

University of Iowa

From the Selected Works of David J Depew

1995

Humans and Other Political Animals in Aristotle's History of Animals

David J Depew, *University of Iowa*



Available at: https://works.bepress.com/david_depew/23/

Humans and Other Political Animals in Aristotle's History of Animals

DAVID J. DEPEW

R. G. Mulgan has pointed out that there are three senses of “political animal” (*politikon zōon*) in the Aristotelian corpus.¹ In the *Eudemian Ethics* (*EE*) and at one locus in the *Nicomachean* (*EN*), humans are said to be political animals in the sense that they have an ability to take part in governing activity (*EE* 7.10.1242a22-4; *EN* 8.12.1162a16-19). On this view, humans are political animals in contrast to householding animals (*oikonomika zōa*). In both *Politics* (*Pol.*) and *EN*, however, Aristotle sometimes speaks of humans as political animals in a way that includes householding and public engagement within a more encompassing “citified” way of life (*NE* 1.7.1097b8-11; 9.9.1169b16-22; *Pol.* 3.6.1278b15-30). Finally, there is an even wider “zoological” sense found twice in *History of Animals* [*HA*] and once in *Pol.* (*HA* 1.1.488a8; 8(7).1.589a3; *Pol.* 1.2.1253a7-9).² It refers to the way of life of species, including humans and social insects, among whom, as Aristotle puts it, “something one and common (*hen kai koinon*) is the work (*ergon*) of all” (*HA* 1.1.488a8).

In recent years, Wolfgang Kullmann and John Cooper have done much to show that the zoological conception of *politikon zōon* informs the two more restrictive senses, and so illuminates what is perhaps the most basic claim of Aristotle's *Politics*, namely, that man is a political animal.³ For Kull-

¹ R. G. Mulgan, “Aristotle's Doctrine that Man is a Political Animal,” *Hermes* 104 (1974), pp. 438-45.

² Book and chapter numbers correspond to the Oxford texts. Balme's recently published Loeb edition of *HA* 7-10 restores the MSS order, numbering what the Oxford text takes as *HA* 8 as *HA* 7; *HA* 8 as *HA* 9, and *HA* 9 as *HA* 10. I have inserted Balme's renumberings in parentheses.

³ Wolfgang Kullmann, “*Der Mensch als Politisches Lebewesen bei Aristoteles*,” *Hermes* 108 (1980), pp. 419-43. English translation, “Man as a Political Animal in Aristotle,” in David Keyt and Fred D. Miller, Jr. (eds.), *A Companion to Aristotle's Politics* (Oxford: Blackwell, 1991), pp. 94-117. (All further references are to the English translation.) See also Kullmann, *Il Pensiero Politico di Aristotele* (Milano: Guerini, 1992). John Cooper, “Political Animals and Civic Friendship,” in Günter Patzig (ed.), *Aristoteles Politik: Akten des XI. Symposium Aristotelicum* (Göttingen: Vandenhoeck und Ruprecht, 1990), pp. 221-241. The zoological sense of *politikon zōon* is also stressed by

mann, civic life is an intensification, through speech (*logos*), of the mutual concern and shared aims that characterize the political sub-class of gregarious animals, animals which, according to Kullmann, are prone to live with (*suzên*) others of their own kind.⁴ For his part, Cooper accents the fact that human rationality permits the quantitative and qualitative intensification of cooperative role-division that is paradigmatically and fully displayed in *poleis*, but is evident in the life of social insects as well. That is why Aristotle can say that “Humans are *more* political than any bee or any [merely] gregarious (*agelaion*) animal” without equivocating (*Pol.* 1.2.1253a7-9).⁵

These are important and suggestive claims. They not only raise questions about the relationship between the zoological sense of *politikon zôon* and the other two senses, but more general issues about how Aristotle’s biological works are related to his practical philosophy. None of these issues can be settled, however, or perhaps even properly articulated, until the zoological conception of political animal has itself been clarified. In this essay I hope to contribute to this task. Having done so, I will draw out some implications for human politicality.

At *HA* 1.1.488a2-4, Aristotle writes:

Some of these [animals] are gregarious (*agelaia*) and others are solitary (*monadika*) . . . while still others dualize (“tend toward both sides,” *epamphoterizei*). And of the gregarious and of the solitary (*kai tôn monadikôn*) there are on the one hand (*men*) the political (*politika*) and on the other (*de*) the scattered (*sporadika*) (my translation).

This seems to say that both the gregarious and solitary classes have political and scattered subclasses. In the case of the gregarious, this works well enough. At *HA* 1.1.488a8-9, political animals are explicitly identified as a subclass of gregarious animals; and it is plausible that Aristotle might call animals scattered when they live in groups that are more dispersed than herds, packs, flocks, schools, or cities. On the grounds that there could not be such a thing as a political subclass of solitary animals, however, and perhaps not even a scattered sub-class, many editors (Schneider, Peck, Thompson) have excised the phrase *kai tôn monadikôn*.

Admittedly, none of these editors had direct philological warrant for his

Carnes Lord, “Aristotle’s Anthropology,” in Carnes Lord and David O’Connor (eds.), *Essays on the Foundations of Aristotelian Politics* (Berkeley: University of California Press, 1991), pp. 54-5.

⁴ Kullmann, “Man as a Political Animal,” p. 106-108.

⁵ Cooper, “Political Animals,” p. 225.

decision, for the manuscripts unanimously testify to the reading. The considerations alleged are all interpretive, generally the worst kind of reason for editorial manipulation. Nonetheless, D'Arcy Thompson was confident enough to append to his translation of these lines a rather high-handed note asserting, "We delete *kai tôn monadikôn* on the ground that the solitary can never be, although (as Aristotle subsequently shows) the gregarious may or may not be, political."⁶ As a result, the solitary drop from consideration immediately after they are contrasted with the gregarious. The gregarious are then divided by *diairesis* into the scattered and the political. Finally, some lines later, the political are divided into those that live under a leader (*hup' hegemonia*) and those that are anarchic (*anarcha*) (*HA* 1.1.488a11-12). The passage is thus doubly conformed to the Academic model of successive dichotomous divisions.

Cooper has reaffirmed this consensus and proposed an explanation of why the phrase *kai tôn monadikôn* may have been added at some point, presumably by a scribe. He suspects that the problem lies with the concept of "dualizing" (*epamphoterizein*). At *HA* 1.1.488a8-9, humans are counted among the gregarious in virtue of being part of the political sub-class of gregarious animals. But this might appear to contradict the immediately preceding sentence, in which Aristotle seems to assert that humans dualize between being solitary and gregarious (*HA* 1.1.488a7). "If one thought there was [such a contradiction]," reasons Cooper, "it is easy to see how the text must be corrected to get rid of it." Go all the way back to *HA* 1.1.488a2 and "read *kai tôn agelaiôn kai tôn monadikôn*, thereby creating a larger class, 'the herding-and-solitary-animals.'" In this way, Cooper concludes, "Human beings, all of whom, Aristotle implies (488a7), live either in herds or solitarily, are after all included as a group in the larger class."⁷

Our alert scribe need not, however, have gone to so much trouble, Cooper continues. He was assuming that 'to dualize' means straightforwardly to fall into two classes if relevant particulars do not neatly fall into one. But, Cooper says, Aristotle does not understand the concept this way:

He can say that an animal dualizes in some respect (as he says the seal does between being a land animal and a water animal, because though it has a lung and sleeps and breeds on land it feeds in the sea and spends most of its time there) while nonetheless classifying it as basically belonging to one side or the other of the fence in question (as he classifies the seal as basically a water animal, *HA* 6.12.566b31). A revealing passage ... is *GA* [*Generation of Animals*] 4.4.772b1-6, where Aristotle says both that human beings dualize between having a single

⁶ *The Works of Aristotle Translated Into English*, Vol. 4 (Oxford: Clarendon, 1910), *HA* I.1.488a3, n. 3, no pagination.

⁷ Cooper, "Political Animals," pp. 222-3, n. 5.

offspring and having several or many, and that it is most natural for them to have only one. Multiple births, being rare, are caused by excess fluidity and heat in the parents' bodies. So in our passage from *HA* 1.1 human beings dualize between living in large groups and solitarily, but the latter arrangement is exceptional and a departure from the norm, so that basically human beings can be classed, as by implication Aristotle goes on to class them, among the *agelaia*.⁸

About "dualizing" (or as David Balme more perspicuously translates it, "falling toward both sides" of a division, and more toward one than the other⁹) Cooper is surely right. Aristotle uses *epamphoterizein* to mark departures from the way in which traits, or more often linked sets of traits, are normally found in species within a genus, as in the case of the seal, or in variant individuals within species, as Cooper's example about multiple births suggests. He is probably right about *kai tôn monadikôn* as well.¹⁰ On the other hand, Cooper continues to assume that, in spite of an admirable tolerance for exceptions, Aristotle is trying in *HA* to assign animal *kinds* to jointly exhaustive, mutually exclusive classes and subclasses of *traits* in such a way that kinds not falling into one subclass of a dichotomous division of traits will all fall into the other. I am not entirely confident about this aspect of Cooper's reconstructive surgery.

On Cooper's view, political animals are that subclass of gregarious animals that have a *koinon ergon* of some sort, and achieve it by role-division. It follows from the proposed excision of *kai tôn monadikôn*, however, to-

⁸ Cooper, "Political Animals," p. 223-24, n. 5.

⁹ Balme, "Aristotle's Use of Division and *Differentiae*," in Allan Gotthelf and James Lennox (eds), *Philosophical Issues in Aristotle's Biology* (Cambridge: Cambridge University Press, 1987), p. 85. See Gotthelf, "First Principles in Aristotle's *Parts of Animals*," in Gotthelf and Lennox 1987, p. 175, n. 19.

¹⁰ Kullmann too omits *kai tôn monadikôn*. See "Man is a Political Animal," pp. 105-6, n. 38; *Il Pensiero*, p. 40. Kullmann, however, interprets *epamphoterizein* not as marking exceptions or deviations, as Cooper does, but as implying a sort of intermediate or blend between two traits (in the case of humans a sort of Kantian "unsocial sociability"). See "Man is a Political Animal," p. 106; *Il Pensiero*, p. 40. Mulgan, for his part, opposes the consensus that favors deleting *kai tôn monadikôn*, using his own interpretation of dualizing to argue that there might well be what D'Arcy Thompson says there cannot be: solitary yet political animal *kinds*. ("Aristotle's Doctrine," pp. 438-9). Mulgan takes "dualizing" to mean that a species is to be parcelled out, or cross-classified, into as many *bioi* as the diverse life-styles of its individual members require. Thus the class of humankind is "partly" solitary if at least one of its members lives a solitary life. Since there are (many) other humans who live political lives, however, humankind is also "partly" political. Aristotle does indeed say that there are solitary and scattered *individuals* within naturally political kinds; and there is no reason why there could not be scattered or solitary kinds in genera that are largely gregarious or political. But it does not follow that humans are, even partially, a solitary *Kind*. We require an account of dualizing like Cooper's to sustain the consensus in favor of excising *kai tôn monadikôn*.

gether with Cooper's assumption that Aristotle is trying to classify all animal kinds in terms of the four traits mentioned in *HA* 1.1.488a2-4, that gregarious animals will be dichotomously divided into the political and the scattered. This means that, exceptions aside, all gregarious *kinds* that are not political will perforce count as scattered. Bravely, Cooper embraces precisely this conclusion:

The criterion [of political] that is being invoked is whether or not an animal species (only herding animals are in question, naturally) is such that it has an essential work that its members all engage in together (with the differentiation of function that goes along with that). If it does it counts as political. *If not not, and in that case it gets classified as scattered.* By this classification oxen, sheep, and cattle are not political but scattered animals; obviously scattered is not a matter of how close to or far apart animals of a species typically stand from one another as they go about their daily business, but whether they spend their time doing what they have to be together to do (my italics).¹¹

I suppose it is true that non-cooperating gregarious animals, whether they live in close proximity to others of their kind or not, are living mutually indifferent, and in that sense scattered, lives. Animals like cows, sheep, oxen, pigeons, and tuna fish are less intensively involved with one another than animals like bees and ants, which engage in complex forms of interaction and cooperation. In this respect, one might say that gregarious lives, kinds, and individuals are "more scattered" than political ones, or that political lives are "less scattered" than other gregarious lives. It does not follow from comparative usages like these, however, that Aristotle uses the term '*sporadikos*' to refer to the way of life that is led by animals like cows, deer, pigeons, sheep, or tuna fish, or to mark it off from other ways of life. Indeed, by holding that non-political gregarious animals are coextensive with scattered animals, Cooper contradicts two passages in which the scattered and the gregarious are said to be distinct, indeed contrary, ways of life. At *HA* 9(8).25.617b20-22, Aristotle writes, "Of larks there are two kinds. One lives on the ground and is crested. The other is gregarious and not scattered (*sporas*) like the first." Again, Aristotle remarks at *Pol.* 1.8.1256a23, "Of beasts some live gregariously and others are scattered."¹²

¹¹ Cooper, "Political Animals," p. 225.

¹² Jowett's Oxford translation of this sentence can lead one astray (*The Works of Aristotle Translated Into English*, Vol. 10). He renders it, "For of beasts some are gregarious, others are *solitary*." All manuscripts and editions, including the Oxford edition itself, have '*sporadikos*,' and not '*monadikos*,' the term usually translated 'solitary.' The scattered are therefore assimilated without warrant to the solitary. The same assimilation is present in Thompson's translation of *HA* 1.1.477a7-9 as "some live for their own selves." Unhappily, neither of these defects is corrected in Barnes' revised Oxford translation.

A natural way to meet this textual difficulty is to allow Aristotle to use ‘*sporadikos*’ to mark a categorial distinction between generically gregarious ways of life and a way of life that is led by animals that are admittedly not purely solitary, since they live in family or clan groups, but whose physical concentration is attenuated and whose social links with kin tend to fragment anew in each or a few generations. The latter will include the ground larks mentioned by Aristotle at *HA* 9(8).25.617b20-22 and the Cyclopes of Homer’s *Odyssey*, who live in atomic families and are explicitly called *sporades* by Aristotle at *Pol.* 1.2.1252b22-23. Far from living intensively gregarious, or *a fortiori* political, lives, the Cyclopes barely qualify for that condition at all (*Odyssey* 9.112-15; Plato, *Laws* 680b-c; *Pol.* 1.2.1252b22-23). Even if Aristotle does not count Cyclopes as borderline humans, his recognition that some animals live in a way that is neither purely solitary nor markedly gregarious means that Cooper’s assertion that humans live *either* in “*large groups or solitarily*” (my italics) requires further proof. *Tertium*, perhaps, *datur*.

I hypothesize that the four traits with which we are dealing fall along a continuum ranging from the solitary at one pole to the politically intensified form of gregarious life at the other. Discriminations are made along this continuum by using the notions of excess and deficiency to mark off segments of the continuum that differ from one another to the same extent. This is one way in which “the more and the less” figure in Aristotle’s ascription of biological traits to animal kinds.¹³ Thus the scattered way of life falls short of the mean for gregarious ways of life by about as much as the political way of life exceeds it. By the same token, the solitary way of life falls short of the scattered by about as much as the norm for gregarious ways of life rises above it. For this reason, the scattered way of life so closely approximates the solitary end of the scale that it constitutes at best a limiting case of gregarious life. Accordingly, animals that live a scattered way of life can be contrasted with those living more straightforwardly gregarious ways of life, as they are at *HA* 9(8).25.617b20-22 and *Pol.* 1.8.1256a23, just as animals living a political life can be contrasted with those that are merely gregarious, as humans are at *Pol.* 1.2.1253a7-9. A challenge for this approach is to determine what set of characteristics guides

¹³ James Lennox, “Kinds, Forms of Kinds, and ‘the More and the Less’ in Aristotle’s Biology,” in Gotthelf and Lennox 1987, pp. 339-359. Lennox is concerned with how “the more and the less” mark off species of animals within a genus. My concern is with how “the more and the less” are used to divide *traits*. In addition, Lennox concentrates on morphological traits, while I generalize the relevance of “the more and the less” to psychological and behavioral traits as well.

the comparisons in terms of which this scale is constructed. I think I can identify these.

In urging this interpretation, I wish in the first instance to recognize, with David Balme and Pierre Pellegrin, that Aristotle is not primarily attempting to classify kinds of animals in *HA*.¹⁴ Rather, he is looking to collect “differences and accidents” (*diaphorai kai sumbebêkota*), that is, to give a (more or less) complete “trait-vocabulary,” as I will call it, of predicates that are associated and dissociated in complex ways across the animal kingdom; to divide these *traits* (rather than animal kinds) into *genê* and *eidê*; and to make a survey of which traits tend to co-vary across kinds. If anything is being classified in *HA*, then, it is traits, rather than animal kinds, which, as Balme remarks, are brought in primarily to illustrate trait distributions.¹⁵ To this end, Aristotle divides traits into four categories: parts (*morphê*), dispositions (*ethê*), actions (*praxeis*), and ways of life (*bioi*) (*HA* 1.1.487a10-11). This division forms the overarching organizing principle of *HA*.

In assigning various traits to these categories, Aristotle does not seem to be more interested, at least in *HA*, in traits that pick out the defining essences of particular kinds, or even in proper accidents (*kath' hauta sumbebêkota*), than in all manner of traits that animals happen to possess and to share with others. The worst mistake one can make about ‘political animal,’ for example, is to think that this phrase picks out the defining essence of humankind, and to hold that in consequence Aristotle must be speaking metaphorically when he says that animals other than humans are political.¹⁶ It is

¹⁴ David Balme, “*Genos* and *Eidos* in Aristotle’s Biology,” *Classical Quarterly* 12 (1962), pp. 81-98; “Aristotle’s Use of Division and *Differentiae*,” in Gotthelf and Lennox, 1987, pp. 69-89. Pierre Pellegrin, *Aristotle’s Classification of Animals*, trans. Anthony Preus (Berkeley: University of California Press, 1986); “Aristotle: Zoology Without Species,” in Allan Gotthelf (ed.), *Aristotle on Nature and Living Things* (Pittsburgh: Mathesis Press, 1985), pp. 95-116.

¹⁵ Balme, “Aristotle’s Use,” in Gotthelf and Lennox 1987, p. 88. See Balme “*Genos* and *Eidos*,” and “Aristotle’s Biology Was Not Essentialist,” *Archiv für Geschichte der Philosophie* 62 (1980), pp. 1-12, and the revised version of this paper in Gotthelf and Lennox 1987, pp. 291-312.

¹⁶ Joachim Ritter, *Metaphysik und Politik* (Frankfurt: Suhrkamp, 1969), p. 76, and Gunther Bien, *Die Grundlegung der politischen Philosophie bei Aristoteles* (Freiburg-Munich, 1973), are among those who take ‘political’ to name the human essence. Similar tendencies can be found in Heidegger and many of his students, ranging from Leo Strauss to Hannah Arendt. See Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958), p. 27. There are fainter echoes of this sort of thinking in David Keyt’s and Terry Irwin’s view that that the basic sense of ‘*zôon politikon*’ is the second, or ‘inclusive,’ of Mulgan’s three meanings. Obviously, only humans literally live in cities, both as citizens and householders. In consequence, Keyt holds that the

only a little less questionable to say that political must be a *proprium* of “rational animal.”¹⁷ All such Porphyrean, and hence Medieval biases, should, as Balme puts it “be banished to haunt the neo-Platonism from which they came.”¹⁸

To say these things is not quite the same as to say that Aristotle has no interest in classifying animal kinds.¹⁹ It is to say instead that Aristotle works comfortably with a two-taxon scheme, in which there are eight or so large genera (*megista genê*) (conceived as scientific extensions of common sense categories like bird or fish), each of which (as Lennox has shown) contains

extension of this conception of politicality to animals such as ants and bees is purely metaphorical. See Keyt, “Three Fundamental Theorems in Aristotle’s *Politics*,” *Phronesis* 32 (1987), pp. 54-79, reprinted as “Three Basic Theorems in Aristotle’s *Politics*” in Keyt and Miller 1991, pp. 60-123. Irwin regards the zoological sense as a necessary, but not sufficient condition for being political in the inclusive “civic” sense. This “makes clear the limited *degree* to which the other animals are political.” Irwin, T., *Aristotle’s First Principles* (Oxford: Oxford University Press, 1988), p. 616, n. 17, my italics. This seems to me closer to the truth than Keyt’s view. Both Keyt and Irwin, however, take the semantic sense of *politikon* to be more decisive in this matter than I do. The fact that the term ‘*politikos*’ is semantically extended to non-human animals (and to humans who do not live in cities) from ‘*polis*’ becomes less relevant when it is recalled that Aristotle distinguishes mere semantic meaning from explanatory meaning, and thinks of inquiry as proceeding from the one to the other (*Posterior Analytics* [*APo.*] 1.1.71a26-29; 2.2.90a1-24; 2.8.93a14-29; 2.10.93b29-35; 89b33; 92b5; 93a4; see Michael Ferejohn, *The Origins of Aristotelian Science* [New Haven: Yale, 1991], and David Charles, “Aristotle on Meaning, Natural Kinds, and Natural History,” in Daniel Devereux and Pierre Pellegrin (eds.), *Biologie, Logique et Métaphysique chez Aristote* (Paris: CNRS, 1990), pp. 145-167. Accordingly, I agree with Cooper, who says that “Human beings ... like bees and cranes are political animals in what is from the point of view of zoology (though not of course etymology) the *fundamental sense* of having a work or function that the members of a human group all do together (my italic)” (“Political Animals,” p. 225). In the matter of literal predications and salient explanations, the zoological sense is basic. Thus it is better to say that humans are political in an *intensified* way than to say, as Irwin does, that bees and ants are political to a *lesser* extent; and that is precisely what Aristotle does say. Accordingly, I take the two more restrictive senses of *zôon politikon* to be specifications of the zoological sense: *Pol.* 1. makes it clear that humans can appear in public as cooperative citizens only if they are able to preside over cooperative households in which different functions and roles are assigned to different persons: masters, free women, children, and slaves. Human rationality is, in several senses, the difference-maker.

¹⁷ Kullmann, “Political Animals,” p. 101, n. 22; p. 113; *Il Pensiero*, p. 43. The specified sense of human politicality is a “*proprium* of rational animal;” politicality *überhaupt* is not.

¹⁸ Balme, “Aristotle’s Biology Was Not Essentialist,” revised version, in Gotthelf and Lennox 1987, p. 306.

¹⁹ *Contra* Pellegrin, *Aristotle’s Classification of Animals*; “Aristotle: Zoology Without Species.”

a wide range of species that share groups of traits normally found together, which are quantitatively varied to differentiate them within a large kind.²⁰ Species cluster around these genera in a way that resists definition by linear division, especially by way of the successive dichotomies dear to the Academy, and hence resists a more ramified or hierarchical system of taxa (*Parts of Animals* [PA] 1.2-5). Rather, only short sequences of traits can be reiteratively divided. One may go from 'footed,' for example, to 'two-footed' or 'four-footed.' But one cannot go from footedness to something as causally disconnected with it as, say, wildness and tameness, or vice-versa, even though such sets of traits will normally co-vary, together with a large number of other traits, in animals within a single great kind (PA 1.3.643b19-24). For this reason, it is unlikely that Aristotle entertained the notion that further research might improve on his two-taxon systematics by generating a more ramified taxonomic system.²¹

Aristotle's lack of interest in a ramified systematics reflects two pervasive characteristics of his biological way of thought. First, the focal point of his inquiries into living things is to discover why each animal kind has the range of traits it does, rather than to demand that a rational world should sort them into an unambiguously hierarchical system of kinds. In this spirit, *PA* carries out the explanatory task for morphological traits on the basis of information collected in *HA* by employing the heuristic maxim "Nature does nothing in vain." In turn, *GA* separates genuine adaptationist explanations from the factitious ones that bring teleological explanation into disrepute by showing that morphological features that are genuinely adaptive always arise by way of the epigenetic differentiation of the developing embryo.²² Second, because his focus is on functionally explaining particular cases, Aristotle is a great respecter of the irreducible complexity of nature. This sensitivity virtually demands that there will be individuals or groups within species, or species within genera, that fail to conform fully to an expected distribution of traits.

²⁰ Lennox, "Kinds, Forms of Kinds, and 'the More and the Less,'" in Gotthelf and Lennox 1987.

²¹ G. E. R. Lloyd has always balked at this further inference, believing that a more ramified taxonomic project is at least conceivable within Aristotle's framework, even if Aristotle did not pursue it. See Lloyd, "The Development of Aristotle's Theory of the Classification of Animals," *Phronesis* 6 (1961), pp. 59-81; and "Aristotle's Zoology and his *Metaphysics*: The *Status Quaestionis*: A Critical Review of Some Recent Theories," in Devereux and Pellegrin 1990, pp. 8-9, especially n. 3. Admittedly, later Aristotelians might have taken such a view. But Aristotle's own approach may have been subverted more or less completely by then.

²² Montgomery Furth, *Substance, Form and Psychê: An Aristotelian Metaphysics* (Cambridge: Cambridge University Press, 1988).

Reflecting on facts like these, I build on the work of scholars who have in recent decades been scrutinizing Aristotle's biological writings, and who have generally downplayed the importance of systematics in these treatises, by formulating a number of guides for interpreting what Aristotle says about traits in these works. In addition to the idea that

1. In *HA* Aristotle is less interested in classifying kinds than traits.

the following notions will prove helpful in understanding how Aristotle deals with traits like gregarious, scattered, political, and solitary:

2. Generic traits (*genê*) are (often) divided into *eidê* by "the more and the less."²³
3. Quantitative variation is (often) determined by using comparative reasoning to establish degrees of difference between traits along a continuum. Sectors of such continua differing from one another to a similar degree mark off qualitative distinctions that we recognize in natural language, which it is the task of scientific inquiry to perfect.²⁴
4. *Differentiae* that divide generic into specific traits transform what is less into what is more determinate. Their contraries are marked by less than normal or expected degrees of determinacy.²⁵

²³ *PA* 1.4.644a16-20. See Allan Gotthelf, "Division and Explanation in Aristotle's *Parts of Animals*," unpublished presentation to *Society for Ancient Greek Philosophy*, March 1991, for an exploration of this theme.

²⁴ Aristotle's approach to biological quantification, and to "the more and the less" in particular, is influenced by the Eudoxean theory of proportionality, much of which was worked out in the Academy. Concentrating on the notion of sameness of ratios, Eudoxus was able to quantify problems that did not admit of commensurable enumeration of discrete units. Accordingly, we should not be misled by simple examples like the division of 'legged' into 'two-legged,' 'four-legged,' and so forth into thinking that every division is like that. As the middle books of Euclid's *Elements* show, Eudoxus constructed multiples on continua to be compared and inspected the results to determine whether similarity of ratios survived such perturbations. Aristotle seems to me to have pushed this sort of mathematical imagination toward qualitative comparisons and away from attempts to find discrete quantification everywhere. Aristotle's famous theory of natural servitude, for example, has it that, with respect to rationality, some humans differ from others to the same extent that humans generally differ from beasts (*Pol.* 1.5.1254b16-18; the proportional nature of this argument, incidently, makes it wrong to conclude that natural slaves are not human, or indeed not rational; they participate in rationality by responding to it [*Pol.* 1.5.1254b23].) Aristotle's theory of virtues as mean states between excesses and deficiencies is a well known case of this approach at work, using the mean proportional. (At *NE* 2.6.1106a27-b17, Aristotle explicitly refers this analysis to "the more and the less.") If Aristotle's account of virtues trades on mean proportionality, so I am claiming in this paper does his analysis of ways of life. See Hans-Joachim Waschkiess, *Vom Eudoxus zu Aristoteles* (Amsterdam: Gruner, 1972). I have benefited from an unpublished MS by C. Dyke and J. Powell, "Ancient Analysis and Modern Models: the Eudoxean Alternative."

²⁵ Furth, *Substance, Form, and Psychê*.

5. Co-variances among traits (“as many as have a, so many also have b”) are to be explained by the function they perform at the highest shared level at which they occur, and not (necessarily) species by species.²⁶
6. What descriptively counts as having a trait (or set of linked traits) (often) differs from species to species, and great kind to great kind, in accord with the differing defining capacities of each *genos* and *eidos*.²⁷
7. The array of traits distributed to an animal kind enables it to express and utilize its essential capacities as fully and effectively as possible.

Bearing these guides in mind, we may turn to the four traits with which are concerned. The full text of the passage in which these traits are interrelated is as follows:

There are also differences about ways of life (*biou*s) and actions (*praxeis*). Some of these (*autôn*) [animals] are gregarious (*agelaia*), while others are solitary (*monadika*) – footed and winged and swimming – while yet others of these tend toward both sides (‘dualize,’ *epamphoterizein*). And of the gregarious [and of the solitary] there are on the one hand (*men*) the political (*politikos*) and on the other (*de*) the scattered (*sporadikos*). There are gregarious animals among the flyers: for example, in the *genos* of pigeons and the crane and the swan (although crooked-talon birds are in no way [*ouden*] gregarious). Among the swimmers, moreover, many kinds of fish, such as those called migratory – tunas, *pelamudes*, bonito – [are gregarious animals]. Humankind, however (*de*), tends toward both sides. Political, on the other hand (*de*), are those among whom some one (*hen*) and common (*koinon*) thing is (*gignetai*) the work of all (*ergon pantôn*). That is something that not all gregarious animals do (*poiei*). Such are humans, bees, the wasp, the ant, the crane. Of these, some live under leaders (*hup’ hegemonâ*), while others are anarchic (*anarcha*). For example, the crane and the *genos* of bees follow leaders, while ants and many other kinds are leaderless. Of both the gregarious and of the solitary, some stay still, while others move about (*HA* 1.1.487b33-488a14, my translation).

The traits considered here fall into the fourth, and less directly the third, of Aristotle’s categories. They name ways of life (*bioi*) that are correlated with certain ways of behaving (*praxeis*), as well as with appropriate emotional and cognitive dispositions (*ethê*) and body parts (*moria*). Two initial points should be made about this fact. The first is to reiterate that predicating ways of life is not a good diagnostic for classifying animals into great kinds or for essentially defining them as species within genera. Political ways of life, for example, are highly transgeneric. They are led (in analogous but descriptively different ways [Rule 6]) by kinds ranging from the most psycholog-

²⁶ Lennox, “Divide and Explain: The *Posterior Analytics* in Practice,” in Gotthelf and Lennox 1987, pp. 90-119.

²⁷ I take responsibility for this and the following rule. My guess is that the set of capacities (*dynameis*) that marks off the essence (*to ti ên einai*) of each species (or even of different genera) is matched to the array of *moria*, *ethê*, *praxeis*, and *bioi* that renders each kind (or less determinately each genus) adapted to its environment by the formative work of soul (*psychê*).

ically and physically sophisticated, such as humans, to the least endowed, the insects. Second, we should avoid the temptation to view the predicates ‘gregarious,’ ‘solitary,’ ‘political,’ and ‘scattered’ as naming dispositions governing the desire or tendency to associate with or dissociate from others of their kind. Although we may presume that terms like solitary or gregarious are linked to appropriate forms of habituation, desire, and cognition (*HA* 8(7).1.588a16-b3), the fact that the four *diaphorai* under consideration “bear on ways of life (*bious*) and actions (*praxeis*)” means that these traits do not describe what animals “tend” to do or “want” to do, unlike the traits Aristotle classifies as *ethê*, but what they in fact *do*. In particular, ways of life describe the various *patterns* of activity (*praxeis*) by which animals exploit a given environmental medium by relating, or in other cases by not relating, to members of their own kind. Accordingly, even though animals will possess just those emotional and cognitive habits and skills that are required to guide their behavior toward objects of need and interest in their environment, as well as to sustain the sorts of relationship with their fellows that serves this purpose, ways of life do not describe how animals are disposed to respond to various contingencies, as *ethê* do, but instead name the patterns of activity that such dispositions facilitate. Thus humans, at least in *HA*, are not *politikos* because they latently desire to live in cities, but because (exceptions notwithstanding) they typically cooperate in making a living and in other matters of common concern, and most often and most successfully do so in *poleis*. If they are to be *politikos* in this inclusive sense, they must naturally be well disposed toward other humans, or even have a drive (*hormê*) for city-life (*Pol.* 1.2.1253a30; Plato, *Laws* 680a-b). The disposition and the pattern of activity it subserves should not, however, be confused or conflated.²⁸

Elsewhere, Aristotle makes it even clearer than at *HA* 1.1.487b33-488a14 that traits like “solitary” and “gregarious” name ways of life considered as integrated systems of behavior which, together with the relevant *ethê* and *moria*, allow animals, whether alone or in association with others, to exploit the environments in which they dwell and from which they feed. At *HA* 8(7).1.588a17-20, Aristotle says that “Activities and ways of life vary with (*diapherousin*) habits (*ethê*) and food (*trophas*);” and at *Pol.* 1.8.1256a20-26, he writes:

²⁸ I have used the traditional term “gregarious” to translate *agelaios*, since it is difficult to think of a substitute of sufficient generality for what manifests itself differently in various environments as herding, flocking, or schooling. I would nonetheless have preferred to have avoided the connotation of “liking” or “preferring” the company of others that seems unavoidable in “gregarious.” The semantically basic sense is herding, as among goats, sheep, and cows.

There are many kinds of food. Therefore (*dio*) there are also many ways of life, both of animals and of men. Since there is no living without food, differences with respect to food make the ways of life of animals different. Of the beasts, some are gregarious and some are scattered, in accord with what conduces to getting their food, for some are carnivorous, some granivorous, and others omnivorous.

When Aristotle says that traits such as solitary or gregarious bear on actions, the actions he has primarily (but not exclusively) in mind are the types of locomotion undertaken to exploit these three great environments, such as walking (land), swimming (water), or flying (air) (*PA* 1.1.639b1-5).²⁹ Both in *HA* and *Pol.*, accordingly, Aristotle goes on to tell us that the actions by means of which species get their food are most generally characterized by how the local movements of individuals are related to those of their conspecifics. Characteristically gregarious animals move together with others of their kind through space (or, alternatively, stay still together, like mussels). This is as true of flocking birds, whose medium is air, as it is of schooling fish, which live in water, or of grazing walkers like cows, which live on and from the earth (*EN* 9.10.1170b12-13). Solitary animals, by contrast, move or stay still without reference to or coordination with others of their kind. Thus a solitary animal maintains no stable relationship of any sort with its mate, its children, its kin, or other members of its own species. It “procreates,” Aristotle says, “at definite seasons” and immediately abandons its mate and young to their own devices (*HA* 8(7).1.588b31-35).³⁰ Accordingly, solitary animals show no coordinated movement with others, except on these rare and fleeting occasions that are unavoidable if the species is to continue at all.

Aristotle’s point at *Pol.* 1.8.1256a20-26 about how the nature of food sources affects ways of life becomes clear when these phenomena are

²⁹ I say “primarily” because ways of life are relativized to the essential powers of each kind (Rule 6; see note 27). In the case of human beings, this means living in ways that go beyond the mere “feeding and procreating” that preoccupies other animals (*HA* 8(7).1.588b24-589a6), and hence beyond locomotion in search of food and mates. “In the case of human beings,” Aristotle says, “what counts as living together (*suzên*) is sharing conversation and thought (*koinonein logôn kai dianoias*), and not pasturing in the same place as in the case of grazing animals (*boskêmatôn*)” (*EN* 9.10.1170b12-13). This is an application of Rule 7.

³⁰ The same criterion is stated at *EE* 7.10.1242a22-27, in spite of difficulties in establishing the text. There the phrase ‘*koinônikon zôon*’ is used of animal kinds that tend to remain associated with those with whom they mate, or with their offspring, and thus with those to whom they are biologically related (*suggeneia*), in contrast with those that “mate with any chance male or female” and then move on. *Koinônikon zôon* thus embraces every life except the solitary, further emphasizing the generically continuous nature of scattered, herding, and political ways of life.

viewed in light of the principle that “Nature does nothing in vain.” No purpose, need, or function is served by division of labor or submission to authority in getting food of the sorts eaten by cattle or schooling fish. If cows or fish move together through space as a herd or a school, that is because their food sources, such as grass or plankton, are consistent with this mode of behavior. If some humans make their living by following herd animals to pasture, their nomadic (*nomadikos*) way of life must perforce be more dispersed (*sporadikos*) than settled agricultural life, which makes it possible to feed animals *in situ*, and so allows greater and less intermittent social aggregation and complexification (*Pol.* 1.8.1256a19-b2). Similarly, if solitary but migratory animals, such as “crooked-talon birds” and carnivorous quadrupeds, range across space without reference to others of their kind, except for fitful occasions of breeding (*HA* 8(7).1.588a30-31), that is because they must hunt for prey frequently as isolated, and often as large, as themselves, and might be hindered in getting it – and in particular getting enough of it – by associating with their fellows (see *PA* 4.12.693a11-19). By the same token, if solitary but stationary animals can get their food simply by staying where they are, they need not move about, congregate, or cooperate. The difference between the solitary and the gregarious is marked out, then, by a single contrary: Are the actions attendant on and constitutive of a particular way of life, and the food source that lies at its base, carried out by living with (*suzên*) (to some extent and in some respect) other members of their kind or apart from them?

We must bear these ecological criteria in mind if we are to understand political ways of life. Animals that lead political ways of life must be gregarious (*HA* 1.1.488a9). But only political animals, among the wider array of gregarious animals, cooperate to achieve “something one and common that is the work of all” (*HA* 1.1.488a9). Cooper rightly infers from Aristotle’s examples – bees, wasps, ants, cranes, and humans (*HA* 1.1.488a10-11) – that political animals do so by differentiating functions and roles.³¹ To say that “not all gregarious animals do this” (*HA* 1.1.488a9) is in effect to say, then, that merely gregarious animals separately perform the *same* activities (*praxeis*) in physical proximity to others of their kind, as herds of cows meander in groups through the same grassy fields, or schools of fish scoop up plankton as they swim together through the ocean; while, by contrast, political animals perform *different* activities in the course of engaging in and contributing to a *single* (*hen*) way of life. So construed, political life counts as a quantitative intensification of gregariousness, as Kullmann asserts. At the same time, I concur with Cooper in holding that

³¹ Cooper, “Political Animals,” p. 226.

'*politikos*' names a qualitatively different way of life, in which the shared work (*koinon ergon*) of a community (*koinônia*), whatever it happens to be, appears as the common object of distinguishable contributions. What in this case defines the sameness that characterizes every form of gregarious life allows for diverse behaviors at more particular levels. We might even say that role differentiation breaks up the homogeneous pattern of generic gregarious behavior at one level in order to reconstitute it at another. (This is corroborated by Aristotle's view that the *bios politikos* co-varies with intelligence [*sunesis*, less frequently *phronêsis*; *HA* 8(7)589a1-3]. Some sort of intelligence is required if conspecifics are to possess a *koinon ergon*, to orient their separate contributions to it, and to communicate well enough with others to realize it.³² This is another way political animals differ from merely gregarious ones.)

On this view, the term 'political' is not to be construed as the mere addition of a property to a univocally defined and homogeneously described gregarious behavior, as run-of-the-mill class logic encourages us to do. It is instead a complex development and modification of gregarious behavior, in which doing the same thing in association with others means doing different things to sustain a common way of life. To see that Aristotle intends to say this, it helps to recall that when one comes to the study of Aristotle's texts without the taxonomic biases of the later tradition (Rule 1), one will be better able to understand that one side of the relationship between generic and specific traits is that of the less to the more determinate (Rule 4). (The other side is failure to achieve, and hence falling short of, an expected norm of differentiation, as in Aristotle's notorious theories of female sexuality and natural servitude.) This has been acknowledged in the case of body parts (*moria*), which, as *GA* shows, are progressively carved out of an originally indeterminate mass. The idea that *differentiae* make differentiations lies at the core of Aristotle's "epigenetic" model of development,

³² See J.-L. Labarriere, "De la Phronêsis Animale," in Devereux and Pellegrin 1987, pp. 405-428. When Aristotle says that animals are intelligent he is not being any more metaphorical than when he says they are political, although there are many different sorts of intelligence, as well as different physical means of expressing it (*Pol.*1.2.1253a10-15; *PA* 2.17.660a29-b2). Aristotle is intrigued by how flocks of cranes are governed by the honking noises their leaders make to maintain flight formations and to issue warnings to their sleeping comrades (*HA* 9(8).10.614b18-27). Plato's remark that "Some intelligent animals, such as the race (*genos*) of cranes, may divide animal kinds into two classes, themselves and all the others, just as humans do" (*Statesman* 263D) is part of Aristotle's evidence for classifying cranes as political animals (*HA* 9(8).10.614b18). (The passage from *Statesman* is especially charming in view of the fact that it occurs at a point in the argument when the human interlocutors confess to having lost their way [*Statesman* 263C].)

which, as the late Montgomery Furth has stressed, is fundamental to his ontology.³³ What for the most part has gone unrecognized, however, is that the same ideas apply *ceteris paribus* to other trait-categories as well. Aristotle is committed to holding that the relation between generic and specific ways of life (*bioi*), as well as between generic and specific dispositions (*ethê*) and actions (*praxeis*), also follows the epigenetic model. Thus for Aristotle the political way of life is quantitatively an intensification and qualitatively a modification of gregariousness, in which mere herd life is transformed so that “each does his own,” as Plato puts it, by doing something different that contributes to shared ends.

In the light of these considerations, I propose the following necessary and sufficient conditions for predicating *politikos* as that term is used in *HA*:

- i. associative behavior of some kind.
- ii. a common or shared work (*koinon ergon*) (beyond reproductive activity).
- iii. division of roles in contributing to that work.
- iv. association with, and reliance on, dispositional traits referring to emotional and cognitive capacities that facilitate the achievement of a *koinon ergon*.

I say “beyond reproductive activity” in ii. because it is clear that for Aristotle ‘*politikos*’ refers to patterns of activity that transcend *reproductive* role-division, even among animals that remain coupled with their mates throughout their lives (“coupling animals,” *sunduastika zôa*, *HA* 9.7.612b33; *Pol.* 1.2.1252a26-39). Many birds, such as pigeons, are faithful to their mates beyond the child-rearing years, indeed often for life (*HA* 9.7.612b32-34; 613a14-15). Yet Aristotle does not see them as political, even when he acknowledges that they cooperate to build nests, hatch eggs, and fetch food (*HA* 9.7.612b18-613a160). That is because animals live “on a more political (*politikôteros*)” basis [than this] only if and when “they live in community (*koinonounta*) with their offspring for a longer period” than procreating and rearing them requires (*HA* 8(7).1.588b30-a3).³⁴ That, Aristotle goes on to say, happens only among kinds which, unlike pigeons (*HA* 9(8).613a8-9), have a dominantly cooperative rather than a pugnacious character, and which in addition possess “sufficient intelligence (*sunesis*) and memory” [the source of experience, *empeiria*] to sustain trans-generational communi-

³³ Furth, *Substance, Form and Psychê*.

³⁴ In such cases, Aristotle’s ascription of politicality might be a bit hedged. Animals that cooperate socially within the immediate family may be “more political” than those that do not only in the sense that they are not especially political, or are merely closer to being properly political, than more central cases. An advantage of my interpretation is that the ambiguity in Aristotle’s Greek between “more x” in the sense of “more of x,” and “more x” in the sense of “more toward x” on the continuum I have posited is preserved, and is available for use in borderline cases.

ty by dividing up economic and social, as well as reproductive, roles (*HA* 8(7).1.588b31-589b3). In such cases, kinship ties are turned into the role-differentiated social networks that define a political way of life.

Political ways of life stand in contrast, then, to all other forms of gregarious life, in which parents “take trouble to complete the nourishing of their young, but once that is accomplished separate from them and have no further community with them (*koinonounta*)” (*HA* 8(7).588b33-589a1). This occurs both in cases where parents and offspring continue to live closely aggregated in the same herd, flock, or school, and in cases where early loosening of the parent-offspring bond undergirds dispersal into spatially scattered groups. Political ways of life stand in even greater contrast to solitary lives, in which parents do not even “take the trouble to complete the nourishing of their young” (*HA* 8(7).588b33-589a1) or to maintain community with each other. On this analysis, solitary and political lives lie at opposite ends of a spectrum, positions along which are defined in terms of a more or less complete range of possible configurations and relationships among mates, parents, offspring, and kin. These, I believe, are the considerations in terms of which Aristotle grounds his four-fold typology of *bioi*.

We are now in a position to answer what puzzled us at the outset: the meaning of the scattered way of life (*bios sporadikos*). *Pace* Cooper, there is an ineliminable element of physical dispersal in scattered ways of life that makes it difficult to identify all non-political forms of gregarious life as scattered. Semantically, ‘scattered’ (*sporadikos*) refers to seeds (*sporas*) spun off haphazardly onto a field where they are more dispersed than when they were stored together or held in the hand. Aristotle contrasts scattered writings with those that have been, or might be, collected together into a single volume (*Pol.* 1.11.1259a4). The Sporades, islands off the coast of Asia Minor, are to this day contrasted with the Cyclades, islands nearer the mainland forming a tight circular pattern around Delos. The Sporades are, in this respect, more dispersed from one another, and from the Greek mainland, than the Cyclades. Thucydides refers to ships after a defeat as *sporadas*, by contrast to their earlier aggregation (1.49.5). The Cyclopes, whom Aristotle calls *sporades* at *Pol.* 1.2.1252b24, are described by Homer as living physically dispersed lives in separate atomic households, between which there is no association or cooperation, and only the most primitive forms of role-differentiation between animals, children, and women within. Following Plato, Aristotle cites the following passage from the *Odyssey* to illustrate this, quoting the italicised lines:

They do not hold deliberative assemblies or obey received laws;
they dwell in hollow caves on the summits of high mountains,

where *each lays down the law to his own children and wife,*
not associating with one another (*oud' allêlôn alegousi*)
(*Odyssey* 9.112-115, my translation; *Pol.* 1.2.1252b22-23; cf. Plato, *Laws* 680b-c).

Finally, humans (assuming we do not wish to count Cyclopes as more than quasi-human) are said by Plato to have been scattered in the wake of a catastrophe to live in isolated families and clans, often clinging to the tops of mountains (*Laws* 676a-680e; *Critias* 109d). Aristotle has a demythologizing attitude toward this story (*Pol.* 2.8.1269a4-7). Nonetheless, something like it is assumed when he remarks that when political life began to emerge, or perhaps re-emerge after a catastrophe, and villages and *poleis* began to coalesce under kings (*basileia*), many humans continued to live in nations (*ethnê*) in the dispersed (*sporades*) fashion of the Cyclopes (*Pol.* 1.2.1252b16-23). Among these are pastoral nomads (*nomadikoi*), whose way of life is necessarily scattered (*sporadika*) because “they are compelled to follow their herds to pasture, as if they were farming a living farm” (*Pol.* 1.8.1256a23; 31-35); the Arcadians, who are a nation (*ethnos*) rather than a *polis* because (as pastoralists) they do not live in villages (*kômai*) of the sort that are structural parts of *poleis* (*Pol.* 2.2.1261a27-29; cf. *Pol.* 1.2.1252b15-30),³⁵ and more generally people whose lives are confined to small, isolated, rural hamlets.³⁶ It was from this condition that humans were delivered by the natural expansion of kinship ties in and between villages

³⁵ Aristotle does not think of nations (*ethnê*) as a necessary stage of social development leading to the *polis* so much as an alternate, less differentiated path of development, in which villages remain loosely tied through patriarchy and hereditary kingship rather than becoming fully defined as villages by being integrated into *poleis* (*Pol.* 1.2.1252b19-22). What makes a *polis* is the proper relationship between households, villages, and *poleis*, and not urban concentration and economic division of labor. Barbarian cities have the latter in spades, but barely qualify as *poleis*. Aristotle says that Babylon has the sprawling dimensions of a (densely populated) nation rather than the structure of a *polis* (*Pol.* 2.6.1265a14; 3.3.1276a27-28). Sparta, on the other hand, never acquired much of an urban center. Accordingly, when Aristotle hears Homer talk about *poleis* like the imaginary Phaiakia or the real Argos, he does not take the term metaphorically, even though he clearly regards Homeric times as “the olden days” (*ta archaia*, *Pol.* 1.2.1252b25). On this topic, see Kurt A. Raaflaub, “Homer to Solon: The Rise of the *Polis*: The Written Sources,” in Mogens H. Hansen (ed.), *The Ancient Greek City-State* (Copenhagen: Royal Danish Academy, 1993), p. 76 n. 167.

³⁶ It is unclear how many forms of nomadic life Aristotle knew about or distinguished. Scythians and other horse-peoples of the North, about whose way of life he might have learned from Herodotus (*Pol.* 7.2.1324b10-23), and even more the Bedouins of the South, about whom he might have known nothing at all, seem to live nomadic lives that differ in kind from that of Arcadian shepherds. Aristotle did probably know about what anthropologists call “transhumant pastoralists,” who live in semi-agricultural hamlets for part of the year, but move their flocks to higher ground in summer. This way of life was common in Macedonia, as it is in the Balkans to this day. The people who founded the

resulting from the practice of agriculture, and even more by the *sunoikismos*, or gathering together, ascribed to legendary heroes like Theseus, which the Greeks, Aristotle among them, thought of as the origin of cities (*Pol.*1.2.1252b20). It was back toward this condition that Peisistratus wished to push the Athenians, since, as the author of the *Athenian Constitution* tells us, they could not challenge his tyranny as long as they were dispersed (*diesparmenoi*) in the countryside (16.3).

It is true that humans, if they escape the scattered condition, advance naturally to the political form of gregarious life. That is because, given their unique psychological constitution, political cooperation is, to one degree or another, their characteristic form of gregariousness (Rules 6 and 7.) By the same token, scattered humans (and even Cyclopes) exhibit incipient degrees of cooperation that might not be found in the scattered lives of other species, such as ground larks.³⁷ Still, the passages cited above make it difficult to concur with Cooper that the contrast class of '*sporadikos*' is always '*politikos*' rather than '*agelaios*,' and no less difficult to agree that humans dualize between "living in large groups and solitarily." These claims run roughshod over an important distinction Aristotle wishes to draw, and of which he makes significant use. For this reason, '*sporadikos*' cannot be read otherwise than as physically dispersed into relatively small and readily fractured families or clans, among which both aggregation and political cooperation are non-existent or severely limited.

Scattered ways of life can be contrasted, accordingly, with lives that are generically gregarious, like the herding life of cows, the flocking life of pigeons, or the schooling life of tuna fish, as well as with political lives, such as those led by humans, cranes, and ants. Just such a contrast underlies Aristotle's claim about the ground lark at *HA* 8(9).25.617b20-22 and his statement at *Pol.* 1.8.1256a23 that some animals live scattered *rather than* gregarious lives. At the same time, we have seen that scattered ways of life are (definitionally) not purely solitary. This being so, should we count them as forms of gregarious life? That the answer must be a qualified yes is suggested by a passage to which Aristotle is probably alluding when he

Macedonian dynasty were transhumant pastoralists. See N. G. Hammond, *The Macedonian State* (Oxford: Clarendon, 1989), Chapter 1. But he may have counted these people among those who "live comfortably by combining several ways of life" rather than as straightforwardly nomadic (*Pol.* 1.8.1256b2-7)

³⁷ What is crucial in the case of polybiotic humans is not that scattered forms of human life do not show signs of incipient political role-division, but that these differ from *polis*-life to the same degree that scattered lives generally differ from political life generally (Rule 3; see the analysis of natural slaves at *Pol.* 1.5.1254b15-20 for a model).

speaks of the scattered Cyclopes at *Pol.* 1.2.1252a24, in which the Athenian Stranger in Plato's *Laws* remarks:

Aren't [ways of life like those of the Cyclopes] found among those who have been *scattered in single households or clans* in the confusion caused by the destructive disasters? The eldest rules with an authority handed down from the father and mother, whom the others follow, *like birds forming one flock* (*Laws* 680e, Pangle translation, my italics).

I conclude that the scattered way of life is a limiting case of gregariousness, approaching the solitary end of the spectrum I have postulated. The rules I have imputed to Aristotle help explain how this interpretation is consistent with the categorical, and not merely comparative, contrast between scattered and gregarious lives that Aristotle draws at *HA* 8(9).25.617b20-22 and *Pol.* 1.8.1256a23. Just as the political way of life names an intensified form of gregariousness, so the scattered way of life names a less than normal or expected degree of aggregation. Even though a minimum threshold, as it were, of gregariousness is attained, the unproblematic norm for gregariousness is not (Rule 4). Scattered ways of life thus stand in categorical contrast to normally gregarious, and even more to political, ways of life. Aristotle's way of marking off *eidê* of traits within *genê* by using "the more and the less" to identify similar degrees of excess and deficiency from a mean clarifies this analysis (Rules 2-3). With respect to relations over both time and space between mates, offspring, and kin, the scattered way of life falls short of the mean for gregarious lives by about as much as the political way of life rises above it. By the same token, the solitary way of life falls short of the scattered way of life by as much as the mean gregarious life exceeds it. In sum: the solitary : scattered :: scattered : gregarious :: gregarious : political.

This interpretation of *HA* 1.1.488a2-4 will meet at least one good test if it can yield a plausible interpretation of what Aristotle means when he says that humans dualize (*HA* 1.1.488a7). That humans should dualize is not surprising. Aristotle regards food sources as a key to different ways of life, and recognizes that humans can live more ways of life than other animal kinds in virtue of the fact that, with the help of technical rationality, they can adapt to many diets (*Pol.* 1.8.1256a20-31). They are even adept at combining several ways of life (*Pol.* 1.8.1256b1-7). Some have thought for this reason that the duality in question must be between the scattered and the political. For Aristotle does clearly imply, as we have seen, that some humans live a scattered way of life by "following their herds to pasture, as if they were farming a living farm" (*Pol.* 1.8.1256a31-35), while the majority make their living from settled agriculture, which concentrates popula-

tions, thickens kinship networks, and facilitates the development of city life proper (*Pol.* 1.8.1256a39-b2).³⁸ (The beauty of farming is that it yields an abundance that circumvents the necessity of moving about, and, by its remarkable fecundity, provides economic underpinnings for an eligible range of leisured ways of life in cities, in which reason can be used for purposes other than mere survival [*Pol.* 1.2.1252b10-30].)³⁹ On my reading, however, we can readily accept what the text seems straightforwardly to say: that humans dualize between solitary and gregarious ways of life (*HA* 1.1.488a7). We can do so for two reasons: first, because on this reading gregariousness comprehends within itself the duality between the highly role-differentiated, political way of life in cities and the qualitatively less differentiated and physically more dispersed way of life of pastoralists; and second, because Aristotle in fact believes that some humans live ways of life that are best characterized as solitary.

Who might these solitaries be? Some commentators have identified them as exceptional individuals who can live a properly divine life of contemplative inquiry (*bios thêorêtikos*).⁴⁰ It is true that Aristotle says that there are humans living at two extremes, one exceeding human politicality toward the life of a god, the other falling short of it toward the condition of a wild beast (*Pol.* 1.2.1252b4-5; 1253a29; *EN* 10.7.1177a29-b35). I do not think it likely, however, that Aristotle would have interrupted a general sketch of animal ways of life in *HA* 1.1 to mark as exceptional the way of life of a few devotees of the contemplative life. The *bios thêorêtikos* is not a way of life in the same ecological-economic sense as those mentioned at *HA* 1.1.477a2-4, and so barely counts as an exception in this context. Moreover,

³⁸ H. Drossart-Lulofs, "Aristotle, Bar Hebraeus, and Nicolaus Damascenus on Animals," in Gotthelf 1985, pp.346-347, and, recently, Carnes Lord, "Aristotle's Anthropology," p. 55, n. 55, have claimed that Aristotle means to say that humans dualize between scattered and political forms of life. So impressed is Drossart-Lulofs by correlations between the scattered and the nomadic in *Pol.* 1.8 that he proposes to amend *HA* 1.1.488a2-4 by cleverly reading the disputed phrase "*kai tôn agelaiôn kai tôn nomadikôn*" ("Aristotle, Bar Hebraeus," pp. 346-7). Admittedly, it is more likely that there might be scattered and political nomads (cranes?) than that there might be scattered and political solitaries. Still, it would be odd for Aristotle to interrupt a sequence of contrasts between the solitary and the gregarious to introduce a trait that is not of the same sort as its contrary, dealing as it does with modes of local motion rather than relationships with conspecifics. If *nomadikos* shows up anywhere it should be at 488a13-14.

³⁹ I take the use of the terms '*ethos*,' '*praxis*,' and '*bios*' in *EE* and *NE* to be systematically related to the use of these terms in the biological writings. (*NE* 2.1.1103a17-18 makes this point explicitly in the case of '*ethos*.') Differences are enormous. They are accounted for, however, by reference to reason's way of transforming these traits into distinctively human forms (Rule 7; see note 27.)

⁴⁰ For example, Mulgan, "Aristotle's Doctrine," p. 438.

while it is true that the *bios thêorêtikos* is a share in the apolitical divine, Aristotle also says that “It is absurd to make the blessed person a solitary (*monêtên*), for no one would choose to have all goods and yet be alone, since a human being is political and naturally social” (*EN* 9.9.1169b16-17; but see *EN* 10.7.1177a33-35). Not only is the human form of contemplative life conceivable, eligible, and physically livable by depending on the resources that city life provides, but it is facilitated by the friendship proffered by properly employed leisure (*EN* 9.9.1170b10-14; 10.7.1177a34). Hence it is not entirely clear that contemplative humans live solitary lives in the appropriate sense.

On the other hand, there are clear resonances between *HA* 1.1. and Aristotle’s explicit concern in *Pol.* 1 with people who live like predatory and solitary wild beasts (*theria*), but who are made all the more vicious by the degenerate use of reason as an instrument of base desires and injustice (*Pol.* 1.2.1253a33-35). In *Pol.* 1.8, Aristotle contrasts political and scattered forms of human life, which depend on crops and tame animals respectively (*Pol.* 1.8.1256a31), with the “life of the hunt” (*bios thereutikos*), in which presumably more primitive peoples live on the flesh of wild animals (*theria*). Aristotle divides the life of the hunt in accord with the three great environmental variables that appear in *HA* 1.1: Some hunters hunt land animals, others birds of the air, and still others fish in the seas and rivers (*Pol.* 1.8.1256a36-40). But there are also forms of the *bios thereutikos* in which animals prey on others of their own kind or on what belongs to them. Among humans, pirates scavenge the goods of others and slavers hunt other human beings (*Pol.* 1.8.1256a36; *Pol.* 1.7.1255b38-40). I believe that the distinction Aristotle (too) scrupulously makes between natural and conventional slavery associates hunting for people who do not deserve to be enslaved, and whose goods should not be pirated, with soldiers of fortune and other disconnected types that had been thrown up by the unending large-scale warfare of his time, and with the freebooting leaders who engage their services (*Pol.* 7.2.1324b36-40). By indiscriminately attacking, robbing, and enslaving others without cause, such men have psychologically and physically fallen into the solitary life of carnivorous beasts. Apolitical (*apolis*) “by nature rather than (like Philoctetes) by chance,” they are “like isolated pieces in a game of draught,” “desiring by their nature to make war” on everyone else (*Pol.* 1.2.1253a3-7). Aristotle’s reiterated insistence that humans are naturally cooperative (political) animals, who exercise their distinctive range of psychological capacities most properly and fully in cities (Rule 7), grounds his admonitions to those listening to his lectures to repudiate this way of life as no better than that of wild beasts. I suspect, then, that the solitary way of life mentioned at *HA* 1.1.488a7 alludes to humans

who fall toward the condition of beasts rather than (or at least more than) to semi-divine contemplators.

Aristotle's view that humans can live a range of lives extending from the most civilized to the most bestial is subtly reinforced by several informative allusions to Homer in *Pol.* 1.2. Aristotle inherits from the *Odyssey* a standing contrast between the Cyclopes, ignorant pastoralists who remain scattered into households that are neither self-sufficient nor interactive, and the political Phaiakians, whose civilized way of life, manifested above all in the hospitality to strangers (*xenia*) that the Cyclopes fail to practice, is based on agriculture (*Pol.* 1.2.1252b22-23). Moreover, just as the relationship between scattered pastoralism and political agrarianism is embodied in Homer's contrast between the Phaiakians and the Cyclopes, so too Aristotle employs Homer's contrast between Polyphemus and the other Cyclopes to limn the relationship between scattered pastoralists and solitary predators.⁴¹ Homer says that Polyphemus

did not mingle with others (*oude met' allous*), but lived apart from them with his heart set on lawlessness. He was fashioned as a perfect monster, and did not seem to be a bread-eating man [at all], but rather the wooded peak of a lofty mountain, which stands out to view from the others.

(*Odyssey* 9.188-92, my translation).

⁴¹ For a review of Greek sources on the Cyclopes, see Robert Mondi, "The Homeric Cyclopes: Folktale, Tradition, and Theme," *TAPA* 113 (1983), pp. 17-38. Mondi recognizes that there is an oddity about Homer's combination of the benign pastoralists found in Hesiod with the story of the solitary, one-eyed monster Polyphemus. Depending on how he read Homer, Aristotle may have seen Polyphemus as a different kind of being living near the pastoral Cyclopes, or as a Cyclops whose lack of wife and family had assimilated his soul to that of his domesticated animals, making possible his further degradation into a sometime cannibal (*Odyssey* 9.290-296). For Homer's contrast between political (and polite) Phaiakians and scattered (and inhospitable) Cyclopes, see Pierre Vidal-Naquet, "Land and Sacrifice in the *Odyssey*: A Study of Religious and Mythical Meanings," translated from the French in *The Black Hunter* (Baltimore: Johns Hopkins, 1986), pp. 15-38. Vidal-Naquet notes that the *Odyssey's* structural triad of savage, pastoral, and civil is also embodied in Aristotle's triad solitary, scattered, and political. The savage, and so far forth solitary, world is adumbrated by the uninhabited island, full of wild animals, that lies just across from Polyphemus' headland, on which Odysseus and his men hunt with great relish. Polyphemus is associated by his carnivory and his physical location with this place. The solitary carnivore is thus contrasted with gregarious bread-eaters. To this display of structuralist hermeneutics, we might add that the long separation of Odysseus and his crew from normal life, first in war, then on their voyage home, has put a touch of the meat-eating freebooter in them too, symbolized by the pleasure they take in hunting on the island. (Gangs of men can count as solitaires to the extent that their actions are uncoupled from reproductive and social links with mates and children. It is crucial that Odysseus is trying, however circuitously, to get home.)

With his habit of correlating what is unnatural to what is disproportionate, Aristotle would no doubt have appreciated how Homer captures the monstrous soul of Polyphemus in terms of his disproportionate size, a disproportion made all the more vivid and unnatural by the unexpected comparison with a solitary mountain peak. Just as Homer describes Polyphemus as morbidly cherishing isolation and loving violence and lawlessness, so too Aristotle quotes Nestor's words in the *Iliad* to support his claim that any person who desires to make war indiscriminately on his fellows is by nature apolitical. Such a person, says Nestor, is a "clanless, lawless, and hearthless" solitary (*Pol.* 1.2.1253a4-9; *Iliad* 9.63). Again, when Aristotle says that humans who have been sundered from the conditions of law and justice are "the worst of all with respect to sex and food" (*Pol.* 1.2.1253a31-40), we are reminded that Polyphemus is an occasional cannibal, who dismembers Odysseus' men "and made a meal of them, gaping and crunching like a mountain lion, eating everything, innards, flesh, and marrow bones" (*Odyssey* 9.290-296, Fitzgerald translation). Finally, Homer's contrast between "bread-eating humans" and man-eating monsters like Polyphemus expresses the contrast Aristotle wants to draw between natural, cooperative, and distinctively human ways of life, based on agriculture, and the unnatural, solitary, and flesh-eating lives of distant barbarians and of contemporary military and political adventurers.

These allusions help convey the full moral force of Aristotle's rejection of contemporary political practice, as well as the ideological cover it sometimes receives from intellectuals who fancy a conventionalist account of the state (*Pol.* 3.9.1280a31-b40.) Behind this moral stance stands a highly articulated anthropological theory, in which the various forms that rationality can take provide a key to answering a wide range of questions about human affairs (*ta anthrôpeia*, *NE* 10.9.1181b15). Many of these questions center on how human lives differ from the lives of other animals and from the lives of gods. In the matter of making a living, reason and articulate speech (*logos*) bestow a flexibility, creativity, and diversity on human *bioi* that is absent from the lives of other animals. Under environmental conditions that permit the development of agriculture, however, in which a more than hand-to-mouth surplus can accumulate, Aristotle claims that humans will naturally and normally advance to the village and *polis* stages of social development by sending out colonies (*apoikiai*) from scattered households (*Pol.* 1.2.1252b21-23). Thus the non-reproductive role-division that defines a political way of life in the zoological sense already begins to take hold, under the communicative sway of speech and reasoning, both within and between households (*Pol.* 1.2.1252b16-19; 1253a10-19). The tasks of male masters, free women, free children, slaves, domestic animals, and inanimate

tools will be progressively discriminated from each other within the household, and economic and political differentiation will increase between households. In this sense, the household itself becomes a political community in proportion as it becomes an integral part of larger role-differentiated communities (*Pol.* 3.9.1281a1). As social differentiation proceeds, the exercise of reason leads not only to more and better ways of making a living, but to the emergence of objects of common concern and engagement (*koina erga*) that go well beyond the preoccupation with feeding and procreating that circumscribes the lives of other animals (*HA* 8(7).1.588b24-589a6). When all goes well, household masters will appear as autonomous political agents and, in some cases, as cultivators of theoretical reason itself, whose way of life touches that of the gods.

But things do not always go well, and cannot be expected to do so. Precisely because habituation (*ethismos*) and rational choice (*proairesis*) must take the place of instinct for rational beings (*Pol.* 7.13.1332a38-39), and because Aristotle is so sensitive to the lasting effects of environmental and cultural influences (*Pol.* 7.7.19-33) the development and expression of the rational powers that inform human ways of life is held hostage to many contingencies. Poor socialization cuts so deeply that it prevents the development in many humans of even a disposable capacity for rational choice, let alone its exercise. What is more, such conditions are virtually irreversible both in individuals and cultures. In consequence, an array of distinct fates defines the human condition – an array that in my view is portrayed in terms Aristotle adopts from the continuum of ways of life defined in *HA*. Far barbarians, living beyond the confines of cultivated and pasture land, live the *bios thereutikos*. Pastoralists live scattered, more or less nomadic lives in dispersed and uniformly despotic households (*Pol.* 1.2.1252b23-24). Even when families and villages are integrated and differentiated into cities, barbarian cities remain less developed than Greek cities (*Pol.* 2.6.1265a14; 3.3.1276a27-28). One might well say, then, that even though humans are political by nature, they are political in many ways.

This array of lives is, however, no more than we should expect. Aristotle's conviction that "nature proceeds little by little" (*HA* 8(7).1.588b4) makes it a virtual necessity that there will be humans to occupy every conceivable relationship to rationality, from that which fitfully approximates the life of a god to that of natural slaves, who are distinguished from tame animals only because they are capable of heeding reason rather than merely responding to sounds (*Pol.* 1.5.1254b16-55a2).⁴² We should not

⁴² When combined with my insistence on the wide diversity of human beings, Lennox's characterization of great kinds in terms of the amount of diversity that clusters around

imagine, accordingly, as the tradition has encouraged us to do, that when Aristotle says that humans are rational animals he imagines that a deep well of sociality, intelligence, and capacity for autonomous choice lurks just below the surface, waiting to express itself in each and every human being. By the same token, neither should we generally assume (as political theory since Hobbes often has) that there lurks within the breast of all of us a deep well of generic solitude ready to reassert itself at the drop of a hat. Rather, what Aristotle means when he says that the human essence is characterized by rationality is that a range of possible relationships to rationality explains the distribution of human beings along a continuum that stretches from the most refined political life to the savage life of distant barbarians and vicious defectors from civilization.⁴³

California State University, Fullerton

them may yield some insight into why Aristotle seems to give *anthrôpos* the classificatory status of a great kind, although it is a single species (*PA* 1.4.644a13-b15). See Lennox, "Kinds, Forms of Kinds, and 'the More and the Less'" in Gotthelf and Lennox 1987.

⁴³ I wish to thank the following for helpful criticism and encouragement: Elizabeth Belfiori, John Cooper, Eric Czapo, Mary Depew, Chuck Dyke, Eugene Garver, Allan Gotthelf, Marjorie Grene, Wolfgang Kullmann, Brendan Nagle, Jennifer Powell, Kurt Raaflaub, Tom Schmidt, Malcolm Schofield, and Bob Sharples. Research for this paper was facilitated by a fellowship from the National Endowment for the Humanities; and by the *xenia* of the Center for Advanced Studies, University of Iowa.