives the sheep as useful to itself. The result is a two-way explanation of the social bond between parents and offspring. Both have an estimative judgement about the other, and this causes positive emotions that lead to social behaviour.²²

Medieval authors are not particularly interested in providing a systematic treatment of the exact scope of friendliness among animals, but they seem to think that different species are on a scale of increasing sociability. The example concerning the sheep and the lamb pertain only to close relationships between members of the same family. It shows that the estimative power accounts for certain social feelings, but these feelings cannot be used to distinguish more generally social animals from those that behave nicely only towards their own kin. The *intentio* of friendliness is grasped in relation to one's offspring. This makes sense, since most higher animals take care of their offspring—also those which do not lead a social life in any proper sense—and even though we should not underestimate the social aspect of this kind of behaviour, it has a restricted scope.

The other function, the concord that obtains between an animal and its fellows, is more inclusive. In some cases, the amicable relations can be extended to other members of the same brood, and there are animals that perceive all members of the same species as their friends; various species of birds and other gregarious animals are often mentioned in this connection. At the other end of the scale are predators, which perceive other members of their species as enemies because they compete for the same resources.²³

²¹ “[...] estimatio est vis ordinata in media concavitate cerebri ad apprehendendum intentiones non sensatas que sunt in rebus singularibus et sensibus, diudicans [...] quod huius agni, qui est agnus ipsius ovis, est miserendum. Intentionem appellat Commentator qualitatem singularem non cadentem in sensum, que est vel rei nocitiva vel expediens. Nocitiva, ut illa proprietas que est in lupo propter quam ovis fugit lupum; expediens, ut illa proprietas que est in ove propter quam eam appetit agnus.” (John Blund, *Treatise on the Soul*, ed. D.A. Callus and R.W. Hunt, trans. Michael W. Dunne, *Auctores Britannici Medii Aevi 2* (Oxford: Oxford University Press, 2013), 19, 137–39).

²² The connection between estimative acts and sociability appears also in Peter Olivi's (c. 1248–98) *Summa quaestionum super Sententias*. He claims that the apprehension of friendliness, friendship, sociability, and usefulness—not only for oneself but also for one's kin and friends—is an estimative act of the soul: “[...] inimicum vero nobis dicimus quod ad nostrum malum habet promptum affectum, per contrarium vero sentimus illud nobis esse amicum quod nostro bono sentimus esse benevolum et sociale. Ergo haec non possunt ab aliqua potentia apprehendi nisi in respectu ad praedicta, puta, quia apprehenditur ut utile ad delectationem hanc vel illam vel ad vitandam hanc poenam vel illam vel utile ad perfectionem sui vel suorum vel amicorum.” (Peter of John Olivi, *Summa II* q. 64, vol. 2, 604.) “Praeterea, ipse amor ovis ad agnum, quem sentit agnus eius per sensibilia signa, quae sentit in ove, non est minor aut ignobilior respectu in ipso fundato, immo et forte idem est sentire unum quod et reliquum.” (ibid., 606).

²³ Albertus Magnus, *De animalibus Libri XXVI*, ed. H. Stadler (Münster: Aschendorffsche Verlagsbuchhandlung, 1916), 8.1.2-3, 574-81; id., *Quaestiones Super De Animalibus*, ed. E. Filthaut, *Alberti Magni Opera Omnia*, Vol. 12 (Münster: Aschendorff, 1955), 1.8, 85-86; Thomas Aquinas, *Sententia Libri Ethicorum*, *Opera Omnia Iussu Leonis XIII P.M. Edita* 47.1-2 (Rome: Ad Sanctae Sabinae, 1969), 8.1, 443a.

On the other hand, medieval authors did not think that estimating another being as one's friend is necessarily limited to one's own species. There are several pairs of animal species that naturally react to each other as friends. Albertus Magnus provides a list that includes, for example, the following: "The black raven is a friend of the fox [...] The raven and the genus of crocodiles [...] are friendly and often live together. [...] a particular serpent dwells in rocks and mountains and is a friend of the fox, as if it were of its genus. The leopards, however, dwell together because of their mutual friendship."²⁴ Although Albertus makes the qualification that the friendship of the raven and the fox is not true friendship, the general message is clear. In his commentary on the *De anima*, he specifies further that friendly relations between animals require the estimative power and its ability to transcend the confines of the external senses that perceive only sensible qualities:

The third degree of apprehension is that by which we receive not only the sensible [qualities] but also certain intentions (*intentiones*), which are not imprinted on the senses, but which we nevertheless never notice without the sensible [qualities]. Such [intentions] are being social, friendly, pleasurable in association (*convictu*), and affable, as well as the contraries of these.²⁵

Moreover, the social behaviour of animals does not have to be innate. Sometimes it is learned and results from the social environment. Medieval authors often repeat Avicenna's idea that animals may learn to fear things that are not their natural enemies; a dog that is beaten with a stick develops a fear towards all sticks. Similar kinds of learning can take place in relation to positive social affections. For instance, when dogs learn to recognise their owners and become attached to them, a kind of social bond emerges between them. The social bond is based on the estimative power, at least for the animal: "When a dog acquires some dispositions through instruction and habituation [...] so that it habitually loves and estimates many things, which it did not love before, or hated, or did not know, then certainly a habitual friendship and prudence is acquired in its powers and organs [...]"²⁶ Dogs and other animals can be habituated to live with humans, and this habituation changes the way their estimative powers function. Just like an animal may learn to avoid things that it does not fear naturally, it can learn social behaviour.

In sum, the estimative power has two social functions—or perhaps two versions of one function—in addition to self-preservation. The estimative power accounts for (1) taking care of one's offspring, and (2) the amicable relations within the flock and sometimes beyond it. The exact nature of these

²⁴ "Corvus autem niger est amicus vulpis [...] Corvus autem et cocodrilli genus [...] amificantur et cohabitant frequenter. [...] serpens quidam manet in lapidibus et montanis et est amicus vulpis, sicut sit de genere eius. Leopardi autem manent simul propter amicitiam eorum ad invicem." (Albertus Magnus, *De animalibus* 8.1.3, 580–81; translated by Kitchell & Resnick, in Albertus Magnus, *On Animals: A Medieval Summa Zoologica* (Baltimore/London: The Johns Hopkins UP, 1999), 677–78, slightly modified.)

²⁵ "Tertius autem gradus apprehensionis est, quo accipimus non tantum sensibilia, sed etiam quasdam intentiones quae non imprimuntur sensibus, sed tamen sine sensibilibus numquam nobis innotescunt, sicut esse socialem et amicum et delectabilem in convictu et affabilem et his contraria [...]" (Albertus Magnus, *De Anima*, ed. C. Stroick, *Alberti Magni Opera Omnia* 7/1 (Aschendorff: Monasterii Westfalorum, 1968), 2.3.4, 101–102.)

²⁶ "Quando etiam canis per doctrinam et assuersionem acquirit aliquos habitus [...] ita quod habitualiter amat et aestimat multa quae prius non amabat vel odiebat nec noverat: tunc utique habitualis amicitia et prudentia eius potentiis et organis acquiritur [...]" (Peter Olivi, *Summa II*, q. 63, 601.) "Unde videmus canes et leones magnam fidelitatem habere amicitiae ad nutritores et dominos suos." (Ibid., q. 111, 282.) See also Bacon, *Perspectiva*, 2.3.9, 246–47. Note that Olivi attributes the estimative function to the common sense and not to a distinct estimative power (Juhana Toivanen, "Peter Olivi on Internal Senses," *British Journal for the History of Philosophy* 15, no. 3 (2007): 427–54).

social functions is not developed further in the context in which the estimative power is discussed. Although it is clear that the sociability of sheep and other social animals is based on the estimative power, the examples that medieval authors use leave several questions open. For instance, we are not told whether the sheep judges that taking care of the lamb is useful for itself, or whether the action should be conceived of in altruistic terms. It is also unclear if the joy that the sheep receives from its fellows is a function of acquiring something useful from them, or sheer pleasure that is unrelated to the well-being of the sheep.

In other words, it is difficult to say whether the social functions are forms of self-preservation or independent of it. On the other hand, the contrast between self-preservation and other-regard may be misleading. It is easy to notice some echoes of the Stoic concept of *oikeiōsis* in the medieval examples of social estimation.²⁷ Loving and taking care of one's offspring can be seen as a matter of identifying with them. Likewise, the concord (*concordia*) that prevails in the relations between sheep in the flock may be construed in terms of an identification with a larger group.²⁸ From this perspective, the social functions of the estimative power are like further stages in one and the same process, which begins with an innate drive for self-preservation and is then extended to other animals. While taking care of one's offspring is a social behaviour that serves the preservation of the species, it does not necessarily stem from a motivation distinct from self-preservation. If an animal identifies itself with its offspring, the two inclinations merge into one.²⁹ In this way, the social behaviour may be a matter of self-preservation, with the twist that the 'self' is understood in a dynamic and broad sense.

3. Social and Political Animals

It is not a surprise that the most elaborate discussion concerning the social function of the estimative power comes from Albertus Magnus. Unlike many other philosophers, he was interested in non-human animals and their behaviour for their own sake, and he produced two extensive commentaries on Aristotle's zoological works—*Quaestiones de animalibus* and *De animalibus libri XXVI*.³⁰ He

²⁷ For discussion, see Jacob Klein, "The Stoic Argument from Oikeiōsis," in *Oxford Studies in Ancient Philosophy* 50 (2016), 143–200; Juhana Toivanen, "Perceptual Self-Awareness in Seneca, Augustine, and Olivi," *Journal of the History of Philosophy* 51, no. 3 (2013): 355–82. For the presence of Stoicism in the Middle Ages, see Gerard Verbeke, *The Presence of Stoicism in Medieval Thought* (Washington DC: The Catholic University of America Press, 1983); Sten Ebbesen, "Where Were the Stoics in the Late Middle Ages?" in *Stoicism: Traditions and Transformations*, ed. S.K. Strange & J. Zupko (Cambridge: Cambridge University Press, 2004), 108–31.

²⁸ It is notable that Cicero uses the terms *concordia* and *aestimare* in connection to Stoic teaching (Marcus Tullius Cicero, *De Finibus Bonorum et Malorum Libri Quinque*, ed. L.D. Reynolds (Oxford: Oxford University Press, 1998), 3.21). However, he seems to attribute the apprehension of *concordia* only to humans and it does not refer explicitly to social concord.

²⁹ Note that for Aristotle, the desire to leave behind a similar to oneself is a form of self-preservation in the sense that reproduction allows individual animals to partake in the everlasting species. See *DA* 2.4, 415b3–8; *GA* 2.1, 731b24–732a1; J.G. Lennox, "Are Aristotelian Species Eternal?," in *Aristotle's Philosophy of Biology: Studies in the Origins of Life Science* (Cambridge: Cambridge University Press, 2001), 131–59. Albertus Magnus argues that: "Et prima est mariti et uxoris, quae convenit homini secundum quod coniugale animal, per naturam inditam ei communiter cum omnibus animalibus et plantis, secundum quam inditum est unicuique appetere tale, alterum relinquere posse, quale est ipsum: hoc enim est esse divinum quod omnia appetunt propter conservationem speciei." (Albertus Magnus, *Commentarii in Octo Libros Politicorum Aristotelis*, ed. A. Borgnet, B. Alberti Magni Opera Omnia, Vol. 8 (Paris: Vivès, 1891), 1.1, 9a.) See also Thomas Aquinas, *Summa Theologiae*, ed. P. Caramello (Turin: Marietti, 1948–50), 1.60.5 ad3.

³⁰ *De animalibus* is a collection of Aristotle's three major writings concerning the animal kingdom (*Historia animalium*, *De generatione animalium*, and *De partibus animalium*), translated by Michael Scot from the

asks in the former work whether there are animals that must live in society (*in societate*), that is, whether there are social animals that live together in organised groups.³¹ The answer begins as follows:

It must be said that some animals gather together and are social, some are solitary, and some behave in both ways. To prove this, it must be understood that there are four interior powers of the sensory <soul>—namely, the common sense, imagination, estimation, and memory. The estimative power receives intentions (*intentiones*), which senses do not receive, and the better estimative powers animals have, the better they take care of themselves (*sibi cavent et provident*). Wherefore certain flying animals are always in community, due to the dryness of their brain, where the estimative power thrives. Such are, for instance, cranes and bees.³²

Albertus' claim could in principle be understood in such a way that cranes and bees have poor estimative powers, and therefore they *need* others in order to survive, while those animals that have good estimative powers can take care of themselves.³³ However, his point is more likely that a certain amount of dryness of the brain enhances the estimative power, and that bees, cranes and other similar animals are able to grasp that living with other individuals of their kind is useful and beneficial for them.³⁴ These animals live together, form various kinds of communities, and engage in com-

Arabic in 1220 or a little earlier. For the Latin reception of *De animalibus* see Miguel Asúa, *The Organization of Discourse on Animals in the Thirteenth Century: Peter of Spain, Albert the Great, and the Commentaries on "De Animalibus"* (Ann Arbor: UMI, 1991); Baudoin van den Abeele, "Le 'De Animalibus' d'Aristote Dans Le Monde Latin: Modalités de Sa Réception Médiévale," *Frühmittelalterliche Studien* 33 (1999): 287–318.

³¹ "Utrum aliqua animalia debeant vivere in societate?" (Albertus Magnus, *Quaest. de animal.*, 1.8, 85.) There is a caveat with respect to Albertus' *Quaestiones*. It is a *reportatio* of a series of disputed questions from 1258, written down by Albertus' student Conrad of Austria, and it may not be a completely accurate representation of Albertus' position. See Irven M. Resnick and Kenneth F. Jr. Kitchell, "Introduction," in *Albert the Great, Questions Concerning Aristotle's On Animals*, trans. Irven M. Resnick and Kenneth F. Jr. Kitchell, *The Fathers of the Church Medieval Continuation* 9 (Washington D.C.: The Catholic University of America Press, 2008), 4–6.

³² "Dicendum, quod quaedam animalia sunt aggregabilia vel sociabilia et quaedam solitaria et quaedam se habent utroque modo. Ad cuius evidentiam intelligendum, quod cum quattuor sint vires sensitivae interiores, scilicet sensus communis et imaginativa, aestimativa et memorativa, et aestimativa est receptiva intentionum, quas sensus non recipit, secundum quod animalia meliorem aestimativam habent, secundum hoc melius sibi cavent et melius provident. Unde quaedam animalia volatilia propter siccitatem cerebri, in quo viget aestimativa, semper sunt in societate, sicut grues et apes." (Albertus Magnus, *Quaest. de Animal.*, 1.8, 85.)

³³ This is roughly one of the arguments that Aquinas gives for human sociability in his *De regno*. In comparison to many animals, humans are less competent in estimating which things are useful and harmful to them. That is why they need to live with others and specialise in one task. See Thomas Aquinas, *De regno ad regem Cypri*, *Opera omnia iussu Leonis XIII P. M. edita*, vol. 42 (Roma: Editori di San Tommaso, 1979), 1.1, 449b–50a.

³⁴ Peter of Spain states explicitly in his *De animalibus* that the estimative power functions better and accounts for social behaviour in those animals whose brain is dry. I have not been able to confirm that Albertus accepts the idea that dryness of brain indicates a well-functioning estimation, but he uses Peter's commentary amply, and he also writes that: "Aestimatio autem talis maxime inest apibus propter opera artificiosa, quae faciunt, et propter yconomicam et regnum, quod custodiunt domestice et civiliter collaborantes." (Albertus Magnus, *De animalibus* 7.1.1, 496; *On animals*, 586.) Moreover, (1) he argues elsewhere that *excessive* dryness and humidity hinder the use of the estimative power (Albertus Magnus, *De animalibus*, 8.6.1, 669), which shows that a well-tempered brain is best for estimation but does not rule out the possibility that dryness is beneficial within certain limits; (2) memory was generally thought to be better if dry, and imagination was at least occasionally treated in the same way; (3) birds were usually thought to have good estimative powers, as they build nests and so forth; (4) bees were generally considered as highly sophisticated animals, capable of doing various things that require good estimative power. On memory, see David Bloch, *Aristotle on Memory and Recollection* (Leiden/Boston: Brill, 2007), 137–228; Ruth E. Harvey, *The Inward Wits: Psychological Theory in the Middle Ages and the Renaissance* (London: The Warburg Institute, 1975), 18 & 26. On bees, see Guy Guldentops, "The Sagacity of the Bees: An Aristotelian Topos in Thirteenth Century Philosophy," in *Aristotle's Animals in the*

mon projects, because they find them useful. The ability to know that common life is beneficial is the first and most fundamental level of sociability, which manifests itself in different kinds of behavioural traits: animals collaborate, collect food, and protect their storages and homes against predators together; they wander about, migrate, and live in herds; they gather together when they see a predator because the flock provides safety; sometimes they even have leaders and a division of labour.³⁵

All these operations are useful for animals, and Albertus establishes an intrinsic connection between the estimative power and the social life of animals by emphasising this fact. In principle, the better estimative power an animal species has, the more social it is. The picture is a bit more complicated, however. Albertus raises a counter-argument, according to which all animal species would lead a social life if it were truly useful for them. Since there are many animals that do not form stable communities, perception of usefulness cannot be the cause of the sociability of animals. In effect, this argument questions the relation between social life and the ability to grasp it as useful.

Albertus does not accept the main point of the argument. He says that even though social life would help all animals to avoid external threats and acquire benefits, different species are endowed with different estimative powers, and thus only some of them actually live together. Many predators, especially birds of prey, fare better when there is no competition for food. They estimate that solitary life is more useful for them, because then they do not have to compete with others. They also do not have to avoid external threats, since they are afraid only of other members of their own species.³⁶ The estimative power accounts for the way of life, be it solitary or social, and different species value things differently mainly because they follow specific diets. Animals that have food aplenty tend to be social, while those that have more difficulties in finding their nourishment (predators) live in solitude.³⁷

Albertus' view is not exactly the same as the one that was hinted in Avicenna's example concerning the concord within a flock. Avicenna emphasises that animals enjoy each other's company, and especially if the idea is understood in terms of some kind of identification with the flock, we may think that something more is going on in the estimation-guided relations of animals than simple utility. In

Middle Ages and Renaissance, ed. C. Steel, G. Guldentops, and P. Beullens (Leuven: Leuven University Press, 1999), 275–96. On the relation between Albertus and Peter, see Asúa, *Discourse on Animals*, 115–26. For dryness of brain and social function of the estimative power, see also Peter of Spain, *Quaest. de animalibus*, 1.2, 130–31; Ps.-Peter of Spain, “Problemata,” in *The Organization of Discourse on Animals in the Thirteenth Century: Peter of Spain, Albert the Great, and the Commentaries on “De Animalibus,”* ed. Miguel Asúa (Ann Arbor: UMI, 1991), 361–62.

³⁵ Albertus Magnus, *De animalibus*, 1.1.3, 15–18; see also Peter of Spain, *Quaest. de animalibus*, 1.2, 130–32.

³⁶ “Item, si aliqua passio conveniat alicui propter aliquod medium, posito medio poneretur et passio. Nunc autem animalia non viverent in societate, nisi ut melius convenientia operentur et fugiant nociva; sed hoc est utile cuilibet animali; ergo omnia animalia erunt sociabilia. [...] Ad secundam rationem dicendum, quod licet utile esset omni animali esse in societate, ut melius consequatur convenientia et fugiat nociva, tamen diversa animalia per diversas aestimativas diversimode moventur. Columbae enim cum nutrimentum quaerunt, videtur esse eis utilius in societate, et similiter anatibus et ancis. Unde viso accipitre vel falcone in unum conveniunt et hoc propter timorem avium rapacium et inimicarum. Sed avibus rapacibus videtur melius esse in solitudine, quia non timent nisi aves sui generis, per quas impediuntur a suis praedis.” (Albertus Magnus, *Quaest. de animal.*, 1.8, 85–86.)

³⁷ This point is often made in commentaries on the *Politics*. Medieval authors argue that animals lead different ways of life depending on the abundance of their food. See, e.g., Anonymous of Milan, *Quaestiones in Libros Politicorum*, Milano BAMBros. A 100 Inf., 1.14, fol. 6va–7ra; Peter of Auvergne, *Quaestiones Super Libros Politicorum*, Paris BN Lat. 16089, 1.19, fol. 279va–280ra.

Albertus' picture, it is possible to think of the behaviour of animals as nothing but a means for self-preservation in the strict sense, since the utility that animals acquire from social life is related to their own individual survival: a sheep benefits from the company of others of its kind, because when a predator attacks the herd, the likelihood of the survival of an individual is greater due to the size of the group. We need to be careful, however, in attributing different views to Albertus and Avicenna. The ideas discussed so far are poorly developed, and it is unclear how the details of the estimative process and the scope of one's self-preservation should be understood. What is clear is that nature has made certain animal species such that they estimate the company of others both useful and pleasurable, and this point is accepted by both authors.

The idea that many other animal species besides humans are social was widespread and it was repeated also in commentaries on Aristotle's *Politics*. Medieval philosophers adopted Aristotle's conception of human beings as political animals by nature, and they also tended to acknowledge that ants, bees, cranes, and other animals, which not only live together but also collaborate in order to reach a common aim, can be considered as political.³⁸ It is not altogether clear whether or not these non-human animals were thought to be political exactly in the same way as humans are,³⁹ but even when medieval authors posited a difference, they were not questioning the social behaviour of other animals.

In the context of commentaries on the *Politics* the estimative power as a source of sociability of animals is rarely mentioned, but it is not completely absent either, as the examples below show. Moreover, by reading political commentaries from the perspective of the social function of the estimative power, it is possible to find important connections between the social (or political) behaviour of animals and the estimative power. In the remainder of this essay, I shall consider medieval versions of two arguments that stem originally from Aristotle's *Politics* 1.2—the so-called genetic and linguistic arguments—from the perspective of philosophical psychology. By such means we may arrive at a more complete picture of estimation as a social power.

As is well known, Aristotle argues at the beginning of his *Politics* that the association between man and woman constitutes the very basis of more complex communities of human beings.⁴⁰ The genetic argument for the naturalness of the political community (*polis, civitas*) is based on the idea that the former association is natural and forms the core of the household. Political community develops from it through a natural process, and therefore it can be considered natural.⁴¹ Thomas Aquinas' version of this argument begins as follows:

³⁸ Aristotle's view is complicated, and various interpretations have been presented. One may begin with David Depew, "Humans and Other Political Animals in Aristotle's History of Animals," *Phronesis* 40, no. 2 (1995): 156–81; Geoffrey Lloyd, "Aristotle on the Natural Sociability, Skills and Intelligence of Animals," in *Politeia in Greek and Roman Philosophy*, ed. V. Harte & M. Lane (Cambridge: Cambridge University Press, 2013), 277–93.

³⁹ For discussion, see Irène Rosier-Catach, "Communauté Politique et Communauté Linguistique," in *La Légitimité Implicite*, ed. J.-F. Genet, vol. 1, Histoire Ancienne et Médiévale 135 (Rome/Paris: École française de Rome/Publications de la Sorbonne, 2015), 232–37; ead., "'Il N'a Été Qu'à L'homme Donné de Parler': Dante, Les Anges et Les Animaux," in *Ut Philosophia Poiesis: Questions Philosophiques Dans L'oeuvre de Dante, Pétrarque et Boccace*, ed. Joël Biard & F. Marian (Paris: Vrin, 2008), 13–37.

⁴⁰ Aristotle also provides a slightly different account of the fundamental constituents of a *polis* which focuses on citizens instead of households. See Mogens Herman Hansen, *Reflections on Aristotle's Politics* (Copenhagen: Museum Tusulanum Press, 2013), 19–31.

⁴¹ *Pol.*, 1.2, 1252a24–1253a4.

Therefore, [the power of reproduction] does not belong to them by their choice (*ex electione*), that is, by their reason choosing it, but belongs to them by an aspect common to them, other animals, and even plants. For all these things have a natural desire to leave after them other things similar to themselves, so that reproduction specifically preserves what cannot be preserved the same numerically. Therefore, there is such a natural desire even in all the other natural things that are corruptible.⁴²

The desire to leave behind a similar to oneself is natural for humans, animals, and plants. In the case of plants this natural desire does not require anything on top of the vegetative power of procreation. It is not a psychological desire in the modern sense of the term. By contrast, in the case of animals, the desire is or includes a psychological element, an emotion of desire.

Consider self-preservation. The natural desire for it does not explain the actual behaviour of animals alone—in order to actually strive for those things that contribute to self-preservation, and to avoid the contrary, animals need the cognitive information provided by the estimative power and the motivating emotion that initiates the proper behaviour. Likewise, the emergence of the emotion of desire is a necessary component of the process that leads to procreation, and this emotion stems from an estimative evaluation that another animal is a suitable mating partner.⁴³ To the best of my knowledge, medieval Latin authors never explicitly argue that the process goes like this, but as I suggested above, this indicates only that they were not interested in making exhaustive lists of all the cases in which the estimative power affects the behaviour of animals. Instead, they gave a couple of illustrative examples and probably thought that the reader would get the point and understand that the same mechanism is at play in all situations, in which the action of an animal is based on an emotion. As a matter of fact, we may suppose that at least according to some medieval authors, the estimative power functions in relation to all perceptual acts, and that animals therefore perceive everything around them from the perspective of the relevance to their well-being. After all, the internal senses can be understood as forming a dynamic whole in which all the powers are active all the time.⁴⁴

Animals do not have as much control over their actions as humans do. Although humans cannot decide to have or not have the urge to reproduce, they can choose whether they marry or not, and with whom they marry. Thus, Aquinas' argument that the natural inclination to this association is

⁴² "Hoc igitur non competit ei ex electione, id est secundum quod habet rationem eligentem, set competit ei secundum rationem communem sibi et animalibus et etiam plantis. Omnibus enim hiis inest naturalis appetitus ut post se derelinquat alterum tale quale ipsum est, ut sic per generationem conseruetur in specie quod idem numero conseruari non potest. Est quidem igitur huiusmodi naturalis appetitus etiam in omnibus aliis rebus naturalibus corruptibilibus." (Thomas Aquinas, *Sententia Libri Politicorum*, Opera Omnia Iussu Leonis XIII P.M. Edita, vol. 48 (Rome: Ad Sanctae Sabinae, 1971), 1.1/a, 73b, trans. R.J. Regan in Thomas Aquinas, *Commentary on Aristotle's Politics* (Indianapolis/Cambridge: Hackett Publishing Company, 2007), 10; I have slightly amended the translation.)

⁴³ Aquinas argues elsewhere that animal desires always require a cognitive act (*ST*, II-1.26.1). Moreover, all emotions are based on an estimative judgement (see, e.g., Knuuttila, *Emotions*, 239).

⁴⁴ For instance, Avicenna presents different divisions of the internal senses—threefold in medicine and fivefold in philosophy (Avicenna, *The Canon of Medicine (Al-Qānūn Fī'l-Tibb)*, ed. L. Bakhtiar, trans. O.C. Gruner and M.H. Shah (Great Books of the Islamic World inc., 1999), 8.1, §557, 163–64). This suggests that the division into different powers is an analytical tool that reflects our theoretical needs (Kaukua, "Avicenna on the Soul's Activity," 102). I have argued in favour of this interpretation in relation to Latin authors in Juhana Toivanen, "Perceptual Experience: Assembling a Medieval Puzzle", in *The History of the Philosophy of Mind*, vol. 2, *Philosophy of Mind in the Early and High Middle Ages*, ed. M. Cameron (London/New York: Routledge, 2019), 134–56.

“not by choice” refers to the natural origins of this inclination, not to its consummation.⁴⁵ By contrast, a sheep does not discriminate between different wolves but fears all of them, and medieval authors probably thought that the positive social drive functions in the same way, and that animals desire to mate with all suitable partners. Even so, the estimative power is needed in order to differentiate between suitable and non-suitable partners—to make a difference between other sheep of the opposite sex and, say, dogs and humans.

The association between male and female exists for the sake of (1) the preservation of the species, and also of (2) self-preservation. Aquinas argues that: “[...] in the case of human beings, male and female live together not only for the sake of procreation of sons, but also for the sake of those things that are necessary for human life [...]”⁴⁶ Acquiring the necessities for life requires division of labour, and although Aquinas claims that this is peculiar to humans, animals are often granted the ability to collaborate for the sake of the common good.⁴⁷ Given that the estimative power (or its human equivalent, the cogitative power) allows animals and humans to seek for those things that preserve the species and the individual, it seems perfectly natural to think that the same power is responsible for the social behaviour towards one’s partner and offspring. As mentioned above, probably neither of these motivations should be understood as conscious aims that figure in the experience of animals when they form couples. Instead, they can be considered as final causes that account for the existence of this association. The genetic argument can be understood from this perspective.

What about the other argument, the one that is based on the human ability to use language? It establishes a connection between the political nature of human beings and the ability to speak about what is just and what is unjust. Humans use language to express their views concerning just distribution of goods, and this normative dimension is crucial in political communities.⁴⁸ For my purposes, two aspects of the argument are relevant. First, Aristotle begins it by comparing humans to other animals: “It is clear that a human being is more of a political animal than a bee and any gregarious animal.”⁴⁹ The comparison suggests that being political is a biological trait that comes in degrees, in which case humans and other animals form a continuum, and the political life of humans is not radically different from the communal life that certain other animal species lead.⁵⁰ Medieval authors may not have accepted this fundamental similarity between humans and other animals that were

⁴⁵ The idea that human beings choose their partners was widely accepted. See Pavel Blažek, *Die Mittelalterliche Rezeption der Aristotelischen Philosophie der Ehe von Robert Grosseteste bis Bartholomäus von Brügge (1246/1247–1309)* (Leiden/Boston: Brill, 2007); Marco Toste, “The Naturalness of Human Association in Medieval Political Thought Revisited,” in *La Nature Comme Source de La Morale Au Moyen Âge*, ed. M. van der Lugt (Firenze: SISMEL–Edizioni del Galluzzo, 2014), 113–88.

⁴⁶ “[...] in hominibus mas et femina cohabitant non solum causa procreationis filiorum, sed etiam propter ea quae sunt necessaria ad humanam vitam [...]” (Thomas Aquinas, *Sent. EN* 8.12, 488b.)

⁴⁷ “[...] formicas et apes [...] artificiose operentur casas, et provideant in futurum sibi, et operentur in commune.” (Albertus Magnus, *De anima* 3.1.7, 173; see also Albertus Magnus, *De animalibus*, 1.1.3, 16; *ibid.*, 1.1.4, 21–23). Note that we must distinguish between collaboration and division of labour. Medieval authors seem to be unwilling to attribute the latter to animals, even though they usually accept that many animals set up a leader for themselves.

⁴⁸ See, e.g., Rosier-Catach, “Communauté Politique,” 227–37.

⁴⁹ In the Latin translation of Moerbeke, the sentence goes as follows: “Quod autem civile animal homo omni ape et omni gregali animali magis palam.” (Aristoteles latinus, in Thomas Aquinas, *Sent. Pol.*, 1.1/b, 1253a8–9; I have used Reeve’s translation of Aristotle, but amended it slightly in order to reflect the Latin more closely.)

⁵⁰ This reading is in line with Aristotle’s biological conception of the political animal that he develops especially in the *Historia animalium*. See Depew, “Humans and Other Political Animals,” 156–81.

often called political, but there is no doubt that they endorsed the idea that many animal species are social—and not only towards their offspring, as we have seen: animals grasp a certain kind of concord (*concordia*) in their fellows. Given that this ability was accounted for by appealing to the estimative power, the comparison of the linguistic argument can be understood as a comparison between non-human animals that are social (or political) due to their estimative power, and human beings who have an additional normative and rational layer in their social life.⁵¹

The second important aspect of the linguistic argument is that Aristotle mentions *usefulness and harmfulness* as elements that are relevant for justice, and medieval philosophers follow suit.⁵² They say that the animal voice can express only *pain and pleasure*, and human language is needed to talk about usefulness and harmfulness.⁵³ It is not always clear whether they mean to deny that animals are able to cognise the latter pair of properties, or only that they are unable to communicate about them. Yet, it seems all too easy to read the linguistic argument in the former way.

The exclusion of usefulness and harmfulness from things that other animals can express with their voices is surprising. One would expect that medieval authors would have altered the linguistic argument so as to be in line with their views concerning animal psychology; after all, the argument itself does not require denying the ability to perceive, apprehend and express usefulness and harmfulness to non-human animals.⁵⁴ It would be enough to say that they cannot grasp the normative element that is related to justice, which would leave room for the possibility that animals can give, say, warning cries when they see something hostile without yet feeling pain. But that is not what medieval authors say. A charitable reading could be devised by suggesting that animals cannot use their voices to indicate harmful and useful things as such, but they can express the emotions of fear and desire that the estimative apprehension of useful and harmful things causes. This would explain why certain medieval authors deny the ability to communicate about these properties without compromising animals' ability to estimate things in light of their usefulness and harmfulness. All this is speculation, however. They do not elaborate on the matter more, probably because their interest lies elsewhere and they are reluctant to distance themselves from Aristotle too much in the context of the linguistic argument.

However, the argument can be interpreted in a way that allows attributing the ability to perceive usefulness and harmfulness to animals while holding that only humans can speak about them. Let me quote from Guido Vernani of Rimini's (c. 1280–c. 1344) commentary on the *Politics*. Guido begins by claiming that human beings are more political than bees and suchlike animals due to the ability to use language. Then he goes on to explain:

⁵¹ Whether we should make a distinction between social life (based on the estimative power) and political life (that involves the rational aspect), or simply call both political but in different degrees, is a question that cannot be dealt with in this context. An informative discussion on political animals other than humans, and the idea that the human is more political than them, can be found in Jean Louis Labarrière, *Langage, vie politique et mouvement des animaux: Études aristotéliennes* (Paris: Vrin, 2004), 61–127.

⁵² Aristoteles Latinus, in Thomas Aquinas, *Sent. Pol.* 1.1/b, 1253a8–18.

⁵³ See, e.g., Thomas Aquinas, *Sent. Pol.* 1.1/b, 79a; Giles of Rome, *De Regimine Principum*, ed. H. Samaritanus (Rome, 1607), 3.1.4, 409–10.

⁵⁴ As a matter of fact, one might think that Aristotle himself should have altered the argument. Trevor Saunders has pointed out that the denial of *aisthēsis* of what is beneficial and harmful goes against what Aristotle says elsewhere (Aristotle, *Politics, Books I and II* (Oxford: Clarendon Press, 1995), 69–70).

For simple voice is a sign of sorrow and pain, and therefore it is given not only to humans but also to other animals, so that they can convey mutually their conceptions and communicate reciprocally. And this is the highest that God gave to other animals. For, they do this due to the estimative power, which is the highest among all sensory powers. By contrast, speech signifies not only joy and pain, but also useful and harmful, which are *the matter of justice* and injustice, since to have more or less useful good or harmful <things> than one should have is unequal and unjust.⁵⁵

Guido makes it clear that humans can speak about justice *in relation to* useful and harmful things. This leaves open the possibility that humans are not the only animals that can perceive usefulness and harmfulness in external things. Rather, humans are special in that they can discuss about just distribution of useful and harmful things.⁵⁶ The crucial issue is not the ability to speak about usefulness and harmfulness as such; it is the ability to speak about *justice* that is related to them that matters. This is a fair interpretation of Aristotle's argument, at least if we accept that his aim is to establish the political nature of human beings and explain how humans differ from other animals in this respect.

Guido's argument is important also because he explicitly introduces the estimative power to the linguistic argument. This indicates that certain animals, such as bees and cranes, are social (either gregarious or even political) because they can judge that it is useful for them to live together and collaborate. This level of sociability applies also to human beings, but humans are *more* social/political than bees and cranes, because the ability to consider useful and harmful things from a normative perspective adds a further layer to human communities. In order to defend this interpretation, a close reading of medieval discussions concerning the concept of the political animal would be necessary, but this is not the place to do that; it suffices to underline the significance of the fact that the social function of the estimative power can be used to support this view.

4. Conclusion

Medieval philosophers did not discuss much about the social function of the estimative power. Although it is difficult to say *why* they did not elaborate on it more, I hope that I have been able to show that the reason was not that they would not have believed in its existence. They wrote little but enough, and they made it clear that many forms of social behaviour can be accounted for by appealing to estimative acts, which prompt animals to live together in a way that is useful for them.

There are two contexts in which the social function of the estimative power appears. Medieval authors mention it when they discuss philosophical psychology and the theories of the internal senses; and it is raised in discussions concerning the sociability and the political nature of animals and humans, in relation to Aristotle's *Politics* and his zoological works. Combining the views found in these

⁵⁵ "Simplex enim vox est signum tristitiae et doloris, et ideo data est non solum hominibus, sed etiam aliis animalibus, ut per vocem possint suas conceptiones mutuo nuntiare et ad invicem communicare. Et hoc est summum quod Deus dedit aliis animalibus. Faciunt enim propter virtutem estimativam, quae est altior inter omnes potentias sensitivas. Sermo vero, sive locutio, non solum significat gaudium et dolorem, sed etiam utile et nocivum, quae sunt materia iustitiae et iniustitiae. Nam habere plus vel minus quod oporteat de bono utili vel de nocivo, et inaequale est et iniustum." (Guido Vernani of Rimini, *Super Politicam*, Venice, BMarc. Lat. VI 94 (2492), 1.1.4, fol. 59rb; emphasis mine.)

⁵⁶ The same idea can be found also in Aquinas' commentary on the *Politics*: "[...] consistit enim iustitia et iniustitia ex hoc quod aliqui adaequantur vel non equantur in rebus utilibus et nocivis." (Thomas Aquinas, *Sent. Pol.* 1.1/b, 79a.)

quite different domains allows us to understand better the explanatory role that the estimative power has for sociability. In particular, it underlines that human beings and other animals belong to a continuum with respect to their sociability. Various fundamental aspects of social life are due to the estimative power, which plays a central role in explaining the behaviour of non-human animals. Since the same power also figures in human psychology, there are good reasons to believe that humans and other animals share certain psychological traits also when it comes to their social/political nature. This affinity does not mean that there would not be important differences as well, but these differences manifest themselves against a shared background.⁵⁷

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