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The "Absence of Chance" and the "Serving of Ends": Tracing Aristotle's Political Principles to his Concept of Nature

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ABSTRACT

Aristotle's concept of nature, captured in quotations such as "nature does nothing in vain" and "man by nature is a political animal," is a topic consistently discussed within scholarly literature. This paper's primary aim is to demonstrate how Aristotle's concept of nature underpins his political theory. It first uncovers Aristotle's concept of nature, then it demonstrates how this concept underpins his political principles. Aristotle's concept of nature is first broken down to two ideas: the "absence of chance," which describes the regularity and permanence of phenomena, and the "serving of ends," which explains Aristotle's teleological approach. As such, Aristotle's nature is used both to describe and explain phenomena, and therefore it shows both how and why certain phenomena occur. Armed with this understanding of nature, this paper shows how Aristotle applies this concept of nature to derive two political principles - the "principle of rulership" and the "social instinct." These political principles in turn underpin his political theory and approach to political science. This paper shows that, through an understanding of Aristotle's concept of nature, we can better understand the foundation of his politics.

1. Introduction

Aristotle's influence on the Western world is rightly lauded, given his groundbreaking thought in a variety of fields. He is commonly regarded as the Western world's first political scientist, since he is arguably the first to examine politics in a systematic way. Interestingly, his treatise on politics, aptly named *Politics*, gives a conspicuous role to the concept of nature. This raises questions about the relationship between nature and politics. This paper's main aim is to demonstrate how Aristotle's concept of nature underpins his politics. I demonstrate that Aristotle uses a concept of nature as the methodology from which he obtains the political principles that form the basis of his political theory. I trace the ways in which Aristotle obtains his political principles and shows how both his political and non-political work are underpinned by the same methodology.

This paper can be read against the backdrop of the academic literature on Aristotle's political naturalism, which can roughly be divided into

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three sets. The first set has mainly confined its analysis of Aristotle's political naturalism to *Politics*, preferring to keep references internal to the text and mostly resisting going beyond to examine his other works.[1] The second set takes a holistic focus and looks beyond Aristotle's political work but ultimately rejects linking the naturalism in *Politics* to Aristotle's non-political work.[2] The third set argues that Aristotle's method of investigating politics, or political science, indeed parallels what is used in other fields.[3] However, there does not seem to be much literature within these three sets that explicitly emphasises the methodological fashion in which this naturalism is applied in both politics and other fields.

While the third set has argued that Aristotle indeed applies the same concept of nature to both his political and non-political work, it has not overly concerned itself with the steps of how this concept of nature is systematically applied. This paper attempts to contribute to the existing literature by adding to the third set of scholarship while working to fill the mentioned gap. It shows how Aristotle systematically applies the same methodology revolving around his concept of nature to politics and other topics.

The paper is structured as follows. In Section 2, I uncover Aristotle's concept of nature as having two components - regularity, or 'an absence of chance'; and teleology, or the 'serving of ends.' By regularity, I mean that Aristotle holds that certain phenomena are permanent, representing eternal 'basic facts' that have always existed in these forms. This means that, for example, if Aristotle observes that a horse has four legs, he holds that it is simply a fact that the horses have always had, and will always have, four legs. Teleology refers to the belief that all phenomena are aimed towards a particular purpose or end, as opposed to happening randomly or only being explained by their prior causes. In other words, teleological explanations hold that the occurrence or existence of phenomena is purposive. This can be illustrated by way of a hypothetical example. Let us imagine that I had some seeds in my hand, and I let go of them. The seeds fall to the ground. If we ask the question "why did the seeds fall?", we can have two types of explanations. A non-teleological explanation would be something like "because you let go of the seeds." This explanation does not state any purpose for the seeds falling; it focuses on antecedent causes, or what happened prior to the seeds falling that caused the seeds to fall. By contrast, a teleological explanation would answer it in a way like "because by being on the ground, the seeds can blossom into a tree." This explanation focuses on the purpose of the seed falling and the final state (or end) of the seeds being on the ground. It ascribes a purpose to the final state, in this case for the seeds to become a tree.

Aristotle's concept of nature takes phenomena to be both regular and purposive, as described above. Sub-section 2.1 shows how nature *describes* phenomena as permanent basic facts. These basic facts represent something that is certain or can be assumed to be unchanging and act as a foundation from which other explanations can follow. This is an essential first step for Aristotle, as it allows him to build his theory upon these phenomena with the confidence that it will not change in the future and derail the teleological explanations that come on top of it. This allows us to apply the teleological aspect of nature in sub-section 2.2, which *explains* phenomena in terms of its ends. I will do this by referencing Aristotle's work in areas external to politics, as well as examining secondary literature that focuses on those areas. This is done to demonstrate that this concept of nature is not confined to Aristotle's analysis of politics.

After discussing Aristotle's concept of nature, in Section 3 I show how this concept of nature is applied to politics and yields two political principles – the "principle of rulership" and the "social instinct." The former refers to natural hierarchies, where an individual or group of humans are thought to naturally be in a position to rule over others. The

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latter refers to gregariousness or sociability in humans, which allow them to communicate and exist in communities. I will discuss these concepts by bringing in Aristotle's *Politics* and showing how the method that was earlier demonstrated is applied in his political analysis. I conclude with brief remarks on how these political principles form the basis to Aristotle's approach to political science and allow us to see an outline of his political theory.

2. Aristotle's Concept of Nature

In *On the Parts of Animals*, Aristotle writes,

> "The *absence of chance* and the *serving of ends* are found in the works of nature especially. And the end for the sake of which has been constructed or has come to be belongs to what is beautiful."[4]

The terms "absence of chance" and "serving of ends" from the quotation above are useful terms to capture Aristotle's concept of nature. I first demonstrate, in sub-section 2.1, that his concept of nature is underpinned by a belief in regularity, or the absence of chance. This allows him to *describe* phenomena. I then go on to explain his teleology in sub-section 2.2, where phenomena are *explained* by their functions, or the serving of ends. I do so without reference to *Politics* to demonstrate that this concept is relevant to Aristotle's non-political work.

2.1 "*Absence of Chance*"

In this sub-section, I show that Aristotle regards certain phenomena to be permanent, representing eternal realities that have always existed in the forms they currently take. I refer to these realities as "basic facts", a term used by Cooper.[5] Aristotle's concept of nature is informed by these beliefs - when he describes something as natural, he is saying that they are basic facts that happen necessarily, with the absence of chance. This aspect of Aristotle's thinking has been alluded to in various ways by different scholars.[6] Of these scholars, Cooper is most explicit about its importance, considering it the key "that constitutes the foundation and justification of all the types of teleological arguments [Aristotle] ever accepts in the natural sciences."[7] How this forms the basis of Aristotle's teleological thinking is established in sub-section 2.2. In addition, Lloyd notes that it is likely that Aristotle, like other Greek naturalists, believed that human and animal features were basic facts after the work of Anaximander suggested that there were permanent survival mechanisms in humans.[8] These survival mechanisms, for which Anaximander does not bother giving concrete examples, are thought to be a permanent, innate feature of humans, rather than the result of changes or developments within the human body or psyche. Placing Aristotle in this context gives us more reason to believe that he indeed held a commitment to regularity.

Aristotle's acceptance of regularity is perhaps most clearly seen in a debate with the Empedocleans, where both he and the Empedocleans observe that teeth regularly turn out in an orderly fashion. For Aristotle, either the regularity that both he and the Empedocleans have observed is a product of coincidence or random spontaneous adaptation, or it must be for the sake of something. The most important passage reads:

> For teeth and all other natural things either invariably or for the most part come about in a given way; but of not one of the results of chance or spontaneity is this true…If then, it is agreed that things are either the result of coincidence or for the sake of something and these cannot be the result of coincidence or spontaneity, it follows that they must be for the sake of something ... Therefore, action for an end is present in things which come to be and are by nature.[9]

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In the above passage, Aristotle states that there can only be two explanations for how teeth regularly exhibit certain features—like the way they are shaped—and extrapolates this to "all other natural things." Aristotle presents two options in a zero-sum binary and challenges us to accept one. The first option, which Aristotle dismisses, is that these regular features are the result of an extended run of luck, or "coincidence or spontaneity." He refuses to accept this and argues that it is analogous to how the Empedocleans presumably would not accept how weather patterns are simply the product of luck. Aristotle then settles on the second option, taking that these permanent features "must be for the sake of something," or that there is a logic behind how these natural phenomena turn out.[10] This allows Aristotle to explain why things like teeth regularly turn out the way they do without resulting in ad-hoc and unsystematic explanations based on randomness.

In asserting that there needs to be some logic behind the way teeth and other natural phenomena almost always turn out a particular way, Aristotle acknowledges the regularity itself as a basic fact on its own. It is only with the belief that "this is how things *always* have been and *always* will be" that Aristotle can go on to explain these regular occurrences.[11] By arguing that "natural things" occurring with regularity cannot be due to coincidence, Aristotle argues that the description of regularity is indeed true and necessary. For Aristotle, regularity itself constitutes a fundamental basic fact which underlies his concept of nature. The idea of regular features being basic facts is then captured in the expression *kata phusin,* or "according to nature."[12]

To further illustrate, let us examine how Aristotle considers strange deviations in the growth of animals:

> [f]or the monstrosity belongs to the class of things contrary to Nature, not any and every kind of Nature, but Nature in her usual operations; nothing can happen contrary to Nature considered as eternal and necessary, but we speak of things being contrary to her in those cases where things generally happen in a certain way but may also happen in another way.[13]

From the above quotation, we can see that Aristotle describes something as natural only when it does not deviate from regularity, or "Nature in her usual operations," and that whatever happens by nature is "eternal and necessary." Animals and all living things are seen by Aristotle to display remarkable uniformity and regularity in their growth and behaviour. Animals that deviate from this regularity are "contrary to Nature" or a "monstrosity." For example, Aristotle would consider a horse with five legs a monstrosity because it does not follow the uniformity of the rest of the horses. Aristotle therefore associates nature with regularity, this consistency representing an internal logic of nature, while deviations are exceptions unaccounted for by nature. Whatever is natural, therefore, has the absence of chance.

2.2 "*Serving of Ends*"

While we have established that Aristotle believes that certain phenomena occur with regularity and are basic facts—in other words, we understand how he *described* the natural phenomena—we have yet to *explain* them. We are, at this point, still unable to answer questions of why phenomena regularly turn out the way they do. In his reply to the Empedocleans, Aristotle asserts that natural things must happen "for the sake of something." In this sub-section, I show that Aristotle explains that these natural phenomena were intended to exist this way for the sake of a certain end or function (*telos*). He says that "that nature operates for the sake of an end, and that this end is good."[14] In other words, these phenomena work towards the serving of ends.

In this sub-section, the relevant phenomena adduced is the regularity of certain features of all species of

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animals, including humans. In particular, Aristotle observes that animals always have existed and always will exist in two sexes – male and female. Aristotle's explanation of the existence of different sexes shows us how his teleology flows from his understanding of regularity. When explaining the existence of different sexes, he writes,

> [It] is thereby better than the lifeless which has none, and being is better than not being, living than not living. These, then, are the reasons of the generation of animals. For since it is impossible that such a class of things as animals should be of an eternal nature, therefore that which comes into being is eternal in the only way possible. Now it is impossible for it to be eternal as an individual…but it is possible for it as a species. This is why there is always a class of men and animals and plants.[15]

Two things stand out in this passage. Firstly, notice Aristotle's premise of the permanent characteristics of the animals. As Cooper observes, Aristotle does not question and merely presupposes that the same species will persist, and that they will always display the same characteristics.[16] This shows the underlying commitment to the earlier mentioned absence of chance. With this basic fact, Aristotle has described something in a way that does not change, therefore allowing him to move on to seek an explanation as to *why* this phenomenon occurs the way it does.

Secondly, he explains the existence of sexes through the functions they serve – or, the serving of ends. For Aristotle, phenomena are explained not primarily by *how* they came into being, but by *why* they came into being. Aristotle assumes that this end is good.[17] Like how one might explain why the seeds fell to the ground in our example in Section 1, Aristotle does not focus on what happened prior to the phenomena (letting go of the seeds). Instead, he looks at the end result of the process (the seeds on the ground) and asserts that this end result must be for the sake of something intrinsically good. For Aristotle, it is for the sake of this good that the phenomena occur the way they do.

In the passage, Aristotle first asserts that life is intrinsically good, but, as all individual living things do not live eternally, it is only by constant reproduction that an entire species can be eternal in order that the good of life be achieved and maintained. This leads him to explain that the two sexes exist for the species to be eternal and to be able to preserve the goodness of life.[18] In other words, for Aristotle, the two sexes are explained by how they facilitate an intrinsically good end, namely the preservation of life of the species. In first affirming the goodness of life, and then the role of the two sexes in maintaining this life, Aristotle affirms the goodness of the two sexes, and explains a teleological end.

Aristotle's concept of nature ultimately functions on its own, being a regular, fixed structure that necessarily works towards the end of maintaining the structure. For him, there is an efficiently organised "causal structure of reality" where discrete but regular phenomena, in our example the existence of different sexes, function together to make possible an advantageous end, in this example the permanence of the species.[19] This allows Aristotle to teleologically conclude that nature functions to serve certain ends.

To summarise Section 2, when Aristotle designates something as natural, he is both *describing* and *explaining* it. This means that the phenomena in question is, firstly, regular and permanent. It is a basic fact that occurs with the absence of chance. Secondly, it is also meant to work towards a certain teleological purpose. It *serves a certain end*. This gives him a way to both explain how and why certain phenomena occur.

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3. Political Principles

After dissecting Aristotle's concept of nature and breaking it to the absence of chance and serving of ends, we can now move on to how Aristotle applies it to derive political principles. When outlining his approach to political science, Aristotle writes that the first step is to find a "first principle." According to Aristotle, "the fact is a primary thing and a first principle. Now of first principles we see some by induction, some by perception, some by certain habituation, and others too in other ways."[20] Aristotle here insists on an empirically established "basic fact" or "first principle" as the foundation of political science. I argue that this is done to generate what he refers to as "rules in political science."[21] These "rules" are the political principles that I uncover in this section.

The first principle Aristotle refers to represents something that can be derived from basic facts and on top of which other explanations can follow. It is this observed absence of chance that allows Aristotle to build his theory upon these phenomena with the confidence that it will not change in the future and require reconsideration of the teleological explanations that follow. While Aristotle concedes that only a rough level of generality can be reached in politics, noting that "we must be content…to indicate the truth roughly and in outline, and in speaking about things which are only for the most part true," he nevertheless applies his concept of nature to politics.[22] He starts by first identifying a basic fact and applying the second step of explaining them teleologically with the assumption that "nature…does nothing in vain."[23]

In doing so, Aristotle applies the same methodology—the concept of nature— he uses in the natural sciences to politics. By first identifying a basic fact to anchor a first principle and then going on to explain the ends they serve, both regularity (absence of chance) and teleology (serving of ends) are again featured. This is perhaps unsurprising. Cameron notes that Aristotle also argues in favour of his teleological method on the account of its success in biology, and therefore he is likely to think that the same method would yield the most success in politics.[24] I demonstrate, in the following sub-sections, that Aristotle indeed uses the same method.

I introduce two political principles that greatly inform Aristotle's political theory—"the principle of rulership" and "social instinct." They will be discussed in sub-sections 3.1 and 3.2 respectively. This section's primary references will be kept to Aristotle's *Politics*, the text where he famously wrote that "man by nature is a political animal."[25] By this, he alludes to two different basic facts about humans that work as his first principles: their hierarchical and gregarious nature. The former suggests that humans are thought to naturally occupy certain positions in a social order where some rule over others. The latter refers to the innate sociability of humans which allow them to communicate and exist in communities. The hierarchical nature is captured in "the principle of rulership," whereas the gregarious nature is captured in the "social instinct." As I will show, Aristotle goes on to teleologically explain both of these political principles.

3.1 "*The Principle of Rulership*"

Aristotle notes that in every *polis* (Greek for "city" or "state") "there always appears in it a ruler and ruled" which "derives from all of nature."[26] Miller refers to this as the "principle of rulership," where the political organisation of humans is necessarily hierarchical. We can see how Miller arrives at this position by referencing Aristotle's argument for the existence of "natural slaves" on "grounds both of reason and of fact."[27] The grounds of "reason" and "fact" align nicely with what we established as components of his concept of nature—the serving of ends and the absence of chance.

The "basic fact" that Aristotle refers to aligns with our idea of a first principle, where he writes that the distinction between ruler and subject occurs

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"[a]t all events" in nature.[28] This is derived from empirical observation, in which Aristotle attempts to show that organisation into ruling and subject classes is widespread and ancient, and therefore regular and permanent.[29] By taking these concepts as basic facts of human life that occur with the absence of chance, Aristotle can therefore use the observation as a first principle upon which to build. Furthermore, Aristotle notes in his discussion of the natural superiority of males over females that "one rules, and the other is ruled; this principle, of necessity, extends to all mankind."[30] He explicitly establishes these forms of relationship as a "principle." The direct allusion to a "principle" and "necessity" also neatly aligns with what we have established as first principles derived from basic facts. It also shows how the absence of chance in Aristotle's idea of nature is at play.

The "reason" that Aristotle alludes to is a teleological one. This relationship is "not only necessary, but expedient," serving the mutually beneficial ends of both ruler and ruled.[31] Here, Aristotle clearly applies his teleological thinking when he explains this rulership by reference to its purpose or end. This is perhaps most clearly seen in Aristotle's discussion of the relationship between slaves and their masters. This slave-master dynamic is a clear example of a natural hierarchy that Aristotle is interested in.[32] Aristotle claims that, just as the body is ruled by the soul, slaves are better off when they subordinate to their masters. For Aristotle, like the irrational body, slaves are unable to reason independently and benefit from having rational masters that can give them instructions to follow.[33] This hierarchy is therefore one that Aristotle teleologically explains by referring to the mutually beneficial ends for both parties. The conclusion of Aristotle's "principle of rulership" is that there are natural rulers and subordinates. The relationship between ruler and subordinates occurs regularly, with the absence of chance. It also exists teleologically for the good of each party; it is meant to serve certain ends. For Aristotle, hierarchies exist in the same way that different sexes naturally exist for a good end.

3.2 "Social Instinct"

To establish a first principle, Aristotle first observes certain regular social features or basic facts about humans. He observes that humans necessarily exist in a society underpinned by social relationships. He assumes that anyone existing in isolation or outside these social relationships is "either a beast or a god" and therefore not human.[34] Humans are naturally gregarious, and those that do not exist within a network of social relationships can be "compared to a bird which flies alone"[35] or "an isolated piece at draughts."[36] These are things that can not be found with any regularity, or "monstrosities" in Aristotle's language. He also argues that humans have a natural capacity for speech, a social tool that allows them to better organise themselves by differentiating right from wrong.[37] For Aristotle, it is through using speech to deliberate and communicate with each other, and therefore educate each other on matters of justice, that we are able to form relationships. Aristotle therefore takes as a basic fact that humans are social and exist in communities. This allows him to describe another political principle, the idea that "a *social instinct* is implanted in all men by nature."[38]

Aristotle then goes on to teleologically explain this social instinct by the ends that he deems it serves. He notes that the end product of this natural social instinct is the *polis*, the highest form of social organisation. The polis exists for a "perfect and self-sufficing life, by which we mean a happy and honourable life."[39] He makes explicit his natural teleology when he writes,"[a]nd therefore, if the earlier forms of society are natural, so is the state, for it is the end of them, and the nature of a thing is its end. For what each thing is when fully developed, we call its nature…the final cause and end of a thing is the best, and to be self-sufficing is the end and the best."[40] The "fully developed" end of humankind's social instinct is the *polis*, which is itself therefore natural. In the *polis*, naturally social humans reach the desirable end of self-sufficiency through deliberation through

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speech on matters of justice and legislation.[41] By taking their gregariousness to be a basic fact that happens with the absence of chance, Aristotle takes humans to be naturally working towards serving the end of self-sufficiency in a *polis*. We can therefore see how Aristotle's concept of nature informs his politics. He explains his observation of the permanence of a natural "social instinct" in terms of its ends of self-sufficiency in order to explain the role of the *polis*, a political organisation. The takeaway of Aristotle's "social instinct" is that the *polis* is a natural phenomenon, because it exists for the sake of the good of the permanently socially inclined humans that inhabit it.

When we put together the two political principles, we can trace an outline of Aristotle's political theory. The conclusion that Aristotle derives from the "principle of rulership" and the "social instinct" is that humans naturally politically organise themselves in a *polis*. Within this *polis*, there is a natural hierarchy, which exists for the good of all. Aristotle derives these two political principles through his concept of nature, first observing something regular and then explaining them teleologically.

4. Conclusion

With the two political principles, we can move on to see an outline of Aristotle's political theory, his belief of how we should conduct politics. Aristotle calls politics the "science of the human good"[42] and regards political science, the study of politics, a "master art" and the most important of sciences, since it decides the pursuit of all other matters.[43] He states what I interpret as the mission statement of political science as follows: Political science

> ordains *which of the sciences should be studied in a state*, and which each class of citizens should learn and up to what point…it legislates as to *what we are to do and what we are to abstain from*, the end of this science must include those of the others, so that this *end must be the human good*.

This mission statement of political science is shaped by the two political principles Aristotle derives through his concept of nature: the "principle of rulership" and "social instinct." In other words, through the method of first identifying regular phenomena as basic facts to establish a first principle, then explaining them teleologically, Aristotle yields two political principles which in turn influence how he believes we should conduct politics. This gives us an outline of his political theory.

These two political principles come together to allow Aristotle to make what is commonly regarded as Western philosophy's first attempt at political science. For Aristotle, the natural "social instinct" and speech allows humans to come together to deliberate and decide matters of justice, or "what we are to do and what we are to abstain from," as well as "which of the sciences should be studied." This decides which pursuits to undertake in the polis, the highest form of social organisation. The "principle of rulership" determines the role of each "class of citizens" within the *polis*. The rulers help their subordinates make rational decisions, and subordinates obey the commands of the rulers. In doing so, they mutually benefit each other to serve the teleological end which "must be the human good." Therefore, under the "science of the human good," we can see that the "principle of rulership" ensures hierarchical relationships are mutually beneficial in the *polis*, the highest end of this "social instinct." This allows us to live in a way that we can achieve the "human good."

This paper has shown how Aristotle's concept of nature underpins his political theory, first by breaking down his concept of nature and then showing how he applies this concept to derive political principles. Aristotle's concept of nature consists of two components: regularity, or the absence of chance; and teleology, or the serving of ends. This allows him to both describe and explain phenomena. With this concept of nature, Aristotle

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is able to derive two political principles which in turn inform how he interprets the role of political science. These two principles form the basis of his political theory. This paper shows that, through an understanding of Aristotle's concept of nature, we better understand the foundation of his politics. This also shows how both his political and non-political work is underpinned by the same methodology.

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Notes

1. Joseph Chan, "Does Aristotle's Political Theory Rest on a Blunder?" *History of Political Thought* 13, no.2 (1992): 189–202.
2. Sylvia Berryman, "Naturalism in Aristotle's Politics," in *Aristotle on the Sources of the Ethical Life* (Oxford: Oxford University Press, 2019), Chapter 5; Timothy Chappell, "Naturalism in Aristotle's Political Philosophy", in *A Companion to Greek and Roman Political Thought,* ed. Ryan K. Balot (Chichester: Wiley- Blackwell, 2009), 382-398.
3. Terence Irwin, *Aristotle's First Principles* (Oxford: Clarendon Press, 1988), 8-22; Fred Miller, "Naturalism," in *The Cambridge History of Greek and Roman Political Thought,* ed. C. J. Rowe and Malcolm Schofield (Cambridge: Cambridge University Press, 2010), 321-343.
4. Aristotle. *On the Parts of Animals*, 645a 21-26, Book I, Part 5. Quoted by G.E.R. Lloyd, in Aristotle: *The Growth and Structure of His Thought* (Cambridge: Cambridge University Press, 1968), 69-70. All others are Oxford translations, unless otherwise stated. Emphasis added.
5. John M. Cooper, *Knowledge, Nature, and the Good: Essays on Ancient Philosophy* (Princeton: Princeton University Press, 2004), 121.
6. Miller, *The Cambridge History of Greek and Roman Political Thought*, 324-325; Cooper, *'Aristotle on Natural Teleology', Knowledge, Nature, and the Good: Essays on Ancient Philosophy*, 112-113; Lloyd, Aristotle: *The Growth and Structure of His Thought,* 88; Rich Cameron, "Aristotle's Teleology," Philosophy Compass 5, no. 12 (2010): 1101, doi:10.1111/j.1747-9991.2010.00354.x.; Martha Nussbaum, "The Great Philosophers - Aristotle," produced by BBC, interview by Bryan Magee, 1987, YouTube video, https://www.youtube.com/watch?v=sIKHmUWICWc.
7. Cooper, *'Aristotle on Natural Teleology', Knowledge, Nature, and the Good: Essays on Ancient Philosophy,* 124.
8. Lloyd, *Aristotle: The Growth and Structure of His Thought*, 88-89.
9. Aristotle. *Physics*, 198b 34-199a 8, Book II.8. From Cameron, 'Aristotle's Teleology', 1101. While Aristotle describes the phenomena occurring "invariably or for the most part," any concerns about "for the most part" are reconciled by Cooper in *Knowledge, Nature, and the Good: Essays on Ancient Philosophy,* 112-113, 4n. Cooper ultimately concludes that "for the most part" has no consequence on Aristotle's natural view that phenomena "regularly are generated throughout all time, and this is the way it always happens."
10. However, it is doubtful if Aristotle exhibits sound logical reasoning in this exchange. He also seems to contradict himself in other parts of his work. Nevertheless, most scholars agree that this is what Aristotle \thought. For more, see Cameron, "Aristotle's Teleology," 1102.
11. Cooper, *Knowledge, Nature, and the Good: Essays on Ancient Philosophy,* 121. Emphasis original.
12. Miller, *The Cambridge History of Greek and Roman Political Thought,* 332. Miller describes *kata phusin* as meaning "always or for the most part". Regarding concerns surrounding "for the most part," an explanation by Cooper is in footnote 8 of this paper.
13. Aristotle. *On the Generation of Animals.* Book IV, Chapter 2. It should be noted that Aristotle goes on to say "even that which is contrary to Nature is in a certain sense according to Nature." It is unclear how Aristotle reconciles this, though Miller offers a possible explanation in *The Cambridge History of Greek and Roman Political Thought,* Chapter 16.
14. Aristotle. *On Sleep*. 2.455b 17–22, In *The Complete Works of Aristotle,* Volume 1: The Revised Oxford Translation), edited by Jonathan Barnes (Princeton: Princeton University Press, 1984), 724.
15. Aristotle. *On the Generation of Animals.* Book II, Chapter 4.

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16. Cooper, *Knowledge, Nature, and the Good: Essays on Ancient Philosophy,* 110, n4.
17. This is also known as attempting to explain phenomena by their "final cause" rather than their "efficient cause." An in-depth exploration of Aristotle's four causes is outside the scope of this paper. For more, see Andrea Falcon, "Aristotle on Causality," *The Stanford Encyclopedia of Philosophy, Spring 2019 Edition*, *ed.*Edward N. Zalta, https://plato.stanford.edu/archives/spr2019/entries/aristotle-causality/.
18. Not to be confused with "the good life," a different Aristotelian concept.
19. Cameron, "Aristotle's Teleology," 1100.
20. Aristotle, *The Nicomachean Ethics*, 1094a 29-1094b7, Book I.2.
21. Aristotle. *Politics*. 1252a 15, Book I.1.
22. Aristotle and Lesley Brown, *The Nicomachean Ethics*, 1094b 19-23, Book I.3. trans. W. D. Ross (Oxford: Oxford University Press, 2009).
23. Aristotle. *Politics.* 1253a 9, Book I.1.
24. Cameron, "Aristotle's Teleology," 1102-1103.
25. Aristotle. *Politics*, 1253a 2-3, Book I.1; 1278b 20, Book III.6.
26. Miller, *The Cambridge History of Greek and Roman Political Thought*, 334.
27. Aristotle. *Politics*, 1254a 21, Book I.4.
28. Aristotle. *Politics*, 1254b. 2, Book I.5
29. See Aristotle. *Politics*, Chapter 14, Book 7.
30. Aristotle. *Politics*, 1254b 14-15, Book I.5. Aristotle notes that this exists even within individuals, where "it is clear" the "rational" soul rules the "passionate" body in Politics. 1254b 7-8, Book I.5.
31. Aristotle. *Politics*, 1254a 22, Book I.5.
32. Here, as elsewhere with his views on the natural subordination of women, it is important to take Aristotle's views as at least partially a product of the historical context in which he was writing. As Lloyd suggests, Aristotle's arguments for slavery are best interpreted as a rational justification for his "deep-seated Greek prejudices." See Lloyd, *Aristotle: The Growth and Structure of His Thought,* 265.
33. Aristotle. *Politics*, 1254b 20-23, Book I.5.
34. Aristotle. *Politics*, 1253a 29-30, Book I.2.
35. Aristotle. *Politics*, 1253a 6, Book I.2. Based on translation by Benjamin Jowett.
36. Aristotle. *Politics*, 1253a 6, Book I.2. This quotation occupies the same area as the one in footnote 34. It is the result of a different translation. Nevertheless, they prove the same point. For more insights into this quotation, see Alan Haworth, *Understanding the Political Philosophers From Ancient to Modern Times* (Florence: Taylor and Francis, 2014), 45-46.
37. Aristotle. *Politics*, 1253a 10-16, Book I.2.
38. Aristotle. *Politics*, 1253a 30-31, Book I.2 Emphasis added.
39. Aristotle. *Politics*, 1281a 1-2, Book III.9.
40. Aristotle. *Politics,* 1252a 31- 1253a 1, Book I.2.
41. Also see Nussbaum, "The Great Philosophers - Aristotle." It discusses how this necessary social aspect of humans means that ethics is not confined to "self-contained…or detached moral entities" like the Stoics or Epicureans. We necessarily live in a moral environment. This no doubt influences how, in *The Nicomachean Ethics*, Book I, Aristotle discusses the importance of politics and political science.
42. Aristotle, *The Nicomachean Ethic*s, 1094a 18-19, Book I.2.

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43. Aristotle, *The Nicomachean Ethics*, 1094a 28, Book I.2.
44. Aristotle, *The Nicomachean Ethics*, 1094a 29-1094b 7, Book I.2. Emphasis added.

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