

ARISTOTELIAN FORM AND END

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Several contemporary scholars have described Aristotle as having two levels of explanation corresponding to two sorts of facts about the world. One level consists of formal and final causes and the other level consists of efficient and material causes. These scholars have argued that Aristotle believes that the first level is not reducible to the second level. Formal and final causes can not be reduced to material and efficient causes.¹ In this paper I shall undertake a parallel project wholly within the first level. I shall argue that final causes can not be reduced to formal causes (or vice versa) in living things. The form and end of an organism are different.

Aristotle sometimes speaks as if the formal and final causes of organisms are simply the same. He says,

What is the formal cause of man? His essence. What is the final cause? His end. But perhaps these are the same.

(*Metaph.* 1044^a36–b1)

[T]he matter, the form, the mover, that for the sake of which. The last three often coincide; for the what and that for the sake of which are one...

(*Phys.* 198^a23–26)

There are four causes: first, the final cause... secondly, the definition of essence (and these two we may regard pretty much as one and the same)...

(*GA* 715^a4–6)

¹ D. M. Balme, "Aristotle's Use of the Teleological Explanation," inaugural lecture, Queen Mary College, University of London, 1965; J. Cooper, "Aristotle on Natural Teleology," in *Language and Logos*, ed. M. Schofield and M. Nussbaum (Cambridge: Cambridge University Press, 1982), p. 197–222; A. Gotthelf, "Aristotle's Conception of Final Causality," *The Review of Metaphysics* (1976), pp. 226–254.

The soul is the cause of its body alike in all three senses which we explicitly recognize. It is the source of movement, it is the end, it is the essence of the whole living body.

(DA 415^b8-12)²

A formal cause or form of some *X* answers the question (1) "What is *X*?" A final cause or end answers the question (2) "For the sake of what is *X*?" I shall call the best (most precise and satisfying) answers to these two questions *the* form and *the* end of *X* respectively.³ Though these questions are obviously different some interpreters assert or assume that for Aristotle a single entity always answers both questions best when *X* is an organism. That is, they straightforwardly equate Aristotelian form and end.⁴ What the identification of form and end implies, and what I deny,

² See also PA 639^b13ff.. All translations of Aristotle are taken from *The Complete Works of Aristotle: Revised Oxford Translation*, ed. J. Barnes (Princeton: Princeton University Press, 1984).

³ I believe that *the* form of *X* is an individual form such as the form of Socrates rather than a specific form such as the form of human, but I shall not argue for this claim here. See J. Whiting, "Form and Individuation in Aristotle," *History of Philosophy Quarterly* (1986), p. 359, n. 2.

Final causes, like efficient causes, are linearly ordered so that *X* has more and less proximate ends. I believe that *the* end of *X* is the most proximate end of *X*.

There is a problem here. Is the proximate, final causal explanation of Booth's squeeze of a trigger (a) the firing of a gun, (b) the bullet's flight through the air, (c) the death of Lincoln, (d) the presidency of Johnson, (e) the reconstruction of the South, or (f) some even further consequence? My answer is (c). (a) and (b) are not satisfying enough to be proximate *explanations* while (d), (e), and (f) are not precise enough to be *proximate* explanations. The former do not explain Booth's act while the latter explain more than his act.

Note that one difference between form and end is already manifest. While both are hierarchically ordered by increasing generality, final causes are sometimes linearly ordered by time, too.

⁴ J. Lear argues for the identity of Aristotelian form and end at length in his book *Aristotle, the Desire to Understand* (Cambridge: Cambridge University Press, 1988), p. 27-36. See also J. L. Ackrill, *Aristotle the Philosopher* (Oxford: Oxford University Press, 1981) p. 46; S. R. L. Clark, *Aristotle's Man* (Oxford: Oxford Press, 1975), p. 56; J. Cooper, p. 200; M. Grene, *A Portrait of Aristotle* (Chicago: University of Chicago Press, 1963), p. 211; T. Irwin, "The Metaphysical and Psychological Basis of Aristotle's Ethics," *Essays on Aristotle's Ethics*, ed. A. Rorty (Berkeley: University of California Press, 1980), p. 38; F. A. Lewis, "Teleology and Material/Efficient Causes in Aristotle," *Pacific Philosophical Quarterly* (1988), p. 65; G. R. G. Mure, *Aristotle* (London: Ernest Benn Limited, 1932), p. 13; D. Ross, *Aristotle* (New York: Barnes and Noble, 1923), pp. 74, 123, 125, 173; R. Sorabji, *Necessity, Cause, and Blame* (Ithaca: Cornell University Press, 1980), p. 166-167; S. Waterlow, *Nature, Change, and Agency in Aristotle's*

is that if *X* is an organism, then there is a single entity which is both the form and the end of *X*. I shall provide (1) two reasons why Aristotle should distinguish between the form and end of organisms, (2) two explanations of how someone might mistakenly come to identify the form and end of organisms, and (3) two problems for Aristotle's ethical theory which follow from the identification of human form and end.

1

My first argument is quite straightforward. An organism's form is its soul. Its end is a certain kind of life. These are distinguishable by Aristotle's ability/activity, potentiality/actuality distinction.

Aristotle asserts that the form of an organism is its soul many times (e.g. *DA* 412^a19–21, *PA* 641^a15–18). The claim that an organism's end is a kind of life is a bit more controversial. First let me clarify the claim. By "life" I mean the activities of the organism from maturity to death rather than merely the state of being alive. An organism is alive when it is asleep, but an organism does not achieve its end merely by sleeping (*NE* 1098^b31–1099^a3). A life of sleep is a kind of life which is not the end of an organism.

In the familiar *ergon* argument in *Nicomachean Ethics* I 7 (*NE* 1097^b25–1098^a18) Aristotle seeks the human end. Several different kinds of life are considered (nutritive, perceptual, rational, and earlier moneymaking, hedonistic, political, and contemplative). Clearly, one of this argument's presuppositions is that "we state the function of man to be a certain kind of life, and this to be an activity or actions of the soul..." (*NE* 1098^a12–14). It is an easy generalization to the claim that any organism's end is a kind of life, the exercise of certain abilities.

Having shown that for an organism form = soul and end = life, it merely remains to show, contra Irwin, that soul ≠ life.⁵ Aristotle means by "life" an activity of living and activities are actualities. Since Aristotle insists that "the soul is the actuality of a body" it is clear that both the final and the formal cause of an organism are actualities (*DA* 412^a21,

Physics (Oxford: Clarendon Press, 1982), p. 65; W. W. Wieland, "The Problem of Teleology," in *Articles on Aristotle*, ed. J. Barnes, M. Schofield, and R. Sorabji (London: Duckworth, 1977), vol. 1, p. 151; M. Wedin, *Mind and Imagination in Aristotle* (New Haven: Yale University Press, 1988), p. 17.

⁵ "The soul is the form because the form of an organism is its life —its goal-directed pattern of activity" (T. Irwin, p. 41).

412^a9–11, 414^a8–10, 414^a15–17). But “there are two kinds of actuality corresponding to knowledge and to reflecting. It is obvious that the soul is an actuality like knowledge,” (*DA* 412^a22–23) and that the activities of life (digestion, locomotion, thinking, etc.) are actuality in the second sense (*Metaph.* 1047^a30–32, *DA* 417^a30–b2).

Second actualities are activities and the corresponding second potentialities which they actualize are abilities to act. The activities of life are the exercise of their corresponding abilities.

The soul is an actuality of a different sort. The potentiality it actualizes is not ability, but matter. The soul or form of an organism is not an activity, but rather it is the structural organizing principle which makes a heap into a whole. It provides unity, which is a necessary though insufficient condition for thinghood.

Form and end, soul and life, first and second actualities of an organism certainly seem different, but by what Aristotelian principle can they be related and thus explicitly distinguished? It is a stroke of Aristotle’s genius to recognize that ability *is* organization. Soul is not only first actuality, but also second potentiality.⁶ Not only does soul bring matter into body-hood, it also enables the body to live. Thus, Aristotle defines the soul as an actuality of the first kind of a natural organized body” (*DA* 412^b4–6), and indicates that whatever is a first actuality is also a second potentiality.

The realization that soul or form is not only first actuality but also second potentiality enables Aristotle to use the second potentiality/actuality relation to distinguish the form and end of an organism. Form differs from end as ability differs from activity. The human end, for example, is not soul, but rather “an activity of soul...in a complete life” (*NE* 1098^a16–18). Soul ≠ life because abilities and activities are different. Soul and the activities of life must be different because soul is the ability to lead a life.

⁶ *DA* 412^a22–23 and 417^a21–b2.

	<u>soul/form</u>	<u>life/end</u>
matter (ύλη)	organization (εἶδος)	
potentiality ₁ (δύναμις ₁)	actuality ₁ (ἐντελέχεια ₁)	
	ability (ἐξις)	activity (ἐνέργεια)
	potentiality ₂ (δύναμις ₂)	actuality ₂ (ἐντελέχεια ₂)

We have seen that form as first actuality is related to matter and as second potentiality it is related to end. It is thus through form that the material and efficient causes are related to the final cause. Form acts as a mediator, binding together the other causes. When this mediation relation is examined from another perspective it provides a second way of distinguishing form and end, a way independent of the claims: form = soul \neq life = end. I will argue that form and end must differ for explanation to be possible, because formal and final causal explanation are different types of explanation.

To explain an artifact one states what its creator had in mind to achieve and what constrained him or her to create the artifact as he or she did. An explanation provides (1) a description of the creator's purpose and the manner in which the purpose determines the thing's design and, (2) an account of the intractability of the thing's matter, the inflexibility of the relevant causal laws, and the manner in which the matter and laws determine the design. Understanding an artifact consists in knowing why it is what it is and not some other thing. And the artifact is what it is because, given the constraints, the creator believed he or she could best accomplish the purpose by so forming the creation. The artifact's matter must, in other words, be structured so as to enable the artifact to achieve its end. What is to be explained and understood is the structure/ability of an artifact. The artifact's form is not part of, but rather the *object* of the explanation. What enables final, material, and efficient causes to combine into a satisfactory explanation, is the fact that an artifact's form is related as a means to an artifact's end.

Analogously, what makes Aristotelian explanation of organisms possible is the fact that an organism's form can be viewed as if it were a means to the organism's end. Thus, "nature, like thought, always does whatever it does for the sake of something, which something is its end" (*DA* 415^b16–17, *Phys.* 199^a9–20). The formal cause of *X* explains the means necessary for *X* to achieve its end. The final cause plus the material and efficient cause explain why such means are necessary. Form is, therefore, a different order of cause from its three companions. It is the immediate response, the first aid, to puzzlement. Things are the way they are because of form. From this stems form's seeming centrality in Aristotelian explanation. But serious puzzlement requires the further treatment of final, material, and efficient causal explanation. They explain

why things have the form they have in terms analogous to means and ends. Formal and final cause must be different because the final cause is part of the explanation of the form. Formal cause is (analogous to) means and final cause is (analogous to) end.

Must means and ends differ? What about items done for their own sake? To say that something is done for its own sake is not to say that its means and end are the same, but rather to say that it is not solely a means to a further end. It is an end in itself. What about items which are both means and end? Something can be both an end and a means to a further end, but it cannot be a means to itself without ceasing to be a means at all.

When we ask for the means to some end we are asking (a) what is necessary to achieve this end. When we ask for the end of some means we are asking (b) what these means are necessary to achieve. We cannot accept the answers that (b) the means are necessary to achieve only themselves or that (a) to achieve the end requires nothing but the end itself. Thus means \neq end.

Form can not only be analyzed into first actuality (organization) and second potentiality (ability), it can also be viewed as a synthesis of already given first potentiality (constraint) and second actuality (purpose). Thus formal and final causes of organisms differ not only as ability and activity in themselves, but also as means and ends for us.

What does Aristotle mean when he equates form and end? In *Physics* II 1 Aristotle says that the form of an organism is, in a sense, nature. He also indicates that nature, in this sense, is the end of the maturation process. So the organism's form is the final causal explanation of the organism's maturation process. Now I think that the passages in which Aristotle seems to identify form and end should be interpreted as elliptic statements of this claim that the end of the maturation process is the form of the organism.⁷

⁷ H. Apostle, *Metaphysics* (Bloomington: Indiana University Press, 1966), p. 351; T. Aquinas, *Commentary on the Metaphysics*, trans. J. Rowan (Chicago: Henry Regnery Co., 1961), p. 641; T. Aquinas, *Commentary on Aristotle's Physics*, trans. by R. Blackwell, R. Spath, and E. Thirlkel (New Haven: Yale University Press, 1963), p. 111; D. M. Balme, p. 10; A. Gotthelf, p. 251, n. 51.

If an organism's formal and final causes are different, why do Aristotle's commentators sometimes conflate these two causes? I shall suggest two ways by which they might come to make this mistake.

Some of Aristotle's interpreters believe that the form of the organism is not only the end of the organism's maturation, but also the end of the activities which constitute the organism's life. Cooper, for example, says

Explanation by a thing's form is explanation by its goal wherever one is attempting to account for some fact about the process whereby an immature or embryonic thing belonging to a certain species turns into a mature member of the kind. But formal explanation is also explanation by a goal even in the case where what one is explaining is the characteristic behavior of a mature specimen. The form of any natural living kind consists of an interlocking and mutually supportive set of capacities, so that to explain the exercise of any one of these capacities by reference to the form is to link it to the further exercise of some other capacity for which it provides a supporting condition... Explanation by the formal causes thus involves explanation by final cause both in the formation and in the behaviour of mature plant and animal specimens. The form that is appealed to in such explanations always functions partly as goal.⁸

Cooper is making two claims here. First, he echoes my previous observation. Form is a final causal explanation of the maturation process. The organism develops in the way that it does in order to achieve its form. Second, Cooper claims that form is a final causal explanation of the activities of the mature organism, what I have been calling its life. The organism acts or lives in the way that it does in order to maintain its form.

Someone might come to this view by taking seriously the following parallel. In order for the maturation process to proceed properly, many developing abilities must be exercised. If children do not run, jump, and play, then their coordination, strength, and stamina will decrease rather than increase. Similarly, the mature organism must exercise many

⁸ J. Cooper, p. 200. See also M. Nussbaum, *Aristotle's De Motu Animalium* (Princeton: Princeton University Press, 1978), p. 82.

abilities. If adults do not run, jump, and play, then their coordination, strength, and stamina will decrease rather than increase, too. Thus, the human form (especially the locomotive ability) is the final causal explanation of the running, jumping, and playing of both children and adults. Speaking loosely, the maturation process lasts a lifetime. The organism is always growing, but never grown. Living is the process of developing the ability to live.

Once one accepts that the form of the organism is the end of both its maturation and its life, the following argument involving four entities (organism, maturation, form, and life) and one operation (end of) becomes plausible.

1. end of maturation = end of life
2. end of maturation = form of organism
3. end of life = form of organism (from 1 & 2)
4. end of organism = life
5. If $X = Y$, then end of $X =$ end of Y .
6. end of end of organism = end of life (from 4 & 5)
7. end of end of $X =$ end of X
8. end of organism = end of life (from 6 & 7)
9. end of organism = form of organism (from 3 & 8)

This argument is not as bizarre as it might seem. Besides 1, the only questionable step is 7. It is easy to see how someone might come to accept 7. If Z is a final cause of Y , and Y is a final cause of X , then Z is a final cause (though not, of course, the proximate final cause) of X . Thus, an end of an end of X is an end of X . Pruning a few articles yields 7.

Of course, 7 is false. But it is important to see that 1 is also a mistake. Living a mature life is not the same as maturing nor are the ends of these processes the same.⁹ Both processes are movements from potentiality to actuality, but maturation is the actualization of first potentiality while living is the actualizing of second potentiality. The former is the coming to be of form; the latter is its use. Although some of the activities of the

⁹ Since different abilities may develop at different times and since most abilities do not develop instantaneously, the transition from maturing child to living adult is fuzzy rather than abrupt. For a long time the organism is mature in some ways but not in others. Nevertheless, fuzzy lines are still lines. It does make sense, not only with respect to a particular ability, but also with respect to a whole organism, to say that maturation precedes living.

mature organism help it develop or maintain its form, a great many activities do not. Reproductive activities are a prime example. As Aristotle says, "For the generation is for the sake of the substance and not this for the sake of the generation" (*PA* 640^a18–19, See also *GA* 778^b3ff., *NE* 1097^a34–b1).

Moreover, although maintaining and reproducing its form is a high priority end of any organism, these are not the whole end of the lives of all organisms, but only of the lives of those organisms which lead lives of nutrition and reproduction. Animals and humans do not respectively perceive and reason to preserve their souls. Rather they have the abilities they have in order to perceive and reason.¹⁰

By answering different questions (see p. 34) form and end play different roles with Aristotle's system. Form serves as a criterion of judgment while end is a criterion of value judgment. The conflation of these two roles or the claim that a single entity can fill both of them provides a second path to the identification of form and end. In this section I shall show that form and end fill these roles, and how the roles might come to be conflated. In section 3, I shall argue that no single entity can fill both roles.

Form, if anything, makes an entity what it is. The formal cause of *X* is what makes "*X* is a cow," true. For Aristotle, definitions are of species forms, and what an organism is, is a member of a species. Now only individual forms can be said properly to exist and these only in informed matter and not separately. Nevertheless, an organism belongs to a certain species to the extent that and because the organism bears a particular relation (call it *resemblance*) to its species form. It bears this relation, of course, only by having the individual form it has. Form is, therefore, the standard of judgment, the principle used to determine the species of an organism.¹¹ *X* is a cow because of its bovine form.

The final cause of *X* makes "*X* is a good cow," true. Aristotle maintains that a purposive entity is good to the extent that it achieves its end. The

¹⁰ K. Wilkes, "The Good Man and the Good for Man in Aristotle's Ethics," *Essays on Aristotle's Ethics*, ed. A. Rorty (Berkeley: University of California Press, 1980), pp. 345–346.

¹¹ By "judgment" here I do not merely mean the subsumption of just any sort of particular under any sort of universal, but rather, presuming an essence/accident distinction, I mean the determination of an entity's essence.

meaning of “good” is “good for.” “For all things that have a function or activity, the good and the ‘well’ is thought to reside in the function...” (NE 1097^b26–27, PA 639^b19–20, Pol. 1252^b34–35, Phys. 195^a23–25). We judge a living thing to be good insofar as it achieves the end of its species. Good people, for Aristotle, are people who lead natural human lives. They are people because they resemble the human form. They are good because they achieve the human end.¹² Thus, because the goodness of an organism is relative to its end as the organism’s essence is relative to its form, the organism’s formal and final causes respectively constitute the criteria of judgment and value judgment.

If an organism’s species and the end of that species are known, then the particular organism’s degree of goodness is easily obtained by determining the extent to which its particular life resembles the type of life which is the end of its species. Suppose, however, that the species’ end is unknown. Suppose I know that Socrates is a human, but I am ignorant of the final cause of humans. The relationship between formal and final causes seems to offer an indirect method of determining the extent to which Socrates is a good human.

Given certain constraints, form is the “best” way to achieve an end, the means to the end.¹³ Thus the more an entity resembles its species form, the more able it is to achieve its end. If Socrates closely resembles the form of human, if he is an almost perfect specimen, then because of the relationship between form and end Socrates is almost perfectly able to achieve the human end *whatever that end may be*. When we are ignorant of the end, the standard of value judgment of an organism, we evaluate the organism by noticing the extent to which the organism resembles its form, the standard of judgment. We assume implicitly that

¹² Notice that, like artifacts, organisms with differing ends share no common standard of value so that not only does the meaning of “good” differ among categories, but the standard of goodness varies from species to species (NE 1096^a23ff., Phys. 198^b7–8).

¹³ The artificer utilizes this means/end relationship between formal and final causes to determine his or her creation’s form, to fit its intended purpose. Aristotle tries, conversely, to deduce the human end from the human form (NE 1098^a1ff.) using the principle that the human final cause is the exercise of the human essential abilities, the actualization of the human form. Unfortunately, Aristotle begs the question here, for he can know which abilities are essential only by knowing for what they are essential. Aristotle, in other words, cannot know the human form without first knowing the human end.

the organism exercises its abilities fully. I will call this procedure of value judgment the makeshift procedure.¹⁴

Evaluating entities by means of their formal rather than their final causes leads to an identification of these causes through an equivocation on “good.” Entities are good (normative) insofar as their lives resemble their standards of value judgment, their ends. But we also say that entities are good (specimens) insofar as they resemble their standards of judgment, their forms. The use of form in the makeshift procedure to judge value, even though it is not used as a criterion of value judgment, tends to conflate these senses of “good,” resulting in the claim that the standards of judgment and value judgment, formal and final causes, are the same.

But is this use of “good” really equivocal? An organism is good (normative) because it achieves a certain end, and it can do so because of its form. Isn’t it good because it has that form? No. Socrates is a good person because of what he does rather than what he is, even though what he is enables him to do what he does.

But the sentence, “Socrates is a good instance of the human species” is surely a value judgment. Doesn’t this mean that there is no non-normative sense of the word “good” and thus no equivocation here? I allow that “Socrates is a good specimen” may indeed be considered a value judgment based upon a final cause, but not upon the final cause of a human being. “Socrates is a good person” is an evaluation of an organism with respect to that organism’s final cause, the human end. “Socrates is a good specimen” is an evaluation of a maturation process with respect to the final cause of that process. But the end of an organism’s maturation

¹⁴ I borrow this terminology from the autobiographical section of the *Phaedo* (97c–99c) where Socrates notices that standards of value judgment (what is best for a thing) and standards of judgment can serve respectively as the preferred and makeshift (99c) causal explanations. Reversing the connection which Socrates notices, I utilize an entity’s final and formal causes to provide preferred and makeshift evaluation procedures.

It is tempting to identify the criteria of judgment and value judgment for the following reason. If an organism always exercises its essential abilities fully, then its goodness (not merely its potential goodness) is proportional to its degree of resemblance to its form. When uninterfered with, all living things except humans fully exercise their essential abilities. Thus, the makeshift procedure usually works because organisms, except humans and organisms perverted by humans (e.g. race horses), are good (normative) if and only if they are good specimens. See K. Wilkes, p. 344.

process is the form of the organism. To say that Socrates resembles the human form is to say that Socrates' maturation process has achieved its end. It may be considered either a judgment about Socrates or a value judgment about his maturation.

3

In this section I will show that an identification of human form and end, a conflation of human standards of judgment and value judgment, conflicts with central tenets of Aristotle's ethical theory.

Aristotle differentiates between brutes and bad people. He stipulates that brutishness is only one of the three moral states to be avoided (*NE* 1145^a15ff.). A person can be incontinent or vicious without being brutish, while still remaining human. People can have the ability to reason while using it badly or not at all. In brutes, however, "it is not that the better part has been perverted, as in [a bad] man—they *have* no better part" (*NE* 1150^a2–3). In other words, brutes are progeny of humans who lack the ability to live good human lives because they lack the form of humanity. A brute is like a horse which happens to be wearing a human body. Bad people, on the other hand, are human because they have the human form, the ability to lead good human lives. They are bad because they choose not to lead such lives.

Distinguishing form and end fits nicely with Aristotle's distinction between brutes and bad people. It makes possible a qualitative distinction among those who lack the human form (brutes), those who have the human form but lack the human end (bad people), and those who have both the human form and end (good people).

On the other hand, the identification interpretation does not fit Aristotle's distinction between brutes and bad people. On the identification interpretation if a critter has the human form, then it achieves the human end, so it is not only a human but also a good human. And if the critter does not achieve the human end, then it lacks the human form, so it is not a bad human, but rather a non-human. There are good humans and brutes, but no bad humans.

Clark identifies form and end and then suggests that while a brute lacks the human form/end completely and a good person possesses the human form/end completely, a bad person possesses the human

form/end only partially.¹⁵ There are two problems with this suggestion. First, Aristotle denies that substance admits of degrees (*Cat.* 3^b33ff.). Second, even if substance did admit of degrees, why would Aristotle call a person with part of the human form bad rather than partially human? On Clark's suggestion mentally retarded people turn out to be bad people. This leads to a related problem.

People choose their characters and actions, but not their species. They are, therefore, responsible not for their nature but for their second nature (*NE* 1103^a18–19). To be good one must exercise one's human potentiality rather than have one's potential humanity exercised.

The identification interpretation, however, cannot make a qualitative distinction between nature and second nature.¹⁶ By evaluating people according to their resemblance to the human form the identification interpretation judges not the use, but rather the development of human abilities. It judges not the choices, but rather the nature of an organism. This is neither Aristotelian nor plausible, for it removes all responsibility from people. If people were good merely by being people, then choice and responsibility would be irrelevant to human evaluation. Praise and blame also become irrelevant. We do not praise people for doing what comes naturally, becoming human. Nor do we blame those who lack the ability to become human for not doing so. Such acts and omissions are not voluntary, but "praise and blame are bestowed on voluntary passions and actions" (*NE* 1109^b31).

4

Aristotle sometimes suggests that the form and end of organisms are the same, but I have shown that his system demands a distinction between the form and end of organisms. It is perhaps tempting to identify form and end. But both Aristotle's biology and his epistemology require a distinction between form and end. Moreover,

¹⁵ S. R. L. Clark, pp. 26–27.

¹⁶ Cooper, for example, states, "On Aristotle's theory of moral virtue, the virtues are essential properties of human *kind*; a person realizes more or less fully his human nature according as he possesses more or less fully those properties of character which count as moral excellences" (J. Cooper, "Forms of Friendship," *Review of Metaphysics* (1977), p. 635).

identification of form and end has disastrous implications for Aristotle's ethics. There are three possibilities. (1) Aristotle really believes that the form and end of organisms are the same, but he does not see that this identification conflicts with central tenets of his philosophy. (2) Aristotle really believes that the form and end of organisms are the same in some sense, but not in the straightforward way which some commentators have assumed. (3) Aristotle really believes that the form and end of organisms differ, and the passages in which he seems to identify them must be interpreted in another way. I have proposed the following interpretation. The passages in which Aristotle seems to identify form and end should be interpreted as elliptic statements of the thesis that the end of the maturation process is the form of the organism.

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