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ARISTOTLE'S THEORY OF HUMAN ACTION

City University of New York

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ARISTOTLE'S THEORY OF HUMAN ACTION

by

TERRELL WARD BYNUM

A dissertation submitted to the Graduate Faculty
in Philosophy in partial fulfillment of the
requirements for the degree of Doctor of
Philosophy, The City University of New York.

1986

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Abstract**ARISTOTLE'S THEORY OF HUMAN ACTION**

by

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Aristotle's theory of human action is an impressive achievement that has served philosophy well for more than two thousand years. In every philosophical era it is explored anew--and with great profit. As a contribution to contemporary efforts in this regard, the present dissertation aims to lay out, lucidly and in detail, the various components of Aristotle's action theory.

Since actions, according to Aristotle, constitute a sub-class of "the voluntary", the dissertation begins by examining Aristotle's account of voluntary activities. It discusses the chief characteristics shared by all such activities, and compares the *Nicomachean* and *Eudemian* accounts.

Perception is examined next, because percepts and

their lingering traces ("phantasms"), according to Aristotle, are the triggers of desire. And desire provides the impetus for animal behavior and human action. Aristotle's analysis assumes a rich array of desire-types, including appetites, passions, emotions, and wishes, all of which are analyzed in the dissertation.

The keys to adult human action--distinguishing it from animal and child behavior--are deliberation, "choice" and the so-called "practical syllogism". The dissertation examines these in some detail and produces a model of the practical syllogism.

Once the practical syllogism has been examined, the dissertation considers the question of whether Aristotle's theory of action provides a successful resolution of the so-called "problem of free will". It is argued that Aristotle--despite common misconceptions to the contrary--was aware of the problem and had a promising philosophical basis for its solution.

DEDICATION

To those whose sacrifice and support
made this project possible: my parents,
Elizabeth W. Bynum and Terrell W.
Bynum; and my wife, Aline W. Bynum.

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CHAPTER I

INTRODUCTION

1. Overview

According to Aristotle, "man is a moving principle or begetter of his actions as of children" (*Nicomachean Ethics* III 5, 1113b19).¹ But how does man "beget" his actions, and what does it mean to call him their "moving principle"? Aristotle's answer to these questions is a complex and powerful theory of action, and the aim of the present work is to examine that theory.

Because all genuine actions, according to Aristotle, are voluntary, our analysis begins (in Chapters II and III below) with his account of "the voluntary". Not all voluntary activities, however, are actions, so we need to distinguish between *actions* in Aristotle's strict sense and other types of activities. Crucial to this distinction are "deliberation" (*bouleusis*) and the end-product of deliberation, "choice" (*prohairesis*). Also important are the "trigger mechanism" of action--the so-called "practical syllogism"--and desire, the impelling force that leads to action. In examining these key components of Aristotle's theory, we will need to deal,

along the way, with his account of perception. Finally, at the end of our analysis (Chapter VIII), we will be in a position to consider some questions of autonomy and free will.

2. *The Issues*

Many questions must be raised and answered before we will have a complete account of Aristotle's action theory. The first of these concerns "the voluntary". What, according to Aristotle, is "the voluntary"? Is every human action voluntary? Is every voluntary activity an action? What are the chief characteristics that all voluntary activities have in common? These and similar questions are raised in Chapters II and III below.

In the Aristotelian *corpus*, there are two fairly extensive discussions of "the voluntary", one in the *Nicomachean Ethics* (henceforth called *NE*) and one in the *Eudemian Ethics* (henceforth, *EE*). Both versions present essentially the same theory, although the Eudemian account is more fully worked out and has fewer problems.²

The Nicomachean discussion is the *locus classicus* of Aristotle's account of the voluntary. In it, he takes an indirect approach by beginning with the *involuntary* and examining excuses. He discusses the circumstances under which one may be said to be "forced" or "compelled" to act; and he investigates whether pleasure, passion,

appetite or "the noble" can properly be said to compel. An additional--and important--question concerns *ignorance*: What kinds of ignorance render one's actions involuntary and what kinds do not?

Even though the Nicomachean account of the voluntary is mostly negative and indirect, it includes, as well, a briefly stated positive definition. Unhappily, that definition depends upon a theory of causality which is not explicitly presented. The Eudemian version, on the other hand, makes an explicit effort to fit the voluntary into a general causal theory; and the result is a better-developed, less troublesome account. Chapter III discusses that account, including the relevant aspects of Aristotle's causal theory. (Later, Chapter VIII considers additional aspects of causality which relate especially to the question of "free will".)

Among the activities which Aristotle considers voluntary, only *some* are actions in his strict sense. These require "deliberation" and "choice"; which, in turn, cannot be properly understood without an account of perception and desire. For these reasons, Chapter IV below discusses Aristotle's theory of perception, while Chapter V deals with desire.

Aristotle's account of perception is both a causal and a "copy" theory. Central to it are three things: (1) the "percept" (*aisthema*), which is causally generated in

an animal by the object perceived; (2) the lingering "perceptual trace" or "phantasm" (*phantasma*), which can represent an object in its absence; and (3) the faculty of *phantasia*, by means of which the animal interprets a percept or phantasm. What is the nature of a percept? And how is it possible for its lingering trace to represent absent objects? What is involved in the interpretation of a percept or phantasm? These and related questions are addressed in Chapter IV.

Interpreted percepts and phantasms are the "triggers" of desire--including all three types of desire: appetite (*epithumia*), passion (*thumos*), and wish (*boulesis*). Desire, according to Aristotle, provides the impetus or impelling force behind animal behavior as well as human action. It is therefore important, if one is to understand Aristotle's theory of action, to understand his account of the nature of desire and how it functions within an animal.

What is desire and how is it related to pleasure and pain? What is the physiology of desire, and how does this relate to bodily movement? Is "mere behavior" (as we might call it) associated with a different kind of desire than "action" in Aristotle's strict sense? These and other such issues are taken up in Chapters V and VI below. Crucial to the discussion is the question of what processes convert perceptions, "thoughts", and desires

into behavior and action, and what processes are unique to actions in the strict sense.

Chapter VI discusses wish, deliberation and choice. "Wish" is a special kind of desire--an intellectual or rational desire made possible by the faculty of reason (*nous*). The object of wish is "the good" (or, if one is mistaken, the apparent good). The ultimate or highest good for man, according to Aristotle, is *eudaimonia*; and wish is either for this, or for components of it. By means of wish, one establishes a general action-policy--a life plan and a set of goals in keeping with that plan. These goals, in turn, get converted by deliberation into intentions to act.

Deliberation is a special kind of thinking--a "desire-processing" activity--in which *nous* searches for and evaluates possible paths to one's goals. When the best path is identified, deliberation ends, and one forms the intention to follow that path. These intentions Aristotle calls "choices" (*prohaireseis*).

What is the nature of a "wish", and how does it relate to desire in general? How does "wishing" give rise to deliberation; and how, in turn, does deliberation give rise to intentions? Such questions are addressed in Chapter VI.

Given an intention to act (*prohairesis*), and appropriate information about the world, one initiates an

action. The "mechanism" that converts intention and information into action is the so-called "practical syllogism". What is this crucial action-triggering mechanism and how does it work? Is it similar in any way to the behavior-triggering device that results in animal behavior? Is Aristotle's account of the practical syllogism physiological in nature, or "mental", or both? These and related issues are taken up in Chapter VII.

Once the practical syllogism has been considered, we will have examined all the key elements of Aristotle's action theory. Then, we will be in position to investigate whether Aristotle's account can deal effectively with the so-called "problem of free will", as modern-day philosophers would put it. (Aristotle did not talk in such terms.) Consideration of the free-will problem requires further examination of Aristotle's causal theory, as well as discussion of the basic characteristics of "free" or "autonomous" actions. Are human actions caused? If so, are they necessitated by their causes? Do human beings, on Aristotle's account of action, act in ways that contemporary philosophers would call "free" or "autonomous"? Can they establish their own goals?--freely form intentions?--make their intentions prevail over desires and emotions? Such are the issues addressed in Chapter VIII.

3. Aristotle's Philosophical Method

Before beginning our examination of Aristotle's theory of action, it will be useful to describe his philosophical method, for his method often helps to explain the results that he gets.

Aristotle calls his method "dialectical"; and, at the beginning of *Topics*, he describes it as follows:

Now a deduction is an argument in which, certain things being laid down, something other than these necessarily comes about through them....it is a dialectical deduction, if it reasons from reputable opinions.... those opinions are reputable which are accepted by everyone or by the majority or by the wise--i.e. by all, or by the majority, or by the most notable and reputable of them. Again, a deduction is contentious if it starts from opinions that seem to be reputable, but are not really such.... For not every opinion that seems to be reputable actually is reputable. For none of the opinions which we call reputable show their character entirely on the surface.... (*Topics* I 1, 100a25-b27)

Since some opinions only *seem* to be "reputable", but really are not; and since "reputable" opinions do not show their reputable character entirely on the surface; a method is needed to sort them out. Aristotle's method is to gather together the apparently reputable opinions--he calls them "*phainomena*"--on a given topic, then compare them, looking for possible inconsistencies and "difficulties" (*aporiai*). If the "difficulties" can be resolved or answered, by advancing certain theories or hypotheses, while at the same time preserving all, or nearly all, the *phainomena* (especially the most important

ones), then one has established the theories or hypotheses in question as well as can be expected. As Aristotle puts it in *NE*, while discussing the problem of incontinence,

Of some such kind are the difficulties (*aporiai*) that arise; some of these [*phainomena*] must be refuted and the others left in possession of the field; for the solution of the difficulty is the discovery of the truth. (1146b6f.)

. . .

We must, as in all other cases, set the phenomena (*phainomena*) before us and, after first discussing the difficulties (*aporiai*), go on to prove, if possible, the truth of all the reputable opinions...or, failing this, of the greater number and the most authoritative; for if we both resolve the difficulties and leave the reputable opinions undisturbed, we shall have proved the case sufficiently. (1145b1-8)

Crucial to this method is the gathering of the apparently reputable opinions--the "*phainomena*". But what, more specifically, are these? In *Topics* I (see above), we are told that they are the opinions of "everyone" or "the majority" or "the wise". By "the wise" Aristotle appears to mean people like Socrates, Sophocles, Pericles, and other towering figures whom he regularly quotes with respect. By "everyone", Aristotle surely cannot be referring to every single person--not children or mad men, for example. This is confirmed by passages like this one from the beginning of *EE*:

To examine then all the views held about happiness is superfluous, for children, sick people, and the insane all have views, but no sane person would dispute over them. (1214b29ff.)

We must assume, then, that when Aristotle mentions

"everyone" or "the majority", he is talking about sane adults in a good position to know. So, for example, the opinions of sane adults with knowledge of astronomy would provide *phainomena* in astronomy, and the same point would hold for all other fields of knowledge or practice. As he says in *NE* I 3:

Now each man judges well the things he knows, and of these he is a good judge. And so the man who has been educated in a subject is a good judge of that subject, and the man who has received an all-round education is a good judge in general. (1094b28ff.)

But not every opinion of an astronomer or statesman or doctor, for example, would count as a *phainomenon*. What kinds of opinions, then, do count? In a very helpful article addressing this issue, G.E.L. Owen (1961) has identified two sorts of opinion that provide *phainomena* for Aristotle: *empirical observations and beliefs about linguistic usage*. Owen notes that empirical observations provide the major *phainomena* in sciences like astronomy, meteorology and biology (Owen 1961, pp.113-4); while, in philosophy, these are supplemented with opinions on linguistic usage. Thus, in discussing incontinence, says Owen,

what Aristotle proceeds to set out are not the observed facts but the *endoxa*, the common conceptions on the subject....He concludes his survey with the words 'these are the *legomena* (things said)' (VII 1, 1145b8-20), and the *legomena* turn out as so often to be partly matters of linguistic usage or, if you prefer, of the conceptual structure revealed by language.... (Owen 1961, p.114)

. . .

In the discussion of incontinence..., where the *phainomena* are things that men are inclined or accustomed to say on the subject, the *aporiai* that Aristotle sets out are not unexplained or recalcitrant data of observation but logical or philosophical puzzles generated, as such puzzles have been at all times, by exploiting some of the things commonly said. (Owen 1961, p.115)

In summary, then, Aristotle's dialectical method of doing philosophy involves

- (1) setting out empirical observations and opinions on linguistic usage of all, or nearly all, the sane adults in position to know about the topic in question, or of the towering figures in the field; and
- (2) identifying inconsistencies or puzzles (*aporiai*) that result from these *phainomena*; and
- (3) finding or devising theories or hypotheses that resolve the *aporiai*, while leaving the *phainomena*, or most of them, standing.

With this account of Aristotle's method in hand, we are now in position to consider his theory of action, beginning first with his account of "the voluntary".

NOTES

1. Unless otherwise indicated, all quotations of Aristotle are from the Revised Oxford Translation edited by Jonathan Barnes (see bibliography below).
2. The superiority of the Eudemian account of the voluntary over the Nicomachean version is striking evidence for those who believe that the *Eudemian Ethics* is later and more mature than the *Nicomachean Ethics*. (See, for example, Kenny 1978.) The present work, however, does not take a stand on this issue, since nothing here hangs upon the outcome.

CHAPTER II

"THE VOLUNTARY" IN THE *NICOMACHEAN ETHICS*

1. *Introduction*

We begin our study of Aristotle's theory of action by considering what he calls "the voluntary", since all genuine actions, he says, are voluntary. Not all voluntary activities, however, are actions, for 'voluntary' has a wider meaning that covers not merely the actions of human adults, but also some of the behavior of non-human animals and human children. (See *NE* III 2, 1111b8.)

2. *Translating the Greek Terms*

The English words "voluntary" and "involuntary" are traditionally used to translate the Greek terms *hekousia* and *akousia* as used by Aristotle. The cognates *hekon/akon* are rendered "voluntarily/ involuntarily", and *hekousion/akousion* are "the voluntary/the involuntary". These customary translations are not entirely satisfactory, since the Greek terms have a broader or

vaguer meaning than the English ones (Kenny 1979, 27; Hardie 1980, 152-3). Translators sometimes find it necessary, therefore, to use two or more different renderings in the same passage in order to produce a translation that makes sense to English-speaking readers. Thus, Aristotle might use *hekon/akon*, say, where a speaker of English could employ "willingly/unwillingly" or "intentionally/unintentionally" or "voluntarily/involuntarily". So, while an English speaker is able to say, for example, that he did something "intentionally but unwillingly" (like throwing cargo overboard, for example, to keep a ship from sinking in a storm), Aristotle must use circumlocutions like "in the abstract *akon* but in a particular difficult situation *hekon*". (See *NE* III 1, 1110a7f.)

Since no single pair of English words serves any better than "voluntary/involuntary", these customary renderings will be retained here.

3. *The Involuntary*

The *locus classicus* of Aristotle's account of the voluntary is *NE* III 1. There, he takes an indirect or "negative" approach by beginning with the involuntary. He considers first what might be called "excuses" for one's behavior--being compelled or lacking specific information--which, when present, show that the activity

in question is really involuntary, and therefore that one should not be held responsible for it. According to Austin, this "negative" approach to action and responsibility is not just incidental, but a commendable philosophical tack:

Aristotle has often been chidden for talking about excuses or pleas and overlooking 'the real problem': in my own case, it was when I began to see the injustice of this charge that I first became interested in excuses. (Austin 1956/7, 6)

By discovering what things make an activity *involuntary*, one can define "voluntary activities" as those which lack such things. One might then be in a position to state a "positive" theory or account of the voluntary. This is Aristotle's approach in *NE* III.

He opens his discussion of the voluntary by asserting that

- (A) praise and blame are bestowed for *voluntary* actions (1109b30-31), and
- (B) forgiveness and pity are bestowed for *involuntary* actions (1109b31-32).

In keeping with his usual philosophical method (as described in Chapter I above), Aristotle seems here to be presenting "*phainomena*"; that is, opinions of "the wise" or generally accepted beliefs used as starting points or benchmarks to test the correctness of proposed theories or answers. However, he does not go on to point out *aporiai*--difficulties that (A) and (B) can generate. Later in the same chapter, however, he claims that

forgiveness is bestowed for certain *voluntary* actions (1110a24)--a claim apparently contrary to (B)--and he fails to note the incompatibility with (B). (More on this below.)

After stating (A) and (B), Aristotle defines the involuntary as "Those things...which take place under compulsion (*ta bía*) or owing to ignorance (*di agnoian*)" [1109b35-1110a1]. Let us consider these defining characteristics of the involuntary--compulsion and ignorance--beginning with compulsion.

4. "Compulsory" Defined

Aristotle defines "compulsory" three times within Chapter 1 of *NE* III. Two of these definitions use the term *arche*--which has been variously translated "starting point", "beginning", "origin", "source", "moving principle"¹--and one employs *aitía*--which is normally translated "cause". Thus, at 1110a2-3, we find:

that is compulsory of which the moving principle [*arche*] is outside, being a principle [*arche*] in which nothing is contributed by the person who acts or is acted upon.... (See also 1110b15-16.)

At 1110b2, Aristotle says that activities are compulsory "when the cause [*aitía*] is in the external circumstances and the agent contributes nothing".

These comments *indirectly* relate the *NE* account of the voluntary to Aristotle's general theory of causation; but Aristotle makes no specific effort in the *NE* to do so

directly. This is an unfortunate shortcoming in the *NE* version (compared to the *EE* version), since understanding the causal conditions of the voluntary is a key to understanding the voluntary. (This is just one of several ways in which the *NE* account of the voluntary is inferior to that of the *EE*. See the present chapter below and also Chapter III.)

To gain a clearer idea of what Aristotle means by the *arche* or *aitia* of an activity, one can look at Aristotle's "philosophical lexicon" to be found in Book V of the *Metaphysics* where these terms are defined and illustrated. In Chapter 1 of that Book, he lists six kinds of *archai*. The kind most appropriate to the present discussion is the fourth one mentioned:

That from which (*not* as an immanent part) a thing first arises, and from which the movement or the change naturally first proceeds, as a child comes from the father and the mother, and a fight from abusive language. (1013a7-9, parenthetical material in the translation)

This account of the kind of *arche* in question is very similar to Aristotle's description of efficient cause in the next chapter of the *Metaphysics*:

That from which the change...first begins, e.g. the man who has deliberated is a cause, and the father a cause of the child....(1013a29-31)

. . .

The semen, the physician, the man who has deliberated, and in general the agent, are all *sources of change* or of rest. (1013b23-24, emphasis in the translation)

Thus, the *arche* of an activity is apparently an efficient cause of it. But which one? Often, an activity has more than one efficient cause. Presumably, the *arche* is that efficient cause "from which the movement or the change naturally first proceeds". Does this mean the efficient cause that it is most natural to *describe* as "the cause"? Or perhaps the efficient cause that occurs immediately prior to the activity? Aristotle does not explain in the *NE* how he should be taken. Fortunately, he does offer explanations in the *EE* which make his position clearer, and we shall turn to those explanations in Chapter III below.

Returning to the *NE* account of the compulsory, we find (at 1110a2) that if an activity is to be compulsory, the *arche* must be completely external to the person compelled. Aristotle's examples of such activities are (1) someone's being carried away by a wind and (2) someone's being carried away "by men who had him in their power" (1110a3-4). The *arche* of (1) is the wind, and that of (2) is the other men (i.e. not the person being carried). The person being blown or carried contributes nothing, so the activity in question is involuntary and the person should not be held responsible for it.

5. "Mixed" Actions

Unlike such compulsory activities, those which

Aristotle calls "mixed" (*miktai*) actions (1110a4-19) do not seem obviously involuntary. In "mixed" actions, a person *does* contribute something to the *arche*--because he's afraid of suffering some evil or because he hopes to achieve some noble goal. Aristotle's examples are these:

1. A person does something base, because he was ordered to do so by a tyrant who would kill that person's parents and children if he didn't do it. (1110a5-7)
2. A ship's captain throws cargo overboard during a storm in order to save himself and his crew. (1110a9-11)

Such actions seem to be partly voluntary and partly involuntary, since the causal factors include an *external* force (the tyrant's threat or the howling storm) and also an *internal* cause (including, presumably, the desire to save one's family or to save the ship and crew). At first, Aristotle says "it may be debated whether such actions are involuntary or voluntary" (1110a7-8). Considered in the abstract, he says--that is, considered as *types* of actions, devoid of any particular context--one would not voluntarily do them. Thus, one would not voluntarily do something base or throw cargo overboard. But considered *in a particular context*, such actions may be "sensible" (1110a11) and "worthy of choice" (1110a12). Since "the end of an action is relative to the [particular] occasion", says Aristotle, "[the words] 'voluntary' and 'involuntary' must be used with reference

to the moment of action" (1110a13).

To determine whether an action is voluntary or involuntary, therefore, one must consider the particular circumstances prevailing at the time the action is initiated. Most importantly, one must determine whether the *arche* of the action is within the person or without. With this requirement in mind, Aristotle concludes that "mixed" actions are voluntary since the *arche* is within:

Now the man acts voluntarily; for the principle (*arche*) that moves the instrumental parts of the body in such actions is in him, and the things of which the moving principle is in a man himself are in his power to do or not to do. Such actions, therefore, are voluntary.... (1110a15-18) ²

This way of analyzing "mixed" actions relies upon an important point about human action; namely, the very same activity can be truly described in a variety of ways, but only *some* of them are adequate descriptions of the *action* in question. (Some present-day philosophers would explain this in terms of the "intentionality" of action, though of course Aristotle did not use such language.) The activities of the ship's captain--to stay with one of Aristotle's examples-- can be described as (1) throwing cargo overboard or (2) throwing cargo overboard to save himself and his crew. Both are true descriptions of the activity in question, but only one correctly reports the *action* taken, since only one includes an account of the captain's desires. As Kenny says,

If an action is to be voluntary, then there will be a description of the action which will be a description of something the agent wants to do. But actions can be variously described.... it is the more complete description that is appropriate, the description including the relevant circumstances. (Kenny 1979, 31-32)

Aristotle's very brief explanation of why "mixed" actions are voluntary locates the cause of bodily movements *within* the man, thereby eliminating external causes as the *archai* of such actions. But the mere fact that the efficient cause is internal is not sufficient to make an activity voluntary. For example, sneezing, having an epileptic seizure, or crying out from an internally caused pain all have *internal* causes, but they are not voluntary.

Something more is needed to make an activity voluntary. Aristotle does not point this out explicitly, but he seems to be aware of the need for something more in his account, for he adds the crucial qualification that the man's activity must be "in his power to do or not to do".

This important addition to Aristotle's account is a departure from the "negative" strategy of simply identifying excuses. It is Aristotle's first mention in the *NE* of a *positive* theory of the voluntary. One wishes that he had paused to explain it in detail--especially in light of the fact that it will later become important not only to his account of the voluntary, but also to his theory of human action. What is it for an activity to be "in one's power to do or not to do"? Unhappily, Aristotle

does not explain it anywhere in Book III of the *NE*; and the reader is left to sort it out for himself. (More on this below.)

Having concluded that "mixed" actions are voluntary, Aristotle goes on to note that they are sometimes praised (when people "endure something base or painful in return for great and noble objects gained"--1110a20-21) and sometimes blamed (as in the opposite case when something trifling is gained by enduring great indignities--1110a21-23). This point squares nicely with his earlier-cited "*phainomenon*" that praise and blame are bestowed upon the voluntary. His next point, however, appears to clash with the other "*phainomenon*" that he had cited--that forgiveness and pity are bestowed for *involuntary* activities rather than voluntary ones. Thus, in discussing "mixed" actions--which he has just concluded are *voluntary*--Aristotle says that forgiveness (*syngnome*) is sometimes bestowed upon them "when one does what he ought not under pressure which overstrains human nature and which no one could withstand" (1110a24-25). He appears here to be contradicting himself: forgiveness bestowed for a *voluntary* action. Kenny suggests that this problem may result from ambiguity of the Greek word *syngnome*, which can mean both "excuse" or "pardon":

One way to free his thought from inconsistency is to take him as using [*syngnome*] sometimes as 'excuse' and sometimes as 'pardon', saying that we are excused for

what is involuntary and pardoned for what is voluntary. (Kenny 1979, 29)

Another way to resolve the difficulty would be to construe Aristotle as saying that *most* "mixed" actions are voluntary, but *some* are involuntary; namely, those which are done "under pressure which overstrains human nature and which no one could withstand". He would have good reason, after all, to call such actions involuntary since they are not within one's power "to do or not to do", and they therefore do not fulfill his (still very sketchy) positive account of the voluntary.

This way of avoiding the problem, however, would immediately create additional ones for Aristotle, for he says in the next sentence that some acts "we cannot be forced to do, but ought rather to face death after the most fearful sufferings" (1110a26-27). The example he gives is the act of committing matricide. But suppose one is pressured to commit matricide, and the pressure is the kind "which no one could withstand". Aristotle's position implies that we ought *not* to do it and also that it would be impossible to avoid doing it. We would then be held responsible for what is involuntary.

Thus it seems that Aristotle's discussion of "mixed" actions remains problematic even if we fix it up by construing him in ways that he does not himself clearly express. Though he doesn't note the kinds of problems

raised here, he does exhibit uneasiness or uncertainty in the passage in question. He says, for example, that "mixed" actions are *more like* voluntary acts (1110b6), rather than saying flatly that they are voluntary--this in spite of the fact that he had already concluded earlier that they are voluntary, and also in spite of the fact that he himself takes such actions to involve the weighing of pros and cons and the making of a decision:

It is difficult sometimes to determine what should be chosen at what cost, and what should be endured in return for what gain, and yet more difficult to abide by our decisions; for as a rule what is expected is painful, and what we are forced to do is base.... What sort of things are to be chosen for what it is not easy to state; for there are many differences in the particular cases. (1110a29-31, b7-8)³

To summarize Aristotle's account of "mixed" actions: they occur when one is faced with a choice between unpleasant possibilities. They require the weighing of pros and cons, the making of a decision, and the carrying out of that decision. The *arche* of such an action is within the man; and (except in cases where the pressure "overstrains human nature") it is "within his power to do or not to do" the act decided upon. "Mixed" actions therefore are voluntary.

6. Does Pleasure or the Noble Compel?

What about cases in which one is faced with pleasure, rather than pain? Aristotle deals with this

issue by addressing the claim that "pleasant and noble objects have a compelling power, forcing us from without" (1110b9-10). Various commentators⁴ have suggested that he has in mind here the characters of Euripides who were slaves of their passions, or perhaps Helen of Troy whose adultery, according to Gorgias, can be blamed on the compulsion of Aphrodite.

Aristotle's arguments in this passage are sketchy to the point of being mere summaries; and his assumptions appear to be problematic. He presents them (like (A) and (B) above) as if they were *phainomena* that it would be absurd to deny. They include:

- (C) If pleasant and noble objects have the power to compel, then *all* actions would be compulsory, "for it is for these objects that all men do everything they do". (1110b10-11)
- (D) "those who act under compulsion and unwillingly act with pain, but those who do acts for their pleasantness and nobility do them with pleasure". (1110b11-13)
- (E) It is absurd "to make oneself responsible for noble acts but the pleasant objects responsible for base acts". (1110b13-15)

In presenting (C), Aristotle seems to take it as obvious that not all acts are compelled. He appears to dismiss as absurd what today would be called "determinism". This passage and others like it in the Aristotelian *corpus* have led to the common misconception that Aristotle failed to understand the problem of determinism or to take it seriously.⁵ Since this is a

misconception and is discussed at length in Chapter VIII below, it will not be further pursued here.

(C) and (D) together seem to contradict Aristotle's own claim that "mixed" actions are voluntary: (C) says that every act one does is done for the sake of pleasure or the noble, and (D) says that what is done for pleasure or the noble is pleasant. If taken without qualification, these assumptions imply that every act one does is pleasant, which appears to fly in the face of common knowledge, and also to deny Aristotle's own point that "mixed" actions--which he has already said are voluntarily done--are often difficult to do because they are so painful.

The apparent problem can be resolved by adding qualifications that Aristotle expresses in other writings. Consider, for example, the following passage from the *Rhetoric*:

all voluntary actions must either be or seem to be either good or pleasant; for I reckon among goods escape from evils or apparent evils and the exchange of a greater evil for a less (since these things are in a sense desirable), and likewise I count among pleasures escape from painful or apparently painful things and the exchange of a greater pain for a less. (1369b23-28)

Given these qualifications, "mixed" actions can be considered "pleasant" in the sense that they are less painful than their alternatives. *Phainomenon* (D) is thereby saved.

By citing *phainomenon* (E), Aristotle assumes (correctly) that those who claimed--in his own day, as opposed to the later Stoics--that pleasant and noble things have the power to compel agree with him that at least *some* actions are voluntary. The burden of proof is then upon Aristotle's opponents to offer good reasons for the self-serving claim that they *themselves* are responsible for their noble deeds, but something *else* is responsible for their base deeds. Without such proof, their position seems to be an absurd rationalization.

In summary, then, Aristotle's discussion of pleasure and the noble leads him to the conclusion that actions done for the sake of these are voluntary, not compelled.

7. Do Passion and Appetite Compel?

Just as actions done for the sake of pleasure and the noble are voluntary, Aristotle notes near the end of the chapter (*NE* III 1, 1111a25-b3) that actions done by reason of passion (*thumos*) and appetite (*epithumia*) also are voluntary. Again, he offers several apparent *phainomena* to support his claim:

- (F) If acts due to appetite or passion are involuntary, then "none of the other animals will act voluntarily, nor will children". (1111a26-27)
- (G) "is it meant that we do not do voluntarily *any* of the acts that are due to appetite or anger, or that we do the noble acts voluntarily and the base acts involuntarily? Is not this absurd, when one

and the same thing is the cause?" (1111a27-29)

- (H) We ought to be angry at certain things and we ought to have appetite for certain things -- for example, health and learning -- and "it would surely be odd to describe as involuntary the things one ought to desire". (1111a29-31)
- (I) "what is involuntary is thought to be painful, but what is in accordance with appetite is thought to be pleasant." (1111a31-33)
- (J) "Again, what is the difference in respect of involuntariness between errors committed upon calculation and those committed in anger? Both are to be avoided, but the irrational passions are thought no less human than reason is, and therefore also the actions which proceed from anger or appetite are the man's actions. It would be odd, then, to treat them as involuntary." (1111a33-b3)

In citing the above evidence, Aristotle is relying upon what he takes to be common sense and ordinary usage, as is clear from phrases like "it would surely be odd" and "is thought to be". (This is the kind of language he tends to use when citing *phainomena*.) Again, however, at least some of this evidence seems problematic. Thus, with regard to (G) Kenny asks,

What does Aristotle mean by 'one and the same thing': does he mean the agent or his passion? If the agent, then he is begging the question against his opponent.... If the passion, how on his view can a noble action be the result of passion? (Kenny 1979, 37)

Evidence (I) claims that the involuntary is painful. But this is not always the case: sometimes what is involuntary is nevertheless pleasant--for example, the wind could blow one's boat out of control and nevertheless

blow it right where one wanted to go anyway.

Of course, not *everything* about these "*phainomena*" is problematic. We do commonly assume that animals and children do some things voluntarily. And it *does* seem absurd to claim that we "ought" to do something that is involuntary. Finally, passion and appetite are internal to a man, not external, and so the man can reasonably be considered the originating source of the activities that result from them.

Thus, despite problems with parts of his evidence, Aristotle provides some good reasons for saying that activities due to passion or appetite are voluntary. Combining this with others of his conclusions mentioned above yields the following summary of Aristotle's discussion of compulsion:

1. When the *arche* is completely external and the person in question contributes nothing to it, the activity is involuntary.
2. A "mixed" action is voluntary, since the *arche* is within the person and the action is "within his power to do or not to do".
3. Activities caused by desire for pleasant or noble objects are voluntary.
4. Activities due to passion or appetite are voluntary.
5. A person can be held responsible for (i) "mixed" actions, (ii) activities resulting from desire for pleasure or the noble, and (iii) those due to passion or appetite.

Aristotle has not said explicitly what the *arche* of a

voluntary activity is, although we do know that it has to be some sort of efficient cause occurring *within* an animal or child or adult human being. Since the discussion has centered around such things as appetites, passions, wants and choices; and since all of these essentially involve what Aristotle calls *orexis* (desire); presumably the *arche* must involve desire in some important way that has not been spelled out in detail. This inference is supported by passages in other writings of Aristotle--for example, *Rhetoric* I 10, where he says that all actions due to a man himself are caused by rational desire (wish) or irrational desire (passion and appetite), or by habit which in turn yields desired pleasure.

8. Ignorance

Besides compulsion, the second thing that can make an action involuntary, according to Aristotle, is *agnoia* (see 1110b17-1111a21). This term is traditionally translated "ignorance", though Kenny (1979, 49) has pointed out that "error" may be a better rendering since, as Aristotle uses it, the word "*agnoia*" covers not only a lack of knowledge but also mistaken belief. The traditional rendering--"ignorance"--will be used here with the understanding that it can include the presence of mistaken belief.

Aristotle begins his discussion of ignorance by

drawing a distinction between the "non-voluntary" and the "involuntary" (1110b17-24). Everything done by reason of ignorance, he says, is *non-voluntary*, but only what produces pain and regret afterwards is *involuntary* (1110b17-18). Thus, if someone does something through ignorance, and afterwards "feels not the least vexation at his action, [he] has not acted voluntarily, since he did not know what he was doing, nor yet involuntarily, since he is not pained" (1110b20-22).

This distinction is a troublesome one. It violates Aristotle's own stated principle that the terms "voluntary" and "involuntary" should be applied with reference to *the moment of action* (see 1110a14). If adopted, it would lead to the very strange result that an action could be non-voluntary at the moment it is performed, then later become involuntary if regrets arise, then later still cease to be involuntary if the regrets are forgotten or change.

Many commentators have pointed out that this distinction is not a happy one. Ross (1977, 198) says, for example: "This distinction is not satisfactory. There is no real difference of meaning between 'involuntary' and 'non-voluntary'." Hardie (1980, 156) calls the distinction "perverse", but suggests that it results from "the fact that *akousion* has a wider range of meaning than 'involuntary'". A similar view is also shared by Kenny

(1979, 53), who says: "Probably Aristotle is here influenced by the use of [akon] to mean 'unwillingly', 'reluctantly'...." Fortunately, the distinction in question is a mere side remark, and nothing of significance hangs on it. Aristotle does not employ it later to draw further conclusions.⁶

The next distinction that he makes (1110b25-32), however, is a more important one; namely, the distinction between

1. acting "by reason of" ignorance--that is, engaging in an action whose efficient cause is ignorance, and
2. acting "in ignorance"--that is, engaging in an action whose efficient cause is something other than ignorance, although the cause does make the agent ignorant about what he is doing.

A man who is drunk or in a blind rage, says Aristotle, acts *in* ignorance, but we attribute his behavior to alcohol or to rage, not to the ignorance which they cause, and we do *not* say that such behavior is involuntary. We normally hold a man responsible for what he does while drunk or in a rage.

On the other hand, acting "by reason of ignorance" is different from this, for if the ignorance in question concerns *particular* facts about the activity--and if negligence is not involved--we *do* say that the activity is involuntary, and we do bestow forgiveness or pity for it. The particular circumstances of which a person can be

ignorant, according to Aristotle, include such things as

who he is, what he is doing, what or whom he is acting on, and sometimes also what (e.g. what instrument) he is doing it with, and to what end⁷ (e.g. for safety), and how he is doing it (e.g. whether gently or violently). [1111a3-5]

Aristotle notes that one would have to be insane to be ignorant of all these things at once or ignorant of who one is; but it is quite possible to be sane and yet ignorant of one or another of them or even several. It is actions based on just such ignorance that Aristotle calls "acting by reason of ignorance"; and it is just such ignorance that can render an action involuntary. He gives examples:

But of what he is doing a man might be ignorant, as for instance people say 'it slipped out of their mouths as they were speaking', or 'they did not know it was a secret', as Aeschylus said of the mysteries, or a man might say he 'let it go off when he merely wanted to show its working', as the man did with the catapult. Again, one might think one's son was an enemy, as Merope did, or that a pointed spear had a button on it, or that a stone was [very light] pumice-stone; or one might give a man a draught to save him, and really kill him; or one might want to touch a man, as people do in sparring, and really strike him. (1111a8-15)

In this passage Aristotle does not mention the important question of whether or not the ignorance is due to negligence. For this reason, his position may appear to be much too lenient, allowing an action to be involuntary--and therefore deserving of forgiveness or pity--even when the ignorance would normally be called inexcusable. As Kenny says, "we must take him as meaning

'there is *room for excuse and pity*' if his teaching is not to be impossibly overlenient". (Kenny 1979, 52) This way of construing the passage seems justified, since Aristotle explicitly discusses the relevant sort of negligence just four chapters later (Chapter 5 of *NE III*).

But what if one is ignorant, not of particular circumstances, but rather of general rules of conduct? That kind of ignorance, says Aristotle, is *not* excused, for that kind makes a man *wicked*. A wicked man, he says, is "ignorant of what he ought to do and what he ought to abstain from"--"of what is to his advantage" [i.e., of what conduces to his *eudaimonia*].⁸ His ignorance is "ignorance in choice" and "ignorance of the universal". Men are blamed for that kind of ignorance, and their actions are not considered involuntary.

Most commentators of the past hundred years (e.g., Burnet 1900, 117; Hardie 1980, 157) take Aristotle to mean one and the same thing by the phrases "ignorance of what he ought to do and what he ought to abstain from", "ignorance of what is to his advantage", "ignorance in choice", and "ignorance of the universal". According to these commentators, all four phrases mean ignorance of the general rules of conduct that every adult is expected to know. But if *this* is what Aristotle means by all four of these phrases, his distinction lacks an important component: one is blamed not only for failing to know

proper rules of conduct, but also for failing to have *general knowledge* about people and the world. Thus someone who claims to have acted without knowing, for example, that stabbing harms people, or that boiling water burns the skin, or a great number of other general facts that are commonly known, is not pardoned; and the plea that he has acted involuntarily is not accepted.

Perhaps Aristotle's phrase, "ignorance of the universal" is broad enough to cover both ignorance of rules of conduct *and* of general knowledge. In any case, at 1110b31-34, Aristotle appears to distinguish these two from each other and also from ignorance of particular circumstances:

it is not ignorance in choice that makes action involuntary (it makes men wicked), nor ignorance of the universal (for that men are *blamed*), but ignorance of particular circumstances of the action and the objects with which it is concerned. [Emphasis in the translation.]

In this passage Aristotle uses language ("not...nor...but") that seems intended to distinguish three separate things:

- (a) "ignorance in choice" [ignorance of general rules of conduct]
- (b) "ignorance of the universal" [ignorance of general knowledge?]
- (c) "ignorance of particular circumstances"

Whether or not the present passage *is* intended to distinguish these, Aristotle does use language in a later

chapter of the same book (Chapter 5) that is broad enough to cover them all:

we punish a man for his very ignorance, if he is thought responsible for the ignorance.... we punish those who are ignorant of *anything* in the laws that they ought to know and that is not difficult, and so too in the case of *anything else* that they are thought to be ignorant of through carelessness; we assume that it is in their power not to be ignorant, since they have the power of taking care. (EN III 5, 1113b33-1114a4; emphasis not in the translation)

9. Voluntary Activities

Aristotle's discussion of ignorance completes his "negative" approach to the voluntary--the identification of excuses which render an activity involuntary. He is now in a position to state his positive view:

Since that which is done under compulsion or by reason of ignorance is involuntary, the voluntary would seem to be that of which the moving principle [*arche*] is in the agent himself, he being aware of the particular circumstances of the action. (1111a22-24)

We noted above that Aristotle is very unclear in the *NE* about what sort of thing the *arche* of a voluntary activity has to be. Since his discussion of compulsion mentions such things as passion, appetite, wish and choice, however, we concluded that the *arche* must involve what Aristotle calls desire (*orexis*). Given this construal of *arche*, the account of the voluntary in the *NE* can be viewed as having two components:

- (1) The activity must be caused by the agent's (a child or adult or non-human animal) desires or choices; and

- (2) The activity must occur under circumstances in which the agent's perceptions, imaginings, beliefs about the specifics of the situation are correct.

It is of interest to note that this account of the voluntary is couched in terms that contemporary philosophers would call "intentional". Thus, voluntary activities essentially involve the agent's own view of the world (perceptions, imaginings, beliefs) and his wants and goals (desires, choices).

Although this positive account of the voluntary does not explicitly mention the ability "to do or not to do", which is mentioned by Aristotle in an earlier passage (1110a17); the passage in question (1111a22-24) does say that "the moving principle is in the agent himself", and the earlier passage asserts that "the things of which the moving principle is in a man himself are in his power to do or not to do." With regard to men at least (he does not mention animals and children in the present passage), Aristotle appears to be saying that voluntary activities are ones that a man can do or not do. Four chapters later, he says again that "the acts whose moving principles are in us must themselves also be in our power and voluntary" (1113b21-22); and

where it is in our power to act it is also in our power not to act, and *vice versa*; so that, if to act, where this is noble, is in our power, not to act, which will be base, will also be in our power, and if not to act, where this is noble, is in our power, to act, which will be base, will also be in our power. (1113b6-11)

Therefore, for adult humans the voluntary must coincide with activities which are "within our power to do or not to do". Whether this view commits Aristotle to free will rather than determinism is an important issue which arises from the passage in question, but we shall defer consideration of it until Chapter VIII below.

It is also worth mentioning that Aristotle is not so cautious in this passage as could be desired. His assertion that an activity whose moving principle is within us is "in our power to do or not to do" overlooks things like sneezing, crying out in pain, and so on, which were mentioned above, as well as "prophesying and growing old" which he himself mentions in the *EE*. Indeed, this is one more way in which the *EE* account of the voluntary is better.

10. Voluntary States of Character

Using the account of the voluntary discussed above, which concerns specific activities, Aristotle introduces a second notion of the voluntary, one that concerns *states of character* (and even states of the body). States of character are habits of acting that are built up gradually from particular actions. Since the particular actions are all voluntary--they are within one's power to do or not to do--the gradual development of

a character state is also voluntary:

men are themselves responsible for being unjust or self-indulgent, in that they cheat or spend their time in drinking bouts and the like; for it is activities exercised on particular objects that make the corresponding character....if without being ignorant a man does the things which will make him unjust, he will be unjust voluntarily. (1114a4-13)

States of character are built up gradually, and once they are formed, they cannot be eliminated over night. Indeed, Aristotle sometimes talks as if they can *never* be eliminated:

it does not follow that if he wishes he will cease to be unjust and will be just. For neither does the man who is ill become well on those terms--although he may, perhaps, be ill voluntarily, through living incontinently and disobeying his doctors. In that case it was *then* open to him not to be ill, but not now, when he has thrown away his chance, just as when you have let a stone go it is too late to recover it; but yet it was in your power to throw it, since the moving principle was in you. So, too, to the unjust and the self-indulgent man it was open at the beginning not to become men of this kind, and so they are such voluntarily; but now that they have become so it is not possible for them not to be so. (1114a13-22)

When Aristotle says things like "it is not possible" for the unjust to change, one should construe him as meaning that they cannot change *suddenly* simply by desiring to do so, or simply by engaging in a few just acts. One should construe him as exaggerating in order to make a point. After all, he does tell us in Book I of the *NE* that the purpose of that work is to help his listeners to act virtuously. He clearly believes that one retains the ability to act voluntarily even after one has a fully

formed character. And, if one acts voluntarily, then he has the ability "to do or not to do" the action in question.

actions and states are not voluntary in the same way; for we are *masters of our actions from the beginning right to the end*, if we know the particular facts, but though we control the beginning of our states the gradual progress is not obvious, any more than it is in illnesses; because it was in our power, however, to act in this way or not in this way, therefore the states are voluntary. (1114b30-1115a2, emphasis added here)

11. Summary of Nicomachean Version

The above discussion yields the following account of voluntary activities as described in *NE*: Non-human animals, human children and human adults are all capable of voluntary activities. The starting point (*arche*) of a voluntary activity must be in the agent himself, and he must be aware of the relevant specifics of the situation at the time of the activity. For an adult human, at least, the activity must be "within his power to do or not to do".

Aristotle has not made it clear what the *arche* of a voluntary activity must be; although his discussions seem always to involve such things as appetites, passions, wishes and choices. For this reason, the *arche* seems either to *be* or to closely involve some form of desire (*orexis*) or choice (*prohairesis*). This inference is supported by discussions of cause and voluntary activity

in other Aristotelian writings like *Metaphysics* V 1 and *Rhetoric* I 10.

Fortunately, the *Eudemian Ethics* is more specific on these matters, so we need not rest content with surmise and inference. The next chapter, then, deals with the Eudemian version of the voluntary.

NOTES

1. "Starting-point" is Woods' rendering of the term *arche* (in Woods 1982). This rendering often seems better than Solomon's "principle" (Oxford and Revised Oxford translations); and so it will be used from time to time below.
2. This is the first passage in which Aristotle uses the phrase "in his power to do or not to do", which becomes an important component in his *positive* account of the voluntary to be considered at length below.
3. It is of interest to note here--as Kenny does (1979, 35)--that in this passage Aristotle distinguishes two different ways to behave wrongly in the prospect of pain--ways that are similar to intemperance and incontinence in the prospect of pleasure. One can make the wrong judgment (like the intemperate person) or make the correct judgment but fail to carry it out (like the incontinent person).
4. See, for example, Adkins 1960, 325; Sorabji 1980, 248. See also Kenny 1979, 35.
5. For an extended discussion of this common misconception, see Sorabji 1980, Chapter 15.
6. In the late work *De Motu Animalium* (Chapter 11, 703b3-704a1), Aristotle makes a *different* distinction between the involuntary and the non-voluntary. There, an involuntary movement is described as a sudden stimulus-occasioned response of a particular body part (like the heart or penis) when something suddenly appears to someone. The appearance of a light that is seen as an enemy's beacon, for example, may cause even a brave man's heart to leap. But this is a momentary response to a stimulus, and not the result of cowardice or a genuine desire to flee. In contrast, a non-voluntary movement--like falling asleep or breathing--is a purely mechanical motion resulting from physiology and does not even involve a sudden appearance or stimulus. In any case, the *De Motu*

discussion does not directly relate to our present effort to determine the Nicomachean account of "the voluntary". (See Nussbaum 1978, pp. 379-81.)

7. Aristotle confusingly says "to what end" here when he means "with what result". See Kenny 1979, 51 and Hardie 1980, 158.
8. For Aristotle, what one ought to do and what is to one's advantage amount to the same thing; for it is to one's advantage to maximize "happiness" (*eudaimonia*); and Aristotle defines *eudaimonia* as a life filled with virtuous activities. Virtuous activities are, of course, those that ought to be done. (See *NE* I 7.)

CHAPTER III

"THE VOLUNTARY" IN THE *EUDEMIAN ETHICS*1. *Introduction*

In the previous chapter, we noted that the Nicomachean account of "the voluntary" (Book III) has several shortcomings that are not found in the Eudemean version. In particular:

1. The Nicomachean version makes no explicit effort to fit the theory of the voluntary into a general theory of causation, while the Eudemean version tackles this task directly.
2. The Nicomachean version uses the important phrase "the power to do or not to do" without any indication of how to understand it. The Eudemean version, on the other hand, provides more help in this regard.
3. The Nicomachean version is inconsistent with the fact that some human activities--like dying or growing old, for example--are internally caused, and are within our power to do, but *not* within our power *not* to do. The Eudemean version, on the other hand, explicitly allows for such activities.

4. The Nicomachean version introduces the troublesome distinction between the "non-voluntary" and the "involuntary"; while the Eudemian version avoids this mistake.
5. The Nicomachean version is contradictory or problematic when dealing with actions which are done "under pressure which overstrains human nature and which no one could withstand". The Eudemian version handles these cases more successfully.

Since the Eudemian account of "the voluntary" appears to be the better version, let us make a new beginning here and spell it out, starting with the remarks on causation that Aristotle employs to introduce the voluntary.

2. *Controlling Origins*

Like the Nicomachean version, the Eudemian account of the voluntary assigns a central role to the *arche* of an activity--the "starting-point"--the efficient cause from which the activity "naturally first proceeds". But, unlike the *NE*, the *EE* has, in Book II, Chapter 6, a lengthy discussion of the nature of the *arche* in question. The chapter is a difficult one--very compressed--in which it is often hard to determine which statement is an assumption and which a conclusion. Careful analysis of the chapter, and related passages in other parts of the *corpus*, yields the following set of claims:¹

1. Every *arche* (origin, starting-point) is an efficient cause, but not every efficient cause is an *arche*. It is possible for various members of the *same* causal chain to be *archai*. Indeed, most *archai* have previous causes, though *some*--like

God--are uncaused.

2. Not every *arche* is the special kind that Aristotle calls "controlling" (*kurios*). To be a *controlling* origin, an *arche* must be a starting-point of change (*kinesis*).
3. The changes caused by *necessary* controlling origins are also necessary. Thus, for example, the heavenly motions caused by God are necessary motions.²
4. If there are any changes or movements that are *not* necessary, their controlling origins have to be contingent in some respect--something about such origins has to be capable of being or not being.
5. Many human activities are *contingent*. Therefore, the controlling origins of such activities also are contingent.
6. If the controlling origin of a contingent human activity (like an action or some spur-of-the-moment behavior) is "internal" to the person in question, then he is the source or cause of the activity, and its happening or not depends upon him.

Each of these six summary statements requires comment or elaboration:

Statement 1-- As indicated in Chapter II above, the fourth meaning of *arche* that Aristotle lists in his "philosophical lexicon" (*Metaphysics* V)--the meaning that concerns efficient cause--is the one relevant to the present context. Aristotle describes such an *arche* as "that from which...the change naturally first proceeds". This definition may give the impression that, for Aristotle, such an *arche* must always be the *very beginning* of a causal chain. But this is not so. One must be

careful to distinguish between, on the one hand, the first member of a causal chain and, on the other hand, the various beginnings of *kineseis* and of substances which may be components in such a chain. It is clear from a variety of passages in the Aristotelian *corpus* that this sense of *arche* can apply to different members of the *same* causal chain. Sorabji notes, for example,

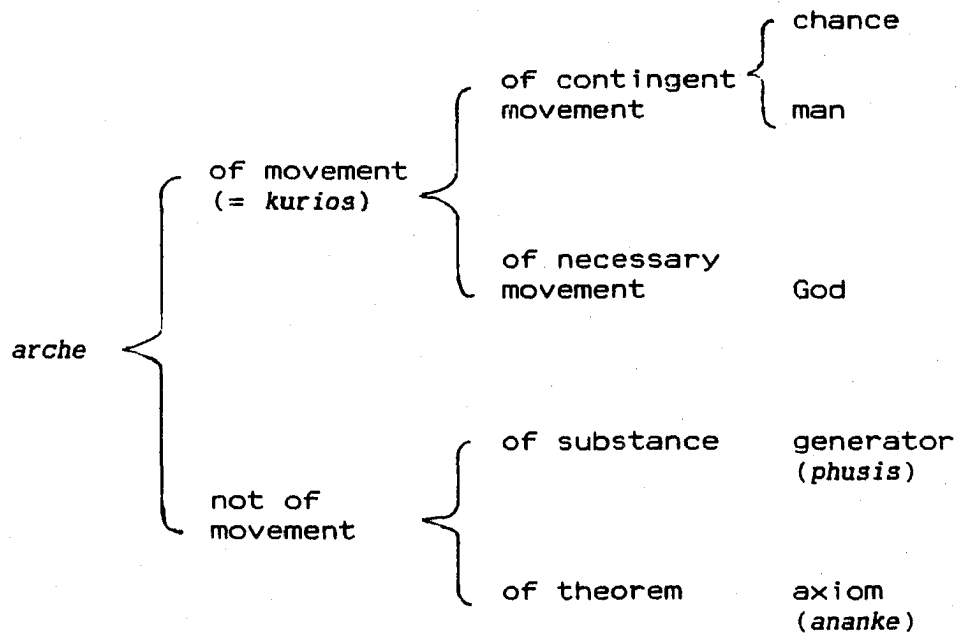
although [*arche*] can be translated 'beginning', Aristotle makes no attempt to reserve it for the very first member of a chain. Thus according to *NE VI 2*, deliberation and desire are the *arche* of deliberate choice (*prohairesis* 1139a32-3), while deliberate choice is the *arche* of deliberate action (1139a31; cf. b5); and...*Int.9* adds that deliberate action is in its turn an *arche* of events like sea battles. There are other examples too of Aristotle applying the word *arche* to several members of a chain without reserving it for the first member. (Sorabji, 1980, 228)

To help clarify what Aristotle means by *arche*, consider the following causal chain: Person A begets person B who, in turn, begets C, who in turn performs action x. Here A is the *arche* of B, B is the *arche* of C, and C is the *arche* of x. Each of these "starting-points" is a beginning in its own right: person A is the generator of B, but *not* the generator of C (B's begetting of C is not caused by A). And, although B causes C's existence, B does *not* cause C's doing of x.³ As Kenny puts it, "only a cause whose causation has no further cause" is an *arche* (Kenny 1979, 5). Thus, B is the cause of C, but not of "C's causation"-- not of C's performance of x.

Of course, if one assumes that each element in the

entire causal chain follows *necessarily* from the immediately prior element, one might then argue successfully that the very first *arche* is the generator or originating cause of every other member of the chain. But if one assumes, instead, that B has it within his power both to beget C or not to beget C, and C has it within his power both to do x or not to do x, then B and C would be "starting points" in their own right. This is Aristotle's account of the matter--a complex story involving questions of causality, determinism and other philosophical issues (to be treated in detail in Chapter VIII below).

Statement 2-- Some *archai* are generators of substances, some are causes of movements or changes, and some--like mathematical axioms--are origins of theorems. Only those which are causes of change or movement (*kinesis*) are "controlling" origins. Kenny expresses these points nicely with the following diagram (from Kenny 1979, 6):



In a footnote regarding this diagram, Kenny notes that it

does not include, nor does Aristotle's text tell us here where to include, the natural, non-voluntary motions of human beings. Should [*phusis*] appear with God as a cause of necessary movement? Or do these count as contingent movements, and should those brought about by man be divided into those brought about by man by nature and those brought about by him by choice? (Kenny 1979, p.5)

In any case, it is clear that only an origin of change counts as a genuine controlling origin.

Statement 3-- According to Aristotle, "what follows from what holds of necessity must itself be necessary" (1222b41). Thus, necessary *archai* must have necessary effects. This is true not only for *controlling* origins, but for all *archai*. To support this claim, Aristotle gives an example from geometry: Because the internal

angles of a triangle necessarily equal two right angles, those of a quadrilateral necessarily equal four. And if the triangle necessarily had three right angles, the quadrilateral would necessarily have six, and eight if the triangle had four.

As additional support, Aristotle also refers his readers to arguments in the "*Analytcs*" concerning scientific demonstration. Presumably, the arguments to which he refers are those in *Post. An.* I 4-6, where he says, for example, things like this:

from necessities, one cannot deduce without demonstrating [that is, proving necessary]; for this is precisely the mark of demonstration.

There is evidence that demonstration depends on necessities in the fact that this is how we bring our objections against those who think they are demonstrating--saying that it is not necessary.... (74b16-20, bracketed material added here)

when the middle term is from necessity, the conclusion too is from necessity, just as from truths it is always true; for let A be said of B from necessity, and this of C [from necessity]--then that A belongs to C is also necessary. But when the conclusion is not necessary, the middle term cannot be necessary either.... (75a4-10, bracketed material added here)

Statement 4-- Since necessary origins have necessary results, any effect that is *not* necessary would have to have an origin that is contingent in some way. *Something* about it--namely, whatever aspect is responsible for the contingent effect--must be contingent.

Statement 5-- Here Aristotle simply assumes that many human activities are contingent. Elsewhere in the *corpus*--for example, *De Int.* 9--he offers arguments to support this claim. Chapter VIII below also discusses the issue.

Statement 6-- Aristotle's way of stating this central claim is as follows:

So it is clear that all those actions that man is a starting-point of, and controls, are capable of coming about or not, and, with those things at least that he controls whether they are or are not, it is in his power whether they come about or not. All those things that are in his power either to do or not to do he himself is the cause of, and all those things that he is the cause of, are in his own power. (1223a5-8)

Now there is an important ambiguity here that needs careful scrutiny. Phrases like "he is the cause", "he controls", and "in his power" could mean simply that the cause, whatever it is, is completely internal to the person in question--that something or other inside of him determines whether or not the activity occurs. On the other hand, it could mean the much stronger claim that the person *knowingly and deliberately* determines whether or not the activity occurs. Aristotle's reasoning here supports only the weaker claim, although he leaves the impression that the stronger one has been established. (Perhaps he does not clearly distinguish them in his own mind.) This stronger claim, in any case, requires a long

and complex account of what it means--and how it could happen--that someone deliberately determines whether an activity occurs or not. Of course, Aristotle does eventually spell out the long story for his readers; and the present work is intended to tell that story.

3. *What the Voluntary is Not*

Having explained the important concept of "arche" in Chapter 6 of *EE* II, Aristotle has positioned himself to provide an account of the voluntary. He begins by eliminating, in Chapter 7 and at the beginning of Chapter 8, several candidates for the voluntary that, *prima facie*, seem plausible. He sets up the argument in the following way:

Of three things [the voluntary] would seem to be one, agreement with either desire (*orexis*), or choice (*prohairesis*), or thought (*dianoia*)--that is, the voluntary would agree, the involuntary would be contrary to one of these. (1223a24-26)

Why does Aristotle set up the argument this way? A plausible explanation is suggested by Woods:

Why does Aristotle assume that the voluntary must be defined in terms of one of these three things? Presumably the reason is that action results from a combination of thought and inclination (*orexis*) whose interaction results in choice, hence the voluntary and involuntary must be explicable in terms of either one of these or of what results from their cooperation. (Woods, p.138)

In Chapter 7, Aristotle first presents some arguments--apparently of *other* thinkers--regarding the

claim that the voluntary is what is in agreement with appetite or with passion (two of the three kinds of desire). Although he does not explicitly state that the arguments in question are from other thinkers; the arguments do contain premises which we know Aristotle would reject, and employ invalid logical moves that Aristotle should have caught. (The reader can find detailed analyses of these arguments in Kenny 1979, Chapter 2, and so they are not analyzed here.)

In any case, Aristotle does not rely upon these invalid arguments; for, near the end of Chapter 7, he presents his own straightforward valid one: we do many things voluntarily, without passion or appetite, so the voluntary cannot be simply what is in keeping with passion or what is in keeping with appetite. In addition, he uses a valid *reductio ad absurdum* (for details see Kenny 1979, 23-24) to show that the voluntary is not just what is in accordance with wish (the third kind of desire).

If the voluntary is not simply "what is in accordance with desire", then could it be "what is in accordance with choice"? Aristotle's answer is "no", for he notes at the beginning of Chapter 8 that we do many voluntary things "suddenly, but no one chooses an act suddenly" (1224a3-4). Thus, the voluntary cannot be simply what is in keeping with choice.

The upshot of these arguments is that the

voluntary is not definable by using *one* of "choice" or "desire" (or one of the kinds of desire: "appetite", "passion", or "wish"). It will later become clear, however, that every voluntary activity requires either choice or some kind of desire, but Aristotle does not pursue that matter here. Rather, he continues his effort to identify *one* thing that can be associated with *all* voluntary activities.

4. *The Voluntary Defined*

Near the beginning of Chapter 8, Aristotle says

But if, as we saw, the voluntary must be one of these three--action according either to desire, choice, or thought, and it is not two of these, the remaining alternative is that the voluntary consists in action with some kind of thought. (1224a5-8)

But *what* kind of thought? One expects Aristotle, at this point in the text, to address this question directly.

Instead, he embarks upon a long digression (for the rest of Chapter 8) on compulsion and force (to which we shall return shortly). At the beginning of Chapter 9, however, he returns to the question of thought and the voluntary, and this time gives his answer: "we have found the voluntary not to be defined either by desire or by choice, it remains to define it as that which depends on thought....All that is done owing to ignorance, whether of person, instrument or thing, is involuntary; the opposite therefore is voluntary." (1225a36-b7) He illustrates:

sometimes one knows the object, e.g. as father, but not that the [effect]⁴ of the act is to kill, not to save, as in the case of Pelias's daughters; or knows the object to be a drink but takes it to be a philtre or wine when it was really hemlock.... (1225b3-5)

So a necessary condition of the voluntary is that one have correct information--rather than "ignorance"⁵--about "the person, instrument and thing" with which one is dealing.

(In Book III of *NE*, in a parallel passage, Aristotle gives a more complete list of the relevant facts that one needs to have:

who he is, what he is doing, what or whom he is acting on, and sometimes also what (e.g. what instrument) he is doing it with, and to what end (e.g. for safety), and how he is doing it, (e.g. whether gently or violently). [1111a3-5; see Chapter II above]

This more complete list of relevant facts is one of the few features of the Nicomachean version of the voluntary that is superior to the Eudemian version.⁶)

It is a necessary condition of the voluntary, then, that one have the relevant specific facts. In the absence of these facts, an activity is involuntary and one cannot be held responsible for it. Aristotle adds the qualification, however, that the ignorance must not be due to carelessness or negligence; otherwise one *can* be held responsible. (1225b9-16)

Lack of ignorance is only one of the necessary conditions of the voluntary. In the middle of Chapter 9, Aristotle gives the entire definition:

All, then, that a man does--it being in his power to abstain from doing it--not in ignorance and owing to himself must needs be voluntary; this is what voluntariness is. (1225b7-9)

Now, this definition appears to cite three conditions, each separately necessary, and together jointly sufficient, for an activity to be voluntary:

1. done "not in ignorance"
2. "in his power to abstain"
3. "owing to himself"

We have already discussed the first condition in some detail, but the other two remain to be explicated here. The information we need for the explication can be found in the digression on compulsion in Chapter 8, and also in the discussion of *arche* in Chapter 6. (Parallel passages in *NE* III are also helpful.)

5. "In His Power to Abstain"

The phrase "in his power to abstain" has two parts which need separate explanation; namely, "in his power" and "to abstain".

The use of the phrase "in his power" apparently refers back to Aristotle's discussion of *arche* in Chapter 6. There he says that if the *arche* of an activity is *internal* to a person, then the activity is "within his power" (1223a7-9). So, Aristotle's use of the phrase "in his power" indicates that an activity is not voluntary

unless the *arche* is *internal* to the person in question. (This interpretation of the *EE* definition is supported by the Nicomachean version, which also requires that the *arche* be internal. See 1111a22-24 and Chapter II above.)

Further support for this interpretation can be found in the discussion of compulsion in Chapter 8 of *EE* II. There Aristotle explains that something is compelled if an external force moves it against its natural internal impulse. Even inanimate things, like stones or fire, he says, are said to be compelled in this way. Thus, fire naturally moves upward and a stone downward. If, on the contrary, some external thing moves fire downward or a stone upward, "then we say they move by force"

(1224a15-20). The same holds true for plants and animals:

So, too, among things living and among animals we often see things suffering and acting from force, when something *from without* moves them contrary to their own internal tendency. (1224a21-23, emphasis added here)

Thus, it follows that for Aristotle the phrase "in his power" means that the *arche* is internal to the agent.

This view gives Aristotle an answer to the vexing question of whether continence and incontinence are voluntary or involuntary. "The continent forcibly drags himself from the pleasant appetites (for he feels pain in dragging himself away against the resistance of desire), while the incontinent forcibly drags himself contrary to his reason" (1224a34-37). But the *arche* in each case is

internal, so the behavior is not, strictly speaking, forced or compelled:

But in the continent and the incontinent it is the present *internal* tendency that leads them, for they have both tendencies. So that neither acts on compulsion nor by force, but...voluntarily.

The requirement that the *arche* be internal also provides to Aristotle an analysis of actions which, in the *NE*, he called *mixed*--namely, actions that are done reluctantly because of an external pressure like a raging storm or a tyrant who holds one's loved ones hostage. In both the *NE* and the *EE*, Aristotle concludes that such actions normally are voluntary because the *arche* is internal, and therefore the agent can choose to bear the awful consequences rather than give in to external force.

But what if the external force, or the internal fear that it creates, is more than human nature can bear? Aristotle's answer to this question in the *NE* is problematic. (See Chapter II above, Section 5.) On the one hand, he claims in the *NE* that certain actions (like matricide) are so terrible that one should avoid doing them, even in the face of torture and death. On the other hand, he acknowledges the possibility of "pressure which overstrains human nature and which no one could withstand" (1110a25f). What does one do if he is pressured to commit matricide and the pressure is the kind that "overstrains human nature"? The *NE* has no good answer.

Aristotle's treatment of this kind of case in the *EE* is much more successful--and it also provides an explanation of the phrase "to abstain" in the *EE* definition of the voluntary: Suppose someone has a powerful passion--like certain kinds of love or anger, for example (or a powerful dread created by a tyrant's threat). The passion may cause the person in question to do something; and since the passion is *within* the agent, the activity is "within his power to do". But is it within his power *to abstain*? It all depends, says Aristotle, on "what his nature is able to bear" (1225a25). If the passion is more than his nature can bear, then he is not able "to abstain" and the resulting activity is therefore involuntary because it "is not under control of his natural desire or reason" (1225a26). It follows, then, according to the *EE* analysis of "mixed" actions (the word "mixed" is not actually used in the *EE*) that some mixed actions are voluntary and some are not.

There is, in addition, another kind of activity, discussed in *EE* II 8, that is "not under control of his natural desire or reason". This is the case of divinely inspired prophesy: "those who are inspired and prophesy, though their act is one of thought, we still say have it not in their own power either to say what they said, or to do what they did." (1225a28-30)

In summary, then, even if the *arche* of an activity

is completely internal, it might nevertheless be so powerful that the person in question cannot control himself--and therefore cannot really "abstain" from the activity. So, we must also interpret Aristotle's phrase "within his power to abstain" as ruling out a powerful internal force of the kind just described--one that is stronger than the agent's nature can bear. This added requirement brings to *four* the necessary conditions for the voluntary:

1. the agent is not ignorant of the relevant specific facts
2. the originating cause (*arche*) is internal to the agent
3. the originating cause is not an overpowering force
4. the agent's activity is "owing to himself"

Since we have now explained the first three of these four requirements, it remains for us to explain the fourth.

6. The Originating Cause of Voluntary Activities

Requirements 2 and 3 above lay down restrictions on the *arche* of a voluntary action, but they do not actually say what sort of thing the *arche* is. Requirement 4 relates to this issue.

What, then, is the originating cause of voluntary activity? To find the answer, let us turn again to Chapter 8's discussion of compulsion. There, we find the following passage:

Now in the inanimate [like fire or stones] the moving principle [*arche*] is simple, but in the animated there is more than one principle; for desire and reason do not always agree. And so with the other [i.e. non-human] animals the action on compulsion is simple (just as in the inanimate), for they have not desire and reason opposing one another, but live by desire; but man has both, that is at a certain age, to which we attribute also the power of action; for we do not use this term [in the strict sense⁷] of the child, nor of the brute, but only of the man who has come to act from reason. (1224a23-30, bracketed material added here)

This passage indicates that there are two kinds of *archai* for voluntary activities: desire and reason. And Chapter 10 of *EE* II makes it clear that the kind of reason involved is *practical reason*. More specifically, it is deliberation which leads to choice (*prohairesis*); and it is *choice* which plays the role of a "controlling origin" (*arche*) of action. Thus, the *arche* of a voluntary activity has to be either a desire or a choice; and since it must be *internal* to the agent, it has to be *the agent's own desire or choice*. This is the meaning of the phrase "owing to himself"--the fourth necessary condition in Aristotle's definition of the voluntary.

Confirming evidence that, for Aristotle, the *archai* of voluntary activities are desires and choices, can be found in other works of the Aristotelian *corpus*. For example,

It is at any rate clear that these two produce movement, either desire or intellect....Both of these, therefore, can produce movement in respect of place, intellect and desire, but intellect which reasons for the sake of something and is practical.... (De Anima, 433a9-14; Hamlyn)

. . . .

Now we see that the movers of the animal are reasoning and *phantasia* and choice and wish and appetite. And all of these can be reduced to thought and desire....Wish and spiritedness and appetite are all desire, and choice shares both in reasoning and in desire. (De Motu Animalium, 700b17-22; Nussbaum)

. . . .

For the animal moves and progresses in virtue of desire or choice, when some alteration has taken place in accordance with sense-perception or *phantasia*. (De Motu Animalium, 701a3-5; Nussbaum)

7. Summary of Aristotle's Account of the Voluntary

Given the above, we are now in a position to summarize Aristotle's account of the voluntary. An activity is voluntary if and only if the following four conditions have been met:

1. The agent is not ignorant of the relevant specific facts.
2. The originating cause (*arche*) is internal to the agent.
3. The originating cause is not an overpowering force.
4. The originating cause is one of the agent's desires or choices.

For an adult human being, then, a voluntary activity would be one that results from the person's own desires or choices, in circumstances where the person is correctly

informed of the relevant facts, and is not being driven by an overpowering passion or force.

For a human child or a non-human animal, a voluntary activity must be one that results from the agent's own desires (they cannot reason or make choices), in circumstances where the perceptions and imaginings are not mistaken, and where the agent is not driven by overpowering, "unnatural" passions or forces.

In the case of the adult human, the activity in question is *contingent* in at least two senses. First, the agent could always choose to do something else instead. And, secondly, the circumstances and causes leading to the activity are not necessary and might have been otherwise. (These claims are explored more fully in Chapter VIII below, which also discusses a third sense of contingency: the causes of the activity explain it, but do not necessitate it.)

In the case of the child or animal, the activity in question is contingent in the second sense, but not the first, since a child or animal cannot reason, and therefore makes no choices. (Activities of children and non-human animals are also contingent in the third sense, however. See Chapter VIII below.)

NOTES

1. The account presented here owes much to Kenny 1979, Chapter 1; Sorabji 1980, Chapter 14; and Woods 1982, Commentary.
2. Analogously, the theorems of mathematics are necessary because the *archai* (axioms) which generate them also are necessary. However, since the theorems of mathematics do not actually change, their *archai* do not cause change and therefore do not qualify as "controlling" *archai*.
3. For a similar example and related discussion, see Kenny 1979, 4-6. Kenny's table on page 6 misleadingly represents all *archai* as "uncaused". What the table should say--and what Kenny himself says on pages 4 and 5--is that their *causation* is uncaused. (See Chapter VIII below.)
4. Aristotle actually uses the word here for "aim" or "goal"; but this must be a slip, since it is clear in the context that what is meant is the result or effect of the action.
5. The word traditionally translated "ignorance" is *agnoia*, which for Aristotle can include *mistaken belief* and not just a lack of knowledge. See Chapter II above.
6. But note that at *NE* V, 1135a23 the list is the same as the one in *EE* II.
7. Aristotle often uses the terms "act" (*prattein*) and "action" (*praxis*) in a loose sense to cover a variety of activities and behaviors; but here he is talking in the strict sense that requires deliberation and choice.

CHAPTER IV

SENSE PERCEPTION¹

1. Introduction

The previous chapter concludes that desires and choices are the originating causes (*archai*) of all voluntary activities, including human actions. To understand Aristotle's theory of human action, therefore, one must first understand his accounts of desire and of choice. But these, in turn, cannot be understood without knowing Aristotle's theory of perception. The present chapter, therefore, deals with perception. Chapter V will discuss desire, and Chapter VI will cover deliberation and choice.

Aristotle's theory of perception presupposes some key concepts from his metaphysics, physics and physiology. For example, it makes essential use of his familiar distinction between *matter*--the substrate which persists through change and can "take on" different characteristics or "forms"--and *forms* or qualities that matter takes on.

Form and matter occur together--form (in the sublunary world, at least) is always "enmattered." Individual composites of matter and form Aristotle calls "composite substances." The least complex substances are earth, air, fire and water; which, when "completely mixed," form the "homoeomerous bodies" such as minerals and the tissues of plants and animals. Combinations of tissues form organs, and organs combined into wholes form organisms.

The distinction between matter and form enables Aristotle to explain change. Every change involves three things: a *privation*, a *form*, and a *substrate*. At the beginning of the change, the substrate lacks the form in question (although it does have a different form); at the end of the change, the substrate has taken on the form. This general analysis applies whether the change is *quantitative* (change in size), *qualitative* (change in color, for example), or *locomotive* (change of position).² It also enables Aristotle to introduce the key notions of potentiality and actuality: change can be seen as the fulfillment of a potentiality. Prior to the change, the substrate *potentially* has the form in question, afterwards it *actually* has it. Actuality must always precede potentiality, since potentiality is *for* an activity or state of affairs. The fulfillment of the potentiality can be brought about only by the action of something that is already an actuality.

In addition to his physics and metaphysics, Aristotle's physiology should be kept in mind if one is to understand his account of perception. He believed, for example, that the brain is a mechanism for cooling the body, while the heart is the seat of perception, emotion and thought. Blood vessels, on the other hand, he took to be channels of communication between the heart and all parts of the body.

Aristotle, of course, was not troubled by post-Cartesian puzzles about how mind can interact with body. For him, mind (soul) "is the form or functional organization of a certain kind of body and...the various 'parts of soul' are functional states of matter." (Nussbaum 1978, p.146) Soul, therefore, is not a substance that can exist apart from body (with the possible exception of intellect, which will be discussed in Chapter VI below).

The most important attributes of animals, whether common to all or peculiar to some, are, manifestly, attributes of soul and body in conjunction, e.g. *sensation, memory, passion, appetite and desire* in general, and, in addition, *pleasure and pain*. (De Sensu, 436a8-9)

Many post-Cartesian philosophers consider such attributes to be "mental"--therefore "subjective" and "private"--therefore puzzling and troublesome. Aristotle deals with them simply as the activities and functions of a living body, sometimes describing them in physiological

language, sometimes in what is today called "mental" language.

Finally, it is important to keep in mind that Aristotle was *not* a skeptic. His method of doing philosophy was not a "method of doubt." Rather, he tried in his deliberations to preserve as much as possible of what appeared to be the obvious facts and received wisdom about the world. (See Chapter I, Section 3 above on Aristotle's philosophical method.) Thus, with regard to sense perception, he accepted without doubt the assumption that our senses provide reliable information about the world. He had no serious worries that our senses may always deceive us.

2. The Key Elements of Perception

Starting with the assumption that the senses provide reliable information about objects in the environment, Aristotle must explain how this is possible. Since even the lowest forms of animal have perception (indeed, this is what distinguishes animals from plants), it is not possible for Aristotle to assume that information comes in through the senses in a form that is propositional. This would require linguistic capabilities that most animals lack.

Aristotle's way of solving the problem is to have the actual forms of the external objects causally

transferred into the animal in the process of perception. Once inside the animal, the forms can be discriminated and reacted to "automatically" by animals with no intellect, and raised to consciousness, described and reasoned about by animals that do have intellect.

According to Aristotle, every case of perception involves four key elements: an object perceived, a medium that causally connects the object to a sense organ, the sense organ itself, and the central faculty of sensation (the *sensus communis*). Perception, in each case, is a causal process in which a form is transferred from the object through the medium into the sense organ and from there to the region of the heart (or its analogue, in animals that have no heart). The form in question is the perceived quality, which initially is actualized in the object, but not the sense organ. Aristotle describes it as "the power of acting upon the sense organ" thereby becoming actualized in the organ, which previously had that form only potentially. This "power of acting" is a result of what today would be called the "microstructure" of the object of perception. For Aristotle this would be the specific combination of earth, air, fire, and water that composed the object in question.

Aristotle describes the perceptual process as "receiving the form without the matter":

Generally, about all perception, we can say that a sense is what has the power of receiving into itself the sensible forms of things without the matter, in the way in which a piece of wax takes on the impress of a signet-ring without the iron or gold....(*De Anima*, 424a18-20)

Thus, before the signet ring makes the impression, the ring has a particular shape which the wax does not have. Afterwards, the wax has taken on the shape, but not the iron or gold of the ring. Analogously, prior to perception, the object has a form which the sense organ does not have. Afterwards, the organ has taken in the form of the object without its matter.

The paragraphs below contain a closer look at each of the four components of perception--object, medium, organ, perceptual center--and the processes in which they engage. Although all the senses are dealt with, vision is used as the prime example, with the others covered in less detail.

3. The Object of Perception

As indicated above, Aristotle assumes that the objects of perception are external things in the world (therefore, *not* "sense-data" or other internal, "subjective" entities). Strictly speaking, what are perceived are the "sensible qualities" of the external objects. Aristotle divides such qualities into two kinds -- those which can be perceived by one sense only and

those which can be perceived by more than one sense. The former qualities he calls "special objects", the latter "common sensibles."³ (*De Anima*, 418a11-19) The special object of sight is color, that of hearing is sound, that of taste flavor, and that of smell odor. Touch has several special objects, including for example texture and temperature. The common sensibles, which can be perceived by more than one sense, include, for example, motion, rest, number, figure and size. (418a18)

Each single sense is unerring when it comes to the presence of its proper sensible. It "never errs in reporting that what is before it is colour or sound (though it may err as to what it is that is coloured or where that is, or what it is that is sounding or where that is)." (*De Anima*, 418a14-16; parenthetical material in the translation)

The senses are unerring about the presence of their proper sensibles because the sense organs are *completely passive and highly selective*. Nature has so constructed sense organs that they passively take in the appropriate forms when acted upon by the sensible qualities of objects in the environment. Thus, the ears take in only sounds, the nose only odors, and so on. Once the internalized form reaches the region of the heart (the perceptual center), however, the animal--using the faculty of "sensitive *phantasia*" (see section 8 below)--interprets

it as a perception of a certain sort, and this process of interpretation can be mistaken.

The sensible qualities of external objects result from their particular "microstructures" of earth, air, fire and water. As Theodore Tracy explains:

The material objects surrounding the animal and constituting its environment are, as we have seen, composed of earth, air, fire and water blended in the fixed proportions demanded by the nature or form of each object. The form of each object, then, is contained or embodied in the material elements so blended, since it is the principle which fixes their proportions and determines their structure in the total blend. The nature or form of each object, therefore, is manifest materially in the elemental structure of its body. Aristotle's problem is to explain how the animal can assimilate the forms of these objects without their proper matter, so that it becomes aware of the objects and can distinguish one from the other. (Tracy 1969, p.201)

Aristotle views the basic elements (earth, air, fire, water) as combinations of four causal factors -- the hot, the cold, the moist, and the dry. These have the power of stimulating responses in animals, and when blended in various proportions in objects, they constitute the active causes of sensation; that is, the sensible qualities of the objects. (See, for example, *Meteorologica*, 384b24-385a4.)

And since the particular combination of sensible qualities possessed by each material object depends upon the proportion in which its ingredients are blended, i.e. upon its form, this particular combination of sensible qualities, when assimilated by the animal, will at the same time convey the form of the object, enabling the animal to distinguish it from other objects. (Tracy 1969, p.202)

To summarize our account of the object of perception: it has a specific microstructure which gives it certain causal powers--sensible qualities--which act upon the sense organs of animals.

4. Color

As an example of "microstructure analysis," let us consider Aristotle's account of the nature of color.

Vision is somewhat more complex than the other senses, however, because it requires a fifth item beyond the usual foursome of object, medium, sense organ, and heart region; namely, light. To explain light, Aristotle introduces an additional nature or "power," which he calls "the transparent" or "the diaphanous." This does not have an independent existence, but is always found in other things, most especially air, water, and the eternal fifth element that comprises the highest heavenly body. All bodies contain the diaphanous to some extent. (See *De Anima*, 418b5-10 and *De Sensu*, 439a20-25) Now light is simply the activity of the diaphanous when in the presence of fire. When fire is not present, the diaphanous is only potentially active. This is darkness.

In a transparent body such as air or water, when fire is present it activates the diaphanous which is then visible as "brightness" or "daylight." This creates the proper medium in which to see color. It even creates a

color within such a medium, as can be seen in the atmosphere or the sea. The color of such an unbounded body differs, depending upon whether one is close to it or viewing it from a distance.

In a body with definite boundaries, the diaphanous is blended in with other components in various proportions, depending upon the nature of the body in question. The proportion of the diaphanous in the body causes the color that it has (*De Sensu*, 439b9-10)-- that is, causes the body's power of acting upon the eyes of animals through a transparent medium in the presence of light. The proportion of the diaphanous at the surface of the object causes the color that an animal sees when looking at the object. If the internal proportion of the diaphanous is different, the inside of the object would be a different color from the surface.

When the proportion of the diaphanous is highest, the object is white; when it is lowest, it is black. All the other colors are caused by proportions that lie between the two contraries. In chapter 3 of *De Sensu*, Aristotle considers three theories of how the various proportions can be created: (1) very tiny patches of white and black occur side-by-side mixed in various proportions, (2) black and white layers appear "through" each other like the paint in some works of art, and (3) the black and white matter is thoroughly blended so that the very

tinest speck has the same color as every other part. At the end of that chapter, he appears to opt for the third of these theories.

Aristotle also provides detailed accounts of other sensible qualities such as sound, flavor and odor. In each case, the "microstructure" of the objects in question gives them the power to act upon sense organs through an appropriate medium. Also in each case, the sensible qualities occur as intermediates on a continuum between two opposites. For sound, the opposites are high pitch and low pitch; for flavor they are sweet and bitter; and for odor (which is closely related to flavor) they are also sweet and bitter. Touch has a number of contrary pairs, including for example hot and cold, moist and dry, rough and smooth.

5. The Medium

Having considered the *object* of perception, including an example of "microstructure" that accounts for the sensible qualities of the object, we may now move on to discuss the medium.

According to Aristotle, in *all* cases of perception a medium is necessary. In the case of vision, for example:

The following makes the necessity of a medium clear. If what has colour is placed in immediate contact with the eye, it cannot be seen. Colour sets in movement

what is transparent, e.g. the air, and that, extending continuously from the object to the organ, sets the latter in movement. (*De Anima* , 419a11-15)

Democritus claimed that vision requires no medium at all; and indeed, if the space between us and "the vault of the sky" were absolutely empty, he said, we could distinctly see an ant crawling on it. Aristotle objected that "it is indispensable that there be *something* in between--if there were nothing, so far from seeing with greater distinctness, we should see nothing at all." (*De Anima*, 419a19-21)

This case, and any one in which the object of perception is at a distance from the animal, can be explained by Aristotle's principle of "no action at a distance." (See *Physics* VII 2.) But what about cases in which the object perceived is actually *in contact* with the animal--cases of touch or taste? Why should a medium be necessary here? And what is the "medium" anyway? Aristotle's answer is that the *real* organ of perception in these cases is not the skin or flesh, but the heart or the region of the heart that has a faculty which he sometimes calls the *sensus communis* or "primary sense faculty" (more on this in section 7 below). Also, he speculates on the possibility that in water two bodies "in contact" actually always have a thin film of water between them; and in air two bodies "in contact" are actually separated by a thin film of air or moisture. (*De Anima*, 423a22-b11)

Each sense, then, functions via a medium between the object and the sense organ. That medium must be so structured that it has the potential to take on the forms of objects in contact with it and transfer them to sense organs also in contact with it. For vision, the medium must be a transparent one containing light; for sound it is air or water; for smell also air or water; and for taste and touch the flesh itself is the medium (or possibly a thin film of water or air).

6. The Sense Organ

Much has already been said about the nature of a sense organ. In particular, it must be so structured that it can potentially take on many different forms from the objects of perception. In effect, the organ is a "passive patient" ready to be acted upon through an appropriate medium by an appropriate quality of an object. Such actualization of potential is dramatically described by Abraham Edel as follows:

materials are so organized at a given stage that only some precipitating or moving cause is required for the activity or actuality to be realized in a given determinate shape or form. It is, as it were, the shape of what is to come, all set and ready to go in the constitution of the present. (Edel 1982, p.83)

But how can anything be so constituted that it can take on many different forms? Aristotle, of course, uses the analogy of wax taking on the impress of a signet ring;

but this is a mere analogy. His more specific and informative answer is that each sense can be viewed as a "mean" lying between opposites and able to change in the direction of either. (*De Anima*, 424a4-9) If the organ of touch is midway between hot and cold, then something hotter can make the organ hotter too, while something colder can make it colder. Touch, therefore, can discriminate a whole range of temperatures between hot and cold. Each sense can be viewed as such a mean.

Because the sense is in form a [mean], a single equilibrium which responds in one direction or another according to the quality presented and then returns to its original "middle state" when the stimulating cause is removed, the sense organ is capable of "judging" between one quality and another....Like the balance arm of a scale, it constitutes one and the same standard that responds now one way and now another, thus registering the differences in the objects that move it. (Tracy 1969, p.207)

Each sense also has important limitations, however, for if the object perceived has a quality that is too extreme, it can damage or destroy the sense organ. (*De Anima*, 424a28-32) This could happen, for example, if an animal touched something that was too hot, or looked at something that was too bright.

7. The Sensus Communis

Even though each sense, being a "mean," can distinguish different qualities within a certain range, it cannot distinguish the "proper sensibles" that belong

respectively to the *other* senses. Thus, sight cannot distinguish or even detect smells, tastes, sounds, and so on; and a similar point can be made about each of the other senses. Because this is so, each sense, considered by itself, is isolated from the others. This isolation must be resolved and the senses integrated if the animal is to be a whole organism, rather than a disjointed set of parts or faculties. How is this integration accomplished? According to Aristotle, it is achieved via the *sensus communis* or "primary faculty of perception." (See, for example, *De Memoria*, 450a11-13; and *De Anima*, 426b8-21)

As J. L. Ackrill describes it:

If an animal is to act discriminatingly to its environment, moving to get food and to avoid harm (the point and purpose of sense perception), information about its environment must be conveyed to a unitary center which can receive and coordinate the input from the different senses, and which can initiate the necessary reactive movements. Aristotle argues persuasively that the very notion of an animal--a single, self-contained mobile organism--requires there to be such a single center (which he thinks to be the heart) at which all perceptual chains terminate and all reactive chains begin. (Ackrill 1981, p. 67)

According to Aristotle, when a form is transferred from a medium into a sense organ, it becomes a percept (*aisthema*)--Aristotle sometimes calls it a "movement" or "change" (*kinesis*) or an alteration (*alloiosis*)--which is transferred through the body (probably in the blood) to the region of the heart where the *sensus communis* faculty is located. Thus, according to Aristotle, "actual

perception is a motion through the body in the course of which the sense is affected in a certain way" (*Physics VII 2, 244b11*).

The *sensus communis*, being the primary perceptual faculty, receives percepts (*aisthemata*) from any of the sense organs, then discriminates and "judges" them.

to perceive is to judge, and it is possible to judge rightly or wrongly; thus in regard to perception...rightness and wrongness must be possible. (*Topics 4, 111a16-17*)

In animals without intellect, the entire process (including the discriminating or "judging") is automatic--resulting from the natural physiology of the animal and the particular physiological state that it is in at the time. The information processed in such a case is not propositional, since there is no language capacity in such an animal. In animals *with* intellect (and therefore language), on the other hand, the discriminating and judging process can include or generate various linguistic entities such as beliefs and knowledge.

8. The Faculty of Phantasia

The discriminating and judging that occurs in the region of the heart is accomplished by the faculty of *phantasia*. This crucial cognitive faculty, according to Nussbaum (1978, Essay 5), has normally been misunderstood and incorrectly explained by commentators on Aristotle.

For this reason, it is worthwhile here to summarize Nussbaum's very persuasive account of the nature of *phantasia*.

Commentators usually assume that *phantasia*--which they typically call "imagination"--is just the capacity to retain and manipulate perceptual traces (*phantasmata*)--typically called "images". These "images", or better "phantasms", are faint or "decayed" percepts that linger in an animal after perception. But this retention and manipulation of perceptual traces is only *one* of the capacities that Aristotle attributes to *phantasia* (he uses phantasms, for example, to help explain memory, dreams, and hallucinations). He also uses the term *phantasia*, however, in contexts where images make no sense (Nussbaum 1978, p.223). Most commentators, it seems, have mistakenly fastened upon the "image" passages (like *De Anima* III 3) and construed them as Aristotle's canonical theory of *phantasia*. In reality, he has no canonical theory, but rather describes *phantasia* as playing several different roles.

Nussbaum notes that Aristotle's use of the term *phantasia* "seems to be closely tied to his usage of the verb [*phainesthai* (appear)] and [this] suggests a very general interest in how things in the world appear to living creatures." (p.222) Thus, "the most fruitful approach in determining what is meant [by *phantasia* and

phantasma] in any given context is always to remain aware of the connection with the verb *phainesthai* and to find images only where there is concrete evidence of their presence." (p.231)

When we follow Nussbaum's suggestion, and note the role of *phantasia* in perception and action contexts (like *De Anima* III, 9-11 and *De Motu Animalium*), we discover that no images are needed to make sense of these passages, and indeed some of them would become nonsense if so interpreted. Instead, *phantasia* in these passages plays the role of "the faculty in virtue of which the animal sees his object as an object of a certain sort" (Nussbaum, p.255). Thus,

We are always passively receiving perceptual stimuli; but when we actively focus on some object in our environment, separating it out from its context and seeing it as a certain thing, the faculty of *phantasia*, or the *phantasia*-aspect of *aisthesis*, is called into play. (Nussbaum, p.259)

Since how something appears to an animal depends, in part at least, upon its own point of view, desires, history, and so on, Aristotle's inclusion of *phantasia* in the process of perception commits him to the view that *perception is a fundamentally interpretive process*. As Nussbaum puts it, for Aristotle there is "no distinction...between the given, or received, and the interpreted." (p.261) Of course, whenever an animal is awake, the heart region continually receives *aisthemata*

that are passively (and infallibly) taken in by the sense organs. But unless they are interpreted by *phantasia*, the perceptual stimuli are not seen as anything--they have no "meaning" or significance to the animal who has them. Thus, before an animal actually perceives anything in the strict sense, it must *do* something; and perceiving must be understood as an *activity* in which the animal engages (albeit "automatically" and instinctively). As Aristotle says in *NE X 4*, "every sense is active in relation to its object." (1174b14)

If, following Nussbaum's suggestion, one rejects the view that the "image" interpretation of *phantasia* is canonical, and if instead one looks at each context to see what role *phantasia* actually plays, one finds at least three different capacities:

1. The capacity to interpret percepts and thereby perceive an object as an object of a certain sort.
2. The capacity to retain perceptual traces after the object of perception is no longer present, plus (in some animals, at least) the ability to manipulate and combine them in various ways.
3. The capacity to interpret perceptual traces and their combinations as representing possible or actual objects and states of affairs.

Aristotle calls all of these things *phantasia*; and at times it is unclear which one he is using or discussing. Sometimes, however, he calls the first kind "sensitive" *phantasia* and the third kind "deliberative." The first kind, he says, is shared by all animals, even the

"imperfect" ones which have no sense but touch. (*De Anima* III 11, 433b31-434a6) Only animals with intellect, however, have the third kind of *phantasia*. (Aristotle explains in *Posterior Analytics* II 19 how the perceptual traces come to be interpreted the way they are, but this issue need not concern us here. See Chapter VI below.)

Not all animals, according to Aristotle, have the second kind of *phantasia*. Thus, in *De Anima* III 3 he says "it is not found in ants or bees or grubs" (428a10). It is this kind of *phantasia* that one could most reasonably call "imagination", since it involves having and manipulating "images" (phantasms). But even this use of "imagination" is misleading, since the "images" include perceptual traces of smells, sounds, flavors, and other things that are not much like "pictures in the mind."

The kind of "deliberative" *phantasia* discussed in *De Anima* III 11 seems to be a combination of types 2 and 3 above, requiring both the manipulation and interpretation of phantasms. Presumably, it is this kind of *phantasia* which, according to *De Anima* III 3, is combined with "judgment" to yield "thinking" (427b28-29). Thinking, then, would involve two things:

1. Combining and manipulating interpreted phantasms in order to envision or imagine various objects and states of affairs, and
2. "Judging" the imagined things by asserting, denying, inferring, and so on.

This account of thinking commits Aristotle to the view that thinking requires the presence of phantasms. Thus, in *De Anima* III 7 he says, for example, "To the thinking soul images [i.e. phantasms] serve as if they were contents of perception....That is why the soul never thinks without an image." (431a15-17) And also, "The faculty of thinking then thinks the forms in the images." (431b2)

9. Sense Perception--A "Critical" Faculty

The above account of *phantasia* explains why Aristotle considers perception and thought to be "critical" faculties that "discriminate". (See, for example, *De Motu Animalium* 6.) Perception includes the first kind of *phantasia*, which discriminates one object from another by interpreting it as an object of a certain sort. Thinking, on the other hand, includes the third kind of *phantasia*, which discriminates by interpreting phantasms as representing certain sorts of objects or states of affairs.

Since the present chapter is concerned with sense perception, rather than thought, let us analyze in more detail the discriminating aspects of perception, and leave discussion of thought to another chapter (Chapter VI, Section 3).

Even the simplest animals have sense perception.

Indeed, according to Aristotle, this is how they are distinguished from plants. Let us start by considering a very simple animal, an "imperfect" one (as Aristotle would say) which has only the sense of touch. How does it discriminate among the objects in its environment?

First of all, since it has *only* touch, it automatically singles out only those objects with which it is in contact, for it cannot sense objects at a distance. Secondly, as indicated above, the sense organs are *completely passive and highly selective*. Nature has so constructed sense organs that they passively take in the appropriate forms when acted upon by the sensible qualities of objects in the environment. Thus the organs of touch are so constituted that they fail to detect--and they consequently automatically eliminate--such things as colors, sounds and odors as means of discriminating objects. The heart region of an "imperfect" animal, therefore, receives only "touch-percepts" like hot, cold, dry, moist, and so on.

It follows then that, even before an "imperfect" animal employs the faculty of *phantasia*, its passive sense organs have automatically selected from the environment only objects in contact with the animal which have such properties as hotness, coldness, dryness, wetness, and so on. So a significant amount of "discrimination" has already been achieved. In addition, however, the faculty

of *phantasia* makes a further discrimination. At the very least, it determines which objects are pleasant to the animal and which are painful, as well as which ones are food and which ones are non-food.

If any order of living things has the sensory [faculty], it must also have the appetitive...now all animals have one sense at least, viz. touch, and whatever has a sense has the capacity for pleasure and pain and therefore has pleasant and painful objects present to it, and wherever these are present, there is desire, for desire is appetition of what is pleasant. Further, all animals have the sense for food (for touch is the sense for food; the food of all living things consists of what is dry, moist, hot, cold, and these are the qualities apprehended by touch). *De Anima* II 3, 414b1-8

When a touch-percept, then, arrives in the region of the heart (or its analogue), sensitive *phantasia* interprets the object as being pleasant or painful, food or non-food. Now this does *not* mean that the animal must employ "concepts" like "pleasant" or "non-food"; and indeed, according to Aristotle, this is not possible because the animal in question has no intellect. It need only mean that the percept causes pleasure or pain which leads the animal to pursue or avoid the object in a characteristic way. Such an interpretation of Aristotle's point is confirmed by the following passage:

when the object is pleasant or painful, the soul makes a sort of affirmation or negation, and pursues or avoids the object. To feel pleasure or pain is to act with the sensitive mean [i.e. with the *sensus communis* in the region of the heart] towards what is good or bad as such. Both avoidance and appetite when actual are identical with this....(*De Anima* III 7, 431a8-12; bracketed material added here)

So the faculty of sensitive *phantasia*, then, includes the capacity to "feel pleasure or pain" and thereby initiate characteristic kinds of pursuit or avoidance. If the pursuit activity initiated is ingestion, then the object has been interpreted as food; if the avoidance activity initiated is flight, then the object has been interpreted as an enemy; and so on. Now, nature has so constituted animals that they get pleasure from things that help them flourish and pain from things that harm them.

Each animal is thought to have a proper pleasure, as it has a proper function; viz. that which corresponds to its activity. If we survey them species by species, too, this will be evident; horse, dog, and man have different pleasures, as Heraclitus says 'asses would prefer sweepings to gold'; for food is pleasanter than gold to asses. So the pleasures of creatures different in kind differ in kind....(NE X 5, 1176a4-8)

But what precisely is it to "feel pleasure and pain"? In the passage cited above, Aristotle says, "To feel pleasure or pain is to act with the sensitive mean towards what is good or bad as such". Thus, to feel pleasure or pain is to have, in the region around the heart ("the sensitive mean"), an activity which initiates some sort of pursuit or avoidance of what is good or bad for the animal. (For more details, see Chapter V below.) Nature has endowed each animal with just the right physiology to react toward the good and bad in the proper way--to feel just the right pleasures and pains, and

thereby pursue and avoid just the right things in just the right ways. With this "instinct" (as we would call it) nature helps animals to flourish. (The story gets much more complicated when animals, like humans, acquire intellect and reasoning, and so become capable of a wide variety of pleasures, pains, pursuits, desires, and so on. These matters will be discussed in later chapters.)

To summarize what we have said about sense perception: The sense organs send percepts to the region of the heart. These "motions" or "alterations", in turn, combine with other physiological processes and states to produce characteristic kinds of pursuit or avoidance activities. These activities result from the physiological endowment of the animal, together with the particular physiological states and processes that it happens to have at the time--other perceptions, other pains and pleasures, and so on. In this way, it "discriminates and judges" objects in its environment from its own point of view, pursuing some and avoiding others, ingesting some and rejecting others, and so on. The more complex animals have more kinds of perception and more sophisticated pursuit and avoidance behaviors.

10. The Intentionality of Perception

At this point in our discussion, it seems appropriate to say something about the so-called

"intentionality" of perception. This term is an ambiguous one and seems to be used in different ways by different authors. Three of the standard uses concern the *privacy*, the *subjectivity*, and the "aboutness" of intentional states and processes. Let us discuss each of these in turn.

Privacy -- An intentional state or process is said to be "private" because it is impossible for any other being to have the *very same* one. Thus, *my* perception of a particular object at a particular time is different from *yours*, even if we are perceiving the same object at the same time, and even if yours is "just like" mine. They are numerically different because yours is within you and mine is within me. You cannot "jump inside my skin" and have my perceptions. Even if you could somehow "perceive my perceptions," or receive percepts from *my* sense organs, the resulting perceptions would be different, since mine would be in my perceptual center and yours would be in yours.

Given Aristotle's account of perceptions, they are indeed private in this sense. Thus, the perceptions within one animal could *not* be within another, although different animals could have similar ones. Even in a case of "Siamese twins", if there were separate heart regions receiving separate percepts, then each of the joined animals would have its own private perceptions. If, on

the other hand, there were only one heart region, the so-called "twins" would actually be a single--though very deformed--animal. In this case, though, there would not be two animals sharing perceptions. (See *De Generatione Animalium* IV 4, 773a8ff.)

Subjectivity -- Intentional states and processes are said to be "subjective" because they essentially involve the animal's own point of view or interpretation of the world. Now this is certainly true of perception as Aristotle describes it, since it involves the faculty of sensitive *phantasia*. This rules out the possibility of an "innocent eye" which views the world without interpretation. Given Aristotle's theory, an animal's perceptions are what they are--play the specific role that they do play--pick out and "judge" what they do "judge"--because they are interpreted from the animal's own point of view--because they are part of the specific configuration of internal states and processes that result from the animal's unique history and position in the world.

"Aboutness" -- The key to intentionality, according to some philosophers (see, for example, Searle 1979), is "aboutness", the ability of an internal state or process to "be about" or "directed at" something other than itself. Perception is intentional in this sense, for even though it is *internal* to the animal, it is "about" or

"directed at" external objects.

As Searle (1979) has pointed out, this sense of "intentionality" can be explained in terms of "conditions of satisfaction." Thus, if I seem to perceive an object in my environment, the would-be perception is not genuine unless there really is such an external object there causing the perception. Again, if an animal desires to eat a piece of meat which it perceives nearby, that desire has the condition of satisfaction that the animal eat the meat in question.

Aristotle's account of perceptions makes them intentional in this sense too. Thus, when the heart region of an animal receives a percept from an external object, and *phantasia* "judges" the object to be food, this perception has the condition of satisfaction that there really is such a food-object there causing the percept. And when this perception causes a desire for the food, the resulting desire has the condition of satisfaction that the external object be eaten by the animal. Thus, the perception and desire really are "about" or "directed at" the external object.

In conclusion, it is perhaps of interest to note here that Aristotle's theory of perception is "purely physiological"; and does not require the existence of Cartesian-like "spirit" or "mindstuff". Nevertheless it is able to account for "mental" properties like privacy, subjectivity and "aboutness."

NOTES

1. The present chapter is concerned with *sense* perception, and not the special kind of perception involved in practical wisdom--the kind that grasps what is morally right in a particular situation. (See *De Anima* III 3, 427b8-15 and *NE* VI 8, 1142a30; also Baumrin 1968 and Baumrin 1970.) Thus, throughout this chapter, whenever the term "perception" is used, it should be understood as meaning *sense* perception.
2. The analysis is more troublesome when applied to change of *substance*, but this problem need not concern us here. (See Edel 1982, pp.58-9)
3. He also has a third kind of quality which he calls an "incidental sensible," but such qualities are not actually perceived in the strict sense. Thus, the quality "being the son of Diares" is not perceptible, although one could perceive the whiteness of a thing which happened incidentally also to be the son of Diares. (*De Anima*, 418a20-23)

CHAPTER V

DESIRE, APPETITE, AND PASSION

1. Introduction

In Chapter III, we determined that *desire and choice* are, according to Aristotle, the originating causes of voluntary activities. It thus became clear that we needed to understand Aristotle's account of desire and choice in order to understand his theory of action. However, one needs to know Aristotle's theory of *perception* in order to understand his account of desire, so Chapter IV dealt with perception. We are now in position to discuss desire.

Aristotle's general term of appetite is *orexis*, a word that he may have coined himself from the Greek word *orego*, meaning "to reach out."¹ We shall use the English term "desire" for Aristotle's *orexis*.

According to Aristotle there are three specific types of desire:

1. appetite (*epithumia*)
2. passion (for this Aristotle sometimes used *pathos* and more often *thumos*, the word for anger or spiritedness)
3. wish (*boulesis*).

The present chapter deals first with desire in general, then with appetite, and finally with passion.

Consideration of wish will be deferred to the next chapter, since wish is a special, more complex kind of desire.

Aristotle's most extensive discussions of desire occur in Book III of *De Anima*. Let us return to a key passage of that work, one which was already cited in Chapter IV above (numbers added to aid analysis):

[1] To perceive, then, is like bare asserting or knowing; [2] but when the object is pleasant or painful, the soul makes a quasi-affirmation or negation, and pursues or avoids the object. [3] To feel pleasure or pain is to act with the sensitive mean [i.e., the *sensus communis*] towards what is good or bad as such. [4] Both avoidance and appetite [*orexis*] when actual are identical with this; [5] the faculty of appetite [*orexis*] and avoidance are not different, either from one another or from the faculty of sense perception; but their being is different. (431a8-11, Smith; bracketed material added here)²

This important passage--which we shall refer to in the present work as "the Desire Definition"-- holds a key to understanding desire, pleasure, pain, animal behavior and, ultimately, human action; so let us discuss it carefully, part-by-part.

2. Perceptual "Knowledge"

Part 1 of the Desire Definition ("To perceive then is like bare asserting or knowing") comes just after Aristotle has reminded the reader that the faculty of perception passively takes in the forms of an external object.³ Now, once one "asserts" or "knows" something, he has readily available to him a piece of information that can serve as the basis for action. The perceptual activity that is analogous to "bare asserting or knowing", then, seems to be the direct, non-inferential acquisition of information on the basis of which an animal can "act". Although non-human animals have perception, they do not have intellect, so they cannot literally *know* anything or engage in acts in the strict sense. (See Chapter VI below.) Nevertheless, since the senses (when functioning normally), according to Aristotle, *infallibly* transfer the forms of external objects into the animal, they do make available "in the soul" correct information regarding those objects; and this is very much "like" or "analogous to" knowing about the objects.

Thus, if a lion, for example, sees or smells a piece of meat, and if its senses are functioning normally, then the actual form of the meat has been transferred into the lion's body by the senses and is available to it "in the soul". Physiologically, Aristotle would describe this as receiving *aisthemata* of the meat in the region of the heart.

3. Sensitive Phantasia and the Initiation of Movement

Part 2 of the Desire Definition says that, if an object of perception is the kind that can cause pleasure or pain to the animal, then "the soul makes a quasi-affirmation or negation, and pursues or avoids the object". What is the "quasi-affirmation or negation" that is mentioned here? (The Revised Oxford Translation calls it "a sort of affirmation or negation".) Given the account of perception in Chapter IV above, it seems to correspond to the *interpretation* carried out by the faculty of sensitive *phantasia*, for such interpretation occurs when the percept enters the region of the heart. (See Section 8 in Chapter IV above.) Thus, the "quasi-affirmation or negation" must be the animal's interpreting the object as pleasant or painful.

Some translators of this passage take the "quasi-affirmation" to be simply the initiation of pursuit itself and the "quasi-negation" to be simply the initiation of avoidance. Thus, Hicks (1907) translates:

and when the sensible thing is pleasant or painful, the pursuit or avoidance of it by the soul is a sort of affirmation or negation.

And Wheelwright (1935) renders the passage as follows:

when its object is pleasant or painful, however, the soul's pursuit or avoidance of it is a sort of affirmation or negation

The Oxford translations appear to be closer to the mark, since, *prima facie* at least, taking something to be

pleasant is one thing and pursuing it is something else--though, no doubt, they often are causally related, and the second might follow instantly upon the first.

We can shed light on this issue by consulting Aristotle's *De Motu Animalium*, where he spells out the physiological states and processes that constitute perception, desire, and initiation of motion. There, perception is described as involving an alteration that arrives in the region of the heart where the central faculty of perception is located (702b21ff). If the percept triggers heating in the heart region, pleasure results; if it triggers chilling, pain results (702a2ff). The same effects, of course, can result from phantasms, since they are residual percepts.

The heating and chilling take place in a special kind of stuff which Aristotle calls "*innate pneuma*". This unique material behaves like a fifth element with properties different from the earth, air, fire and water which comprise the rest of the animal's body.⁴ Aristotle describes *pneuma* this way:

it is obviously well disposed by nature to impart movement and supply strength....it contracts and expands without constraint, and is able to pull and push for the same reason; and it has weight by comparison to the fiery and lightness by comparison with its opposite. (703a18ff, Nussbaum)

Heating in the heart region, then, causes the *pneuma* to expand, and chilling causes it to contract. Different

patterns of heating or chilling result in different patterns of expansion and contraction, and therefore different patterns of pulling and pushing (702a3ff, see also 479b19ff). The central location of the heart region and the specific ways in which it is attached to the rest of the animal's body enable small expansions and contractions in the heart region to create large movement patterns in the animal as a whole. Aristotle compares the process to the functioning of automatic puppets:

The movement of animals is like that of automatic puppets, which are set moving when a small motion occurs: the cables are released and the pegs strike against one another....[animals] have functioning parts that are of the same kind: the sinews and bones. The latter are like the pegs and iron in our example, the sinews like the cables. When these are released and slackened the creature moves....It is not difficult to see that a small change occurring in an origin sets up great and numerous differences at a distance--just as, if the rudder shifts a hair's breadth, the shift in the prow is considerable. Further, when, under the influence of heat or cold or some other similar affection, an alteration is produced in the region of the heart, even if it is only an imperceptibly small part of it, it produces a considerable difference in the body.... (701b1-31, Nussbaum)

Given this account of perception and the initiation of movement, we can now see that there are *two* virtually simultaneous processes that occur in the heart region of the animal in response to a percept or phantasm. First of all, a pattern of heating or chilling occurs; and secondly, virtually simultaneously, a pattern of expansion or contraction arises. The heating or chilling pattern is

the animal's response to the percept or phantasm, and it constitutes the animal's interpretation of the object of perception or "imagination" as pleasant or as painful. Of course, this is not to say that the animal applies the concepts "pleasure" and "pain"; but rather that a heating pattern near the heart is its characteristic response to pleasant objects and a chilling pattern its characteristic response to painful objects. The expansion or contraction of the *pneuma* is the initiation of movement in pursuit or avoidance of the object in question.

The near simultaneity of these processes occurs because the relevant parts of the animal are passive patients and active agents which naturally and swiftly interact with each other:

Hence it is with good reason that the inner regions and those around the origins of the organic members are fashioned as they are, so as to change from solid to liquid and from liquid to solid, from soft to hard and *vice versa*. Since these processes happen this way, and since the passive and active have the nature which we have often ascribed to them, then whenever it happens that there are both active and passive elements, and neither falls short in any respect of the account we give of them, at once one acts and the other is acted upon....The rapidity and simultaneity result from the fact that the active and passive are naturally relative to each other. (702a7-21, Nussbaum)

To summarize parts 1 and 2 of the Desire Definition, then, we get the following account: When a percept or phantasm arrives in the heart region of an animal, if the object which caused it is the kind that the animal finds pleasant or painful, and if the "sensitive

mean" is functioning correctly, the heart region responds with a pattern of heating for pleasant objects and a pattern of chilling for painful objects. This is the interpretation by the faculty of sensitive *phantasia*. Almost simultaneously, there arises a pattern of expansion or contraction, and this constitutes the initiation of pursuit movements for pleasant objects and avoidance movements for painful objects.

4. Pleasure and Pain

Part 3 of the Desire Definition says, "To feel pleasure or pain is to act with the sensitive mean towards what is good or bad as such." In other words, to feel pleasure is to initiate (and re-initiate, i.e. sustain) with the heart region pursuit of what is taken to be the good, while to feel pain is to initiate or sustain with the heart region activity in avoidance of what is taken to be the bad. Non-human animals, of course, have no concepts with which to think about good or bad, according to Aristotle, but nature has made them in such a way that they get pleasure from pursuing what is in fact their good and pain relief from avoiding what is in fact their bad. Thus, for example, if a hungry animal perceives food (perception is an activity in which it naturally engages) it feels pleasure, and the pleasure continues while it pursues the food, tastes it, eats it, and so on. On the

other hand, if it perceives bodily damage from an enemy, or even simply perceives an enemy, it feels pain, and the pain continues while it flees or fights and until the perceiving or imagining of the enemy ceases.

This account of pleasure makes it an aspect or concomitant of an activity (*energeia*), rather than being itself a movement or process (*kinesis*). As Ross says, "It is not something that we do but a sort of colouring that attaches to the doing of things." (1977, p.229) Thus, Edel points out, "If one were asked what he is going to do for the next ten minutes he could not answer that he is going to be pleased. He would have to engage in some activity...." (Edel 1982, p.263)

In addition, as Aristotle explains in *NE* X 4, since pleasure is not a process or movement, it is *whole or complete at any moment*, and it does not need to be completed over time:

Seeing seems to be at any moment complete, for it does not lack anything which coming into being later will complete its form; and pleasure also seems to be of this nature. For it is a whole, and at no time can one find a pleasure whose form will be completed if the pleasure lasts longer. For this reason too it is not a movement [*kinesis*]. For every movement (e.g. that of building) takes time....But of pleasure the form is complete at any and every time. (1174a14-b6)⁵

Since pleasure is a concomitant of activity, it can enhance whatever value a good activity already has in its own right. As Aristotle puts it, "pleasure completes the activity...as an end which supervenes as the bloom of

youth does on those in the flower of their age " (1174b31ff). Consider, for example, any virtuous action: it involves doing what is good *because* it is good. And its value as a virtuous action would remain, even if one took no pleasure in the doing of it. But the truly virtuous man does get pleasure from doing what is good, and so the value of the action is enhanced by the pleasure that accompanies it. However, pleasure cannot make a bad action good; and indeed it is a sign of a wicked person that he gets pleasure from evil actions. As Aristotle says,

to each activity there is a proper pleasure. The pleasure proper to a worthy activity is good and that proper to an unworthy activity is bad; just as the appetites for noble objects are laudable, those for base objects culpable. (NE X 5, 1175b26-29)

A wicked person gets pleasure from evil actions because such actions are the result of habits, and pleasure accompanies *habitual* activities as well as natural ones (1369b16ff). Animals get pleasure from pursuing the natural activities that promote their welfare, and pain from activities that threaten their welfare. Human animals, however, have the ability--through thought, deliberation and choice--to develop bad habits that damage their welfare and that of others. Because they are *habits*, there is pleasure in exercising them, even if they do not promote the good.

The above discussion indicates the richness and

value of Aristotle's account of pleasure and pain in Part 3 of the Desire Definition. It not only enables him to explain animal behavior, but also to account for the key role of pleasure and pain in moral action.

5. *The Nexus of Desire*

Part 4 of the Desire Definition identifies actual desire: "Both avoidance and [desire] when actual are identical with this." What is referred to here by "this" is pursuit or avoidance (in the heart region) of what is taken to be good or bad, respectively. So this is what "actual" *orexis* is.

Aristotle's use of "actual" here indicates that he has in mind his familiar distinction between a capacity that has been actualized and one that is merely potential in some sense. Indeed, the paragraph just prior to the Desire Definition mentions the actual and potential with regard to knowledge and sensation. To sort out the different senses of actual and potential, let us look at a passage which occurs a few chapters prior to the Desire Definition:

But we must now distinguish different senses in which things can be said to be potential or actual....We can speak of something as a knower either as when we say that man is a knower, meaning that man falls within the class of beings that know or have knowledge, or as when we are speaking of a man who possesses a knowledge of grammar; each of these has a potentiality, but not in the same way: the one because his kind or matter is such and such, the other because

he can reflect when he wants to, if nothing external prevents him. And there is the man who is already reflecting--he is a knower in actuality and in the most proper sense is knowing, e.g. this A. Both the former are potential knowers, who realize their respective potentialities, the one by change of quality,...the other in another way from the inactive possession...to...active exercise. (*De Anima* II 5, 417a22-b1)

These same distinctions can be readily applied to desire. Thus, a new-born lion, for example, is the sort of creature which, when mature enough, comes to desire meat, although when newly born has no such desire. That same new-born lion, however, is the sort of creature that will never come to desire, say, peaches. Once it has become sufficiently mature, the lion desires meat in two different senses: even when asleep, and therefore not actively pursuing meat or even "thinking about" meat, it has a desire for meat in the sense that, if awakened and presented with some meat, it would actively pursue it. When actually actively pursuing meat, it desires "in the most proper sense" (to use Aristotle's way of putting things).

For convenience and clarity, let us adopt the following terminology regarding the three different senses of desire:

1. "potential desire" refers to the first kind; namely, the kind that an animal does *not* yet have, but--because it is the sort of creature that it is--can eventually develop or acquire

2. "latent desire" refers to the second kind; namely, the kind that an animal now has, but is *not actively exercising*
3. "active desire" refers to the third kind; namely, the kind that an animal is *now actively exercising*. ("appetite in the sense of actual appetite is a kind of movement" 433b17f)

Given this terminology, we can say that, according to Aristotle, every non-human animal has *two overarching latent desires*: to pursue pleasure and to avoid pain. All of an animal's normal waking behavior can be seen as motivated by these primary desires. Of course, different kinds of animals find different activities pleasant or painful ("asses prefer sweepings to gold"--see 1176a4ff); so the two primary desires get instantiated differently in different species. Each type of animal, then, has associated with it a specific "bundle" or "nexus" of latent desires. Thus, a domesticated cat is the sort of thing that latently desires to eat mice, to avoid wolves, to catch birds, and so on.

Of course, to be motivated by such desires does *not* mean, for Aristotle, that a non-human animal conceives of them or thinks them to itself, for that would require intellect, which non-human animals do not have. Rather, (to use a Kantian way of putting things) the animal can be seen as behaving *in accordance with* a rule like "always pursue pleasure" or "always avoid wolves"; rather than *acting from* such rules. Thus, every non-human animal can

be seen as behaving in accordance with two overarching rules--"always pursue pleasure" and "always avoid pain"--which get specifically instantiated in each type of animal by a large set of sub-rules--for example, "eat mice", "catch birds", "avoid wolves", and so on. Latent desires in non-human animals, then, can be seen as embodied rules governing the animal's behavior; and each type of animal can be associated with a different set of rules.

Each animal, then, is a "bundle of latent desires" waiting to be activated. Activation of the desires occurs through perception or through "imagination" (i.e. the presence and sensitive interpretation of percepts or phantasms). Thus, if a cat sees a wolf, the rule "avoid wolves" gets triggered, and the animal flees from the wolf. If it seems to see a bird nearby, the rule "pursue birds" is triggered, and the cat chases the wouldbe bird. (For more details about the mechanism involved, see Chapter VII below on the "behavior syllogism".)

An animal's nexus of desires can be affected by internal and external conditions. Thus, if the animal is asleep or unconscious, its latent desires are "dormant" and unavailable to interact with percepts or phantasms. Sickness, of course, also can alter latent desires. A very sick cat may avoid food, for example, rather than pursue it, or eat things it normally would find unpleasant.

Also, if an animal already is intensely pursuing or fleeing something, percepts of something else may fail to trigger latent desires that otherwise would be actualized.

Besides "natural" latent desires that are built into an animal at birth, or acquired through normal growth and maturation, some animals can develop *habits* or behavior patterns from particular repeated circumstances in the environment (1332b4). Since pleasure occurs while following a habit (1369b16ff), new latent desires are thereby created. Thus, the family cat may come to behave in accordance with the rules "never hunt birds in the neighbor's yard" and "always sleep on the livingroom sofa." In this way, the nexus of desires is enlarged and shaped by the animal's particular history and environment.

Sometimes animals have an internal conflict when two latent desires are activated at once, creating conflicting active desires. Thus, a hungry cat, for example, might see its food on the back patio and also catch sight of the neighbor's ferocious dog in the back yard. It might then be "pulled in different directions" by the desire to eat the food and the desire to avoid the dog. Presumably, a physiological account would involve heating and chilling patterns in the heart region that overlap and interfere with each other to some extent. As a result the animal might hesitate, or be unable to move, or might behave in unusual ways.

For *human* animals, the nexus of desire is more complicated than it is for the rest of the animal kingdom. Since humans are *rational* beings, they have different overarching desires; namely, "always pursue the good" and "always avoid the bad". But because they also are *animals*, they are motivated as well by pleasure and pain. (See, for example, *EE* II 8, 1224a ff.) Obviously, the best and psychologically most tranquil circumstances for such a being would be ones in which desire to have pleasure and avoid pain complements or reinforces desire to do the good and avoid the bad. However, there are sometimes circumstances in which these different desires clash--circumstances in which doing the good is painful and doing the bad gives pleasure. (More on this in Chapter VI below.)

An additional complication in the case of humans is the capacity which practical reason provides to *choose* among options and thereby develop habits--the habit of always telling the truth, for example, or always cheating to win. If a series of choices leads to a habit of doing the good, then the pleasures of habit reinforce the desire to do good, and thereby help shape and maintain a moral character. On the other hand, if a series of choices leads to a habit of pursuing pleasure at the expense of the good, then the pleasures of habit reinforce a wicked character. (See, for example, *NE* III 5.) Clearly, the

morally best kind of education would be one that develops habits of pursuing the good; and the morally wisest course would be to choose particular actions in ways that create habits of pursuing the good.

6. The Organic Unity of a Living Creature

Part 5 of the Desire Definition says, "the faculty of [desire] and avoidance are not different, either from one another or from the faculty of sense perception; but their being *is* different". In other words, the heart region of the animal is numerically one, although it fulfills all three of these functions. As we have seen above, it also is the seat of pleasure and pain, and the center for imagination (and thought, where it exists). And we shall see below that it is the seat of the passions, as well. Thus, like a well-run city-state, an animal is a unified whole, with a part that commands and coordinates all the rest, and with individual parts that naturally lend themselves to control by the center. As Aristotle says in *De Motu Animalium*:

We should consider the organization of an animal to resemble that of a city well-governed by laws. For once order is established in a city, there is no need of a separate monarch to preside over every activity; each man does his own work as assigned, and one thing follows another because of habit. In animals this

same thing happens because of nature: specifically because each part of them, since they are so ordered, is naturally disposed to do its own task. There is, then, no need of soul in each part: it is in some governing origin of the body, and other parts live because they are naturally attached, and do their tasks because of nature. (703a29-b2, Nussbaum)

7. Appetite

The nexus of desires in non-human animals includes two types of desire; namely, appetites and passions (*EE* II 10, 1225b26). Human desires, on the other hand, include these two types, plus a third kind that other animals lack; namely, "wishes", which require intellect. (For more on wishes, see Chapter VI below.)

Aristotle often talks as if appetites are primarily concerned with bodily needs like food, drink and sex. Since all animals, even the simplest ones, have these "basic drives", they are good paradigm cases of appetite. But this can be misleading. In several passages where Aristotle appears to be offering a definition of appetite, he makes the more general statement that "appetite is desire for the pleasant." (See, for example, 140b30-31, 414b6, 661a7-9, 1111b16, and 1223a34-35.) And since many things can be pleasant besides the satisfaction of bodily needs, one can have appetite for all sorts of things. Thus, in *NE* III, for example, at 1111a30f, Aristotle mentions health and learning as proper objects of appetite. As constituents of a good life, they could also be proper objects of wish

(See Chapter VI below.) Indeed, as Nussbaum points out,

The object of moral education would be to encourage the greatest possible coincidence between objects of [wish] and of [appetite], so that [appetite] does not distract from the pursuit of the goal; and, in a failure of deliberative calculation, [appetite] can fill the gap. (Nussbaum 1978, p.336)

For this and other reasons, Nussbaum suggests that there are two basic kinds of desires; namely, those aimed at the components of an overall good life, and those aimed at pleasure here and now (pp.335-6). Ross has a similar suggestion:

Desire, however, is of two kinds, wish or rational desire, which desires the good, and appetite or irrational desire, which desires the apparent good. Or to put the antithesis otherwise, wish is for future good, appetite for present pleasure.... (Ross 1977, p.145)

8. *Passion*

But if wish and appetite are the two basic kinds of desire, where do the passions fit in? This is not an easy question to answer, because Aristotle is not very clear on the nature of the passions. Sometimes he refers to them using the general term *pathos*, and sometimes he uses the term *thumos*, which can mean "anger" (some translators use "spiritedness" [e.g. Nussbaum] or "temper" [e.g. Apostle]). Apparently, Aristotle took anger to be a paradigm case of passion, and used it therefore to stand for passions in general. In any case, *NE* II 5 includes anger in a list of example passions:

By passions I mean appetite, anger, fear, confidence, envy, joy, love, hatred, longing, emulation, pity, and in general the feelings that are accompanied by pleasure or pain.... (1105b21-24; see also the parallel passage *EE* II 2, 1220b12f)

This list, however, also includes appetite; and that would make appetite a subdivision of passion, rather than a different kind of desire in its own right. Given this apparent conflict or inconsistency and others like it in the Aristotelian *corpus*, we must conclude (with Nussbaum 1978, p.336) that Aristotle did not give a clear and consistent analysis of passion in general or the various manifestations that it can take.

There are, of course, *some* specific passions that Aristotle describes in detail (see especially the *Rhetoric*). In the opening chapter of *De Anima*, for example, he says that anger can be described physiologically as boiling of blood around the heart, and psychologically as the desire to retaliate (403a30ff).

In spite of the above-described problems, we can infer from what Aristotle *does* say an account of passion that is sufficient for our purposes here. Thus, for example, the passions have to be physiological in nature, for as the opening chapter of *De Anima* says, such things as anger, meekness, fear, pity, joy, love and hate are "enmattered forms" (*logoi enuloi*). And, since non-human animals have passions, but not intellect, it is clear that passions do not require intellect or reasoning. And,

finally, since Aristotle considers them to be *kinds of desire*, they must fit the general account of desire that is found in the Desire Definition at 431a8ff.

It follows then that passions are physiological in nature, can be both latent and active (e.g. a cat fears dogs in the latent sense, even if asleep), and when active are accompanied by pleasure or pain. The active form consists of the pursuit or avoidance of the object of the passion, and can be triggered by percepts or phantasms of that object. The accompanying pleasure or pain provides the motivation for the resulting behavior.

If we adopt the Ross-Nussbaum suggestion (see Section 7 above) that, according to Aristotle, there are basically two kinds of desire--rational desire for the good, and irrational desire for the pleasant--passions clearly qualify as irrational desire for the pleasant. (Fortenbaugh (1975) has argued, however, that *in human beings*, at least, passions like anger, fear, shame, and so on have a "thought" component that explains why such emotions "listen to reason" and are subject to control by the intellect. Discussion of these "rational emotions" must be deferred, however, until after we have considered thought in Chapter VI below.)

9. Hylomorphism

The above account of desire and animal behavior makes it clear that for Aristotle virtually all psychological states and processes--perception, appetite, emotion, and so on-- are "enmattered" and therefore do not presuppose or require a non-physical soul or "mindstuff" that can exist apart from body. The only possible exception that Aristotle seems willing to make is with regard to *thinking*. But even on this point he expresses some doubts in the opening chapter of *De Anima*:

there seems to be no case in which the soul can act or be acted upon without involving the body; e.g. anger, courage, appetite, and sensation generally. Thinking seems the most probable exception; but if this too proves to be a form of imagination or to be impossible without imagination, it too requires a body as a condition of its existence. (403a6ff)

Now we must defer consideration of thinking until the next chapter, but with regard to all the other psychological processes and faculties it seems that Aristotle is committed to the hylomorphic view that identifies them with functions and functional states of matter. As Nussbaum puts it, for Aristotle

soul is the form or functional organization of a certain kind of body and...the various "parts of soul" are functional states of matter....We might say, then, that the "is" of general claims such as "*aistheseis* are a certain type of qualitative change" is the "is" of realization or constitution; we are saying that this function is usually realized in a certain physiological process, that *aisthesis* is a functional state of matter, and that in the animals we know it usually has such-and-such a physico-chemical character....the function, which we characterize

generally, is realized now in this matter, now in that. There is always *some* bodily affection that constitutes the process, but not necessarily the same one [in each animal], though empirical physiology might suggest this. (Nussbaum 1978, pp.146-8)

As indicated in Chapter IV above, this "non-Cartesian" account of "the mental" nevertheless enables one to explain intentional characteristics like "privacy", "subjectivity", and "aboutness". [Aristotle, of course, did not (as far as we know) work out the "semantic" details which explain how internal states and processes can "represent" or "be about" external entities.⁶]

NOTES

1. Suggested in a talk by Martha Craven Nussbaum at Columbia University in October 1984 ("Aristotle's Common Explanation of Animal Motion").
2. This passage is from from J. A. Smith's translation in the original Oxford Translation (1921). I prefer this version of the present passage because I think it is somewhat clearer than the Revised Oxford version (1984).
3. Ross, however, (in agreement with Torstrik) believes that there is no connection with the previous sentence. He says,

Torstrik pointed out that this chapter is not a connected discussion, but a series of scraps put together by an early editor....We must suppose that an early editor found these scraps in A.'s Nachlass, and simply strung them together in order that none of the Master's words should be lost to posterity. (Ross 1961, p.303)

4. For a detailed discussion of innate *pneuma* and its role in animal motion, see "Essay 3" in Nussbaum 1978.
5. For a discussion of the difference between *kinesis* and *energeia* see Chapter 6 of Book IX of the *Metaphysics*.
6. For one effort in this direction, see my "Artificial Intelligence, Biology and Intentional States" (Bynum 1985).

CHAPTER VI

WISH, DELIBERATION, AND CHOICE

1. Introduction

In the previous chapter we noted that, according to Aristotle, every non-human animal behaves in accordance with two overarching desires: to pursue the pleasant and to avoid the painful. But different animals find different things to be pleasant or painful, so each kind of animal has its own specific set of natural desires--for example, to avoid wolves, to catch mice, and so on. Besides having such instinctive desires, an animal also can develop *habits* from repeated circumstances in the environment--for example, to avoid the neighbor's lawn, to sleep on the livingroom sofa, and so forth. These habits function like additions or modifications to the animal's nexus of desires.

At any given time, most of an animal's desires are "latent"--that is, not currently active. Such latent desires can be viewed as rules of behavior--"always avoid

wolves", "always chase birds", and so on--which are activated when perception or imagination indicates that conditions are appropriate. Such "triggering" causes the animal to initiate pursuit or avoidance activities in accordance with the relevant rules. (For more details regarding the "trigger" mechanism, see Chapter VII below on the "behavior syllogism".)

Since human beings are members of the animal kingdom, they too are motivated by pleasure and pain, but their desire nexus is modified by the fact that they also are *rational*. As such, they are capable of distinguishing good and bad, and their two highest desires become "to do the good" and "to avoid the bad". And just as an animal's nonrational overarching desires--seek pleasure, avoid pain--are instantiated by a wide variety of sub-desires (appetites and passions), so a human being's rational overarching desires--do the good, avoid the bad--are instantiated by sub-desires of the intellect, sub-desires which Aristotle calls "wishes" (*bouleseis*). A person, therefore, being both rational and animal, has three kinds of desires: appetites and passions (which aim at pleasure and avoidance of pain), and wishes (which aim at good and avoidance of bad). It is one of the functions of reason, according to Aristotle, to issue orders to the appetites and passions and thereby keep them under rational control: "as the child should live according to the direction of

its tutor, so the appetitive element should live according to reason." (NE III 12, 1119b12f)

The present chapter examines the means by which reason controls appetite and passion, forms desires of its own, and generates "choices", which set the stage for *actions* in the strict sense. The next chapter will discuss the "practical syllogism"--the mechanism that converts "choices" into actions.

2. The Intellect Takes Control

Non-human animals, according to Aristotle, are not in charge of their own lives, but rather are *controlled* by instinct and whatever objects and conditions happen to be in their immediate environment. Given their desires, their behavior results from percepts and phantasms (429a6). Of course, this is *not* to say that their behavior is involuntary. On the contrary, as indicated in Chapter III above, if an animal's behavior is caused by its own natural desires and triggered by undistorted perceptions or correct imaginings, and if it is not compelled by an external force, then the behavior is voluntary. Thus, if a cat sees a mouse, and this triggers its latent desire to catch mice, thereby causing it to pursue the mouse, its behavior is voluntary, even though the desire was instilled by nature and the percept was provided by the environment. Similarly, if a bird spies a

cat, thereby triggering its natural fear of cats and causing it to fly away, it behaves voluntarily.

Since desire (appetites and passions) and information (percepts and phantasms) together control an animal, if any animal could somehow gain control over these, its behavior would no longer be entirely at the mercy of nature, and it could, in a very real sense, "take charge" of its own life. This is precisely what the faculty of intellect (*nous*) provides to human animals. By supplementing percepts and uncontrolled phantasms with "self-generated" thoughts, intellect enables a person to take charge of the "desire-triggers" which lead to voluntary behavior. And by supplementing appetites and passions with wishes and choices, intellect empowers human beings to shape their own motivation and aim at the good. The first of these capacities makes a person master of his or her appetites and passions. The second makes a person a responsible moral agent.

What is the physiological mechanism that enables thought to gain control of appetites and passions? The key to the process is the *phantasm*, the "trigger" of desire. As Tracy explains:

Now each phantasm, like the actual sense perception from which it comes, not only reproduces the sensible form of the object but may also represent the object as helpful or harmful, and so carry with it the power to evoke feelings of pleasure and pain....Hence man is stimulated to emotion and action not only by the perception of a present object but also by the

phantasm, which represents an object remembered as helpful or harmful in the past, or anticipated as such in the future....The phantasm is, in fact, conceived as a controlling factor in the whole mechanism of emotion and action....(Tracy 1969, p.251; see also Beare 1906, pp.296ff)

Thus, phantasms have the desire-triggering power of perceptions; and it is *nous*'s ability to call up and manipulate phantasms that gives it control over appetites and passions, for all thinking, according to Aristotle, involves the manipulation of phantasms:

when the mind is actively aware of anything it is necessarily aware of it along with a [phantasm].
(432a7f)

. . .

To the thinking soul [phantasms] serve as if they were contents of perception (and when it asserts or denies them to be good or bad it avoids or pursues them). That is why the soul never thinks without [phantasms]
(431a15-17)

. . .

The faculty of thinking, then, thinks the forms in the [phantasms], and as in [perception] what is to be pursued or avoided is marked out for it, so where there is no sensation and it is engaged upon the [phantasms] it is moved to pursuit or avoidance
(431b2-4)

The phantasms, although they are perceptual traces of particular things, function in the thinking process like universals. Aristotle explains in *De Memoria*,

it is not possible to think without an image [i.e., a phantasm]. For the same effect occurs in thinking as in drawing a diagram. For in the latter case, though we do not make any use of the fact that the size of the triangle is determinate, we none the less draw it with a determinate size. And similarly someone who is thinking, even if he is not thinking of something with a size, places something with a size before his eyes, but thinks of it as not having a size. If its nature

is that of things which have a size, but not a determinate one, he places before his eyes something with a determinate size, but thinks of it simply as having size. (450a1-7, Sorabji)

Thus, one is able to use phantasms to represent universals by attending to some features and ignoring others. This ability of selective attendance plays a key role in the acquisition of universals, as described in *Posterior Analytics* II 19: Perceptions create phantasms which can be recalled as memories of the things perceived. By attending to what is similar among many memories of the same things, one creates in the soul "experience"; that is, "the whole universal which has come to rest in the soul (the one apart from the many, whatever is one and the same in all those things)" (100a7f). So, for example, from phantasms of a number of cats which one has perceived, one can attend to the "catness" of each and thereby acquire the concept of a cat. Also, by attending to what is similar in animal concepts like cat, dog, horse, and so on, one acquires the concept of an animal (see 100b2ff).

It is clear from the above discussion, then, that the phantasm is the key to *nous*'s ability to acquire concepts and to trigger and control desires. The phantasm is the vehicle of thought which, by selective attendance, represents universals and, by manipulation, enables thinking. Such thinking includes not only the formation

of beliefs, assertions, denials, and so on; but also the various processes of inference and deliberation.

Aristotle says, for example,

Sensitive imagination, as we have said, is found in all animals, deliberative imagination only in those that are calculative: for whether this or that shall be enacted is already a task requiring calculation; and there must be a single standard to measure by, for that is pursued which is greater. It follows that what acts in this way must be able to make a unity out of several [phantasms].

This is the reason why [sensitive] imagination is held not to involve opinion, in that it does not involve opinion based on inference, though opinion involves imagination. (*De Anima* III 11, 434a5-11)

Recollection is also a kind of inference which requires phantasms:

of all [the animals] that we are acquainted with, none, we venture to say, except man, shares in the faculty of recollection [which involves the retracing of a phantasm-chain]. The cause of this is that recollection is, as it were, a mode of inference. For he who endeavors to recollect infers that he formerly saw or heard, or had some such experience, and the process is, as it were, a sort of investigation. But to investigate in this way belongs naturally to those animals alone which are also endowed with the faculty of deliberation; for deliberation is a form of inference. (*De Memoria*, 453a8-13; bracketed material added here)

Aristotle goes on to explain that the process of recollection "is corporal", "is a searching for an image in a corporal substrate" (453a14f).

3. *Thinking and Hylomorphism*

The faculty of thinking, then, like other "parts of soul"--perception, appetite, passion, and so

on--appears to be a functional state of matter. (See above, Chapter V, Section 9.) In any case, it is clear from the above discussion that Aristotle is committed to the view that thinking involves the presence and manipulation of phantasms. His explanations of memory, recollection, concept acquisition, inferring and deliberation all require phantasms. And since phantasms are bodily entities, he seems committed to the view that thinking is--or at least requires--a physiological process. This interpretation of Aristotle is--or at least appears to be--confirmed by the opening chapter of *De Anima* where he says: if thinking "proves to be a form of *phantasia* or to be impossible without *phantasia*, it too requires a body as a condition of its existence" (403a8f).

But, despite this and other such evidence in the corpus, there also exists counter-evidence which supports the view that Aristotle believed thought to be independent of matter and capable of existing without body. Thus, for example, in *De Anima* III 4, he says

that in the soul which is called thought (by thought I mean that whereby the soul thinks and judges) is, before it thinks, not actually any real thing. For this reason, it cannot reasonably be regarded as blended with the body: if so, it would acquire some quality, e.g. warmth or cold, or even have an organ like the sensitive faculty: as it is, it has none. (429a23ff)

At 429b4f he says, "while the faculty of sensation is dependent upon the body, thought is separable from it."

And in *De Generatione Animalium* he says "no bodily activity has any connexion with the activity of [thought]" (736b28).

We must conclude, then, that the *corpus* contains apparently contradictory pronouncements on the question of whether thinking is enmattered. Naturally, this has led over the centuries to many disputes and interpretations regarding Aristotle's account of thinking. (See Edel 1982, p.169). Some readers have found religious implications regarding spirits and life after death, others saw remnants of Platonism that Aristotle never successfully overcame. Some offered naturalistic interpretations, still others developed Hegelian interpretations.

Fortunately, we need not enter into these heated disputes. For our purposes, it does not matter whether thinking actually *is* the physiological process of phantasm recall and manipulation, or is a non-material "spiritual" process which merely is *accompanied by* such phantasm manipulation when the thinking occurs in a person. In either case, we will be able to understand and explain wishes, deliberation and choice, without having to resolve the ultimate ontological questions.

4. *Emotions*

The passions of non-human animals are non-rational. They are pleasant or painful affections

triggered by perceptions or by "uncontrolled" phantasms from dreams (see 536b29ff), "imagination", or other non-rational sources. Once they occur, they cause the animal to pursue or to flee until other perceptions or phantasms "deactivate" them or distract the animal's attention (see 1117a6f). For example, if a mother bear perceives another animal near her cubs, she gets angry and chases the intruder (571b30, 608a33ff). Once she has caught it and killed it, or has chased it far away from the cubs, her anger subsides. Similarly, intruders in the vicinity of a bee hive are attacked by angry bees (626a15ff), which calm down again when the intruder is gone or dead.

Now we can identify three aspects of such passions, namely,

1. The efficient cause--perceptions or phantasms of something pleasant or painful to the animal
2. The passion itself--the triggered activity of pursuit or avoidance
3. The "intentional object"--the entity at which the anger, fear, or whatever, is directed

Thus, for example, the efficient cause of the mother bear's anger is the perception of an intruder near her cubs; the anger itself is the painful internal activity that causes her to pursue the intruder; and the object of the anger is the intruder. Similarly, perception of a nearby wolf may be the efficient cause of a rabbit's fear;

the fear itself is the painful internal activity that causes the rabbit to flee; and the wolf is the object of the fear.

Human beings also have non-rational passions triggered by perceptions, dreams, hallucinations, and so forth. But, because humans also have the faculty of thought (*nous*), they can judge the rational acceptability of such passions, and take steps to modify or eliminate them. They don't have to wait for their perceptions to change or to be distracted by something else. A person who is afraid of poison snakes, for example, may jump back in fright upon spying a snake; but then, after reasoning that it is a harmless grass snake, or that it is only a toy, the person can overcome or eliminate the fear.

Similarly, as Nussbaum explains,

the leap of the brave man's heart from a sudden fright can be explained without our saying he was deficient in courage, since there is no real "command" [of *nous*] to avoid the object (432b29ff.). But in order to explain the leap we still need to mention his *phantasia* of the object--it looked to him like an enemy beacon or his heart would not have leapt--and also some sort of low-level or pervasive desire. Aristotle seems to assume here [703a4ff] that there are certain desires that are innate and present in all men; among these are sexual desire and desire for self preservation. A virtuous man will still have these desires at the level of instinctive bodily response; but his virtuous disposition will not allow him to identify himself with them in inappropriate circumstances....No praise or blame at all can be ascribed because of the occurrence of a heart-leap..., even though we concede that to explain [it] we must invoke *phantasia* and, at some level, *orexis*. (Nussbaum 1978, p.382)

So, although humans *do* have non-rational passions, *nous* empowers them to keep such passions under rational control.

Fortenbaugh (1975) has pointed out, however, that according to Aristotle human beings are unique among animals in their ability also to have *passions aroused by thought*. (Let us follow Fortenbaugh and call them "emotions".) These "cognitive passions" result not from perceptions or uncontrolled phantasms, but rather from *beliefs*--which, of course, are (or are accompanied by) *nous*-manipulated phantasms. Thus, *nous* has the power to substitute beliefs for the perceptions or non-rationally caused phantasms that trigger passions; and, as a consequence, it also has the power to substitute an *envisioned* object as the "intentional object" of the passion.

In *Rhetoric* II 1, while discussing emotions, Aristotle says,

We must arrange what we have to say about them under three heads. Take, for instance, the emotion of anger: here we must discover what the state of mind of angry people is, who the people are with whom they usually get angry, and on what grounds they get angry with them. (1378a21ff)

As this passage indicates, emotions have three important aspects which parallel those of non-rational passions:

1. The efficient cause--the belief that provides "grounds" for having the emotion

2. The passion itself--the "state of mind" of the person in question
3. The "intentional object"--the person or object envisioned in the grounds and at which the emotion is directed

So, emotions, then, substitute *nous*-generated beliefs for perceptions and uncontrolled phantasms. The passion itself, however, is the same painful or pleasant bodily affection.

According to Fortenbaugh (1975), Aristotle's recognition of such "cognitive passions" was an important advance in psychology, since it recognized "a special class of cognitive phenomena open to reasoned persuasion in a way that bodily drives are not" (p.23). Thus, if a friend is angry with me because he believes I cheated him, I can reason with him by offering evidence that I really didn't cheat. If I persuade him that I didn't cheat, his belief that I did will disappear. And since that is the efficient cause of his anger, he will no longer be angry. Such passions, then, are indeed open to rational persuasion.

It is a crucial aspect of Aristotle's psychology that his account of emotions, non-rational passions, and appetites makes them susceptible to rational control. If they were not, his moral theory would be in ruins, for rational control of appetites and passions (both emotions and non-rational ones) is the key to moral virtue. For

him, passions and appetites are not bad in themselves, they become so only when permitted to overrule reason. Indeed, Aristotle considers a *lack* of passion to be bad in many circumstances (*NE*, 1115a13). The "foolhardy" man, for example, fears *less* than he ought (*EE*, 1220b38); while the brave man fears only as much as he should:

Now the brave man is as dauntless as man may be. Therefore, while he will fear even the things that are not beyond human strength, he will fear them as he ought and as reason directs, and he will face them for the sake of what is noble; for this is the end of excellence. But it is possible to fear these more, or less, and again to fear things that are not terrible as if they were. Of the faults that are committed one consists in fearing what one should not, another in fearing as we should not, another in fearing when we should not, and so on; and so too with respect to the things which inspire confidence. The man, then, who faces and who fears the right things and with the right aim, in the right way and at the right time, and who feels confidence under the corresponding conditions, is brave; for the brave man feels and acts according to the merits of the case and in whatever way reason directs. (*NE* III 7, 1115b11-20)

The same holds for other emotions, as well, like anger, shame, confidence, and so on.

5. *The Nexus of Wishes*

Up to this point in the present chapter, although we have been considering how *nous* helps to control the appetites and passions, we have not yet discussed a crucial tool for such control; namely, the third kind of desire--wish (*boulesis*). It is by means of wish, and a special kind of "desire-processing"--namely, deliberation

(*bouleusis*)-- that reason is able to "issue orders" to the passions and appetites. Such "orders" Aristotle calls "choices" (*prohaireseis*). The present section discusses the first component of the "choosing" process; namely, *wish*. The next section deals with the process of *deliberation*, and the final section discusses *choice*.

In the *Nicomachean Ethics* (1111b26), Aristotle says, "wish relates...to the end, choice to what contributes to the end", and also, "The end, then, [is] what we wish for, the things contributing to the end what we deliberate about and choose...." (1113b3). In the *Eudemian Ethics*, he says, "it is the end that we specially *wish for*" (1226a14) and "wish and opinion pertain especially to the end" (1226a16). But what is "the end" to which Aristotle is referring? According to the *Rhetoric*, "Rational desire is wishing, and wishing is a desire for good--nobody wishes for anything unless he thinks it good" (1369a2f; see also 1136b7f, 1223b7). And in *NE* III 4, Aristotle says

That *wish* is for the end has already been stated; some think it is for the good, others for the apparent good. Now....absolutely and in truth the good is the object of wish, but for each person the apparent good;...that which is in truth an object of wish is an object of wish to the good man, while any chance thing may be so to the bad man. (1113a15-26)

Thus, the *proper* object of wish is "the good"--that is, what a virtuous man takes to be the good, since such a man is "as it were the norm and measure" (1113a33).

The ultimate human good, of course, is what Aristotle calls *eudaimonia*--often translated "happiness". But what is *eudaimonia*? According to Aristotle, "for all things that have a function or activity, the good...reside[s] in the function." (NE, 1097b26-28) And the ultimate end or "chief good" is that function for the sake of which all other functions are performed. From this it follows that the ultimate end, or "chief good", for every animal is *to flourish*, for this is the aim or goal of all their life-functions. The chief good for a bird is to flourish as a bird, the chief good for a cow is to flourish as a cow, and so on. But non-human animals cannot think for themselves. Instead, nature guides them automatically by motivating them with pleasure and pain, and at the same time creating in them a physiology that provides pleasure from activities that help them flourish and pain from activities that impede flourishing. This leads them to play their proper role in life--perform their proper "work" or "function" (*ergon*)--and thereby flourish.

Like other animals, humans have a "chief good" which nature has assigned to them, and again like other animals this chief good is "to flourish". As Cooper (1975) explains,

[According to Aristotle] only gods and human beings are capable of being *eudaimon*, and among humans only adults, since it is only acceptable to call a child

eudaimon in the expectation that his adult life will be such as to make him later on *eudaimon* in the full sense (NE I 9 1100a1-4, EE II 1 1219b5-8). Again, *eudaimonia* is not the possession of single days (EE 1219b5, NE I 7 1098a18-20) or short periods of time, but only of the whole adult life of a certain sort of person. These features of *eudaimonia*, as Aristotle understands it, are to a fair degree captured by the idea of human flourishing: flourishing implies the possession and use of one's mature powers over, at any rate, a considerable period of time.... (p.89)

But what, more specifically, is it for a human being to flourish? The answer is that, just like other animals, a human flourishes when he excellently fulfills his proper function (*ergon*). So for a human to flourish, he must *do excellently whatever it is that humans are uniquely equipped by nature to do*. Now the primary difference between all other animals and human beings is that *humans can reason*. This enables them to acquire knowledge and to *act* (in Aristotle's strict sense of this term), neither of which other animals are able to do. The proper function or work of a human, therefore, must be to use reason in order to know and to act. To function excellently is to do these things excellently; and to flourish is to live a life filled with such achievements. (NE I 7; see also *Physics* II 6, 197b5)

One of the key components of human flourishing, then, is *eupraxia*--good action--and *this* is the proper object of wish (NE VI 2, 1139b4).¹ Anyone, who "wishes", then, in Aristotle's special sense of this term, has a

conception of the good and a desire to do the good. This is what he means, then, when he says "nobody wishes for anything unless he thinks it good" (1369a3; see also 1136b7f, 1223b7, 32f).

Not everyone, of course, has a conception of the good. *Children*, for example, and adults who are "youthful in character" have no fixed conception of the good, but rather spend their time "living and pursuing each successive object as passion directs" (1095a8). So children and childish adults cannot *wish* in Aristotle's special sense. They live by appetite and passion and use whatever intellectual abilities they may have in service of these.

An incontinent person does have a conception of the good, and is therefore capable of "wishing". As a result, he deliberates and makes "choices", but, being incontinent, fails to do the specific act that he himself has chosen as the good. (See, for example, *NE* VII 3.)

A vicious person also has a conception of the good, although an evil and distorted one. Such a person is capable of wishing, deliberating and choosing; and he succeeds in doing what he has chosen as the good. Since his conception of the good is reprehensible and blameworthy, however, his choices and resulting actions are bad. (See, for example, *NE* III 5.)

The virtuous person has the correct and

praiseworthy conception of the good. His wishes, therefore, are good; and indeed the moral virtues include the disposition to wish for what is good. Thus, Aristotle says, for example,

We see that all men mean by justice that kind of state which makes people disposed to do what is just and makes them act justly and wish for what is just; and similarly by injustice that state which makes them act unjustly and wish for what is unjust. (NE V 1, 1129a7ff)

Mele (1984a) summarizes nicely this important connection between wishing and one's conception of *eupraxia*:

To have a conception of *eupraxia* is to have what we may refer to as the "intellectual aspect" of a general action-policy. There is also, of course, a dispositional-desiderative aspect. One who has a general action-policy is disposed to aim at certain ends and to choose and act accordingly. Thus, e.g., the general action policy of a morally virtuous agent, since one who has any of the moral virtues has all of them (NE 1144b32ff.), involves his being disposed to wish to act justly and to choose and do what is just, thinking his acting justly to be a good end. And the unjust man has, similarly, a conception of the good (or *eupraxia*, or happiness) which is reflected in his unjust wishes, choices and actions (cf., e.g., NE 1113A31, 1146b22-23). This, I think, is the kind of "thinking to be good" which Aristotle wants to make a necessary condition of wish in general--the kind which is reflective of a conception of the good expressed in a general policy of action, the policy being constituted in part by one's traits of ethical character. (p.145)

Once one has a "general action-policy", he can wish for, deliberate about, and choose "components" of it that also can serve as more specific action-policies (EE 1227a21ff). Thus, one may decide that his overall

action-policy or conception of the good can best be worked out by being a doctor or a statesman or a general or whatever, and thus he can adopt action-policies consistent with this. Also, as Aristotle says, we can "choose honors and pleasure and intelligence and every excellence both for themselves (for we would choose each of them even if nothing issued from them), but we also choose them for the sake of flourishing, on the assumption that we will flourish through them" (1097b2f; from Cooper 1975, p.16). Thus, each person's desire for the good in general gets instantiated in a set or nexus of more specific wishes. As Nussbaum (1978, pp.335-6) puts it, "[*boulesis*] is a desire for a rationally conceived goal, and, derivatively, for constituents of it and means to it, seen as such." And as Anscombe (1965, p.155) explains, "the idea of rational wanting [i.e., *boulesis*] should be explained in terms of what is wanted being wanted *qua* conducive to or part of 'doing well'."

Each person's overall conception of the good, or "chief wish", then, gets instantiated by a nexus of "sub-wishes". Most of these, although more specific than the "chief wish", nevertheless remain something like general policies--to cure the sick, or win military victories, or maximize pleasure, or whatever--rather than becoming wishes for explicitly specific things. If different sub-wishes come into conflict in a given

situation, or need refining or clarification, one can look to the highest wish to resolve the conflict or set new sub-policies. As Cooper explains,

Ends can be deliberated about and chosen as means to a higher end (and ultimately as means to the highest end). Two or more ends can conflict, and when they do the conflict is resolved by looking at a higher end (and ultimately to the highest end) to see which end is to be preferred, how far the requirements of the one are to be allowed to interfere with the pursuit of the other, and so on....[T]he individual by consulting his ultimate end determines what subordinate ends to adopt and how to balance them against one another in cases of partial or total conflict. (Cooper 1975, p.18)

The resulting "nexus of wishes", then, is subject to constant revision and adjustment by *nous* as new situations arise, new inferences are made, and new information is acquired. The only thing that is not subject to revision is the general desire for *eudaimonia*. And since *nous* enables one to envision all sorts of things, including "the impossible", one can even come to have wishes for things that are "not in our power"--like ruling the world, living forever, or having our favorite athlete win the big race. (NE III 2, EE II 10) Although "not in our power", they are nevertheless latent wishes in the sense that we *would* bring them about if only we could.

But how do wishes for things which are "in our power" get "acted on"? To answer this question, we need still to deal with deliberation, choice and the so-called "practical syllogism". The next two sections discuss

deliberation and choice, and Chapter VII below takes up the practical syllogism.

6. *Deliberation*

Like other desires, one's wishes normally are "latent" rather than "active". For example, someone who is asleep and not actively doing or pursuing anything may nevertheless be correctly described as a person who wishes to be a medical doctor. And even when awake, that same person may have his or her mind on other things and not be thinking, at that very moment, about being a doctor. Indeed, since it is difficult to pursue more than a few wishes simultaneously, most of one's more specific wishes must be latent at any given time.

Again, like other desires, latent wishes can be activated by the perception or thought of the desired end. So, for example, seeing a medical doctor, or hearing someone mention medicine, or having a dream about doctors, or suddenly thinking of doctors, or any number of similar experiences could activate someone's latent desire to be a doctor. Such "activation" triggers a special kind of "search" and "pursuit" by *nous*--namely, deliberation, choice and action. Deliberation is a mental "search" (1112b25) for ways to bring about what one takes to be good or some component of it. Thus,

the object or end is always something good by nature, and men deliberate about its partial constituents, e.g. the doctor whether he is to give a drug, or the general where he is to pitch his camp. To them the absolutely best end is good. But contrary to nature and by perversion not the good but the apparent good is the end. (EE II 10, 1227a21-24)

As indicated above, however, some of one's wishes may be impossible to fulfill. If someone believes that one of his wishes is impossible to realize, he would be foolish to deliberate in order to fulfill it. Thus, Aristotle says, the proper things to deliberate about are "not what a fool or a madman would deliberate about, but what a sensible man would deliberate about" (NE 1112a20f). A sensible man, he says, does not deliberate about eternal things like the universe (NE 1112a22) (these, presumably, he would want to *contemplate*, rather than deliberate about); nor about mathematical impossibilities like squaring a circle (EE 1226a29); nor about regularities of nature like solstices or the risings of the stars (NE 1112a25); nor unpredictable things like droughts or chance events (NE 1112a26f). And the sensible man does not deliberate about the affairs of others in which he can have no influence, thus "no Spartan deliberates about the best constitution for the Scythians" (NE 1112a29f) and the Athenians do not deliberate about the affairs of the Indians (EE 1226a29).

What a sensible man *does* deliberate about are those things that can be brought about by his own efforts:

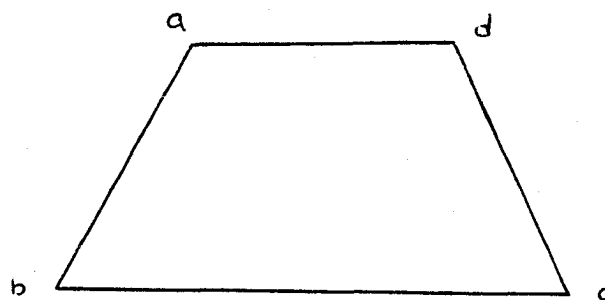
"We deliberate about things that are in our power and can be done" (*NE* 1112a31). Thus, Aristotle says,

[About some things] not only existence and non-existence is possible, but also human deliberation; these are things the doing or not doing of which is in our own power. (*EE* II 10, 1226a26ff)

Having settled upon an attainable end or wish, sensible men

consider how and by what means it is to be attained; and if it seems to be produced by several means they consider by which it is most easily and best produced, while if it is achieved by one only they consider how it will be achieved by this and by what means *this* will be achieved, till they come to the first cause, which in the order of discovery is last. For the person who deliberates seems to inquire and analyse as though he were analysing a geometrical construction... and what is last in the order of analysis seems to be first in the order of becoming. And if we come on an impossibility, we give up the search, e.g. if we need money and this cannot be got; but if a thing appears possible we try to do it. (*NE* III 3, 1112b15-26)

Aristotle's analogy with the making of geometrical figures is instructive, so let us pursue it. Suppose that I wish to make trapezoid *abcd*:

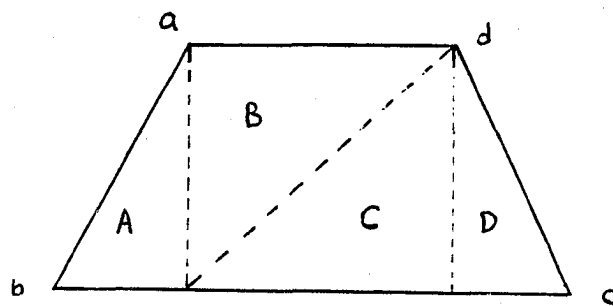


I have a pencil, a ruler, and a protractor; and with these

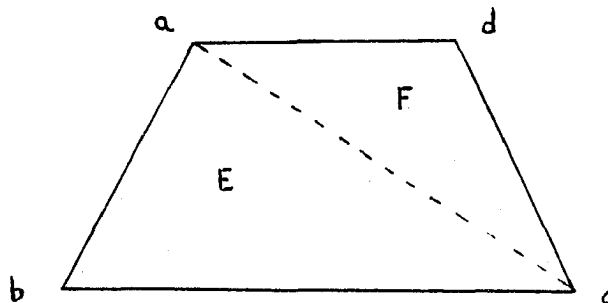
tools I only know how to make lines, triangles, and circles.

As my deliberation begins, I envision my goal (trapezoid $abcd$) and try to imagine how it could be made out of smaller geometric figures. Since it is made of straight lines only, and circles are made of curved lines, I conclude that it is impossible to make the trapezoid with circles, and so I give up on *that* approach.

Next, I see a way to make $abcd$ from triangles A, B, C, and D:



Then, I see an even simpler way from triangles E and F:



I am unable to think of any easier way to make abcd, so I decide to use triangles E and F. I need first to make one triangle, then the next; and since both seem equally easy to make, I randomly select E to be first.

To make E, I must create lines ab, bc, and ac; and since they are all equally easy to create, I randomly decide to do bc first.

My deliberation on how to create abcd is now complete, and I have chosen the creation of line bc as something I am able to do toward the realization of my goal. I begin with line bc; and thus "what is last in the order of analysis is first in the order of becoming".

In order to reach the overall goal abcd, I must keep the deliberated sequence in mind, making each part in reverse order of its "discovery" in deliberation. Each step is something I have *chosen*, since it is something I desire after deliberation *because of* the deliberation. (See Section 7 below.) Of course, if part-way through I forget the sequence, or if some unforeseen difficulty arises (e.g. my pencil breaks), I can always engage in new deliberation to rediscover how to get to my goal.

It is of interest to note here that creating line bc (and lines ab, cd, and ad as well) is not only a *means* to trapezoid abcd, it also brings about a *component* of it. On the other hand, the creation of line ac is only a *means*

and does not bring about a component. Thus, when Aristotle says that what we deliberate about are things which "contribute to the end" (*ta pros to telos*), these can include both means and also components.

If my chief goal in life is *eudaimonia*, and a major part of that is *eupraxia* (the other part being contemplation of eternal truths), then each time I engage in virtuous action I bring about a component of my overall goal. A major part of my chief goal, then, can be achieved by deliberating about components that are "in my power" and then bringing them about in a series of individual actions.

Aristotle's most detailed example of deliberation occurs in *Metaphysics* VII 7, where he discusses the process of "making"--in this case the "making" of a healthy person from a sick person:

The healthy subject, then, is produced as the result of the following train of thought; since *this* is health, if the subject is to be healthy *this* must first be present, e.g. a uniform state of body, and if this is to be present, there must be heat; and the physician goes on thinking thus until he brings the matter to a final step which he himself can take....each of the intermediate steps is taken in the same way. I mean, for instance, if the subject is to be healthy his body state must be made uniform. What then does being made uniform imply? This or that. And this depends on his being made warm. What does this imply? Something else. And this something is present potentially; and what is present potentially is already in the physician's power....the starting point is perhaps the production of warmth, and this the physician produces by rubbing. Warmth in the body, then, is either a part of health or is followed (either directly or through several intermediate

steps) by something which is part of health; and this, viz. that which produces the part, is the last step, and so are, e.g., the stones a part of the house, and so in all other cases. (1032b5-29)

In the case of making a house or a trapezoid, one starts with a clear and specific goal--perhaps even with a diagram or blueprint. In making a good life, on the other hand, or a good vacation, or a good career, or any number of other "more specific" wishes, one starts with a more or less vague conception of what is wanted. In such cases, the deliberating process can include a search for components that provide a *better specification* of what is wanted. As Wiggins explains,

[In such a case] I shall characteristically have an extremely vague description of something I want--a good life, a satisfying profession, an interesting holiday, an amusing evening--and the problem is not to see what will be causally efficacious in bringing this about but to see what really *qualifies* as an adequate and practically realizable specification of what would satisfy this want. Deliberation is still *zetesis*, a search, but it is not primarily a search for means. It is a search for the *best specification* [of my goal]....When this specification is reached, means-end deliberation can start, but difficulties that turn up in this means-end deliberation can send me back a finite number of times to the problem of a better or more practicable specification of the end. (Wiggins 1975, p.228)

Thus, the process of deliberation begins with a wish, and includes a search for means to and components of the desired goal. Along the way, the goal itself can get refined, clarified and specified.

Thus, in deliberating, one may come to have a clearer conception of the end, or of the relative value or importance of some of one's ends, and this may result

in modifications of one's conception of the good or happiness. (Mele 1984a, p.149)

So, although the "chief wish" or overall goal of life (*eudaimonia*) is assigned by nature and remains throughout life, *nous* enables a person to clarify and specify this "grand goal" from his or her own particular situation and point of view. It also enables one to envision a wide variety of different possible actions, and select those which, taken together, add up to a life. In this way, a person is autonomous and responsible for what he does and what he becomes. (Whether or not this means people have "free will" will be discussed in Chapter VIII below.) As Mele puts it,

To be ruled by one's reason or *nous* is not simply to act in accordance with what one's reason specifies as means to desired ends, for that is consistent with reason's being a slave to appetite. One must also have a conception of the good and of the kind of person one wants to be, and that conception must in turn be expressed in one's desires for ends. It is only when one acts from an internalized conception of the good that one acts autonomously, and autonomous action, consequently, is a product of wish and choice. It is for such actions that agents must take the greatest responsibility, for it is in his autonomous actions that an agent most fully expresses the "self" which he has made his own. (Mele 1984a, pp.155-6)

A key to "autonomous action" is *choice*--the end product of deliberation. We are now in a position to discuss this important component of Aristotle's theory of action.

7. Choice

Aristotle's most important discussions of choice (*prohairesis*) occur in *NE* III 2 and *EE* II 10. These passages are quite parallel, although the Eudemian version is richer and more helpful at crucial points. A major portion of both passages is devoted to explaining what choice is *not*. In particular, it is not identical with the voluntary, nor with appetite, passion, wish, opinion in general, nor even some specific type of opinion.

Choice, according to Aristotle, is not identical with the voluntary because "the latter extends more widely", since children and non-human animals share in the voluntary, but not in choice (1111b7-9). Also, spur-of-the-moment activities are voluntary, but not chosen (1111b9f). Thus,

since, if a man of himself and not through ignorance does or abstains from that which is in his power to do or abstain from, he acts or abstains voluntarily, but we do many such things without deliberation or premeditation, it follows that all that has been chosen is voluntary, but not all that is voluntary is according to choice. (1226b30-36)

Choice is not identical with appetite or passion either, says Aristotle, since non-human animals share in these, but not in choice (1111b13, 1225b26). And humans often choose without passion or appetite for the object of choice (1225b27f); and, sometimes, when under the influence of appetite or passion, they nevertheless "do not choose but remain unmoved by them" (1225b29f). Again,

appetite is for the pleasant or the avoidance of the painful, while choice may relate "neither to the painful nor the pleasant" (1111b17). These are just some of the superfluity of arguments that Aristotle offers to show that choice is not passion or appetite.

Choice also is not identical with wish, he says,

for we often wish for what we know is impossible, e.g. to rule all mankind or to be immortal, but no one chooses such things unless ignorant of the impossibility, nor does he even choose what is possible, generally, if he does not think it is in his power to do or to abstain from doing it. So that this is clear, that the object of choice must be one of the things in our own power. (1225b32ff)

Again, choice could not be wish since "wish relates rather to the end, choice to what contributes to the end; for instance, we wish to be healthy, but we choose the acts which will make us healthy" (1111b25f).

Choice, finally, is not identical with opinion either, for one can have an opinion about all kinds of things, including the impossible, the eternal, and other things not in our power, while choice concerns things in our power to do or not do (1111b30f, 1226a1f). Also, opinion is true or false, while choice is good or bad (1111b33, 1226a3). For these reasons, choice could not be opinion *in general*, nor even a specific kind of opinion--for example, "when we think we ought to do or not do something" (1226a6).

If choice is *not* any of "the voluntary", appetite,

passion, wish, or opinion, what *is* it? Aristotle has no single word to name it other than "choice" (*prohairesis*) itself; but he does describe it in several different ways that enable us to tell what we would call it. As indicated by the arguments below, we would call Aristotle's "choice" a *decision or intention to act in a specific way*.

In the *Eudemian Ethics*, at 1226b2ff, Aristotle tells us that "choice is neither opinion nor wish singly", and it is not the mere conjunction of them either; however,

it must be compounded of both, for both are found in a man choosing. But we must ask--how compounded out of these? The very name is some indication. For choice is not simply picking but picking one thing before another; and this is impossible without consideration and deliberation; therefore choice arises out of deliberate opinion.

Aristotle's reference to "the very name" is based upon the fact that *prohairesis* can be seen as a derivation from *pro heteron hairaton*, meaning "to choose one thing in preference to another". (See footnote 17 of the Revised Oxford Translation of *NE*.) Thus, choice arises from deliberation in which we consider alternative actions that we could do or not do, and then pick one in preference to the others; namely, the one that seems best able to bring about (or help bring about) the goal that we wish for. So the object of one's "choice" is the action he has decided to take--what he intends to do--as a result of

deliberating about the best way to achieve his goal. Thus, in his translation of *NE* (1985), Irwin translates "choice" as "what we decide to do". Cooper (1975, p.47) calls it "a commitment to act, backed by desire, produced by deliberation"; and Kenny describes it as follows:

a general desire to be just, or courageous, or learned, [for example], may, as a result of deliberation, find expression in a decision to take a particular course of action: of pursuit or avoidance.... [*Prohairesis*] is itself a decision to act (a pursuit) or to refrain from acting (an avoidance). It is a mental state which finds expression, if dramatised, in utterances such as 'Pursue this', 'Avoid that'.... (Kenny 1979, p.93)

This interpretation of *prohairesis* as a decision or intention, resulting from deliberation, to perform an action is supported in a variety of passages in the *corpus*. At *NE* 1113a3f, for example, Aristotle says, "the object of choice is already determinate, since it is that which has been decided upon as a result of deliberation"; and at *NE* 1113a12 he says, "when we have decided as a result of deliberation, we desire in accordance with our deliberation". And what we deliberate about, of course, are possible actions that can bring about our goal.

Again, at *NE* 1139a32ff, Aristotle says:

The origin of action--its efficient cause, not its final cause--is choice, and that of choice is desire [namely, wish] and reasoning with a view to an end [i.e. deliberation]. (bracketed material added here)

Thus, an action is brought about by *prohairesis*, which in turn results from deliberating about what to do to achieve

one's goal. The *prohairesis*, therefore, must be the intention to take an action as a result of deliberation.

In the *EE*, at 1226b18, Aristotle says, "choice is a deliberate desire for something in one's own power"; and two lines later he says, "I call it deliberate when deliberation is the source and cause of the desire, and the man desires because of the deliberation". So, again, given that deliberation is a "search" for the best action toward one's goal, it follows that the object of *prohairesis* is the action one has decided to take--what one intends to do--as a result of deliberation.

The simplest cases of deliberation and action would be those in which one deliberates to a conclusion and *instantly* takes the action decided upon. Aristotle uses this simplest case as a paradigm and, at times, seems to imply that *all* cases of deliberation to a choice result immediately in action. (See, for example, *EE* 1227a21.) However, his account of the completion of deliberation requires only that one decide or form an intention to act in a specific way. Thus, he says at *NE* 1113a5ff, "everyone ceases to inquire how he is to act when he has brought the [originating cause (*arche*)] back to himself and to the ruling part of himself [*nous*]; for this is what chooses." And at *EE* 1226b14, he says, "All consider this till they have brought the beginning of the process to a point in their own power."

Now, one can bring the deliberating process to "a point in one's own power" and then wait until conditions are right to exercise that power. As Sorabji explains

I agree with G. E. M. Anscombe [1965] that choice can occur well in advance of there being an opportunity for action. This is clear from Aristotle's treatment of weak will, among other things--that is, from his view that it is hard to abide by the decision we have chosen (1110a29-31) and that in giving in to temptation we may be acting against our own choice (1148a9; 1151a7; a29-b4; 1152a17). [Sorabji 1973; in Rorty 1980, p. 209]

Deliberation often does result in decisions that can only be carried out later; and so one normally has a variety of previously-formed intentions waiting for the right circumstances to come along. Thus, one must add a "nexus of intentions" to the previously described nexes of appetites, passions and wishes to have a full account of the "appetitive" elements in the human "soul".

In concluding this chapter, it is perhaps of interest to note that, according to Aristotle, *prohaireseis* discriminate moral characters better than actions do (NE 1111b6). This is because

of the rightness of the end of the choice the cause is excellence [moral virtue]. And therefore it is from a man's choice that we judge his character--that is from the object for the sake of which he acts, not from the act itself. Similarly, badness brings it about that we choose the opposite object....we praise and blame all men with regard to their choice rather than their acts..., because men may do bad acts under compulsion, but no one chooses under compulsion. Further, it is only because it is not easy to see the nature of a man's choice that we are forced to judge his character by his acts. (EE 1228a1-16; bracketed material added here)

Thus, if you know a man's intentions, you know his moral character. As Kenny explains

Aristotle's point is that a person's *prohairesis* will always reveal his moral character: trace a man's practical reasoning up to the end which he sets himself, and you will discover whether he is virtuous, vicious, brutish, foolish, incontinent or whatever. (Kenny 1979, p.98)

As usual, the incontinent man is the odd case here, since one needs to know *both* his choices and his actions to tell that he is incontinent.

NOTE

1. The other component of a good human life is contemplation of the eternal. Indeed, this is, according to the *Nicomachean Ethics*, the best and most nearly divine human activity. (NE X 7)

CHAPTER VII

THE PRACTICAL SYLLOGISM

1. Introduction

The previous chapter makes it clear that *actions*, in Aristotle's strict sense, require deliberation and "choice". But a "choice" is merely the intention to act, and intended actions sometimes never occur. What actually converts intentions into actions? Aristotle's answer is the so-called "practical syllogism"¹, and we are now in a position to examine it.

Since all discussions and examples of the practical syllogism in the *corpus* are rather sketchy, we will need to construct a model here that is "filled in" with more details than any one of Aristotle's examples. In order to assure that our model is a justified one--is really Aristotelian--let us proceed in accordance with the following conditions of adequacy:

1. The model should be derived from passages of the Aristotelian *corpus* which describe or illustrate the practical syllogism.

2. It should be consistent with all, or most, such passages.
3. It should be integrated into Aristotle's overall theory of action.
4. It should combine readily with Aristotle's moral theory.
5. It should be related to Aristotle's theory of animal behavior.

Now, the need for the first four of these five conditions of adequacy is fairly obvious: one could hardly claim to have a model of Aristotle's practical syllogism if it did not derive from Aristotle's own writings. And, since (as far as we know) he did not change his mind over the years and develop radically different accounts, our model must be consistent with all or most of what he had to say on the subject. Furthermore, any key component of his theory of action should combine successfully with the rest of the theory and with his account of moral action (unless we have reason to believe that his moral psychology is seriously incoherent).

The fifth condition of adequacy, however, may seem odd and in need of justification. Why should Aristotle's account of human action be related to his theory of animal behavior? The answer is that Aristotle took seriously the view that human beings are *members of the animal kingdom* and, as such, share a common nature with other animals. Indeed, as we saw above in Chapters V and VI, Aristotle

draws heavily upon his account of animal behavior in order to develop his theory of human action. This is not surprising, for he was a great biologist as well as a great philosopher, and it would be odd if his insight into animal nature did not play a part in his analysis of human action and how it differs from activities of other animals. A key element in his analysis of action is the role that he assigns to reason, since, according to Aristotle, it is chiefly *the ability to reason* that distinguishes human beings from other animals.

Given the above, the present chapter follows this plan: First, Aristotle's account of animal behavior is summarized, with special emphasis upon the behavior-initiating mechanism, which is here called the "behavior syllogism". Secondly, Aristotle's practical syllogism is shown to be a natural extension of his account of animal behavior and some assumptions about human reasoning. And, finally, a detailed model of the practical syllogism is presented and justified.

2. Behavior Syllogisms

In order to flourish, each kind of animal must engage in appropriate behavior--find the right food, flee from or fight its enemies, and so on. According to Aristotle, nature has given sense perception to animals to enable them to do these things. Perception by itself,

however, is not sufficient, because it merely enables animals to detect food, enemies, or whatever. Without help, perception cannot actually cause an animal to pursue or to flee. *Desire* provides the needed impetus.

As indicated in Chapters IV and V above, within an animal, perceptual images--and persisting traces of them that Aristotle calls "phantasms" (*phantasmata*)--are intimately related to desire, pleasure and pain. Indeed, all of these things--perceptual images, phantasms, desire, pleasure, pain--occur within the same part of the animal, the area around the heart, which is simultaneously the location of (1) the central faculty of perception, (2) the faculty of "imagination" (*phantasia*), (3) the faculty of desire, pursuit and avoidance, and (4) the seat of pleasure and pain (see, *De Anima* 431a11-13, *De Sensu* 450a10-15, *De Somno* 459a16).

For Aristotle, desire, avoidance and pursuit are so closely interrelated that the connections among them are logical as well as causal. Ackrill notes, for example,

With sense perception come imagination (decayed perception), desire (stimulated by perception or imagination) and movement (caused by desire). These faculties are connected with one another, and the connection is conceptual. You could not, for example, explain what desire is without bringing in the idea of an *object* of desire, something perceived or at least envisaged, and also the idea of *going after* that object. (Ackrill 1981, p.63, parentheses and emphasis in the original)

In his explanation of the movement of animals (see Chapter V above, plus *De Motu Animalium* and *De Anima*), Aristotle explains perceptions, desires, pleasures and pains in *physiological* terms. Perceptions (and their lingering traces--phantasms) are alterations or changes that are transferred from sense organs through various parts of an animal's body. When they reach the heart region, they trigger expansion and contraction reactions in the *pneuma*. Those sensations and phantasms that trigger pursuit movements are pleasant, and those that trigger avoidance movements are painful. (The mechanical details, according to Aristotle, involve changes in the temperature of *pneuma*, causing expansion and contraction patterns, which in turn move the limbs. See Chapter V above, as well as *De Motu Animalium*, 7-11.) Thus, latent desires--i.e., latent appetites and passions--are physiological states² that, when stimulated or triggered by perceptions and phantasms, cause pursuit and avoidance movements. The *objects* of desire, of course, are the things that cause the appropriate perceptions and phantasms.

Nature has instilled into each animal just the right physiological states to trigger pleasurable pursuit activities when stimulated by beneficial objects, and painful avoidance activities when stimulated by harmful objects. As Aristotle says in the "Desire Definition"

passage of *De Anima* (see Chapter V above),

when the object is pleasant or painful, the soul makes a quasi-affirmation or negation, and pursues or avoids the object. (431a9f, Smith)

Present-day readers of Aristotle may notice a useful analogy between this passage from Aristotle and the so-called "decision conditional" of computers. That conditional can be represented this way:

if {true or false expression} then {instruction}

The antecedent of this conditional is an expression that can be true or false (tested for truth by the central processing unit of the computer). The consequent is an instruction to be executed (initiated by the central processing unit) when the antecedent tests as true. With the help of this connective, one can program a computer to initiate given activities whenever specified conditions arise.

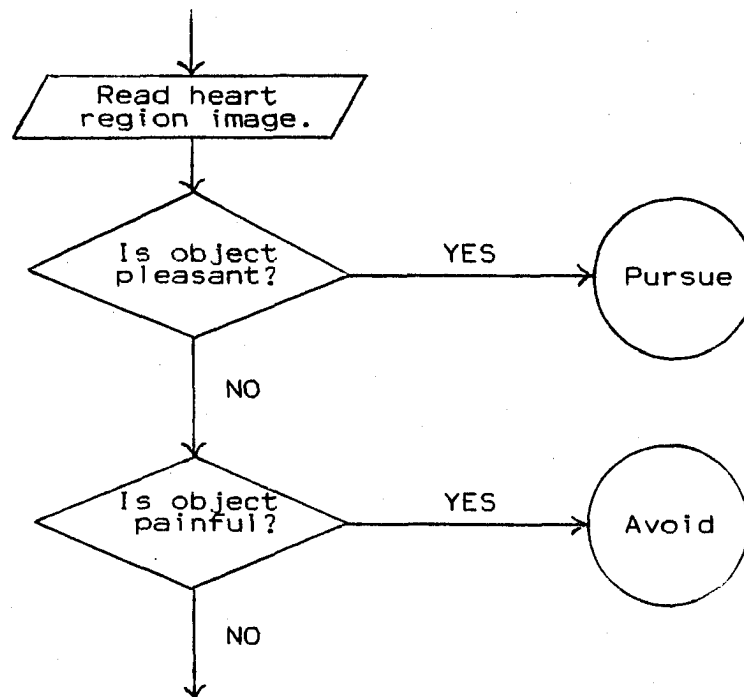
Aristotle's characterization of the key mechanism in animal behavior makes use of a conditional relationship that is remarkably similar to the computer decision conditional, namely

if {quasi-statement} then {initiate activity}.

The antecedent of this conditional is a "quasi-

statement"--a physiological "claim" that the object is pleasant or painful--determined by the faculty of "sensitive phantasia" in the heart region of the animal. The consequent of the conditional is an "instruction", issued from the heart region, to begin pursuit or avoidance.

Given Aristotle's account of animal behavior, therefore, one can think of the heart region as functioning much like the central processing unit of a computer, testing the claim that a perceived object is pleasant or painful and issuing instructions to pursue or to avoid. A computer flow-chart illustrating this idea would contain a component something like this:



The crucial symbols in this partial flow-chart are the two diamond-shaped boxes, which together represent a mechanism functioning like the command, "pursue what is pleasant and avoid what is painful". When combined with the information, "this object is pleasant", the command instantly results in pursuit activity. When combined with the information, "this object is painful", it results straightaway in avoidance activity.

Aristotle, of course, knew nothing of computers; but he did invent the logical "machinery" of syllogisms, and he actually used syllogistic language to draw a similar analogy between syllogisms and particular applications of his animal-behavior mechanism. (See footnote 1 of the present chapter.) It is such applications that are here called "behavior syllogisms".

The "major premise" of a behavior syllogism is a desire (appetite or passion) expressed as a command (for example, "get a drink"). Nature motivates the animal by causing it to get pleasure from obeying the command and pain from not obeying it. The "minor premise" of a behavior syllogism is a perception or "imagination" expressed as a particular instance of the claim: "the kind of object mentioned in the major premise is *now* present" (for example, "*this* thing right here is a drink"). The "conclusion" of a behavior syllogism is the resulting

behavior itself (for example, pursuing the drink), which is instantly initiated when the major and minor premises come together in the animal's heart region:

"I have to drink," says appetite. "Here's drink," says sense perception or *phantasia*....At once he drinks. This, then, is the way that animals are impelled to move....(*De Motu Animalium* 701a32-35, Nussbaum)

Given Aristotle's physiological account of desires, perceptions and phantasms, the relationship between the "premises" and the "conclusion" of a behavior syllogism is a causal one. (This is confirmed by the ability indicated above to computerize the process.) Thus, as soon as the right perception-movement or phantasm-movement comes together in the animal's heart region with the right desire-state, the conclusion-behavior is immediately initiated (unless something causally intervenes to stop it). Every behavior syllogism, then, has the following form:

MAJOR (desire) -- Pursue (or avoid) objects of kind x.

MINOR (perception or phantasm) -- This object right here is of kind x.

CONCLUSION (behavior) -- {pursuing (or avoiding) the object}

Since non-human animals cannot think for themselves, nature guides them automatically by motivating them with pleasure and pain, and at the same time creating in them a physiology that provides pleasure from things that help

them flourish and pain from things that impede flourishing. This leads them to play their proper role in life--perform their proper "work" or "function" (*ergon*)--and thereby flourish.

Now, according to Aristotle, "for all things that have a function or activity, the good...reside[s] in the function." (*NE* 1097b26-28) As we saw in Chapter VI above, the ultimate end or "chief good" is that function for the sake of which all other functions are performed. From this it follows that the ultimate end, or "chief good", for each animal is to flourish. The chief good for a bird is to flourish as a bird, the chief good for a cow is to flourish as a cow, and so on. Behavior syllogisms and the pleasures and pains that attend their functioning are nature's way of fostering such flourishing.

The diagram above, however, depicts only the *form* of such syllogisms. An actual "syllogism-in-context" would be one in which nature, so to speak, has replaced the variable *x* with specific contents. As Aristotle says,

Each animal is thought to have a proper pleasure, as it has a proper function; viz. that which corresponds to its activity. If we survey them species by species, too, this will be evident; horse, dog, and man have different pleasures, as Heraclitus says 'asses would prefer sweepings to gold'; for food is pleasanter than gold to asses. So the pleasures of creatures different in kind differ in kind.... (*NE* 1176a3-8)

Nature also determines that an animal will find a given thing pleasant in some circumstances and not pleasant in

others. Thus, with an empty stomach a cat finds a mouse pleasant, but with a very full stomach it does not.

Let this suffice, then, as our account of Aristotle on animal behavior. We must now consider how animal behavior compares to human action.

3. The "Action Syllogism"

Human beings are animals, and just like the behavior of other animals, human *behavior* (as opposed to action in Aristotle's strict sense) is explainable by means of behavior syllogisms. Thus, whenever human beings are "reacting automatically" to their senses and passions, it is the pleasant and the painful that control them. For example, "children in fact live at the beck and call of appetite, and it is in them that the desire for what is pleasant is strongest." (NE 1119b5-6) And the kind of incontinent man that is called "impetuous" is led about by the pleasures and pains of strong emotion. (NE 1150b19-28)

There are other important ways, also, in which human beings are like the rest of the animal kingdom. Like other animals, humans have a "chief good" which nature has assigned to them, and again like other animals this chief good is "to flourish". (Here I agree with Cooper (1975, p. 89) that the best rendering of Aristotle's term *eudaimonia* is "human flourishing". See Chapter VI above, Section 5.)

Again, just like other animals, a human being flourishes when he excellently fulfills his proper function (*ergon*). So for a human to flourish, he must do excellently what humans are uniquely equipped by nature to do--he must reason excellently. Such reasoning enables humans to acquire knowledge and to act, neither of which other animals can do. To flourish as a human being is to live a life filled with such achievements. (*NE* I 7)

One of the keys to human flourishing, then, is excellent action (the other key is "contemplation" of the eternal). But what *is* an action, and how does it differ from behavior? Instead of an entirely new mechanism to explain human action, Aristotle uses an enriched version of the behavior syllogism and thereby obtains the practical syllogism. A human, by using his unique ability to "reason with regard to an end"--i.e. to deliberate--can take the place of nature in the construction of the "syllogisms" in question, and thereby take charge of his own life. Consider again the form of a behavior syllogism:

MAJOR (desire) -- Pursue (or avoid) objects of kind x.

MINOR (perception or phantasm) -- This object right here is of kind x.

CONCLUSION (behavior) -- {pursuing (or avoiding) the object}

For a non-human animal, nature provides the desire (appetite or passion) that forms the major "premise", including the value of the variable (what is desired). Nature also provides the minor "premise" in the form of perceptions or phantasms of things in the environment. The major and minor "premises"--which are physiological entities--come together in the animal's heart region and thereby bring about the "conclusion" (the behavior itself).

Rather than relying on nature, a person, because he can deliberate, is able to provide major premises for himself: By deliberation he can, so to speak, choose a major premise for himself--he can replace desire in the form of appetite or passion with a desire-like *prohairesis*. And because he--unlike other animals--has self-awareness, and his major premise is self-chosen, he refers to himself in that premise. The major premise of a practical syllogism, then, has a form like the following "self-command":

I should do an act of kind x.

Just as humans have an additional source of "desires" (deliberation) from which to get major premises, they also have an additional source for minor premises

too--namely, thought. In humans, actions can be triggered not only by perceptions or "imagination", but also by beliefs. Thus, for example, a person not only can *perceive* that a desired object is right around the corner or across the street or wherever, he also can *believe* the same thing without actually perceiving it. And in believing it, he can act to get the object.

The minor premise of a practical syllogism, then, has a form like this:

This is an act of kind x.

And since the conclusion of a practical syllogism, according to Aristotle, is the action itself, the structure of a practical syllogism appears to be the following:

MAJOR (*prohairesis*) -- I should do an act of kind x.

MINOR (perception or "imagination" or belief) -- *This is an act of kind x.*

CONCLUSION (action): {my doing *this*}

Since this "syllogism" ends in *action*, rather than mere behavior, one could perhaps call it an "action syllogism", in contrast to the "behavior syllogism" of animals.

4. The Model Completed

Aristotle's most complete account of the practical syllogism adds two components to what we have here called the "action syllogism". These additional components are premises in the final inference of deliberation--the inference that leads to a *prohairesis*. Thus, while discussing the practical syllogism in *De Anima*, Aristotle explains that

the one premise or judgment is universal and the other deals with the particular (for the first tells us that such and such a kind of man should do such and such a kind of act, and the second that *this* is an act of the kind meant, and I a person of the type intended)....
[434a17-19, emphasis in the translation]

Separating and labeling the individual statement-forms in this more complete account of the practical syllogism--and filling in obvious moves--yields the following schema:

- (a) Every person in a situation of kind *s* should do an action of kind *x*.
- (b) I am a person in a situation of kind *s*.
[therefore]
- (c) [I should do an action of kind *x*.]
- (d) *This* is an action of kind *x*.
["therefore"]
- (e) {my doing *this*} (action)

The bracketed materials are added here, but they are all easily justified. The "therefore" between items (b) and

(c), for example, marks an obvious inference to (c). The scare-quoted "therefore" between (d) and (e) stands for the causal initiation of action (e). Aristotle frequently says that the conclusion of a practical syllogism is an action. (See, for example, 701a12.)

Items (a) through (c) in the above schema constitute the final step in the process of deliberation; while (c) through (e) comprise the "action syllogism" discussed in Section 3 above. The shared element, (c), is the *prohairesis* that results from deliberation and provides the impetus to action.

Most of Aristotle's actual examples of practical syllogisms in the *corpus* are phrased in ways that make it seem as if the entire process represented by (a) through (e) proceeds non-stop, almost instantly. Cooper points out, however, (1975, pp. 12-13) that this need not be the case. It often happens that one decides to do something and then puts off the actual doing until such time as an opportunity presents itself. This would be equivalent to proceeding from (a) to (c) in the above schema, and then waiting until perception or imagination or thought presents one with a fulfillment of (d). At that point, (e) would immediately follow, unless something causally intervened. Cooper offers an example:

An examining doctor may reach the conclusion that what ails a patient is an excess of body temperature caused by an internal imbalance of elements, which can best

be cured by the administration of an emetic in midafternoon.... he decides to give the patient an emetic in midafternoon, tells him to come back then, and goes on to the next patient. When the time comes he carries out his decision by looking among his medicines, selecting the emetic, and giving it to the patient to drink. (Cooper 1975, p. 13)

Cooper is certainly right that one can deliberate to a point that is essentially our item (c) in the practical syllogism and then wait to complete the process. In some passages of the *corpus*, Aristotle also seems aware of this possibility. For example, in *NE III 1*, while discussing so-called "mixed" actions, he notes that it is sometimes "difficult to abide by our decisions", thus indicating some time-lapse between the decision to act and the action itself.

For these and other reasons it seems reasonable to assume that there can be a number of "item (c)'s"--many intentions and deliberate choices--in a person's mind at any given time waiting to be triggered by the right perception or thought. When a particular "item (d)" comes along in the form of the right perception or thought or "imagination", an action immediately follows, unless something intervenes to prevent it. Sometimes, the right perception occurs while one is "not paying attention"--perhaps is drunk or angry or whatever--and so the action is not triggered. And sometimes, as Aristotle explains when dealing with the nature of incontinence (*NE* 1147a30-b6), the right perception occurs but interacts

with the wrong thing--namely an appetite or a passion--thereby triggering behavior by means of a behavior syllogism, rather than action by means of an action syllogism. (More on this below.)

A step-by-step summary, then, of Aristotle's account of action, as it is presented here, runs as follows: In the process of deliberation, one thinks about the possible things that he can do or not do, keeping in mind that the overall goal of life is to flourish as a human being (*eudaimonia*)--or perhaps just having in mind some of the sub-goals ("wishes") that he has formulated as part of his overall life plan (see Chapter VI above). The deliberating process eventually leads to the adoption by the deliberator of a general principle of action--"every person in a situation of kind *s* should do an action of kind *x*". (His practical wisdom enables him to grasp that doing so would promote *eudaimonia*.) He then applies this universal principle of action to himself. The result is the formation of a *prohairesis*--a "self-command" of the form: "I should do an action of kind *x*". Finally, when perception or imagination or thought informs him that conditions are right for the intended action, he acts, unless something intervenes to prevent him--an outside agent, or a strong desire, or alcohol, or whatever.

The above analysis, then, yields the following completed model of the practical syllogism:

1. Process of Deliberation	(deliberation)
2. Universal Rule	Every person in a situation of kind <i>s</i> should do an action of kind <i>x</i> .
3. Personal Particulars	I am a person in a situation of kind <i>s</i> . therefore
4. <i>Prohairesis</i>	I should do an action of kind <i>x</i> .
(waiting point)	-----
5. Perception or Belief or Imagination	<i>This</i> is an action of kind <i>x</i> . "therefore"
6. Action	(my doing <i>this</i>)

5. *Justification of the Model*

In the entire Aristotelian *corpus*, there are only a few passages which discuss or illustrate practical syllogisms. (These passages are collected together in Appendix I below.) Nearly all such passages contain only fragments of syllogisms, and Aristotle's explanations and arguments are sketchy. The reader must fill in the missing details. For these reasons, it has been necessary here to develop our own *model* of the practical syllogism, rather than simply to use a full account from Aristotle.

Section I above specifies the conditions of adequacy that such a model must meet. These, again, are:

1. It should be derived from passages of the Aristotelian *corpus* which describe or illustrate the practical syllogism.
2. It should be consistent with all, or most, such passages.
3. It should be integrated into Aristotle's overall theory of action.
4. It should combine readily with Aristotle's moral theory.
5. It should be related to Aristotle's theory of animal behavior.

Let us consider each of these criteria to determine whether our model fulfills them:

1. *Derived from Aristotle* -- There is only one place in the entire *corpus* in which Aristotle spells out the structure of the premises of the practical syllogism. This is the passage at 434a16-19 from *De Anima*, and it is the passage which, in section 4 above, provides the basis of our model. The first condition of adequacy, therefore, has been met.

2. *Consistent with other related passages* -- There are sixteen relevant syllogisms, or fragments of syllogisms, in the *corpus*; and all of them fit nicely into our model, as shown by the charts in Appendix 2 below. Four of them are mere behavior syllogisms, and twelve are action

sylogisms. Some provide the universal rule, personal particulars and action description, leaving it to the reader to fill in the *prohairesis* and perception (or belief or imagination). Others provide the *prohairesis*, perception and action, leaving the reader to fill in the universal rule and personal particulars. Still others provide one or another fragment, each of which fits our model nicely.

Especially worthy of comment here are (1) the syllogisms regarding incontinence at *NE* 1147a30ff; (2) the "anger syllogism" at *NE* 1149a30; and (3) the "cloak syllogisms" at *De Motu Animalium* 701a11ff. Let us consider each of these, beginning with the "incontinence syllogisms":

To explain incontinence in *NE* VII 3, Aristotle uses a behavior syllogism based upon appetite:

MAJOR (appetite) -- Taste whatever is sweet.

MINOR (perception) -- *This* is sweet.

CONCLUSION (behavior) -- {my tasting *this*}

and an action syllogism, based upon a policy of not eating sweets:

MAJOR (*prohairesis*) -- I should not taste anything sweet.

MINOR (perception) -- *This is sweet.*

CONCLUSION (action) -- {my not tasting *this*}

Aristotle's analysis of incontinence in this passage has the perception "*This is sweet*" combining with appetite, rather than with the appropriate *prohairesis*. This results in voluntary blameworthy behavior, rather than voluntary praiseworthy action. Aristotle seems to characterize the person in question as overcome by appetite--not fully aware that he is violating his own chosen policy--like a man who is asleep, drunk, or mad.

Since this passage is generally considered the *locus classicus* of Aristotle's account of incontinence, he has often been criticized for failing to admit the possibility of giving in to temptation *in full knowledge of what one is doing*. Sorabji (1980, pp.275-8) has noted, however, that other passages--for example, *NE V 9*--seem to commit Aristotle to admitting incontinence in full knowledge of what one is doing. And *EE II 8*, 1224a31-b29 clearly shows that Aristotle assumes that the incontinent person knows what he is doing.

In discussing the "anger syllogism" at *NE 1149a29ff*, Aristotle says,

anger obeys reason in a sense, but appetite does not. It [i.e., incontinence with respect to appetite] is therefore more disgraceful; for the man who is incontinent in respect of anger is in a sense conquered by reason, while the other is conquered by appetite and not by reason.

Our model of the practical syllogism captures this distinction very nicely, for, in the case of the anger syllogism, it shows a universal rule grasped by reason (and resulting in desire for revenge), but in the appetite syllogisms no such rule is involved. (See Appendix-2 below.)

The "cloak syllogisms" in *De Motu Animalium* are different from all the other examples in the *corpus*. The differences often give comentators problems in trying to reconcile them with other syllogisms (e.g., Kenny 1979, 141-42), but our model handles them nicely by showing that--unlike all other examples--they include part of the deliberating that leads to the formation of a *prohairesis*. (See Appendix-2.)

3. *Integrated into the theory of action* -- Our model provides a hand-in-glove link between deliberation and action. Thus the central element of the model--the *prohairesis*--is simultaneously the *end product* of the process of deliberation and the *impetus* for the action that follows. The third condition of adequacy, then, has been met.

4. *Combines with Aristotle's moral theory* -- Our model is well suited to Aristotle's moral theory, for it ties in nicely with his overall goal of pursuing *eudaimonia* by successful applications of practical wisdom. Thus, by deliberating well, the man of practical wisdom uses his reason to "grasp the universal"--that is, he settles upon a "universal rule" (to use the language of our model) that is in keeping with "right reason" or "the right rule" (*orthos logos*). This universal rule then becomes the basis of an intention and an action for which the deliberator is held responsible. Again, our model passes the test.

5. *Related to Aristotle's account of animal behavior* --

The "behavior syllogism" of Section 2 above is Aristotle's mechanism of animal behavior. In turn, the "action syllogism" of Section 3 is derived from the "behavior syllogism" by using some of Aristotle's views on thought and reasoning. Finally, the "action syllogism" is shown, in Section 4, to be a significant part of the overall model of the practical syllogism.

Our model, therefore, is related to Aristotle's theory of animal behavior. Indeed, it shows that Aristotle uses the very same kinds of entities (perceptions, phantasms, desires, etc.) that exist in *other* animals to help explain *human* action. Such action,

therefore, can be seen as a development or outgrowth of behavioral faculties and capacities already existing in other animals.

It is clear from the above discussion that our model fulfills *all five* of the conditions of adequacy that were laid down at the beginning of the chapter. The model, then, provides an acceptable account of Aristotle's practical syllogism. This completes our survey of the various elements in Aristotle's theory of human action--the voluntary, perception, desire, deliberation, "choice", and the practical syllogism. It remains for us to consider the question of "free will" in Aristotle's account of action.

NOTES

1. See NE 1142b22-24, 1143a35-b5, VII 3; *De Motu Animalium* 7. Aristotle does not actually use the term-of-art "practical syllogism" when discussing what has come to be known by this name, but he does use syllogistic language -- for example, "term" (*horos*), "premise" (*protasis*), "conclusion" (*sumperasma*), and "syllogism" (*sullogismos*) itself. Thus, it is not unreasonable to continue using the term "syllogism", even if what is referred to is not, strictly speaking, a real syllogism, but only something analogous in important ways. I owe this point to Cooper 1975, p.24.
2. Some commentators--e.g. Nuyens--interpret Aristotle as believing that desire itself is an aspect of a non-material soul that causally interacts with physiological processes of perception. I agree with Nussbaum that this interpretation cannot survive confrontation with a variety of related passages: "The extended automatic puppet example, and passages like 702b21-25 and 701b24-32, can be understood only on the assumption that the desire that is triggered by perception is also something physical and part of the chain of physiological events." (Nussbaum 1978, p.155)

APPENDIX-1 TO CHAPTER VII

IMPORTANT PASSAGES ON THE PRACTICAL SYLLOGISM

1. From *De Anima*, 434a16-19

...the one premise or judgment is universal and the other deals with the particular (for the first tells us that such and such a kind of man should do such and such a kind of act, and the second that this is an act of the kind meant, and I a person of the type intended).... [Rev. Oxford]

2. From *De Motu Animalium*, 701a6-12

But how does it happen that thinking is sometimes accompanied by action and sometimes not, sometimes by motion, and sometimes not? It looks as if almost the same thing happens as in the case of reasoning and making inferences about unchanging objects. But in that case the end is a speculative proposition (for whenever one thinks the two premises, one thinks and puts together the conclusion), whereas here the conclusion which results from the two premises is the action. [Nussbaum]

3. From *De Motu Animalium*, 701a12-16

...whenever someone thinks that every man should take walks, and that he is a man, at once he takes a walk. Or if he thinks that no man should take a walk now, and that he is a man, at once he remains at rest. And he does both of these things if nothing prevents or compels him. [Nussbaum]

4. From *De Motu Animalium*, 701a16-17

I should make something good, a house is something good. At once he makes a house. [Nussbaum]

5. From *De Motu Animalium*, 701a17-23

I need covering; a cloak is a covering. I need a cloak. What I need, I have to make; I need a cloak. I have to make a cloak. And the conclusion, the "I have to make a cloak," is an action. And he acts from a starting point. If there is to be a cloak, there must necessarily be this first, and if this, this. And this he does at once. Now, that the action is the conclusion, is clear. [Nussbaum]

6. From *De Motu Animalium*, 701a24-25

And as for the premises of action, they are of two kinds--through the good and through the possible. [Nussbaum]

7. From *De Motu Animalium*, 701a25-b1

But as sometimes happens when we ask dialectical questions, so here reason does not stop and consider at all the second of the two premises, the obvious one. For example, if taking walks is good for a man, it does not waste time considering that he is a man. Hence, whatever we do without calculating, we do quickly. For whenever a creature is actually using sense-perception or *phantasia* or thought towards the thing-for-the-sake-of-which, he does at once what he desires. For the activity of the desire takes the place of questioning or thinking. "I have to drink," says appetite. "Here's drink," says sense-perception or *phantasia* or thought. At once he drinks. This, then, is the way that animals are impelled to move and act: the proximate reason for movement is desire, and this comes to be either through sense-perception or through *phantasia* and thought. With creatures that desire to act, it is sometimes from appetite or spiritedness and sometimes from...wish that they make or act. [Nussbaum]

8. From *NE*, 1141b12-20

The man who is without qualification good at deliberating is the man who is capable of aiming in accordance with calculation at the best for man of things attainable by action. Nor is practical wisdom concerned with universals only--it must also recognize the particulars. This is why some who do not know, and especially those who have experience, are more practical than others who know; for if a man knew that light meats are digestible and wholesome, but did not know what sorts of meat are light, he would not produce health, but the man who knows that chicken is wholesome is more likely to produce health. [Rev. Oxford]

9. From *NE*, 1142a21-30

...error in deliberation may be either about the universal or about the particular; we may fail to know that all water that weighs heavy is bad, or that this particular water weighs heavy....practical wisdom is concerned with the ultimate particular, which is the object not of knowledge but of perception--not the perception of qualities peculiar to one sense but a perception akin to that by which we perceive that the particular figure before us is a triangle; for in that direction too there will be a limit. But this is rather perception than practical wisdom, though it is another kind of perception. [Rev. Oxford]

10. From *NE*, 1147a1-7

...since there are two kinds of propositions, there is nothing to prevent a man's having both and acting against his knowledge, provided that he is using only the universal and not the particular; for it is particular acts that have to be done. And there are also two kinds of universal; one is predicable of the agent, the other of the object; e.g. 'dry food is good for every man', and 'I am a man', or 'such and such food is dry'; but whether this food is such and such, of this the incontinent man either has not or is not exercising the knowledge. [Rev. Oxford]

11. From *NE*, 1147a25-b3

The one opinion is universal, the other is concerned with the particular facts, and here we come to something within the sphere of perception; when a single opinion results from the two, the soul must in one type of case affirm the conclusion, while in the case of opinions concerned with production it must immediately act (e.g. if everything sweet ought to be tasted, and this is sweet, in the sense of being one of the particular sweet things, the man who can act and is not restrained must at the same time act accordingly). When, then, the universal opinion is present in us restraining us from tasting, and there is also the opinion that everything sweet is pleasant, and that this is sweet (now this is the opinion that is active), and when appetite happens to be present in us, the one opinion bids us avoid the object, but appetite leads us towards it (for it can move each of our bodily parts); so that it turns out that a man behaves incontinently under the influence (in a sense) of reason and opinion, and of opinion not contrary in itself, but only incidentally--for the appetite is contrary not the opinion--to right reason. [Rev. Oxford]

12. From *NE*, 1149a29-b3

...anger by reason of the warmth and hastiness of its nature, though it hears, does not hear an order, and springs to take revenge. For reason or imagination informs us that we have been insulted or slighted, and anger, reasoning as it were that anything like this must be fought against, boils up straightway; while appetite, if reason or perception merely says that an object is pleasant, springs to the enjoyment of it. Therefore, anger obeys reason in a sense, but appetite does not. It is therefore more disgraceful; for the man who is incontinent in respect of anger is in a sense conquered by reason, while the other is conquered by appetite and not by reason. [Rev. Oxford]

APPENDIX-2 TO CHAPTER VII
PRACTICAL SYLLOGISMS FROM THE CORPUS*

Part I -- Behavior Syllogisms

	701a29	1147a30ff.	1149a30	1149a33ff.
1. Process of Deliberation	(none)	(none)	(none)	(none)
2. Universal Rule	(none)	(none)	Any slight or insult must be fought	(none)
3. Personal Particulars	(none)	(none)	(none)	(none)
4. Appetite or Passion	"I have to drink', says appetite"	appetite for sweet things	anger--i.e. desire to fight this insult or slight	appetite for the pleasant
5. Perception, Belief, or "Imagination"	"Here's drink"	"this is sweet"	"we have been insulted or slighted"	"[this] object is pleasant"
6. Behavior	"At once he drinks"	"appetite leads us towards it"	"anger... springs to take revenge"	"appetite springs to the enjoyment"

* Items in quotation marks are quoted from the *corpus*; items without quotation marks are paraphrased from the *corpus*.

Part II -- Action Syllogisms

	701a12f.	701a14f.	701a16f.
1. Process of Deliberation			
2. Universal Rule	"every man [in his circumstances] should take walks"	"no man [in his circumstances] should take a walk now"	
3. Personal Particulars	"he is a man [in those circumstances]"	"he is a man [in those circumstances]"	
4. <i>Prohairesis</i>			"I should make something good"
5. Perception, Belief, or "Imagination"			"a house is something good"
6. Action	"At once he takes a walk"	"At once he remains at rest"	"At once he makes a house"

Part II -- Action Syllogisms (continued)

	701a17ff.	701a20ff.	701a27
1. Process of Deliberation	"I need covering; a cloak is a covering. I need a cloak. What I need, I have to make."	"If there is to be a cloak, there must necessarily be this first, and if this, this."	
2. Universal Rule			"Taking walks is good for a man."
3. Personal Particulars			"he is a man"
4. <i>Prohairesis</i>	"I need a cloak."		
5. Perception, Belief, or "Imagination"			
6. Action	I make a cloak	"And this he does at once."	

Part II -- Action Syllogisms (continued)

	1141b18	1141b20	1142a23
1. Process of Deliberation			
2. Universal Rule	"light meats are digestible and wholesome"	"chicken is wholesome"	"all water that weighs heavy is bad"
3. Personal Particulars			
4. <i>Prohairesis</i>			
5. Perception, Belief, or "Imagination"			"this par- ticular water weighs heavy"
6. Action			

Part II -- Action Syllogisms (continued)

	1147a5	1147a29	1147a30ff.
1. Process of Deliberation			
2. Universal Rule	"dry food is good for every man"	"everything sweet ought to be tasted"	anyone in my circumstances should avoid sweets
3. Personal Particulars	"I am a man"		
4. Prohairesis			
5. Perception, Belief, or "Imagination"	"such and such food is dry...this food is such and such"	"this is sweet"	"this is sweet"
6. Action		"the man who can act and is not restrained must at the same time act accordingly"	

CHAPTER VIII

AUTONOMY AND HUMAN ACTION

1. Introduction

"The origin of action--its efficient, not its final cause--is choice, and that of choice is desire and reasoning with a view to an end." (1138a32-33) This terse statement in Book VI of *NE* is an excellent summary of Aristotle's account of the causes of human action: desire, when combined with deliberation, yields an intention ("choice"), which in turn yields an action (when combined with appropriate thoughts or perceptions). To complete our model of Aristotle's theory of action, we must deal specifically with the causal relationship between intention and action. And we must address the important question of "freedom of the will"---to use a modern way of speaking.

The present chapter, therefore, begins with a discussion of Aristotle's theory of causation, especially efficient causation. We shall see below that Aristotle's account is best interpreted as a theory of

explanation--causes explain their effects, but do not always necessitate them. Given this account of causality, it is possible for actions to be caused *without being "locked in" or "determined" by their causes.*

Actions, though *not* necessitated, do not simply occur randomly either. Rather, they are "commanded" by *nous*, which formulates or adopts a general conception of the good and a "general action policy", then, using the process of "deliberation", converts the general policy into specific intentions to act. If these intentions prevail over appetite, passion and emotion, *nous* is "in command". In present-day language, one could say that Aristotle's theory of action incorporates "autonomy" or "freedom of the will", while nevertheless providing a causal explanation of action. (See Section 10 below.)

This account of human action is a model of the *ideal* rational actor. There are various ways to miss the mark, however, and fail to achieve the ideal. For example, one could be like a child with *no* general action policy; or one might deliberate badly--or not at all; or one might have "uncontrolled emotions"; or one could be led by appetite or passion despite one's intentions. Aristotle has important things to say about each of these shortcomings, so they will also be examined in the present chapter.

2. Aristotle's Conception of Cause

In dealing with Aristotle's so-called "four-causes", translators have normally rendered the term *aitia* as "cause"; but this is a misleading tradition, which has resulted in misunderstandings of Aristotle's views. So, when Aristotle says, for example (*Physics* II 3), that the "final *aitia*" of a man's taking walks is his health, Vlastos and others (e.g., Hocutt 1974), point out that translating *aitia* as "cause" in such cases seems quite inappropriate:

here it would be not just awkward but positively absurd to speak of the *aitia* as the "cause." The health for which the ailing man submits to his peripatetic chores does not now exist and may never come to exist, since his walks may not avail to restore it and he might even die on one of them of a heart attack; how then could this nonexistent and perhaps never-to-be-existent thing cause his walks or anything else? (Vlastos 1969, p.294)

The problem arises because the English term "cause" has a much narrower usage than the Greek "*aitia*". In response to this problem, Vlastos notes that Aristotle considers the four *aitiai* to be "all the ways of stating *to dia ti* (the *because*)". So, according to Vlastos, "Aristotle's so-called four 'causes' are his four 'because's'". Instead of saying, for example, "the final cause of his walk is health", one could say--less misleadingly--"he walks *because* of his health". And instead of talking about the "material cause" of a bronze statue, one might simply say, for example, that it is heavy (or yellow or whatever)

because it is made of bronze. This same approach works as well for the other two kinds of "cause":

efficient "cause" -- The Persians invaded Attica *because* the Athenians raided Sardis.

formal "cause" -- The angle at the semicircle is a right angle *because* it is half of two right angles.

Another--perhaps even better--way to translate "aitia" is suggested by Carlton in his commentary on *Physics* II 3:

[Aristotle's] discussion of *aitia*...is rather a discussion of explanation, and the doctrine of the 'four causes' is an attempt to distinguish and classify different kinds of explanation, different explanatory roles a factor can play. (Carlton 1970, p.99)

Following this approach, one would say that we *explain* why a statue is heavy (or yellow or whatever) by saying that it is made of bronze, and we *explain* why a man goes for walks by saying he does so for his health. Similarly, the Athenian raid on Sardis *explains* why the Persians invaded Attica; and the fact that the angle at the semicircle equals half of two right angles *explains* why it is a right angle.

Sorabji (1980) also takes this approach to be a good one, saying for example, "Aristotle's so-called four causes are best thought of as four modes of explanation, of which the efficient cause is closest to a cause in our sense." (1980, p.40) He takes "explanation" to be an especially good interpretation of "efficient cause"

because it makes the most sense of the diversity of things that Aristotle identifies as such causes:

I take it to be the chief strength of Aristotle's account that he invites us to think of the efficient cause as what provides a particular mode of explanation. I do not want to deny that he is sometimes attracted by the ideas found in modern accounts of cause. Indeed, we have just noticed that he connects *some* explanations with necessity and with universal statements. We shall see...that he once (*Metaph.* VI 3) treats an efficient cause as a sufficient condition, although elsewhere he implies the opposite. We shall see that he also associates efficient cause explanation with probability (*Poet.* 10), and with what happens for the most part (*Metaph.* V 30), which is closely associated with probability. But his account differs from modern ones, in that these appeals are given some *unity*, by all being connected to the fact that a cause is a particular kind of *explanation*. (Sorabji 1980, p.41)

3. Efficient Causes That Do Not Necessitate

Since, for Aristotle, efficient causes can involve probabilities and for-the-most-part regularities (see e.g., *Physics* II 5, *Metaphysics* V 30), it is clear that he does *not* consider all efficient causes to be necessitating conditions of their effects. There is one place in the *corpus* however--namely, *Metaphysics* VI 3--where he seems to assume the opposite. (For an excellent discussion of this point, see Sorabji 1980, Chapter 2.) In any case, modern readers can easily miss the fact that Aristotle's efficient causes need not necessitate. They may miss this point, because most present-day accounts of causation are versions either of the Stoic view that a cause *necessitates* its effect or the Humean view that the effect

is *constantly conjoined* with the cause, and they may inadvertently read these later views into Aristotle.

In recent years, a number of philosophers (e.g. Anscombe 1971, Scriven 1971, Sorabji 1980) have challenged the Stoic and Humean views with examples of causation in which the effect is not necessitated. Anscombe (1971), for example, offers the case of the radioactive material left near a bomb which has a trigger that can be activated by an electron emission. Such an emission, according to quantum mechanics, is undetermined and its path is not predictable in advance, yet it would be an effect caused by the presence of radioactive material. The arrival of the electron at the triggering device, therefore, would not be necessitated by the presence of the lump of material which is nevertheless its efficient cause.

It is of interest to note here, as Sorabji does (1980, p.30), that not only is the fateful arrival of the electron not necessitated, it need not even be highly probable. Indeed, it could actually be a rare occurrence, and it would still be correct to say that it was caused by--and explained by--the presence of the radioactive material. Thus, the popular "modern" attempts to define causality are all unsuccessful in accounting for examples of this kind--Hume's theory of "constant conjunction", Davidson's (1967) "necessitating condition", Mackie's (1965) "part of a necessitating set of conditions", and

similar "modern" theories (even Jevons' (1877) "makes probable") all fail to deal successfully with such cases. (See Sorabji 1980, pp.37-40.) Aristotle's view, on the other hand, that the efficient cause is the "source of the change", which *explains why* the change occurred without always necessitating that change, makes good sense of such cases, as well as a wide diversity of others (including all the "standard" cases that the "modern" theories also can handle).

4. Aristotle on Action and Determinism

It is clear from the quotation with which the present chapter begins (p.189 above),

The origin of action--its efficient, not its final cause--is choice....

and from many other passages as well, that Aristotle took actions to be caused by intentions ("choices"). Other passages also make clear that the causal relationship between intention and action, according to Aristotle, does not necessitate the action. For example, while discussing voluntary activities Aristotle says they are "in one's power to do or not to do" (see Chapters II and III above). Since actions are a sub-class of the voluntary, they too must be "in one's power to do or not to do", so actions are not necessitated. The same point can be shown from the following passage:

If, then, a man, having it in his power to do the honourable and abstain from the base, does the opposite, it is clear that this man is not good.... for there is no necessity to do what is wicked. (EE, 1228a5ff).

These and similar parts of the *corpus* confirm that Aristotle considered actions to be unnecessitated.

Some commentators (e.g., Huby 1967, Ross 1977, Furley 1977; for details see especially Sorabji 1980, Ch. 15) take Aristotle's belief in caused-but-not-necessitated actions as evidence that he was unaware of the "problem of determinism"--the problem that, if an action is caused, it must be *necessitated* by its causes. Aristotle, however, was aware of such claims, but considered them to be clearly mistaken. As Sorabji notes:

Aristotle is aware of the idea that everything is determined, whether causally or non-causally. He considers a non-causal determinism in *Int.* 9, and a causal determinism not only in *Metaph.* VI 3, but also in *Phys.* II 4, where he remarks that some people had denied that there was such a thing as chance, on the grounds that a cause could always be found for everything (195b36-196a11).... he does sometimes produce arguments against determinism (*Int.* 9, 18b26-19a22; *Phys.* II 5, 196b14; *GC* II 11, 337b3-7). [Sorabji 1980, pp.243-44]

Also, in *NE* III 1, Aristotle considers and rejects the claim that all our actions are compelled by external circumstances; and in *NE* III 5, he rejects the view that all our actions are "fixed by nature" because our characters are fixed at birth.

Aristotle, therefore, was aware of claims about causal determinism. Given his philosophical method of

"dialectic" (see Chapter I above, pp.7-10), however, he quickly dismissed such determinism as absurd in the face of what "everyone" believes. As Sorabji says,

It misrepresents the situation to suggest that Aristotle was merely not yet in a position to appreciate the problem; he would not have agreed that the problem was one for believers in voluntariness....

Aristotle would have been all the more confident about where the onus of proof lay because of his whole method of doing philosophy, which was a dialectical one. He defines dialectic as reasoning that starts from what people have accepted..., and he thinks that a view that has been accepted by everyone is unchallengeable (*NE* X 2, 1172b35-1173a2; cf. *Phys.* II 5, 196b14). The belief in the voluntariness of some actions was such a view, and he would therefore not expect it to be controverted. (Sorabji 1980, p.246)

Although Aristotle was aware of causal determinism, one wishes that he had said much more to make his rejection of it, and his own alternative position, clearer. As Sorabji notes,

There are, admittedly, some things to be regretted about Aristotle's handling of the question. One is that...he never manages to make clear to himself the principle that his argument needs, that what is caused need not be necessitated.... Nor does he try to locate, in connexion with human action, the exact point at which necessitation fails.... That determinism is wrong he thinks sufficiently established, by reference to action among other things; but as to just where necessitation is missing in this context, he has not said enough. (Sorabji 1980, pp.247-8)

Sorabji supplements Aristotle with some examples of actions which are caused but not necessitated. One of his illustrations is a child who takes another child's toy in spite of remembering that he should get permission first. "In taking the toy, the child is responding to one

set of feelings rather than another--the action is not uncaused. But neither these feelings nor anything else need necessitate the action" (Sorabji 1980, p.232).

Strictly speaking, this is not an *action* in Aristotle's special sense, but a voluntary activity, for children cannot deliberate and "choose" in the appropriate way. Sorabji offers another illustration, though, which is a genuine action in Aristotle's strict sense:

The case for attending some instructive lecture may seem overwhelming, and nine times out of ten in such circumstances a man may act accordingly. But when he does so, we may still feel that his action is not necessitated, just because the tenth time he does not act accordingly, and this is not because of some new rival temptation or force....

If we believe that the tenth time the man might have failed to act, without a new rival force intervening, does this make his action on the other nine occasions inexplicable? No; it can be explained by reference to the case as he saw it. We need not even allow that the man's failure to act on the tenth occasion was inexplicable, so long as there was some disincentive present (say, the effort required) on each of the ten occasions. We can then explain his inaction on the tenth by reference to that disincentive. (Sorabji 1980, p.31)

Sorabji's point in presenting such cases is that, even though Aristotle did not offer similar ones, he could have done so without doing violence to his own position on human action--indeed, doing so would have made his position clearer: a person with conflicting desires may act sometimes on one desire, sometimes on another. In each case, the relevant desire (combined with appropriate beliefs or perceptions) is the efficient cause of the

"choice" that results in the action. It is the efficient cause since it is the "origin" which explains from whence the "choice" arose. In neither case, however, must we assume that the "choice" was necessitated.

5. Aristotle and Autonomy

Because Aristotle considered determinism to be clearly and obviously false, he saw no need to "solve the problem of free will" (as some contemporary philosophers would put it). In spite of this, a strong case can be made that his account of human action presupposes--indeed, incorporates--what some philosophers might call "free will" or "autonomy". But since the term "free will" has been assigned a variety of different meanings by different philosophers, we need to get clear which of these applies to Aristotle. Let us defer this question to Section 10 below, and first spell out those aspects of his action theory that are likely to be relevant to the free-will question.

For example, Aristotle's key term, *prohairesis*, is regularly translated "choice", and choices are often thought to be necessary if one is to have free will. But a *prohairesis* is more like an intention than a choice (see Chapter VI above), so translating it as "choice" can be misleading. Nevertheless, a *prohairesis* does result from

(1) the consideration of alternative courses of action, and

(2) the selection of one of the alternatives,

so the formation of a *prohairesis* appears to involve choice-making.

Another aspect of Aristotle's action theory that seems relevant to free will is his belief in "the voluntary". Perhaps what he calls "the voluntary" other philosophers would label "free will". However, it is Aristotle's view that non-human animals and human children engage in voluntary activities despite the fact that they are *controlled* by appetite and perception (see Chapter V above). They are not in charge of their own lives; and, therefore, although their activities are voluntary, they do not appear to be *free* in some philosophically interesting senses of that term--they are not "self-controlled", as some philosophers might say.

These comments indicate that such things as making choices and being "self-controlled" are aspects of Aristotle's theory that are likely to relate to the so-called "free-will question". These aspects, however, depend centrally upon *nous*; and from this fact, we get a crucial clue: It is *nous*, if anything, that sets one free. It must therefore be the special capacities bestowed by *nous*--or some of them, at least--which would constitute "free will".

Surveying some *nous*-bestowed capacities, we get the following account:

1. *Nous* enables one to acquire concepts, and--through them--knowledge and information about the world. Without such information, we could not envision alternative courses of action or their likely consequences. (See Chapter VI above, Section 2.)
2. *Nous* enables one to understand, adopt, and modify a conception of the good and a set of goals in keeping with that conception. If one could not set his own goals, if others had to decide what is good for him and fix his goals (as is done for children and domesticated animals), he would not be "self-controlled".
3. *Nous* makes deliberation and intention possible. According to Aristotle, when we deliberate we envision alternative actions and evaluate each one in light of our goals. Deliberation comes to an end when we think we have found the action most in keeping with our goals and have set ourselves to pursue it. Without this ability to deliberate and form intentions, we would not be in control of our own lives.
4. *Nous* controls appetites, passions and emotions so that they do not frustrate or overpower our intentions. If this were not so, a person would be a "slave to his desires".

Given this account of *nous*-bestowed capacities--as well as our analysis above of Aristotle's notion of efficient causation--we can now set down a summary of what might be called "Aristotle's account of human autonomy" (although Aristotle himself, of course, did not talk in these terms.)

1. Effects can be caused without being necessitated (i.e., determinism is false).
2. Human beings can acquire reliable information about the world (including, according to Aristotle's epistemology, scientific knowledge of things that

never change, and true opinions about changeable particulars).

3. Human beings can establish goals for themselves.
4. Human beings can envision alternative paths to their goals, and evaluate them in light of those goals.
5. Human beings can form intentions to act based upon their evaluations of paths to their goals.
6. Human beings can convert their intentions into actions.
7. Human beings can make their intentions prevail over appetites, passions and emotions.

The first of these seven claims has already been discussed in detail above. The second merely takes account of the obvious fact that one needs information about the world if he is to set goals, consider options, make plans, and so on. The other five statements, however, need further discussion, so we proceed to that task now.

6. Self-Established Goals

According to Aristotle,

about the end no one deliberates (this being fixed for all), but about that which tends to it--whether this or that tends to it, and--supposing this or that resolved on--how it is to be brought about. (*EE* II 10, 1226b10-12; parenthetical material in the translation)

This and similar passages in the *corpus* may lead one to infer that, according to Aristotle, our goals are always "fixed" for us by nature--that one cannot establish one's own goals. But this is a *misreading* of Aristotle. The only goal that nature fixes for each person is the most

general one of achieving *eudaimonia*. But this is an extremely broad end that can be specified in almost endless ways, for a life of *eudaimonia* is a life of *both*

- (1) contemplation of eternal truths, and
- (2) the doing of virtuous acts.

Such a life can be achieved by living as a statesman or general or doctor or teacher or by filling any number of other roles. And within each of these careers, there are many alternative lives to lead that would achieve *eudaimonia*.

Therefore, when Aristotle says that one deliberates about and chooses "that which tends to the end", one must read "tends to the end" to include *components* of the end, and not simply *means*. As Aristotle himself says,

the object or end is always something good by nature, and men deliberate about its partial constituents (*EE* II 10, 1227a21f)

or, as Nussbaum puts it, what is wished for and deliberated about is "a rationally conceived goal, and, derivatively...constituents of it and means to it, seen as such....ranked and valued as a part of the agent's overall life plan" (Nussbaum 1978, pp.335-6).

The "overall life plan", in addition, is always subject to refinement and modification as one acquires more experience, more knowledge and a changed perspective. As Wiggins explains,

Deliberation...is a search for the *best specification* [of my goal]....When this specification is reached, means-end deliberation can start, but difficulties that turn up in this means-end deliberation can send me back a finite number of times to the problem of a better or more practicable specification of the end. (Wiggins 1980, p.228; emphasis in original)

Thus, Aristotle assumes one can set his own goals (except for the grand goal of *eudaimonia*), and revise them in the light of new information and further deliberation. This capacity is an important component in what some contemporary philosophers have called "autonomy". As Mele puts it,

To be ruled by one's reason or *nous* is not simply to act in accordance with what one's reason specifies as means to desired ends, for that is consistent with reason's being a slave to appetite. One must also have a conception of the good and of the kind of person one wants to be, and that conception must in turn be expressed in one's desires for ends. It is only when one acts from an internalized conception of the good that one acts autonomously....(Mele 1984a, p.155-6)

7. *Deliberation Again*

Even if one does have a specified set of goals, however, which are components of an overall goal, one still could not pursue them without the ability to envision "paths" or ways to fulfill them. Aristotle says, of course, that human beings do have that capacity:

Having set the end, they consider how and by what means it is to be attained; and if it seems to be produced by several means they consider by which it is most easily and best produced, while if it is achieved by one only they consider how it will be achieved by this and by what means *this* will be achieved, till

they come to the first cause [by which it can be achieved], which in the order of discovery is last....And if we come to an impossibility, we give up the search...; but if a thing appears possible we try to do it. By 'possible' things I mean things that might be brought about by our own efforts....The subject of investigation is sometimes the instruments, sometimes the use of them; and similarly in the other cases--sometimes the means, sometimes the mode of using it or the means of bringing it about. (NE III 3, 1112b15-31)

Since *some* ways of fulfilling a goal are more likely to succeed, or to succeed more completely or more quickly, one must not only *envision* alternative paths, but also *evaluate* them. As Aristotle says "they consider by which it is most easily and best produced" (1112b17); and "the man who is deliberating, whether he does so well or ill, is searching for something and calculating" (1142b14f). A person who could not evaluate alternatives would not be able to pursue goals effectively, and therefore would not be "free" or "have autonomy", as some contemporary philosophers would say.

Clearly, for Aristotle, neither the envisioning nor the evaluating that takes place during deliberation can be necessitated. *Nous* must be free to range over the possibilities, envisioning and evaluating, without being "locked in" in advance. Otherwise, the result of the deliberation would be a foregone conclusion, and the resulting action would not be something the deliberator could "do or not do", as Aristotle puts it.

8. Forming Intentions

Even if one can identify the best way to pursue a goal, he still needs to "set himself to do it"--to create within himself the intention (*prohairesis*) to follow a path when conditions allow. If he did not do so, his goal-setting and "path-finding" would not be the cause of his activities, and he would not be in charge of his own actions. But what sort of thing is an intention?

In Chapter VI above, we saw that an intention can be viewed as a *compound* of wish and opinion--the wish to do a specific thing and the opinion that one ought to do it. It is a "deliberate" desire to act in a certain way, where "deliberate" means "resulting from deliberation". Thus, Aristotle says in the *Eudemian Ethics*:

Since then [*prohairesis*] is neither opinion nor wish singly nor yet both..., it must be compounded of both, for both are found in a man choosing. But we must ask--how compounded out of these? The very name is some indication. For [*prohairesis*] is not simply picking but picking one thing before another; and this is impossible without consideration and deliberation; therefore [*prohairesis*] arises out of deliberate opinion. (*EE* II 10, 1226b2-9)

A few lines later, he says "I call it deliberate when deliberation is the source and cause of the desire, and the man desires because of the deliberation." (1226b20f)

Thus, the formation of an intention proceeds as follows. With one (or more) of his goals in mind, a person envisions various paths to achieving the goal, searching for those paths that are "within his power". These are

then evaluated to determine which path would achieve the goal "most easily and best". The process continues until the deliberator has identified what he takes to be the best path within his power to follow. As a result, he acquires the wish to follow that path and he forms the opinion that he ought to do the specific act that would start him down the path. The wish to follow the path combines with the opinion that he ought to do the specific act, forming the *prohairesis*--the intention--to do it. Thus, Cooper is exactly right when he describes a *prohairesis* as "a commitment to act, backed by desire, produced by deliberation" (Cooper 1975, p.47). And Kenny seems right when he characterizes it as "a mental state which finds expression, if dramatised, in utterances such as 'Pursue this', 'Avoid that'" (Kenny 1979, p.93).

9. *Converting Intentions into Actions*

From Chapter VII above, it is clear that the so-called "practical syllogism" is the mechanism whereby intentions are converted into actions. Physiologically, the intention functions like a desire: when the proper phantasms come together with the physiological state that *is* (or is accompanied by) the intention, the action is initiated. The phantasms can be provided by perception or by thought (thought either *is* phantasm manipulation or is *accompanied by* it).

Once the intention and appropriate phantasms come together within the person, that person, according to Aristotle, must act, unless something intervenes to prevent it. (See, for example, *De Motu Animalium* 7 and *NE* VII 3.) Of course, as indicated above in Chapter VII, the intention could be present within the person for an extended period of time without the person's having the appropriate perceptions or thoughts to trigger it. Once those perceptions or thoughts do occur, however, the person "must" act, unless something intervenes.

This part or aspect of Aristotle's account of human action does seem to involve necessitation. However, at this point, necessitation not only is not a threat to autonomy, it (or at least high probability) is *required* if one is to be in control of one's actions. It is the *formation of one's intentions* that must not be necessitated if one is to be autonomous or have self-control. And Aristotle's account of action does not make this crucial process determined. On the other hand, if one's intentions did not normally bring about one's actions--if actions resulted randomly or not at all from one's intentions--he could hardly be said to be a "free" or "autonomous" being. Of course, on Aristotle's account, the intention *does* necessitate the action, if nothing intervenes.

"If nothing intervenes" is an important phrase

here, for Aristotle discusses a variety of things that do sometimes intervene. When a man is "asleep, mad or drunk" (*NE* VII 3), for example, knowledge regarding his own intentions, may be unavailable to him for action. In this state, a man's intentions do not play their proper role in a practical syllogism, and therefore do not account for his actions. (See Chapter VII above.) Similarly, under the influence of anger, sexual appetite, and other strong desires, an incontinent man may act like those who are drunk or mad or asleep, and so his intentions do not play their proper role in practical syllogisms. (See the discussion of incontinence above, Chapter VII, Section 8.)

Normally, a person is able to control his desires, so that they do not interfere with his actions. This is achieved by *nous*, for desire is triggered by phantasms; and *nous*, in thinking, calls up and manipulates phantasms. This puts *nous* in charge of appetite, passion, and emotion. (See Chapter VI above.) As Aristotle puts it, the desiring element in the soul "listens to and obeys" reason. (*NE* I 1102b31).

Although Aristotle does not discuss it in detail, there clearly is something else that can "intervene" between one's intentions and actions. A new piece of information from perception, or a new thought, could alter one's intentions at the last moment--or insert a new triggering phantasm into the situation--stopping or

altering an action that was just about to occur.

Aristotle seems to touch upon this possibility in the following passage:

'it will be' and 'it is going to be' are different. For if it be true to say of something that it will be, it must at some time be true to say of it that it is; whereas, though it be true to say of something *now* that it is going to be, it is quite possible for it not to come-to-be--thus a man might not go for a walk, though he is now going to go for a walk. (*Generation and Corruption* II 11, 337b4-7; emphasis in the translation)

The possibility of new perceptions or new thoughts altering one's intentions at any moment seems required if one is to account for *nous's* capacity to be in constant control of the person's ever-changing stream of actions. This is an important aspect of human action and the power of reason, and one wishes that Aristotle had said more on the subject.

10. Degrees of Self Control

Earlier in this chapter (Section 5), we deferred the question of which type of "free will"--if any--Aristotle's theory of action incorporates. Let us now systematically discuss what might be called "degrees of self control"--beginning with cases of the least and ending with cases of the most. (Aristotle did not use the term "self-control", although he did use phrases like "what depends on him" and "what is up to him".) Some of the levels or kinds of self control that Aristotle's

action theory incorporates are similar to capacities that later philosophers associated with terms like "liberty" or "freedom of the will" or "autonomy".

Case 1 -- The most extreme sort of case that Aristotle discusses is the kind of activity that he calls "compulsory" in which "nothing is contributed by the person who is acted upon"--what happens to someone is caused by an external *arche* and is not "up to him" at all. His examples include being blown off course by the wind, and being forcibly carried off by someone. (See *NE* III 1 and Chapter II above.) According to Aristotle, these are clear cases of "the involuntary". No philosopher, so far as I know, has considered them to be examples of freedom of the will or autonomy of the agent.

Case 2 -- Another case of "the involuntary", according to Aristotle, is an activity whose *arche* is *internal* to the person, but not one of his desires or intentions. Aristotle's examples include growing old and grey, dying, and engaging in divinely inspired prophesy. (See *EE* II 8; this last-mentioned activity is caused by thoughts implanted and controlled by a god. The thoughts are internal to the prophet, but are not among his own desires or intentions.)

We could add to Aristotle's examples such things

as sneezing, twitching, and epileptic seizures. All of these activities have causes *within* the "actor", but the causes are not his desires or intentions. I do not know of any philosopher who has associated such "involuntary" activities with free will or autonomy.

Case 3 -- Suppose next that someone's activity *is* caused by his own desires or intentions, but it also results from mistaken perceptions or mistaken beliefs. Aristotle considers such activities--which result from "ignorance"--to be involuntary (if the ignorance is not due to negligence). (See *NE* III 5 and *EE* II 9.) In such a case, the agent does not know what he is doing. No philosopher, as far as I know, has associated such activities with free will or autonomy.

Case 4 -- Suppose one is *not* ignorant about the situation, and the activity in question *is* caused by one's desires. But, in addition, the desires are "unnatural" or "overpowering"--the agent is a madman, or at least is driven by desires beyond what is "natural". In such a case, according to Aristotle, the activity is involuntary, because it is "not under control of his natural desire or reason", and therefore it "does not depend on him" (*EE* II 8, 1225a20ff).

Although Aristotle considers such activities to be

involuntary, *some* philosophers would count them as voluntary and would consider the agent to be free under such conditions. Hobbes is a good example. He considered "the will" to be merely the "last appetite" that one has before an activity--a desire or aversion which causes the activity. If the resulting activity is not constrained by external conditions, then it is voluntary and the agent is free, whatever the cause of the desire or aversion might be.

Case 5 -- Suppose one has correct information, and the activity in question is caused by the agent's own desires; but, in addition, the desires result from an external threat. Aristotle's examples include throwing cargo overboard during a storm to save one's ship and crew, and doing something base because a tyrant holds one's family ransom or threatens one with death. (See *NE* III 1, *EE* II 8, and Chapters II and III above.) Such activities, Aristotle calls "mixed" (in *NE* III), and he concludes that they normally are voluntary, since they are caused by the agent's desires and it is normally within the agent's power to do the deed or not to do it and bear the unhappy consequences. If the external threat is so strong, however, that the agent does not retain the power to abstain, then Aristotle considers the activity to be involuntary (*EE* II 8). It all depends, he says, on "what

his nature is able to bear".

A "compatibilist" like Hobbes, who accepts causal determinism, would deny that an agent ever retains the power "to do or abstain"; so he would not make the distinction between what the agent's nature can bear or not bear. For such a philosopher, whatever the cause of the agent's desire, if it brings about the desired activity, and that activity is unconstrained, then it counts as voluntary, and the agent is considered free, in spite of the fact that everything is determined.

Case 6 -- Aristotle's paradigm case of a voluntary activity (See Chapter III above.) is one in which the agent is correctly informed about the situation, and the activity is caused by his own natural desires, which in turn are *not* caused by external threats. The activity is within the agent's power to do or not do, and therefore the desires in question do not necessitate the activity. However, according to Aristotle, they do *explain* it, since they are the "source from which the activity originates".

It is important to note here that such a case need not be an "action" in Aristotle's strict sense, because it need not involve deliberation and "choice". Children and non-human animals, for example, often engage in such voluntary activities, despite the fact that they neither deliberate nor form *prohaireseis*. Non-human animals do

not have *nous*, and children have it only potentially or only to some extent, so Aristotle does not assume here that the desires in question are in any way controlled by *nous*. In spite of this, he considers such activities to be fully voluntary.

Compatibilists like Hobbes and Hume, for example, consider this kind of case to be a paradigm example of an action done "freely" or with "liberty". Of course, unlike Aristotle, they accept causal determinism--they believe that the agent could not have done otherwise under the given conditions. Since the activity is not externally constrained, however, they consider the agent to be free.

According to *other* philosophers, however, the activity in question is *not* "free" or "autonomous" unless it results from a choice made by a mind that is undetermined by physical causation. Descartes, for example, believed that the mind is radically free in the sense that it is able to give or withhold assent to a proposition or activity without any constraint whatsoever from physical causation. If one's action results from such a choice, then it is done of one's own free will, otherwise not. It is not enough for the activity to be caused by desire, even if the activity is unconstrained by external conditions.

Case 7 -- Suppose an activity is fully voluntary in the sense of Case 6 above, and in addition the desires in question are "controlled" to some extent by *nous*. The "control" in question, however, is "childish" because--like a child--the agent has no stable conception of the good (See *NE* I 3.) and thus no life-plan. Instead, he flits from goal to goal, at the mercy of his appetites or passions. Although such an agent engages in calculation similar to deliberation, and forms desire-like "intentions" similar to *prohaireseis*, these are not genuine deliberations and *prohaireseis*, because the ever-changing goals from which they result are not part of a rational conception of the good formulated by *nous*. Thus, although such activities are fully voluntary, according to Aristotle, and to some degree controlled by *nous*, they are not *actions* in his strict sense. The "agent" is still at the mercy of appetite or passion.

Compatibilists, of course, would consider such activities to be free, since they are caused by desires and unconstrained; and Descartes, presumably, would count them as free, if the mind assents to them. Kant, on the other hand, would consider them to be "heteronomous" rather than "autonomous", since they are caused by "inclinations" and are not rationally chosen for their own sake.

Case 8 -- Suppose an agent does have a rational life-plan formulated by *nous*, he does engage in genuine deliberation, and he does form a genuine *prohairesis* based upon his life-plan. However, when the opportunity arises to fulfill the *prohairesis*, the agent's activity results, instead, from appetite or passion. According to Aristotle, such incontinent activities are fully voluntary, because their *archai* are desires or passions within the agent; but such activities are *not* genuine actions because they are not controlled by *nous*.

Compatibilists, again, would consider such activities "free" because they are unconstrained by external causes and result from the agent's own desires. Kant, of course, would consider such activities to be "heteronomous", not "autonomous".

Case 9 -- In a genuine action, the agent, using *nous*, achieves maximum self-control. Nature has assigned to him the general goal of flourishing as a person (*eudaimonia*; see Chapter VI, Section 5 above), but the agent makes this goal more specific by formulating and refining his own life-plan to promote *eudaimonia*. This life-plan or "conception of the good" provides a starting point for deliberation, resulting in *prohairesis*--intentions to fulfill the agent's life-plan by following specific paths. Once the agent becomes aware (by perception or thought) of

an opportunity to follow one of the selected paths, the appropriate *prohairesis* combines with the perception or thought and thereby causes the action. Meanwhile, by means of thought (which either *consists of* phantasm manipulation or is *accompanied by* it), the agent prevents appetites, passions and emotions from triggering the wrong behavior. The agent, therefore, has maximum control throughout: formulating and refining the overall goal (life-plan), selecting the sub-goals, calculating the means to achieving the goals, forming intentions to bring about the selected means, and bringing them about when appropriate opportunities arise.

This kind of action is very similar to the sort that Kant would call "autonomous". It is not causally necessitated, for the agent can choose to do it or refrain from doing it. And it is not simply the result of "inclination" (appetite or passion), for it is rationally chosen for its own sake--that is, because it is "morally right" (it promotes *eudaimonia*).

Of course, such an Aristotelian action is not *exactly* the same as a Kantian "autonomous" action, for Kant's action presupposes his distinction between the noumenal world and the phenomenal world (and all the philosophical underpinnings which that distinction entails). Aristotle's theory of human action presupposes only the *one* world with which we are intimately acquainted.

11. Conclusion

The above discussion shows that Aristotle's account of human action includes several capacities that are very much like those which later philosophers identified as (or associated with) "free will" or "autonomy". Nevertheless, unlike later philosophers, Aristotle manages to provide a causal account of everything without having to presuppose determinism. Aristotle, therefore, appears to have "solved the problem of free will" (as later philosophers would put it).

Of course, whether philosophers of the future will find Aristotle's approach to be acceptable--whether they will think that he *really* "solved the problem of free will"--will depend upon at least two further developments in the years to come:

1. Proof that Aristotle's "explanation approach" to causality is as defensible and as powerful as other causal theories.
2. Development of a powerful philosophy of mind based upon the manipulation of memory traces or "phantasms". (For a start in this direction, see Bynum 1985.)

Whether or not these future projects are successfully completed, however, Aristotle's theory of action will remain a rich and impressive achievement that is likely to serve philosophy well for as many years to come as have passed since its formulation.

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