with Plato and Aristotle

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Philosophizing with Plato and Aristotle

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DEDICATION

Much of the story I tell in this book I learned from Terry Penner in the late 1970s. I dedicate this book to him.

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AUTHOR'S NOTE

I hope this book will convert you, as it did me, to philosophy as one of the great devotions of your life, wonderful for the ideals it sets in your sky and the security it places about you. At the least, this book will help you develop skills of reflection about how best to live. I hope you come to see that such reflection is the first practical thing to do with your life.

This book will help you develop other skills, too. You will practice interpreting arguments as premises leading to conclusions. You will practice evaluating those arguments by raising objections and considering replies. You will sharpen your mind's ability to draw distinctions between abstract ideas. You will find these skills useful for philosophy, for other academic studies, and for many professions and careers. You may also learn a few facts about what some famous people in history believed—but that is really not the point of this or any philosophy book.

A book that tries to give facts about Plato and Aristotle's beliefs would be organized to do Plato first and Aristotle second. The story I am telling is different. My story is organized not by people but by topic. The story begins with Socratic and then Aristotelian ethics, which draws it into Platonic metaphysics, which in turn draws it into Platonic epistemology, methodology and more epistemology, before ending with some Aristotelian metaphysics. At points, it helps me here and there to tell my story to make some comparisons to Descartes, Hume, and some twentieth-century philosophers. At each transition, look for my explanation of the thread that ties the story together.

There are many books about many texts from ancient Greek philosophy that can help you develop the skills I have mentioned. The passages I have picked are some of my favorites. They are also passages that will give you an excellent foundation for further study, if you wish, not only of other philosophy of ancient Greece but also of other periods in the history of

philosophy and in the areas of ethics, metaphysics, and epistemology.

You do not need to be a philosopher to read this book. I begin with an assortment of classical texts mostly written by and for non-philosophers. These texts contain conflicting moral codes, many of which still attract people today. Then I give you Socratic reasons to assess these codes. Socrates doubts that human beings have expertise at living their lives well and makes recommendations about how to live with that doubt. Then I turn to Aristotle on what makes life go best, concluding with his reasons to do metaphysics. I turn to Plato's metaphysical arguments for the existence of imperceptible eternal objects and his explanations of how we can know such objects. The last chapter considers Aristotle's powerful revision to solve a problem with Plato's metaphysics. The revision is powerful but faces a problem of its own. I hope you will see that problem—and, indeed, every premise, conclusion, objection, and reply in the book—as invitations to reflect more and to continue to do philosophy.

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1

PRESOCRATIC MORAL CODES

The readings for this introductory chapter are passages in Hesiod's *Theogony*, Homer's *Iliad,* Xenophanes, and Heraclitus (from whom only fragments survive), Aeschylus's *Eumenides,* Herodotus's *Histories* book 3, and Thucydides' *History* book 5. These passages present different moral codes, many of which are still in use today. They set the stage for the appearance of Socrates.

Every culture has traditional wisdom passed down in the form of fables ("The Tortoise and the Hare") or proverbs ("Spare the rod and spoil the child!") that make general observations or give advice. And every culture passes down stories explaining where its people came from and why the world has its remarkable features. Often these origin stories are enshrined with religious authority, like Yahweh's creation of Eve from the rib of Adam to be his helper. Every culture has *philosophy*, then, in this sense of a wisdom tradition and origin stories. Even the Greeks had this sort of philosophy—long before the 'first' Greek philosopher. This raises the question: is there more to philosophy than general observations about the world, advice how to live, and explanations of why the world is as it is?[1]

In answer, this introduction begins with Homer, who expresses traditional Greek philosophy. Homer in turn had critics who appealed to impersonal natural forces rather than supernatural personalities. Aeschylus' character Athena in her turn overturns the impersonal natural ethics of cosmic balance. In democratic Athens there was a fourth turn by 'sophists' towards a relativism that noticed the power of custom in society. And Thucydides records a fifth turn, an 'Athens first!' attitude skeptical of any morality of fairness. These new turns in moral and religious thought give new meaning

[1] *Aesop's Fables*; "He who withholds his rod hates his son," Proverbs 13:24; Eve comes to be, Genesis 2:18-22.

to 'philosophy' as they set the stage for Socrates.

Homer's theology and ethics[2]

Homer uses supernatural persons to explain things. For example, the poet tells how the god Apollo causes a plague by shooting arrows from his "silver bow." The gods are immortal, but they were born in different generations, typically from a male and female parent. Their society and conduct are recognizably human: they desire and enjoy bodily pleasures like feasting and sex, they seek prestige and hate being shamed. They quarrel, fight, deceive each other, and commit adultery.

Homer seems to follow the traditions of his society in describing the best human beings as males, honored by society for being descended from gods, holding positions of authority, handsome, strong, good at martial arts, and protectors of the soldiers or citizens under them.

Naturalist criticism of Homer[3]

Poets like Homer follow tradition. The 'first philosophers' or 'naturalists'—these are Aristotle's names for them—rely on reason to criticize tradition. Xenophanes (580-480 BCE) is an example. According to the fragments of his writings that remain, he criticized Homer for making the gods out to be morally flawed, making them "thieve, commit adultery, and deceive each other." And Homer "is sacrilegious" to say "the gods are born," because such a view is atheism about a god's existing before that time. And he mocks Homer for depicting gods like humans: "well, if oxen had hands," they would draw the gods to look like oxen.

Xenophanes in his theology evidently begins from the premise that to think the gods are imperfect is sacrilegious. His reverence assumes God is perfect and gives perhaps the first instance of *perfect being theology:* "One god, greatest among gods and human beings, not at all similar to mortals in frame or thought." One feature of being greatest is that "it is not fitting for him to move about from one place to another"—a perfect being has no need and thus no reason to move. Again, imperfect beings only hear with a part of themselves, see with another part, and think with another. Perfect being theology supposes that "whole he sees, whole he thinks, whole he hears"—as if God were all eye, all brain, and all ear—a form human beings cannot

[2] Apollo's plague, Homer *Iliad* 1.35-50; All gods born as descendants from Oceanus, *Iliad* 14.201, 302.

[3] Xenophanes fragment 11; Aristotle *Rhetoric* 1399b6-9; fragments 15, 23, 26, 24. Heraclitus fragments 67, 64, 30, 94. Homer *Iliad* 16.820, 22.327, 335-6. Exodus 21:24.

even picture to themselves.

The naturalist Heraclitus sees the world as an everlasting process of change and infers this change is the divine nature of the cosmos: "God is day night, winter summer, war peace, satiety hunger." This divine power "steers all things." Cosmic change is not random but balanced by opposites or ordered by measures, as "an ever-living Fire, ignited in measures and extinguished in measures." Not even the god Sun can disobey he "will not go beyond measures, if he did, the Furies, helpers of Justice, will find out."

Notice that cosmic balance provides reason to replace unmeasured acts of revenge with measured 'life for life' morality. For example, when Hector kills Achilles' beloved friend Patroclus, Hector in turn is killed by Achilles, but Achilles oversteps measure in desecrating Hector's corpse and refusing to return it to the Trojans for proper burial. The naturalists' observation of cosmic balance allows them to criticize such unprincipled revenge with a better code, just as Moses reordered his society with the *lex talionis.*

Utility, not balance: Aeschylus' Athena and the Furies[4]

In myth, Queen Clytemnestra had killed king Agamemnon in vengeance for his killing of their daughter Iphigenia. In turn, their son Orestes eventually killed her, trusting in Apollo's guidance. The Furies—Heraclitus' "helpers of Justice"—reappear in Aeschylus' tragedy *The Kindly Ones,* as defenders of the 'life for life' moral code. They prosecute Orestes at trial in Athens and demand death for the matricide. The jury vote divides evenly, and the goddess Athena casts the deciding vote to find Orestes not guilty. The Furies react with, well, fury at what they see as dishonor. They say they will lay waste to Athens with horrible plagues. Athena's strategy to reconcile the Furies is to offer them rewards—reverent worship from Athenians and power so that "no house will flourish" without them. The Furies are persuaded and renamed 'the Kindly Ones'.

From one point of view, the young goddess Athena perverts the course of ancient Justice with bribery. From another point of view, Athena introduces a new code of justice altogether. Instead of the measured 'life for life' justice that looks to the past to determine each person's guilt, Athena's morality looks to the future and tries to produce the best results result for all. From this point of view, Aeschylus' Athena here introduces a third morality that defines justice as what produces the greatest benefits, what today we call *utilitarianism.* Aeschylus might have appealed to nature to defend this code, as Jesus did in criticizing 'life for life' morality: "God makes the sun shine on both the evil and the good and sends rain to the just and unjust."

[4] Aeschylus *Eumenides* 894, Matthew 5:45.

Herodotus: "Custom is king"[5]

Instead of looking to nature, the ancient historian Herodotus looks again to tradition or "custom," but from a pluralist's perspective. He reports that Darius, king of Persia, did an experiment in anthropology: "he summoned the Greeks who were with him and asked them for what price they would eat their fathers' dead bodies. They answered that there was no price for which they would do it." The custom of these Greeks was cremation. Then Darius called into the room people from a region in India who eat the dead bodies of their parents and asked them "what would make them willing to burn their fathers at death. The Indians cried out that he should not speak of so horrible an act." Let this experiment serve, Herodotus says, as "one indication among many" that "if it were proposed to all nations to choose which seemed finest of all customs, each, after examination, would place its own first." Instead of saying that a divine natural process "steers all things," Herodotus states that "custom is king of all things," a fourth moral theory that today we call *cultural relativism.*

Athens first! Thucydides' Athenians at Melos[6]

In 416 BCE the Athenians sent a mighty force of ships and soldiers against the tiny neutral island Melos, demanding surrender. The ancient historian Thucydides, in his history of the Peloponnesian War, described how the Athenian envoy reasoned with the leaders of Melos. The Athenians began by suggesting that both sides dispense with "pretty words" about justice on their side, since everyone understands that justice or "fair deals are decided in human speech" only when the two sides possess "equal might," while "superiors act to the limits of their power and the weaklings give way." Given the diversity of moral theories in its culture, the 'Athens first!' code begins from an understandable skepticism about moral theories: they are not to be believed. Such skeptics are governed only by unrestrained self-interest. They will make deals when they must, which is when they have to negotiate with others of equal power. But, when dealing with people of less power, they will get away with anything they can, without respect for the traditional entitlements (what we might call 'human rights') of others. Let this be a fifth moral theory, called *political realism* in international relations and *egoism* in personal relations.

[5] Herodotus *Histories* 3.38.
[6] Thucydides *History* 5.89.

Philosophy broadly speaking[7]

The tradition in western philosophy is to follow Aristotle, who considered, among his predecessors, only the naturalists to be philosophers. Philosophers acquainted with non-western traditions of thought will not defend such a narrow view of philosophy. However, even if one looks only to the western tradition, indicated in the summary of theologies, cosmologies, and moral theories above, it is hard to deny that there is some sense in which some religious poets, naturalists, playwrights, historians, and even political or military leaders all made claims, gave explanations, or argued in ways that are philosophical. This is all part of the history of western philosophy, broadly speaking. And it was right in the middle of this bewildering diversity that Socrates appeared, like a path through a tangle.

[7] Aristotle: philosophy, broadly speaking, includes myth *Metaphysics* 982b18-19, and the naturalists are the first philosophers *Metaphysics* 983b6-20.

2

SOCRATES' ETHICS

> The ancient Greek philosophy in this chapter comes from Plato's *Republic,* book 1, and *Apology.* The first time I read book 1 of the *Republic,* the character Socrates intrigued me. A few years later, reading him again, I had a conversion experience to philosophy, one of the most significant events in my life. I hope this chapter will help you feel the intrigue and perhaps lead you eventually to your own conversion experience!

Political realism refuted

In Plato's *Republic* Thrasymachus states a version of political realism: The "ruling power"—whether it is democratic, authoritarian, or whatever—"makes laws to its own advantage … and in doing so they show that this is just for their subjects: *their—the rulers'—advantage.* Indeed, they punish the man who goes outside of this for breaking the law and acting unjustly" (338e1-6).

Hearing this definition of justice, my students split into two groups: most disagree, while a few agree with this definition. Those who disagree might appeal to a divine law higher than any city or nation, or they might appeal to a nation's laws—usually those of Nazi Germany—that they trust everyone will agree is wrong. But most students accept that the class is unlikely to reach agreement. They have experience with the main problem in ethics and politics: when people disagree about these topics, they tend to *talk past each other.* When they talk past each other, they can become angry and even violent.

Talking-past-each-other is not just a problem between people. It is also a problem within a single person. This can happen to me when I am deciding about my true happiness, friendships, marriage, religion, and career. All of these decisions are *existential.* Existential questions differ from technical and theoretical questions, which arise in crafts and sciences, where experts are

able to teach others in a way that brings them to consensus. Even where there are disagreements between experts in a given craft or science, the differing answers tend towards consensus over time. But about existential questions human beings are not good at reaching consensus with themselves or others.

Unlike my students, Socrates does not disagree or agree with Thrasymachus. He does not express his opinion. Instead, he asks Thrasymachus a train of questions. Socrates designs his questions to lead Thrasymachus to disagree with himself. Since Socrates only asks questions, he works only with Thrasymachus' opinions; he cannot build upon his own thoughts about the issue. My students tend to find Socrates' questioning maddening. They ask me, 'Why doesn't he just tell us his view?' They do not see that Socrates' questioning is a solution to the deep existential problem of two positions talking past each other.

Socrates elicits from Thrasymachus—and who can deny it?—that sometimes rulers make mistakes. In particular, they might make mistakes in enacting a law, thinking it to be for their advantage when it is not. For example, in 415 BCE the citizens in democratic Athens voted to send an expedition to wage war against the Spartans in Sicily, believing that expedition was for their own advantage. The expedition in fact led to Athens losing two hundred ships and thousands of soldiers, a turning point in the war with Sparta, ending with the destruction of Athenian democracy.

Thrasymachus, in order to show that *justice is the advantage of the stronger,* has defined justice for citizens as *obeying the laws of their rulers.* When he agrees that rulers can be mistaken when they pass laws to their own advantage, the two parts of his definition—*doing what benefits the stronger* and *obeying their laws*—fall apart, as Socrates gets him to see with his questions.

Socrates bases his questions on the thought that *people, even powerful or rich people, can make mistakes about what is good for them.* You may meet others who in a philosophical discussion or political debate proclaim some version of the opinion that *might makes right.* Indeed, if you are like me, part of your soul believes this opinion. You might practice Socrates' method with this part of your soul. Do not *tell* this part that it is bad or wrong. Instead *ask* it if it believes the mighty ever make mistakes when they are being mighty. Welcome and encourage an inner dialogue, raising objections and considering replies on both sides, just as Socrates and Thrasymachus do. This is philosophical reflection.

Before Socrates, moral philosophy was like a discussion where people sit around a table and share their opinions about right and wrong, often talking past each other. Instead of adding to the confusion of this sort of talk in society and in my mind, Socrates asks questions in such a way that he brings *me* to see for myself the thought *he* has.

Socrates' life

Socrates lived to be seventy years old (469-399 BCE), which is surprising. Athens deployed him three times as a foot soldier. All ended in military defeats. Twice the defeat was a disaster, with hundreds killed, including the generals in command. The accounts from that time describe Socrates as behaving with conspicuous bravery in those defeats. One deployment was for three years and may have saved Socrates' life. While he was away, an epidemic devastated Athens, killing a fourth to a third of the population. Yet Socrates was in Athens for the second and third waves of the epidemic, which left the military understaffed for the next twenty years. Socrates lived long enough to see his city lose its war with Sparta, and Sparta and its allies debated whether to kill every adult male Athenian as punishment for the democracy's war crimes. Instead, Sparta installed a puppet government that reportedly ordered Socrates to make an arrest. He disobeyed the order, and it is likely that he would have been executed for it, except the government was overthrown and democratic rule reinstated. That democracy permitted citizens to indict each other, and a religiously conservative man named Meletus indicted Socrates for atheism and for teaching that corrupted the youth of the city. At trial, the majority of a jury of 500 citizens of Athens found Socrates guilty and sentenced him to death. The city imprisoned him for a month and then executed him with poison.

Although scholars are reasonably sure about the history in the preceding paragraph, the Socrates who refuted Thrasymachus is a character in a dialogue written by Plato (424-348). It should not be surprising that there is not enough evidence to tell us how accurately Plato's character represents the actual man, Socrates. Socrates himself wrote nothing that survives. It is Plato's depiction of Socrates that has inspired philosophers, just as reported stories of Confucius, Siddhartha Gautama, and Jesus inspired their devotees.

Socrates' defense

Plato's *Apology of Socrates* explains why Socrates philosophizes. It is an 'apology' in the obsolete sense of a *legal defense at trial*. Socrates tells the jury that Meletus' charges against him are relatively easy to disprove. The real threat to his life is his longstanding reputation as a "clever man—a deep thinker about things above in the air, who has searched out all the things under the earth and who makes the weaker argument the stronger" (18b6-c1). This false reputation is dangerous, Socrates says, because people "hearing this suppose that anyone studying such things is an atheist" (18c2-3).

Against this second, informal defamation, Socrates shows that his philosophizing is not atheistic natural science but a divine mission, commanded by the god at Delphi, a god traditionally revered by the

Athenians. Socrates introduces the god's testimony by telling a story about his friend Chaerephon: "You know the sort of man he was, how impetuous when he got going. Well, once he went to Delphi and dared to request a divine answer to the following question." Here Socrates has to break off to try to stop the uproar, which indicates that the story was well known. "He asked, you know, whether anyone was wiser than I. Then the Pythia answered from on high that no one is wiser. Now Chaerephon is dead, but his brother here will bear witness to this" (20e8-21a8).

The god's riddle

> When I heard this, I wondered about it: "What in the world is the god saying, and what is he hinting at within the riddle? For I am well aware of being wise in nothing big or small. What is he saying when he states I am as wise as possible? He's not lying, of course—that's not his way" (21b2-7).

Notice that an irreverent person would find no riddle here: either the god is lying or there is no god at all speaking at Delphi. Socrates, on the contrary, remained "perplexed" by the god's statement for a "long time."

Socrates eventually decided to find a counterexample among those with a reputation for wisdom, thinking that "there, if anywhere, I should test the utterance and show the oracle: 'This man is wiser than I, but you said I was wisest'" (21c1-2). Socrates was in the position of soldiers who are unable to understand their orders and must prepare to return to the commander to say, "Sir, you stated X, but X conflicts with Y!" Respectful soldiers are not thereby presuming that the commanding officer is wrong, or even that the orders are at fault for being unintelligible. They are explaining why they do not understand while they seek explanation. Socrates says that he turned to the task of finding a counterexample with "great reluctance."

It is easy to understand his great reluctance. Instead of confining his cross-examinations to places and people appropriate for such conversation, Socrates begins to *go to* public figures. For ancient Athenians, just as for us, it is inappropriate to go to a person in a public setting and accost him as Socrates describes.

> Most excellent man, are you not ashamed, as a citizen of Athens—the greatest of cities and the most famous for wisdom and power—to care about making as much money as possible and reputation and prestige, when you neither care nor even think about practical wisdom and truth and your soul—how to make it as good as possible? (29d7-e3).

This change from appropriate private philosophical conversations to going

after public figures in such an obnoxious way explains why Socrates was as reluctant as Moses to go to Pharaoh (Exodus 4:10-13).

Socrates, after examining public figures, failed to find a counterexample, confirming the truth of the oracle. Of course, Socrates was not able to examine every human being. But he made a sample of different types of people: in the first case political leaders, who take it upon themselves to advise the city about its best interests, in the second case the poets who write about matters of ultimate human concern, and in the last case the craftworkers, who alone of the three classes knew some fine things, but not that on which all else depends (21c-22e).

Socrates solves the riddle

At some point, Socrates took himself to understand the god's message—if only provisionally, since he introduces his solution saying, "Chances are that ..." (23a5). His solution interprets the words of the oracle—*no one is wiser*—"as if the god were saying: 'Among you human beings, he is wisest who, like Socrates, recognizes that truly he has no wisdom of value'" (23b1-4). The meaning of the oracle is that "human wisdom is worth little or nothing" (23a6-7).

Socrates solves the divine riddle by distinguishing three levels of wisdom. The highest level is "real wisdom" (23a5-6), which is the property of God, not human beings. The middle level is being "wisest among men" (23b2), which is the property of anyone who, like Socrates, "knows that he does not possess real wisdom of any value" (23b3-4). The lowest level is "not being wise, but seeming wise, especially to oneself" (21c6-7). Socrates is as wise as a mortal can be—*no one is wiser*—because only God possesses wisdom and because Socrates is significantly wiser than people who are ignorant even of their ignorance.

Socrates' mission from God

That the god who spoke at Delphi assigned him the full-time job of interrogation is the cornerstone of Socrates' defense: "The god gave me a station, as I believed and understood, with orders to spend my life in philosophy and in examining myself and others" (28e4-6), so that to cease to philosophize is "to disobey the god and therefore impossible" (37e6-7).

Socrates mentions being commanded "in oracles and dreams and in every way anyone was ever commanded by divine power to do anything" (33c5-7). His account of the Delphic oracle establishes his obligation to *philosophize*, which means to cross-examine others as he did with, for example, Thrasymachus.

The oracle gives no command, but simply states a fact: *no one is wiser*.

Socrates' account of the meaning of this statement—that *human wisdom is worth little or nothing*—is also a simple statement of fact. It may seem wild to members of the jury, as it has to many interpreters, that Socrates hears a command in either statement. In order to hear the command, the jury and we must recognize that *Socrates is reverent towards the gods of the city.* In other words, we must admit the falsity of the slander (mentioned at 18c) that Socrates does not believe in the gods. As soon as we admit that Socrates is reverent, it is possible to infer his obligation. It goes without saying that *the reverent recognize that their highest obligation is to serve the gods and hence to understand their words.* The assumption that Socrates is reverent explains his obligation to solve the riddle: "it seemed necessary to give highest priority to the god's meaning" (21e4-5).

The oracle's meaning, as Socrates interprets it, is at odds with the behavior that we observe in our cities, and that Socrates observed in his. In the *Laches,* for example, men seek advice from the distinguished citizens Laches and Nicias on how to raise children, evidently believing that Laches and Nicias have significant expertise. And Laches and Nicias give advice, taking themselves to know how to produce the human excellence of bravery. There is another example in the *Apology* itself: the success of Meletus in prosecuting Socrates shows that Meletus appears both to himself and others to know how to maintain reverence in the city.

Even after solving the riddle, Socrates believes that he continues to have an obligation to philosophize. Alluding to Hercules and his labors, Socrates asks the jury to view his work as "labors performed so that, because of me, the oracle would be irrefutable" (22a7-8). This is not an after-hours hobby for Socrates, but a full-time occupation, leaving him no time for conventional public or family life. "I have no leisure for any public or household affairs worth mentioning—I am in vast poverty on account of my service to the god" (23b8-c1). This raises a further interpretive question: once Socrates has figured out the god's word, why does he believe he has a continuing obligation to philosophize?

We can answer this question if we see how Socrates is similar to evangelical Christians. The oracle's meaning—that *human wisdom is worth little or nothing*—tells us that we are in danger and need to save ourselves. Socrates reverently assumes that God is benevolent and wants people to know their need for such salvation. And being reverent, Socrates takes his highest obligation to be to serve God. These reasons explain why, having solved the riddle and figured out the meaning, Socrates says, "even now I continue to go about searching and investigating, *in obedience to God*, anyone I think is wise, citizen or foreigner, and when he does not seem so, I *help* God show him that he is not wise" (23b4-7). Each time Socrates unmasks a pretender, he spreads God's saving word a little further, the word that human wisdom is worth little or nothing.

Socrates gives two reasons why he must live as he does and why he cannot appease the jury by promising to live without defending the oracle.

> This is the hardest thing to make some of you believe. For if I say that to keep quiet is impossible because it is disobedient to the god, you will think I am being sarcastic and will not believe me. If I say that the greatest good for a human being is to reason every day about human excellence and the other things that you hear me examining in conversation, and that the unexamined life is not worth living for a human being, you will believe me still less. It is as I say, gentlemen, but it is not easy to make you believe it (37e4-38a8).

A life not worth living

Socrates states that to live philosophizing is the greatest good and that any alternative life is worse than death: *the unexamined life is not worth living for a human being*. This is a wild statement. If we accept it, our lives will change. Our first priority in life would be to live as Socrates did, trying to figure out what human excellence is.

Can Socrates' wild statement be true? To answer this question, consider *landing a jumbo jet* as an analogy to *living as a human being*. If I do not know how to fly a jet airplane, I would be foolhardy to try to land one. It is better for me not to take control of the plane than to try to land one ignorantly. The decision to raise a child, to make friends with another person, or to go to college—life choices like these can be as weighty as landing a jumbo jet. If we do not have expertise at living a human life, such actions might lead to disaster for oneself or others.

This analogy is limited. In the case of the jumbo jet, I can generally choose not to try to fly one. But in the case of human life, there is no analogous choice. The choice not to act at all or to commit suicide are still choices we make as human beings, choices associated with disasters that even non-experts can see.

We can make the analogy better by imagining a scenario where some emergency makes it necessary to try to land the jet. Imagine that the trained pilots are somehow incapacitated, and the hero has no choice but to take the controls. Everyone will agree that the first priority for the hero is to try to get expert help, perhaps from a control tower. It would be unthinkably reckless to try to land the plane without looking for expertise first. Likewise, Socrates thinks we are guilty of recklessness if we try to live our lives without trying to find expertise to guide us.

To examine Socrates' claim that the unexamined life is not worth living, I need to draw some distinctions about guilt. People find it easiest to recognize the distinctions in the case of homicide, though the same distinctions apply

to all actions good and bad. Consider then, the following four degrees of guilt for homicide, the first two being voluntary and the second two involuntary.[8]

1. *Crime of premeditation*. I plan the murder in advance, in cold blood. For example, I purchase poison and hide the fact that I administer it over a period of several months until the victim dies. While such murderers regret being caught, they are unlikely to feel remorse for their crime, unless they undergo some sort of moral conversion after the fact.
2. *Crime of passion*. I commit murder on the spur of the moment. Although I act impulsively, in hot blood, nevertheless I know full well as I act that I am killing a person. For example, enraged, I grab a gun in a barroom brawl and shout as I pull the trigger, "I'm gonna kill you!" Remorse is typical in this sort of case, as soon as the murderer calms down.
3. *Crime of negligence*. Unlike the first two degrees, there is no will to kill. For example, caught up in the enthusiasm of a hunting trip, I fire recklessly, without having a clear line of sight, and kill another hunter. Although such killing is unintentional, people judge the killer guilty of negligence.
4. *Accident (no crime)*. The death is not blamed upon the killer, because what happens is, as Aristotle puts it, "contrary to reasonable expectation." For example, while hunting and conscientiously following all safety rules, I happen to kill an animal-rights protester cunningly disguised in a deer costume. Although I am likely to be traumatized by the discovery, no guilt attaches to me either for murder or negligence.

People tend to agree that the first degree of murder carries the highest degree of guilt and deserves the stiffest sentence, with less punishment merited in the second degree, and still less in the third. The distinction between the third and fourth degree—between *crime of negligence* and *accident*—is well developed in tort law. If you can show that I was in any way negligent—in other words, that a reasonable person in the same situation would have foreseen the possibility of harm to another—then you have established my culpability. On the other hand, if I am not negligent, I am guilt free in such a case.

Given these four degrees of responsibility, the divine word—that *human wisdom is worth little or nothing*—brings good news and bad news. The good news is that we are incapable of voluntary wrongdoing. There are voluntary crimes only to the same extent that there is significant knowledge, and

[8] Aristotle identifies these four degrees in *Nicomachean Ethics* 5.8. The quotation in degree 4 below is from line 1135b16.

according to the oracle only God has such knowledge. This means that, like the Hollywood hero who triggers mayhem with gunfire he cannot predict, human beings are not guilty of voluntary wrongdoing.

The bad news is that we are guilty of involuntary wrongdoing due to our negligence. We are negligent—and therefore guilty—if the harm we do is not contrary to reasonable expectation. In the horror movie, for example, that the hero's mere thoughts and choices trigger gunfire around him is so contrary to reasonable expectation that no one would blame him for the carnage at the onset of his disability. It is only when, in this extraordinary situation, he and the audience reasonably recognize some connection between his choices and the gunfire that we might begin to assign blame to him. Suppose for instance, that after reaching the point of reasonable recognition the hero ignores the disability and instead pursues matrimony or seeks political office. Now we would properly blame him for the ensuing mayhem, however unintentional. He is worthy of blame because, given his disability, it is not contrary to reasonable expectation that he might harm others, just like a hunter shooting blindly.

Avoiding unrighteousness

And here is the life-saving news: when the hero recognizes his disability, there is a guilt-free course of action. If he makes it his first priority *to examine how to do the best he can in his situation*, then he is not guilty for whatever harm he involuntarily causes in the course of his examination. And there is an obligation to tell those with the disability this saving news. If negligence leads the hero not to notice his horrible disability, his neighbors ought to bring his disability to his attention, let him know he is shooting blindly, and lead him to the only proper course of action. Doing so ought to prevent him from further negligent wrongdoing. If the oracle is correct, we human beings have a disability. We are shooting blindly with our lives, and, like Laches or Nicias, we are negligent not to notice it. The only way for us to avoid further guilt is to make it our first priority to live like Socrates. We need to examine how to live excellently and to make others aware of their intellectual disability.

There is a further point. If you are hunting in the dark, there is an obligation not to shoot until you can see. If your vision never clears, you can never shoot without negligence. Likewise, our Socratic lifestyle is obligatory until we discover the wisdom we seek. The likely outcome that we shall never make that discovery is no reason to cease either from the examination or from the missionary work we do, warning others of their culpable ignorance. In the case of involuntary wrongdoing, the guiltiest are those who recognize their disability and act as if it makes no difference. Woe to us, then, who say, "Socrates is right; we are profoundly ignorant how to live well. But his insight does not tell us how we ought to live. So, we need change nothing in our

lives!" For us to continue to live as we have would be as if to go shooting in the dark *after admitting that we cannot see what we are doing and might maim someone.* Any unsocratic, that is, *unexamining,* life is guilty of wrongful negligence.

I take it, therefore, that if human beings lack wisdom how to live, any unexamining life will be guilty. Is it possible that, even if guilty, perhaps such a life could still be worth living? To answer this question Socrates needs an additional premise to show that the unexamined life, being guilty, is not worth living for a human being. The additional premise is about the value of righteousness.

Righteousness is a major concern of Socrates. If we human beings were crafted like buildings, righteousness would be the power that produces the right lines and angles in us. If we were vegetables, righteousness would be the power that causes us to grow upright in the right place in the garden. If we were athletic bodies, righteousness would be the power that gives us the right health and strength for the sport. If we have duties to perform as human beings, righteousness is the power enabling us to perform them. Athenians recognized righteousness as essential to human excellence.

The word 'righteousness' is a better translation for the Greek *dikaiosunē* than the standard translation 'justice'. Like 'righteousness' but unlike 'justice', *dikaiosunē* refers primarily to a general human virtue, not a specific social condition. Unlike 'justice', the formation of the English word 'righteousness' accurately represents the formation of the Greek word. The abstract noun *dikaiosunē* ("righteousness") stems from the adjective *dikaios* ("righteous"), from the root *dikē* ("right"). When the three forms occur together, as for example in the *Protagoras,* an English translation in terms of *justice, just,* and *right* hide the shared root from the reader. I understand that non-religious people sometimes have negative associations with the word 'righteousness', but such associations are no reason to avoid a word that conveys the religiosity of Socrates and his society. On the contrary, to translate so as to sanitize Socrates of religious connotations is inaccurate.

The additional premise Socrates needs is that *only a life that avoids perpetual unrighteousness is worth living for a human being.* Since Socrates is before a jury that is prepared to sentence him to death for unrighteousness, he can safely assume that the jury accepts this premise!

The case for a life of philosophizing

Collecting all the premises, I attribute the following argument to Socrates.

P1 *Human beings lack wisdom*: Our knowledge of righteousness is worth little or nothing; the most significant knowledge human beings can attain is recognition of their ignorance.

P2 *Negligence is culpable*: People who are ignorant how to live as human

beings, yet act presuming to know, are guilty of unrighteousness.

P3 *Righteousness is supremely important*: Only a life that avoids perpetual unrighteousness is worth living for a human being.

C1 *Thus, there is only one right way to live:* Under the circumstances described by the oracle, the only life worth living for a human being will make its first priority to examine how to live.

Socrates does not explicitly assemble these premises into an argument, but he does emphasize all four statements in his defense, and it is not hard to see the argument they form.

Socrates emphasizes the first premise, the truth of the oracle, by telling the jury to view his life's work as *labors*—as if Socrates were a heroic Hercules—performed in order to prove the oracle "irrefutable" (22a7-8).

Socrates emphasizes the second premise as well, that unrighteousness due to negligence is culpable. He says, for example, that "to be afraid of death is only another form of thinking that one is wise when one is not; it is to think that one knows what one does not know, ... and *this ignorance, which thinks that it knows what it does not, must surely be culpable*" (29a4-b2). Earlier Socrates accused Meletus of precisely this sort of negligence, saying Meletus is unrighteous because he "treats serious matters frivolously" (24c5-6). To treat serious matters frivolously—as we might say, *to play with fire*—is the form of wrongdoing of which all non-Socratic human beings are guilty. The particular form of fire-play of which Meletus is guilty is "lightly dragging people into court, and pretending to be earnest and to care about matters that he does not care about" (24c6-8). Later, Socrates describes his work in the city on behalf of the god, as to "question and examine and cross-examine" (29e4-5) those who claim to care about human excellence and righteousness before all else. In such cases, if Socrates discovers that the pretender "does not possess excellence but says he does" (29e5-30a1), Socrates "will blame him for scorning the things that are of most importance and caring more for what is of less worth" (30a1-2). That the unrighteousness of such scorn and misguided care is involuntary does not free the pretender from guilt. Finally, Socrates' accusers do not intend to act unrighteously. Yet Socrates warns that they ought to beware, because "the real difficulty is to escape the condition of being wicked, which is quicker than death ... My accusers, who are clever and quick, have been overtaken by the faster, by wickedness ... they will go away convicted by truth herself of depravity and unrighteousness" (39a7-b6).

Socrates emphasizes the third premise, about the value of righteousness and human excellence, in describing his characteristic activity in the city. He says, for example, "I go about doing nothing other than trying to persuade you, young and old, not to care for your bodies or your property more than, or even as much as, the excellence of your souls," (30a7-b2; reiterated at 29d-e, 31b, 36c-d). Earlier in the *Apology* Socrates precisely identifies the wisdom

in question as *how to make a human being excellent*. And he reminds the jury that there are people, called *sophists*, who profess just such wisdom:

> I ran into a man who has paid more money to sophists than anyone else, Callias, the son of Hipponicus. So, I asked him—for he has two sons—"Callias," I said, "if your two sons had happened to be colts or calves, we should be able to find and hire a supervisor to make them excellent and praiseworthy in the appropriate excellence—this would be some sort of horse trainer or farmer. Now, since the two are human beings, whom do you have in mind to get as supervisor? Who understands that kind of excellence, that of a human being and a citizen? For I suppose that you, being a parent, have looked into the matter. Is there anyone," I said, "or not?"
>
> "Certainly," he said.
>
> "Who," I said, "from what country, and what is his price as a teacher?"
>
> "Evenus," he said, "From Paros, five minas."
>
> And I called Evenus blessed, if he really had this expertise and taught so reasonably. I'd be proud myself and put on airs, if I understood these things—but I do not understand them (20a4-c3).

Socrates affirms that though this wisdom makes a man blessed, he lacks this wisdom himself.

Though he does not explicitly draw it as a conclusion from the other premises, Socrates also emphasizes the fourth premise, that his form of life is the best life, the only life worth living, and guilt free. In addition to the passage quoted above—"the greatest good for a human being is to reason every day about human excellence and the other things that you hear me examining in conversation, and that the unexamined life is not worth living for a human being" (38a2-6)—Socrates also says that "no greater good ever came to pass in the city than my service to the god" (30a5-7). This service is urging others to examine their lives. Socrates says that he is free of guilt, even unintentional guilt, and knows that his guilt-free condition is an even rarer achievement than that of an Olympic champion. This is why he proposes that the city provide him free meals in the Prytaneum, an honor reserved for champions and heroes, on the grounds that he "never intentionally wronged anyone" (37a5), an achievement that he also describes as "never wronging anyone" (37b2-3). As I understand him, it is this lack of guilt that makes him a better man than Meletus or Anytus (30c-d).

To accept Socratic philosophy is life changing. Like a religious conversion, it involves the recognition that one's previous life incurred guilt, that a change of priorities is needed, and that the change will save one's soul from guilt and make life worth living. One recognizes that one's previous actions were culpably negligent. As a result, one must postpone one's other

concerns and make it the first priority to try to find out what human excellence is.

Yet Socrates himself did not withdraw from society. He fought in wars, fulfilled civic obligations, married, and raised children. We ought to interpret Socratic philosophy in such a way as to permit converts to do likewise. Again, there is a similarity to Christianity. Many conventional social roles are possible for converts, consistent with leading a life of examination.

It would be silly to expect Socrates to help me to decide whether to make my home here or abroad, or whether to keep my day job or enroll as a full-time philosophy student. Socrates teaches me my first priority is to subordinate such mundane actions in life to the ultimate aim of seeking wisdom through Socratic conversation. Once I am converted, my subordinate choices are no-lose situations, my life having already been saved by Socrates' message.

3

ARISTOTLE'S ETHICS

> The ancient Greek philosophy in this chapter comes from Aristotle's *Nicomachean Ethics,* books 1, 2, and 10. Thinking about Aristotle's ethics is a practical way to examine one's life and reflect on how best to live as a human being.

To study Aristotle's ethics is to do Socratic philosophy. You can use Aristotle to discover what you believe about how to live a life of "true happiness" (*eudaimonia*). Aristotle did not write his ethics in dialogue form, but his writings are in effect abbreviated Socratic cross-examination. When you read Aristotle, assume that he is cross-examining you to help you uncover your beliefs. "Do you believe this? And this? And this?"—reading him this way will make his work apply to your life in the most practical way. It would be tedious for me to pretend to cross-examine you in this book by turning his arguments into questions for you to answer. I will present him in the traditional way, as *arguing from premise to conclusion.* But I hope you find it liberating to understand those arguments as his personal cross-examination of you.

Suppose, then, that Aristotle with his arguments is not trying to force you to agree with his beliefs and is not trying to win you over to his side. Instead, he is giving you tools to use to come to understand what you yourself most deeply believe. Aristotle's ability to penetrate through what you *think* you believe to show you what you *really* believe is astonishing. He was part of a culture that was deeply flawed. For example, Aristotle accepted and defended sexism, racism, and slavery. Nonetheless, you are likely to discover that he has articulated, with a high degree of success, what you—if you are like most of my students—believe about true happiness.

As you read him, you will examine his findings that your true happiness will be (1) a life of activity, where (2) you freely choose to act simply for the

sake of acting, and where those acts (3) engage your human reason and emotion, (4) exemplify moral virtues such as courage, soundness of mind, and righteousness, and (5) are important. You might notice a Socratic philosophical attitude growing in you as you read him. There are good objections to raise to Aristotle. I have tried to raise and reply to some of these objections. But you might find yourself raising further objections to Aristotle and my replies. If you encourage within yourself this back-and-forth process of seeking objections and replies, you will develop the power of philosophical reflection. From the point of view of philosophy, it is not important that you come to understand yourself as Aristotle predicts. It will be interesting—not bad—to discover that on some points—at least as it seems to you at the time—Aristotle does *not* know your beliefs about the nature of your true happiness better than you do.

True happiness is an activity

Let us begin with his first finding. Ask yourself if, for you, true happiness will be some sort of *possession*, like health, money, prestige, friends, true love. Or will it be excellence at something you love, say boxing or mathematics? Or will it be knowledge how to be a good or happy person? All of these things are possessions. And they all face the same problem. Aristotle writes:

> But even this appears somewhat incomplete; for having a possession seems actually compatible with being asleep, or with lifelong inactivity, and, further, with the greatest sufferings and misfortunes; but a man who was living so no one would call happy, unless he were maintaining a thesis at all costs (Ross/Urmson translation).[9]

Aristotle raises here a number of thought experiments. Imagine having a million dollars but being unable to use the money (perhaps you are in prison or are too anxious). Or imagine having the most wonderful friends but are in a coma or tortured by a dreadful disease. The thought experiments deepen our self-understanding: *merely* having money or friends cannot be true happiness. Merely *having* any possession is not enough. True happiness requires that we are able be active with our possessions. We need to *make use of* our health and money, to *enjoy* prestige, to *associate with* friends and loved ones, and to *act* with our skill and know-how. Aristotle puts this first finding this way. True happiness "is not a possession" but is an "activity" (1176a33-b1).

[9] All the translations from Aristotle in this chapter are mine, except for this one. All are from the *Nicomachean Ethics,* cited by the standard line references. For example, this quote is from lines 1095b31-1096a2.

My students sometimes explore this insight by distinguishing between *doing* an activity and *having the experience* of doing an activity. In a dream, for example, you might have the experience of playing the piano without actually playing it and without, perhaps, even being able to play it. Which, exactly, is true happiness? Do we need really to *do* it, or might a *dreamed experience* of doing it be true happiness?

Other thought experiments may help uncover your values. Consider the opportunity to enter a virtual reality that, as felt from the inside, is indistinguishable from reality. Robert Nozick in his 1974 book *Anarchy, State, and Utopia* imagined this sort of "experience machine." In Woody Allen's 1973 film *Sleeper*, set in the future, there is a device that looks like a basketball. When you hold it in your hands you feel a sexual orgasm. This sort of experience, like drug intoxication, is passive. In other simulated experiences you might be more active, actually making choices and being responsible for what you do in the simulation, such as playing a virtual-reality game. If your actual life is miserable enough, and the experience machine is good enough by your standards, you might choose it and might become addicted to it. If the simulated reality gives you simulated experiences of friendships that are only a bit better than your actual friendships, you, like most people, probably want the actual friendships. Examples like these lead most people to attach value to something more than mere experience.

On the other hand, consider the prospect of becoming the following sort of zombie. As I imagine zombies, they are 'living' in that their external bodies move, but they are 'dead' in that they have no inner life: no consciousness of any kind. Imagine that you would become a respectable-looking and well-behaved zombie. In fact, you would be able to do much better things than you can now. Imagine, if you think it helps, that no one is able to detect your lack of an inner life. The zombie you would become will bring about global justice and peace, fix problems with climate change or habitat loss, and bring about universal education and health care in inexpensive ways. Unfortunately, as a zombie, you would have no inner experiences or consciousness of any kind of your important and admirable actions.

One drawback, for most of us, to an experience machine would be that you cease to *act*. For example, you aren't really connecting to other people in friendship. One drawback in being a zombie is that *you* cease in some sense to be doing the act. Notice that both of these drawbacks add support to Aristotle's finding that your true happiness consists of *you acting*.

The appeal of the admirable zombie choice is purely extrinsic. The zombie's achievements are so wonderful that we are willing, in effect, to end our lives to achieve those ends. There is nothing in the zombie's life *in itself* that we value, but only the admirable goods it produces. On the contrary, the attraction of the experience of the orgasm-inducing device is purely intrinsic. That experience produces no good apart from that experience itself. To the

extent we value it, we value it only for itself.

True happiness is activity done for its own sake

This distinction between intrinsic and extrinsic value underlies Aristotle's second finding. "A certain difference is found among ends; some are activities, others are products apart from the activities that produce them" (1094a3-5). The distinction is between acts which themselves *are* the goal (think of the experience produced by the orgasmatron), and acts whose goal is a product outside of the act itself (think of your zombie's acts).

My hardworking students often see this as the difference between *useless* and *useful* acts. The word 'useful' accurately describes activities that are valuable for what they produce. But 'useless' is inaccurate. It includes both activities that are valuable in themselves and activities that are not valuable in any respect. My fun-loving students more accurately see Aristotle as distinguishing between *play* and *work*. Work is useful for what it produces, and we work from the *need* for that goal; work is not itself the goal. Play is what we do with our *free* time, when we have no need to work. This distinction, between actions done *out of necessity* and actions done *when free*, is what is important.

Dante in *The Divine Comedy* (1320) describes heaven, purgatory, and hell. The inscription at the gate of hell reads, "Abandon all hope, you who enter." Aristotle is not writing to these, the hopeless, but to those who hope for and aim at true happiness and want to know what it is, so that, like "archers who have a mark to aim at," they "are more likely to hit it" (1094a23-4). The distinction between *acts done for themselves* and *acts done for some other end* captures Dante's distinction between acts in heaven and in purgatory. In purgatory you work and toil and suffer as a means to get to a better place. In heaven, there is no better place: you do exactly what you like. Given Aristotle's distinction, useful acts cannot be as valuable to you as pure fun, because "where there are ends apart from the actions, it is the nature of the products to be better than the activities" (1094a5-6). For example, when you work for pay, the pay is more valuable to you than the work.

My hardworking students worry about a life of nothing but pure fun as our truest happiness. They often suggest that the best activities are both useful and fun, like loving your job. Such activities, done from the mixed motives of utility and pleasure, are possible, of course. But this suggestion slams shut the door to heaven. In heaven, you won't need more money or nicer friends or better health or improvements to society or anything else. The mere fact that there is something that you still need shows that you aren't in heaven yet. Aristotle makes this point by saying that "true happiness does not lack anything but is enough for itself" (1176b6). True happiness is like doing the job you love even when you no longer need the money.

Nevertheless, the first two findings about true happiness—that it is activity and fun—are not a complete account. A thought experiment about children helps bring these values to light for most people. If your children, now or in the future, take great delight in nothing but criminal activities, or immoral activities, or enjoy nothing but trivial amusements, most likely you would wish for something better for their lives. And, leaving your present life aside, you most likely feel the same about yourself twenty years from now: you might hope for something better for your life than that it delights only in crime or wickedness or trivialities. There is more to true happiness.

True happiness is human activity done for its own sake

Aristotle's third finding is that the activities of true happiness, besides being fun, must also engage human intellect and emotion. He reaches this finding by considering the human function. "We might get a clearer statement of what true happiness is, if we were to grasp the function of the human being" (1097b24-25). Things that have functions are, for example, "an *aulos* player, a sculptor, and every craftworker," whose functions are, respectively, playing the *aulos,* sculpting, and doing the craft.

He states a general thesis of the relativity of goodness to function: "for all things that have a function or job, it seems that the 'good' and the 'well' are in the function" (1097b26-7). To take his example, craftworkers are *good* and do *well* if and only if they perform their function well, which means if and only if they do their craft well. Generalizing beyond craftworkers, the same relativity thesis holds true for artifacts like diapers and hammers and for biological organs like eyes and lungs. Such things are good if and only if they perform their respective functions (diapering, hammering, seeing, and breathing) well. The same object can be good and bad relative to different functions: a box of spaghetti might be good for long-term food storage and bad as a flotation device.

I do not see how to deny the relativity of goodness to function. The decisive question is whether organisms like human beings have any sort of natural function relative to which we can evaluate goodness. We will be able to judge a human life as good or bad—"*if* there is any function for that" (1097b25-8). Aristotle asks questions to uncover our beliefs about a human function:

> Which is it: are there certain functions and jobs for the carpenter and tanner, while there is none for the human being, who instead is by nature functionless? Or just as some function is apparent for eye, hand, foot, and in general each of the parts, might one posit in the same way also for the human being some function beyond all these? (1097b28-33).

As we might put it nowadays: since the human being has evolved to have functional organs and to have the ability to play craftworking roles in society, the human being seems itself to have evolved with a function.

To test the idea of a human function, consider Jean-Paul Sartre's objection ("Existentialism is a Humanism," 1946). On his account, there is no human function for us to discover, relative to which our lives and acts will be good or bad. On the contrary, it is only *after* we are born and *after* we make choices that we come to have a function: "existence precedes essence." The lack of a natural function means for Sartre that we are "condemned to be free."

To reply, let us assume that such an existentialism is true. It follows that human beings are born with an inescapable function, namely, to make at the first level free choices that provide us with further functions at a second level. Our situation, after all, "condemns" us to have as part of our nature this first-level functional freedom. Thinking about Sartre's utter denial of human biological function shows how our biological nature does provide our function, and Sartre is at least right that the ability to make choices is part of that function.

Aristotle distinguishes our specific human function from more general biological and zoological functions.

> Just *to live* seems to be shared even with plants, but we are seeking what is specific. Let us exclude, therefore, the life of taking nourishment and growing. Following that would be some life of perception, but mere perception also appears shared with horse, ox, and every animal (1097b31-1098a3).

Aristotle seems correct to observe that living creatures share the general function of living, including the function of taking nourishment and the function of growing, and likewise that animals share the function of sense perception. He rightly takes it that the science of biology properly identifies a kind of object as a *life form* by observing if the essential functions of living are characteristic of that kind of object, and likewise the science of zoology in identifying *animals*.

Present-day biology and zoology have modified their accounts of the functions characteristic of life and animality, but Aristotle's claims remain accurate enough to make his point. The important point is *not* Aristotle's accuracy, but rather that there are functions that we perform that show us to be alive and to be animals. Moreover, given that we are animals, it follows that we have those functions, and we are naturally flourishing as life forms or animals according to how well we are performing those functions. It seems I must agree that at the level of our species, *homo sapiens,* there are more specific functions according to which we are naturally flourishing *as human beings*.

Accordingly, Aristotle identifies our specific anthropological function as closely connected to *logos,* that is, *speech* or *reason*. It is "a life of what has *logos*—both the part obedient to *logos* and the part having *logos* and thinking" (1098a3-5, and see also 1102b29-1103a3). The two parts refers back to Plato. The Socrates in Plato's *Republic* (436-441) famously divided the soul into three parts: the appetites (bodily desires like hunger and thirst), the spirited part (including anger, shame, and related emotions), and the intellect or reasoning part.

Imagine that you have some bodily desire and I scold you for having the desire—"Shame on you!"—or you scold yourself—"Shame on me!" If you are like me, the desire itself won't go away because of the scolding, but you might become ashamed or angry at yourself. Appetites do not change when you talk to them, but emotions can. In this sense we might interpret the appetite as not obedient to speech or reason, while the spirited part is obedient. And while the spirited part can respond to speech, it cannot follow a reasoned argument.

As you read this passage, you are exercising your intellect, the part of yourself that actually thinks things through. Accordingly, in this passage, Aristotle identifies the human function as activating the spirited part of the human being as well as the intellect. He adds that this life is "concerned with *doing* [*praktikē*]," which means *doing* as opposed to *making* [*poiētikē*]. The *doing/making* contrast is just another version of the distinction between things done for their own sake and things done or 'made' for the sake of something else ("for the end is different from its making [*poiēsis*] but it cannot be different from its doing [*praxis*]," 1140b6-7). Aristotle, in other words, is saying that the function of human beings, like any life form, is to live; and like any animal, to be perceptive. And our specific function is to be conscious emotionally and intellectually—and to do so for its own sake, as one acts in heaven, not for the sake of something else, as one acts in purgatory.

The life of *logos*, as a function, seems broad enough to cover the object of anthropological study: societies of hunting and gathering, farming, and city-living all involve activities, including the nurture of children and activities of friendship, that require both intellect and emotion. One might object that the life of *logos* is too broad, since certain other animal species respond to spoken signals and even human speech and appear to share some emotions with human beings, and since many of those species also engage in problem solving, which would require some sort of intellect. In reply, Aristotle can grant generic resemblances between the human life of *logos* and the kinds of intellect and emotion possessed by other animals. It is enough that there is a specific human life of *logos.* If we imagine, as a thought experiment, another species of animal with similar or identical faculties of intellect and emotion we would expect their function to be similar or identical to ours.

Let us summarize our findings so far. The best human life will be full of

activities done for their own sake, activities of the intellect and emotions. This account explains why all the following lives are not as good as possible: the lives of enslaved persons, who do not get to choose what they do, and of wage earners, who choose to act for the sake of a wage, of those with intellectual or emotional disabilities that prevent them from full use of those faculties, and of those with normal abilities who live only for bodily pleasures. However, nothing in Aristotle's arguments so far gives us reason to prefer a life of *virtuous* to a life of *vicious* intellectual and emotional activity. Of course, most criminal lives are taken up out of necessity, not for their own sake, and so are not optimal. But, so far, Aristotle has not shown why the life that delights in intellectual and emotional wickedness is inferior to the life that delights in moral goodness.

True happiness is human, virtuous activity done for its own sake

Aristotle's fourth finding is that, to achieve our best life, we ought to cultivate ourselves to become as virtuous as possible. The Socrates of Xenophon's *Memorabilia* (2.1.21-34) provides a background about the choice we each face. Xenophon's Socrates relates a fable he has heard from Prodicus about Heracles, who as a young man wondered whether to follow the path of virtue or of vice. Two goddesses appear to him, Vice and Virtue. Vice praises her path of life as pleasantest, while Virtue admits her path requires toil, although she claims pleasure, in the end, for it. The fable reflects the common belief that it is more fun to be naughty than nice.

Aristotle's Relativity Argument, as I call it, challenges this common belief:

P1 Pleasure is relative to what you love. (For example, horses are pleasant to horse lovers, and shows to lovers of shows, 1099a8-10.)

C1 "In the same way righteousness is pleasant to the lover of righteousness and in general things that accord with virtue to the lover of virtue" (1099a10-11).

Of course, we might add that in the same way wickedness, too, is pleasant to the lover of wickedness. The Relativity Argument does not show that the life of virtue is more pleasant than the life of vice, but it does show that the pleasure of lives is relative. Virtue is pleasant to the lover of virtue; vice to the lover of vice, and it is false that, as in the fable, vice just *is* more fun than virtue.

Aristotle reasonably assumes that you have some ability to control what you will come to love. Even though you might be indifferent to horses at present, you can imagine, I suppose, that if you married a horse lover, you too might learn to love horses, as people learn to love cigars, or opera, or

good posture. Like Heracles, we are at a crossroads, wondering whether to aim to become lovers of what is base or of what is noble. The Relativity Argument does not guide us about which choice to make; it simply reminds us that pleasure is relative to what we love, and the choice is ours what loves we will cultivate in ourselves.

The Argument from Conflict, as I call it, gives us reason to choose the path of virtue.

> For most people, their pleasures conflict, because their pleasures are not pleasant by nature. But the things pleasant by nature are pleasant for lovers of what is beautiful-and-good (*kalos,* NE 1099a11-13).

Any non-moral expertise will illustrate the argument. In carpentry, for example, consider the actions of *sawing with proper form* and *proper care of the saw*. Bad or lazy sawyers use poor form and do not take proper care of the saw. Insofar as they take pleasure in sawing, they take pleasure in their ignorant or lazy cutting and their ignorant or lazy care of the saw, but these pleasures do not accord with the proper nature of sawing. Yet even bad and lazy sawyers take pleasure in producing good cuts and are pained by bad cuts. Thus, ignorant or lazy cutting and caring pleasures conflict with the pleasures of good cutting. In contrast, "lovers of what is beautiful-and-good" in sawing will love proper sawing and proper care of the saw. Those pleasures are "pleasant by nature," which means that they accord with the proper nature of sawing, and they do not conflict with the pleasure of producing good cuts.

Consider next a life form that, like ours, lives in society. For example, there is a nature to a given kind of beehive. If, as a thought experiment, we contrast imaginary lazy worker bees who hate their acts of working with industrious workers who love those acts, we get another illustration of Aristotle's argument. The acts pleasant to the lazy workers are not pleasures that accord with the nature of worker bees, and we can imagine conflicts between the lazy pleasures and other pleasures the lazy bees might wish to enjoy in their life and society. In contrast, the pleasures of the industrious worker accord with the nature of the hive and are not in conflict with social and life goals of these imagined bees.

From a biological and specifically anthropological point of view, there are different kinds of social groups that human beings might belong to, such as hunting, gathering, farming, or city dwelling. Each of these groups has a specific nature, a nature that includes many diverse roles for members of that group. Group members that do not take pleasure in proper performance of their roles will find conflict within their lives: some of their pleasures will conflict with other pleasures. To take, at last, an example involving virtue and vice, imagine me in my role as a classroom teacher. I love getting good student evaluations, but I also find irresistible the vicious pleasures of

humiliating students in my class. I try to make them feel ashamed and guilty; I give them impossible tasks; I point out how feeble their answers are; and so on. In this example, the vicious pleasures I find in humiliating others do not accord with the nature of my social role. This conflict frustrates my overall level of pleasure, since it keeps me from, for example, getting good student evaluations.

Ancient Greek virtues include wisdom (*sophia* or *phronesis*) and righteousness (*dikaiosunē*) about what a role requires us to do, courage (*andreia*) in the face of threats frightening us from our roles, and soundmindedness (*sōphrosunē*) in the face of pleasures at odds with our roles. These virtues produce proper performance of the roles in our lives, including our lives as family members, friends and lovers, members of communities, and citizens. These roles have "natures" relative to the kind of society we live in.

The Argument from Conflict assumes that pleasures that do not accord with those natures will tend to cause frustrating conflicts to a much higher degree than pleasure that do accord with those natures. Such conflicts give Heracles—and you and me—reason to choose to cultivate the love of virtue on the path through life.

True happiness is both noble and smart

It is easy to imagine examples where, say, a courageous act will make you a social outcast or cause you enormous physical pain or death. In such cases, it seems to many people that you can be noble or smart but not both. The chief good seems to those people to be split apart, so that an unlucky human being can be placed in positions that deprive them either of the good of nobility or of the goods produced by smart decisions. Aristotle's findings show that the chief good is unified: "True happiness is therefore best, noblest, and pleasantest, and these things are not split apart" (1099a24-5).

The person who is split between doing the noble and the smart wants too many things. They want to be virtuous, *and* they want to avoid pain and death. Even if they choose virtue and do the virtuous deed, they do not do it as the virtuous do.

> For a doctor does not deliberate whether he shall heal, nor an orator whether he shall convince, nor a statesman whether he shall produce law and order, nor does anyone else deliberate about his end (1112b11-3).

In particular, the virtuous do not deliberate about whether they shall be virtuous. They are single-minded.

There is no mystery why poverty, illness, solitude, and even death do not bother the single-minded fanatic. Fanatics simply do not care. And there is

no mystery why such events do not bother the single-minded athlete or warrior. Likewise for the virtuous: if virtuous activity is their only concern, then suffering such misfortunes will not mar their happiness.

There is much to reflect on here. The single-mindedness of the fanatic is inhuman and deplorable. One might reasonably object that the single-mindedly virtuous are likewise deplorable. The objection is not that the virtuous neglect their human duties to others. That would not be virtuous! The objection might be that the virtuous are deplorable in fanatically refusing to rethink their single-minded commitment to virtue—but that objection does not apply to Socratic philosophers, who admit their lack of expertise and are ready to reconsider. The objection might also be that the virtuous are somehow wrong not to suffer themselves at the suffering of others. To consider this objection, a thought experiment might be helpful. Imagine two agents acting at the scene of a catastrophe. The first single-mindedly treats victims, focused only on their needs. The second focuses as well as they can upon the victims' needs while at the same time suffering intensely at the plight. It seems to me, at this stage of the reflection, that we ought to aspire to be like the first agent, not the second.

Does true happiness need good luck?

Aristotle himself seems of two minds about the need for good luck as well as virtue in a truly happy life. The single-mindedly virtuous seem safe from bad luck, according to the argument above. But Aristotle, just at the point where he has announced how his theory unifies the smartest, noblest, and pleasantest life, immediately goes on to say:

> Nevertheless, true happiness also needs its external goods, for it is impossible or not easy for us to do the things that are noble when we are without supplies. For many actions are done using friends or wealth or community the way we use tools (1099a31-1099b2).

Aristotle is surely right that, lacking friends or wealth or the right sort of community as "supplies" or "tools," there are many things we cannot do. But it is also true that we can activate our courage alone as well as with friends, be generous, like the widow with her mite, when poor, and treat ourselves justly even if we lack a community. It is true that we need some sort of circumstance to activate virtue, but since some 'tool' or other always seems to be at hand for the virtuous to use, this truth doesn't seem to affect the claim that there is a unity of self-interest, nobility, and pleasure in the true happiness of the single-mindedly virtuous person.

Aristotle also expresses the thought that some misfortunes can "mar" true happiness:

> Blessedness is marred in those bereft of things like good birth, or the blessing children bring, or beauty, for the man with looks to be ashamed of, or of low birth, or all alone and childless is not going to be very happy, and perhaps he would be even less happy if had entirely wicked children and loved ones, or they were good but died (1099b2-6).

The examples of the fanatic and the single-minded athlete or warrior show that it is possible to be single-mindedly virtuous in a way that disarms these misfortunes. Aristotle may have been split between two accounts of true happiness. One is theoretically unified but shocks common sense; the other abandons theoretical coherence to appeal to common sense.

Virtue

As we have seen, Aristotle establishes in book 1 of the *Nicomachean Ethics* the importance of virtue in an excellent human life. He uses the word 'virtue' (or 'excellence', *aretē*) without explaining it. In book 2 he gives that explanation and indicates how we can make ourselves more virtuous. Virtue is "a possession concerned with choice" (1106b36). This much is easy to understand. Virtue is like any intellectual expertise—like knowing how to build a boat or treat an injury or find my way when I'm driving—in being something we can *possess*. And, insofar as I possess the expertise of virtue, that expertise *guides me to make the right choice*: I know how to build my personality, treat my psychological trauma, and find my way through life.

Expertise is an excellence possessed by the intellect, but virtue is a possession of the intellect together with the emotions. Virtue belongs to one's "moral character" (*ēthikē*, 1106b16). While intellectual expertise only has to do with correct actions, virtue "is about feelings and actions" (1106b16-17).

> In feelings and actions there is *too much*, *too little*, and *what is between*. For example, it is possible to feel fear too much or too little, likewise confidence, appetite, outrage, compassion, and pleasure and pain in general. And it is not virtuous to feel these too much or too little (1106b17-21).

Virtue feels these things neither too much nor too little but in between. 'In between' means you feel them "at the right time, in connection with the right things, towards the right people, for the right reasons, and in the right way" (1106b21-22). For example, social media often produce outrage about any number of social or political topics. *To feel outrage too much* about some injustice means to feel it at the wrong times, in connection with the wrong things, towards the wrong people, for the wrong reasons, or in the wrong

way. To feel it too little is *not* to feel it at the times I ought, or in connection with the things that I ought, or towards the people I ought, or for the reasons I ought, or in the way I ought.

It is the same with actions. For example, the act of speaking out about an outrage is virtuous when done at the right times, in the right connections, to the right people, for the right reasons, and in the right ways. Otherwise, the act will show excessive outrage or the inaction deficient outrage. One act will be hot-tempered and the other apathetic.

To take another example, Aristotle proposes that the nature of courage involves two characteristic feelings, fear and confidence, and involves actions in the face of frightening things. Those who feel fear and confidence in all the right ways and likewise act in the right ways have the virtue of courage. Those who feel fear when they shouldn't and act on that fear in ways they shouldn't have the vice of cowardice. Those who do not feel fear when they should (and thus take risks they shouldn't) have the vice of recklessness. In addition to the two possible vices—"excess" and "deficiency"—in feelings of fear, there are also two vices associated with feelings of confidence, over- and under-confidence.

Aristotle intends his account of virtue as a mean to apply to every kind of virtue. He recognizes that it is impossible to possess too much courage—we want to be extremely courageous and in general extremely virtuous! Each virtue is an "extreme in respect of what is best"—it is the very best state of character. But each virtue is also "a mean in respect of its substance" (1107a6-8). It feels its characteristic feelings and does its characteristic actions in the right way, at the right time, and so on.

This right amount is not the same for everyone. In each case the "mean" is "relative to us" (1107a1). It is normal at this point to ask Aristotle *who is to judge* what is "right" in each case. His answer is that the right answer is "determined by *reason*, in other words, by how the man of practical wisdom would determine it" (1107a1-2). You would, I hope, give the same answer about health. In diet or exercise there will be a point between too much and too little with respect to each food or movement. That point is often different for each of us. And the one to say what that point is will be the person with the relevant expertise in diet or exercise.

There is an important follow-up question. *How are we to find* a person of practical wisdom? Again, the answer will be the same as for finding a person of medical expertise: by searching with due diligence and following best practices. Recall that Socrates would not have a particular problem finding competent medical experts, but he never finds a person of practical wisdom, and discovers his mission in life is to keep looking. Aristotle is more optimistic. He seems confident that each of us is able to find people of sufficient practical wisdom to give us some guidance in our efforts to become virtuous.

How to become virtuous

For any kind of virtue—practical wisdom, courage, or kindness, say—let us assume, that we can recognize people who are more virtuous than we are. In that case, how are we to become more virtuous? Part of Aristotle's answer follows from his account of virtue. Virtue, like any expertise, recognizes the right action lying between acting too much or too little in the various ways discussed above. The way to come to be able to recognize this sort of right action is by apprenticeship to an expert. In any given person, such expertise "for the most part gets its birth and its growth from teaching, which is why it requires experience and time" with the teacher (1103a15-17).

You become more skillful at handling a saw, horse, or child by having an expert guide you as you perform the appropriate actions, again and again. "Good and bad lyre-players are produced from lyre-playing, and analogously housebuilders and all the rest" (1103b9-10). Someone might object that if you play well, or write something with good grammar, then you *are* expert at playing or grammar. But Aristotle draws a distinction. Being an expert grammarian is one way to write grammatically, but "it is possible to do something grammatically also from chance or under the direction of another" (1105a22-3).

Moral excellence in action, then, is learned by a kind of apprenticeship, where one is guided again and again to do the right action until one is able to do it right *from one's own knowledge*. But in addition to right action, moral excellence also requires having the right feelings, and these are "the result of habituation" (1103a17).

Consider how you might get in the habit of loving horses, when you've never loved them before. Your best chance to get this habit is to admire and spend time with and emulate horse lovers. It helps if your habituation begins at an early age. Likewise with the virtues. "Some become brave, and others become cowards from being habituated to feel fear or confidence" (1103b16-17). There is a difference between on the one hand feeling and acting brave in a single action and on the other *having* the virtue of courage. A courageous action is similar to the possession of courage, and "the possession is produced from the actions that are similar" (1103b21-22). "It makes no small difference, then, to be habituated in this way or that right from childhood—it makes very much of a difference, or rather it makes all the difference" (1103b23-25).

How amusement is part of true happiness

Aristotle has argued that the smartest, noblest, and pleasantest lives coincide in the virtuous. We might object that Aristotle is requiring an inhuman amount of strain from each of us to cultivate ourselves ceaselessly towards

virtue. Aristotle has a reply to this objection in his account of the place in the best human life for trivial amusements.

We have seen that acts of true happiness, like the acts done in heaven, are done entirely for their own sake. Trivial amusements are theoretically interesting, because they are done in the same way, entirely for their own sake. People "do not choose them for the sake of other things; for they are injured rather than benefited by them, in neglecting their bodies and property" (1176b9-11). As an example of such neglect, I always think of the student who told me he had brought his habit of video gaming under control: he now limited that amusement to forty hours per week.

My student did not attest that the truly happiest life would be one spent gaming, but let us imagine that he did. "Perhaps people such as that prove nothing" of the value of amusements. We should consider how things seem to wise, not foolish people.

> Now to toil and work seriously for the sake of playing seems silly and too childish. But to play in order that one may work seriously … seems right; for playing seems a relaxation, and we need relaxation because we cannot toil continuously (1176b32-5).

Amusements can seem to us, when we are not at our best, to be done entirely for their own sake. But this is a false perspective. In your excellent life there will be the right amount of amusement. The right amount means enough amusement to refresh and restore you so that you do the important things well, such as working hard delivering goods or services to a community, or falling in love, getting married, and raising children. "Relaxation, then, is not an end; for it is for the sake of activity," that is, for the sake of the *important* activity (1176b35-1177a1). It would be foolish for a book to prescribe that you allocate five percent—or ninety-five percent—of your life to trivial amusements. Each human being has different particular capacities, and so it is impossible to give any such number. "We must be content about such things … to indicate the truth in outline, speaking roughly" (1094b19-21). You and those who know you well, insofar as they have good judgment, will be best to advise you if you are getting the right amount of recreation to live your best life.

Truest happiness as purely theoretical thought

Students who are new to philosophy are often surprised by the power of Aristotle's arguments and his ability to provoke and often articulate their deepest values about an excellent life. But up to this point few are shocked by his conclusions. Think of a person you consider wise, and imagine asking them if they agree that the way to be truly happy is (1) love what you do,

where what you do is (2) important and (3) engages your intellect and emotions, and (4) you use in your community and with your loved ones the moral virtues of practical wisdom, courage in the face of danger, soundness of mind in the face of pleasure, and righteousness towards yourself and others, virtues requiring a psychological harmony of reason and emotion. I'm pretty sure that you know they'll agree—after you've explained yourself—even before you ask.

But things get strange when Aristotle turns to praise the life devoted to pure theoretical research in mathematics, natural science, music theory, and theology. It is as if Aristotle had two children, Vincent and Prudence, and happily sent them off to different lives. Vincent was capable of honorably holding a job and raising a family, while Prudence was a good fit for a monastic life, removed from the world, a life of solitude, reflection, and communion with God. Aristotle, surprisingly, argues that Prudence, able to devote herself to a purely intellectual life of reflection, will be more perfectly happy than Vincent, who is active in family and community.

Aristotle does not believe in the sort of perfect divine being who forms personal relationships with human beings. But a thought experiment about such a god begins to show the force of his argument. Vincent's happiness depends upon the happiness of his family and community, who are imperfect and temporary objects. Even if those objects do not betray Vincent in various ways, as imperfect creatures might do, they will inevitably sicken, suffer, and die. Prudence's love and devotion, in contrast, is to a perfect, eternal lover who never suffers or dies. Vincent's life will be blighted by the imperfections of the people and things he loves; Prudence's life is free from such blight.

Next imagine other siblings, who love to devote one part of their lives to family and community and the other part to communion with their personal, perfect god. Part of their life will be blighted, like Vincent's. Prudence's life is superior in perfect happiness to these siblings, too. If there were such a personal god, we would be better off if we were able to cultivate ourselves to devote our lives to communion with that perfection alone, rather than with imperfect loves.

Would Prudence be better off activating only her intellect in this communion or also activating her emotions? Compare Prudence to her sister Sophia. Imagine that Prudence, in addition to knowing her personal god, loves that god with her emotions. Perhaps she longs to serve this god, or is angry at blasphemy, or has the urge to shout with exultation like a sports fan when their team wins. Or perhaps her relationship activates some other emotion in her. Her sister, Sophia, does not have an emotional relation with that divinity but instead is completely absorbed in activating only the part of her intellect that can contemplate perfect eternal objects. Sophia fills her consciousness with such contemplation.

Aristotle has several reasons for ranking Sophia's purely intellectual

communion as superior to Prudence's communion activating intellect *and* emotions. (1) Our pure intellectual awareness is "either itself divine or the most divine of the things in us" (1177a15-6). A bit of meditation will be enough for most of us to observe its superiority to the ebbing and surging of emotional feelings. (2) Although as human beings each of us *has* a composite nature of intellect and emotion, nevertheless a bit of meditation might be enough to convince us that "each of us seems indeed *to be* this" power of awareness (1178a2), in contrast to emotions, which are like more or less magnificent horses that our soul rides. (3) Meditative awareness, even of imperfect things like my breath or heartbeat, is wonderful. But most divine and best is to direct that contemplation, as Sophia does, to perfect, eternal objects rather than imperfect, temporary objects. The best "of the objects we can pay attention to are the objects of intellect" (1177a20-1), not my breath, for example, but the Pythagorean Theorem.

Reflection on the Pythagorean Theorem for a lover of geometry is analogous to Romeo's gazing at Juliet's face, delighting in her conversation, and all his intercourse with her. Romeo's communion with Juliet is done *for its sake alone, and not in part as a means to something else*. Such a motive is *exactly* the same as the motive for acts of true happiness. In comparison, Vincent's activities with family and community are only *approximately* the same. His courage and kindness, for example, produces acts noble in themselves, but a virtuous person acts at least partly for the sake of a goal outside the act itself: "we fight battles in order to live in peace" (1177b5-6). Vincent, although he loves doing his "acts of citizenship" (*politikē,* 1177b12), likewise also does them for the sake of that larger group. The exact fit of "contemplative activity" (1177a18) is a fourth reason for the superiority of Sophia's life to Vincent's.

Most people dismiss Aristotle's contemplative life because it just feels wrong. It is certainly true that Aristotle's conclusion about the purely intellectual life is in conflict with what we naturally feel and with the norms of most societies. But the reasoning may show the limits of our feelings to correctly judge the most perfect happiness. It is hard to deny that a Romeo's life of intellectual and emotional intercourse with a temporary and imperfect Juliet will be inferior, all things considered, to the life of an academic, if we imagine that the academic Romeo will be equally avid for and successful at intellectual intercourse with eternal and perfect objects of thought, such as mathematics, music theory, or God.

There is a better objection than 'it feels wrong'. The better objection comes from the agnostic and atheist: Sophia's life of communion with God is impaired if God does not exist. The same objection can be made against any life devoted to intellectual contemplation. Instead of communion with eternal, perfect objects, it may just be trivial amusement with figments of the imagination. To this point in this book, the topic has been ethics. This

objection opens the door to metaphysics. The next chapter walks through that door.

4

PLATO'S ONTOLOGY AND EPISTEMOLOGY

> The ancient Greek philosophy in this chapter comes from Plato's *Meno, Phaedo,* and *Republic,* books 5, 6, and 7. Aristotle has argued that attending to divine objects might be the best way to live. Plato's arguments that there are eternal forms supports that argument and give you a chance yourself to attend to divine objects.

We have seen Aristotle argue that a life of practical virtue is not only noblest but also pleasantest. The noblest life is true happiness for human beings. But then he goes a surprising step further, arguing for the thesis that an academic life of pure intellect is even more pleasant and is the most godlike happiness. Such a thesis depends on the claim that there are in some sense eternally perfect objects.

Here is why his thesis about how to live depends upon that claim. Imagine that a restaurant promises to seat you at a window with a view of the Grand Canyon. If you discovered that the 'window' was really only a TV screen, and behind it was nothing but a propane tank and a garbage dumpster, you might feel cheated. In the same way, there seems to be a difference between having a friend and merely imagining that you have a friend. And in the same way, it seems to make a difference whether your intellect contemplates a perfect being, or whether you are only contemplating temporary and imperfect conceptions with nothing more behind them than, perhaps, the yearnings and projections of a dissatisfied soul seeing what it wants to see, not what is there. We can raise this sort of question about Aristotle's praise of the contemplative life. He assumes that there are eternal and perfect objects with which we can have intellectual intercourse. Those objects, which seem divine, might only be figments of the mind.

This chapter takes up the question of the existence of such objects. Whether to affirm or deny the existence of objects outside the perceptible,

spatiotemporal world is a question in *ontology,* from the Greek word for "theory of being," a part of metaphysics. A familiar example of this question is whether God exists. The theist affirms while the atheist denies that God exists. Our objection to Aristotle's ethics was to question whether there are *any* eternally perfect objects that the intellect knows. In Plato's words, is there a realm of *intelligible objects* in addition to the realm of *perceptible objects?*

Aristotle expects his reader to recollect how Plato draws the lines between those who believe only in objects that can be seen, heard, touched, tasted, or smelled, and those who believe, in addition, in imperceptible but intelligible objects. I begin with that distinction. Then I turn to Plato's arguments that his "Forms" exist. That is the ontological part of this chapter. Then I consider an objection to his theory: how can we have knowledge of Forms?' Theories about human knowledge are *epistemology*, which is how the chapter ends.

These arguments and theories are not trying to tell you what you should believe. They aim to avoid *talking past* your own personal beliefs. I advise you to practice Socrates' method on yourself as you read. Use the arguments, objections, and replies as tools to do ontology and epistemology for yourself, as you begin to find out what you believe.

Nominalism

The Socrates of Plato's *Republic* draws a distinction between two kinds of people who love learning. There are those who would and those who "would not willingly spend their time going after purely theoretical discussions" (475d4-5). The non-theoretical includes many different kinds of people, including those who love seeing and hearing festivals, those who love crafts and gadgets, and those who love doing practical things (475d6-7, 476a10). The theoretical people love seeing the truths found by their theoretical reasoning (475e4).[10] One difference Socrates draws attention to is that while the first group believes in beautiful sights and sounds and craftwork and noble activity, the second group *also* believes in a purely intelligible object in

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[10] The Socrates of the *Republic* calls these people, and these people alone, *philosophers* (475e3-4). This account of philosophy as purely theoretical reasoning differs from the Socrates of the *Apology,* for whom philosophizing is the most practical activity: trying to discover how to live an excellent life. Scholars tend to agree that the character Socrates who appears in Plato's dialogues is in some respects and at some points probably taken from Socrates the man, whom Plato knew firsthand, and is in these respects a *portrait.* They also tend to agree that the character in some respects and at some points is probably speaking for Plato's own philosophy and is in these respects a *mouthpiece* for Plato's own views, views which perhaps are developing beyond Plato's likely agreement with at least some of Socrates' ideas. But there is controversy how much portrait, how much mouthpiece, and how much development there is in Plato's writings.

addition to these perceptible objects, namely beauty (476b4-11).

Socrates describes the non-theoretical people this way: "their power of thought is unable to see and comprehend the nature of the beautiful itself" (476b6-8). Their pursuits—festivals, crafts, practical activities—lead them to believe that one dance is more beautiful than another, or one vase finer than another, or one civic activity nobler than another.[11] As Socrates says, "they believe in beautiful things and noble affairs" (476c2).

In addition to using the adjective 'beautiful', the non-theoretical people have no objection to using the abstract noun 'beauty'. But, as far as the non-theoretical people can see, all there is to beauty are the many beautiful things. "They suppose there isn't any beautiful itself or any form of beauty itself" (479a1-2). In the history of western philosophy, the ontological position that denies the existence of forms is called *nominalism* (Latin for "name-ism"). Nominalism holds that all there is to beauty, apart from particular perceptible beautiful objects, is the name 'beauty'.

Nominalism is a reasonable view. Nominalists are happy to believe and state that some sights and sounds and physical objects and activities are beautiful. In saying this they are affirming that some beautiful things exist, using the word 'beautiful'. But they are not saying that anything like the form Beauty exists.

The Argument from Opposites

The opposite ontological position, which affirms the existence of such "forms," is called *Platonism,* in recognition of Plato's understanding of the ontological issue and his arguments against nominalism, which lead him to his theory of forms. One of those arguments is Socrates' Argument from Opposites (*Republic* 475e9-476a2).

P Beauty and ugliness are opposites.
C1 Thus, beauty and ugliness are two.
C2 Thus, beauty is one, and ugliness is another one.

As Socrates then says, the same argument applies to *the large* and *the small,* to *the good* and *the bad,* and to all opposites.

When you affirm sentences like 'beauty is opposite to ugliness' and 'beauty is one', you must be affirming that *there is something* opposite to ugliness, something that is *one* thing, namely *beauty.* The *one opposite, beauty,* cannot be any one of the beautiful sights and sounds, because no one of those

[11] 'More beautiful', 'finer', and 'nobler' are all comparatives of the same adjective in Ancient Greek, *kalos.* When you see the word 'beautiful' in translation, remember that it almost certainly is translating the Greek *kalos,* which has a broader meaning.

objects is the opposite of ugliness. For the same reason, that same *one* cannot be all of the beautiful objects taken together in a single pack, like 52 scattered playing cards counted as a single deck. Nor can it be the word 'beauty'—that *word* is not the thing that is an opposite.

The Argument from Opposites is purely theoretical. We do not need to make any observations to test the conclusions. The intellect alone is able to recognize that the premise is true and that each conclusion undeniably follows. Perhaps for these reasons, many of my empirical and practical-minded students tend to have a strong dislike for this argument. It seems so bodiless to them, so … thin!

This dislike is just what Socrates predicted when he said such people "would not willingly spend their time going after theoretical discussions" (475d4-5). He introduces the Argument from Opposites by saying to his follower, Glaucon, "although *you*, I think, will willingly agree to it, this argument will in no way be easy to direct towards the other person" (475e5), that is, towards the nominalist. If you find the argument a waste of time—even if you cannot deny that there are opposites and that each opposite must be one of a pair—that's a normal reaction.

Socrates notices a bit more about non-theoretical people. In addition to denying that "the beautiful is any *one* thing" (479a4), they also claim that "there isn't any beautiful itself or any form of beauty itself that always stays the same in relation to the same things" (479a1-3). The non-theoretical people are right to make this claim about perceptible objects. Any perceptible object that is "beautiful in one way will also appear ugly" in another way (479b1-2). For example, the same performance—the very same sounds—might be beautiful as swing music but ugly as bebop. This sort of relativity holds true for any opposite applied to perceptible objects. As Socrates says, anything that appears righteous will in some way also appear as unrighteous, and likewise for reverent and irreverent, double and half, large and small, and light and heavy (479a7-b7).

The Argument from Science

Bearing in mind the relativity of perceptible opposites, the next thing to consider are arguments from science and expertise. Imagine Tex, an expert cowboy. Imagine that it is part of Tex's expertise to know how to identify steers (not to mention heifers, cows, calves, and bulls). Of course, such know-how is only a tiny part of cowboy expertise, but it works as an illustration of the argument. Imagine next that Tex learned this bit of expertise while working near El Paso. Given Tex's expertise, he would be able to relocate and begin his work, which involves identifying steers, somewhere east of Lubbock. In fact, *anywhere* that Tex might relocate, he will be able to identify any steers there, and also able to say if none are to be found there. He could

do this in any state of the union, on any continent on planet earth, and even on the moon, Mars, or anywhere beyond, if it so happened. Likewise, in the unlikely event that we were able to transport him in a time machine to any time, no matter how distant in the future or the past, he would still be able to identify steers. In other words, Tex's knowledge is *universal* in application.

Compare Tex to cowboy trainees—tenderfeet, as they are called—who have begun by memorizing a photo of a particular steer. These novices, let us assume, are able by rote memory to correctly identify *this* photo among other photos. But there are many different angles from which to view steers, too many to be captured by photos. And the photo will either be of a longhorn, shorthorn, or of a steer with no horns. No single image can guide Tex's identification. And even if the novices had in their minds or on their phones a limitless number of photos and sounds, it would not give them expertise. Tex does not identify steers by scrolling in his mind or on his phone through a long list of images. The same holds for the indefinitely many other sorts of perceptions we might have of steers: their sounds, touches, smells, and tastes. Whatever Tex uses to identify steers, it is not by reference to something *perceptible* that is the same in each.

Of course, one thing shared by all steers is the noun, 'steer'. In baseball, a ball pitched to the catcher is not a ball or strike until the umpire calls it. The umpire says, "Ball!" or "Strike!" and this speech act causes the pitch to be either ball or strike and to be so recorded. But Tex's expertise does not work this way. He cannot cause an animal to be a steer by calling it one. There is some *nature* of each steer, some *similarity*, the same for all steers. By reference to *that* thing Tex and other experts to are able to point each out and say, "steer!" Calling it a steer doesn't give it the nature of a steer; on the contrary, something about the nature of a steer leads experts like Tex to be able to call them by their shared name.

To sum up, expertise is universal. It is different from memory of images. It does not perform its task by referring to *just one particular steer,* not by remembering *many* or even *all* the steers in the universe, not by reference to some shared percept like a color or shape or sound, and not by arbitrarily assigning the name 'steer'. With this summary in mind, you are ready for a second, purely theoretical, argument for the Forms.

P	Every science performs its task by referring to something different from any of the particulars.

C	Thus, there is with respect to each science something different, apart from perceptible individuals, eternal and a pattern for the things produced in each science; and such a thing is the Form.

This statement of the argument comes from Alexander of Aphrodisias,

using a now-lost work by Aristotle.[12] Aristotle attributed this argument to "Platonists," not to Plato. The germ of the argument seems to be in the writings of Plato. For example, at *Republic* 596a-b Socrates describes how the expert builder makes couches and tables by reference to the form *couch* and the form *table*.

But let us turn away from historical scholarship to the philosophical question: does the Argument from Science prove that forms exist? Tex is an illustration of premise P. As shown above, the way Tex performs his task of identifying a newly observed animal as a steer is *not* by remembering a particular steer, but by referring to some nature or similarity shared by all steers. And expert table-builders perform that task not by referring to a particular table but to *what all tables have in common*. In general, science seems to do its work by coming to know something that is the same—a 'nature', 'similarity', 'commonality'—in the object of its study. Tex and any similar expert will make their identification of a steer by understanding, by somehow referring, to some such object. It is the same with making not only identifications, but also making things like couches and tables, fixing carburetors, or setting broken legs. The premise P is hard to deny.

The next question is whether from P the conclusion C follows, namely, that with respect to each science there is (a) something different, (b) apart from perceptible individuals, (c) eternal and (d) a pattern for the things produced in each science. Let us, with Plato, call such a remarkable thing a *form*. To repeat from above, "no one image can guide Tex's identification"—or guide any other bit of real expertise. So, in support of (a), the form is different from any perceptible individual, and set apart (b) in being grasped by the intellect, not observed by sense perception. As noticed above, there is no point in time at which Tex would say, "Sorry, the knowledge I'm using doesn't work at this point in time." This shows that the guiding object is available at any point in time, which means it is (c) eternal. And, of course, (d) it is with reference to this eternal, imperceptible but intelligible object that Tex produces his identification, just as any expertise makes its products.

It is hard to object to the conclusions (a), (b), and (d). But one might object that the form might just be a thought in the head. Forms, if they are just thoughts, are not eternal. They didn't exist before thinkers came to be and won't exist after thinkers pass away. For the sake of the objection, let us agree that there was a time before thinkers appeared in the universe. In that earlier time, stars, planets, and many other things existed. The reply to this objection is that, if stars existed before thinkers, the nature shared by all stars

[12] The lost work is Aristotle's dialogue *On Forms*, a dialogue that still existed and was known to Alexander of Aphrodisias (writing around 200 CE). Alexander refers to Aristotle's *On Forms* to explain Aristotle's reference (*Metaphysics* 990b11) to Platonic "arguments from the sciences".

must have existed then, too, even before thinkers came along to identify them. To deny that there were stellar natures before thinkers evolved would seem to deny the truths of astronomy.

There is another objection to the eternality of the form that guides an expert, even if we agree that the form exists prior to thinkers. The objection is that the form of steers or whatever need not and perhaps could not exist at times when there are not any particular steers. The reply is that Tex's expertise works just as well when steers are present and when they are not present, even when they are extinct. Therefore, the form *steer* must exist even after all steers are extinct. Another way to show the independence of Forms from perceptible objects is to imagine engineers trying to create, say, a new kind of telephone. They are able to know that they have not yet observed any such object. That ability does not depend on the existence at that time of any such phone at all. It might even turn out that it is *impossible* for that phone to be made. The impossibility of the phones ever being made would not prevent the engineers from knowing that such phones do not exist.

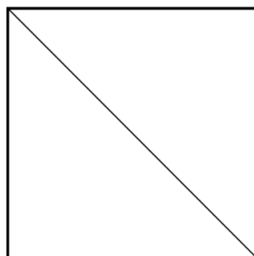
A geometry lesson

The conclusion of the Argument from Opposites and the Argument from Science is that there are forms: eternally unchanging objects that we apprehend with the intellect alone and not with the senses. It is normal for this conclusion to feel fishy. Perhaps part of the fishy feeling comes from the way these arguments seem to discard the important role of sense perception. To come up with any expertise, we humans surely need empirical observations! It would be foolish to think that we could become experts at anything without the need for perception.

I titled this chapter "Plato's Ontology and Epistemology." My goal for the chapter is to present Plato's arguments that there exist eternally unchanging forms. Those arguments are part of Plato's ontology. No one can properly evaluate Plato's arguments for forms without considering the Need-for-Perception Objection. Plato's reply takes us from the study of being to the study of knowledge, his epistemology. The reply is a geometry lesson in the *Meno*.

Socrates makes a student of one of Meno's enslaved personal attendants. Socrates gives a geometry lesson. He draws figures for the student to refer to as he answers questions. Socrates' student has never studied geometry before, yet he is able to see as well as you that, when Socrates constructs a diagonal line between the corners of a square, as in Figure 1, that diagonal divides the square into two equal triangles.

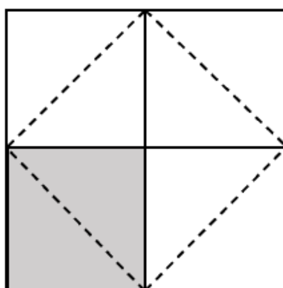
Figure 1



Unlike Socrates' student, you no doubt have taken a geometry course at some point in your life. Nevertheless, when you see that those two triangles have the same area, I bet that you are not remembering a fact your geometry teacher had you memorize. You are able to see it right now in the diagram. It is really hard to memorize mathematical formulas if you do not see their truth.

Socrates constructs the diagram in Figure 2, drawing the four diagonal lines last. He asks, "Does this dashed line, which runs from corner to corner of each of the four small squares, cut each of those four areas into two?" (Meno 84e4-85a1).

Figure 2



Socrates' student can now see, by looking at Figure 2, that the original, gray square contains exactly two of those triangles, while the area enclosed by the four dashed lines is a square containing exactly four of the same triangles. And so, given a square of any area, the student now knows how to construct a square with an area exactly double the area of the original square, namely,

by constructing it on the diagonal of the original square.

Socrates' construction is an elegant proof of a special case of Pythagoras's (about 550 BCE) awesome Theorem. Socrates uses the lesson to show that the student does *not* learn geometry by observing the diagram. To show that Socrates is right, here is a thought experiment. Imagine that you are wearing a pair of smart glasses that allows you to accurately see the areas of objects. With those glasses on, you could look at Figure 2 and see—if the glasses are accurate enough—that in fact the areas of some of the triangles are slightly different from others. If the glasses were even more accurate, you would see that every visible triangle is different in area. The point is that highly accurate visual abilities to estimate areas by looking at them will falsify, not confirm, Socrates' theorem.

No measurement device will ever be able to measure or construct areas *perfectly,* but only to *within certain clearances.* Nevertheless, next imagine, even though it is impossible, that you are wearing a perfect measurement device and looking at a diagram with perfectly constructed areas. The perfect measurement you then do will tell you that, in this particular diagram, the area of the dashed-line square is double the area of the gray square. But that measurement will give you no confidence in Socrates' proof, from which you come to know how to find a square double the area of *any* given square. It would be wrong to draw such a conclusion from such an observation, just as you would be wrong, when you see the street address number 4052 on my house, to conclude that the number on every house is 4052. The point is that precise empirical observations—even granting impossible conditions—do not carry enough information to give people knowledge of mathematics.

In Figure 1, you and Socrates' student are able to see, without measuring, that the diagonal divides the square into two equal triangles. You did not try to measure the areas of the triangles by cutting a piece of paper to fit one and then fitting it to the other. Such measurement can never be accurate. If it were accurate it would falsify, not confirm the claim. And when you observed the diagram, you came to know *more* than a fact about the measured area of some particular visible drawing. You came to know how the diagonal divides—and *must* divide—*any* square. No particular observation and no particular measurement can give you knowledge of the 'must' and the 'any'.

The 'seeing' that you need to do when you look at the diagram is not a case of sense perception but rather of the mind recognizing a formal relation that is part of the nature of any square. The visual figures themselves do not visibly show students geometrical truths. Nor do the students learn by memorizing Socrates' words: they 'see' something, but not with their eyes. And yet, most people would find it difficult or impossible to follow Socrates' geometry without the aid of figures like 1 and 2. What is the role of the visible figure in our coming to understand the nature of a square?

Sense perception as a trigger

The Socrates of the *Phaedo* answers this question by spelling out how memory works. He describes it this way: "You know how lovers, when they see a lyre or a garment or something else that their darling boy habitually used, get this experience: they recognize the lyre and in thought get an image of the boy who held that lyre—and this is recollection" (73d5-8). The idea is that a memory is *triggered.* The first object of attention is, say, the lyre. The lyre triggers the thought of the second object, one's darling.

The perception of the lyre is unlike the thought of the boy it triggers. But perceptions might also be like the object that they trigger in thought. Someone "seeing a picture of Simmias might recollect Simmias himself" (73e9-10). Whether the trigger is like or unlike the thing it calls to mind, we count it as recollection: "Someone sees or hears (or gets some other perception) of *one* thing. Then he becomes aware not only of that but thinks of *another* thing. The awareness of the one thing is different from the awareness of the second. In this case we rightly say that the second thing *is recollected,* the thing of which he took thought" after having a perception of the first thing (73c6-d1).

For the sake of comparison, here is an honest-to-goodness case of recollection. My spouse and I were trying to remember the name of a babysitter. "Was it 'Sally'? Or 'Nancy'?" I said uncertainly. "Hmmm," she said, "was it 'Amy'?" The word 'Amy' triggered my memory. "Aha! I know it: 'Aby'!" I had learned Aby's name several years earlier when we were introduced, but I had forgotten it. In this case the trigger 'Amy' is like the thought 'Aby' that it calls to mind.

There is no way that the word 'Amy' would trigger an 'aha!' experience for you. 'Amy' is similar to 'Aby', but it is also similar to, for example, 'Abbey', 'Abby', 'Abbi', 'Abbie', or 'Abi'). The sense perception of the word 'Amy' does not carry enough information to give you the knowledge of my babysitter. You have to have the memory for the trigger to work.

Let us return to the geometry lesson in the *Meno.* The drawings Socrates makes with a stick in the sand (like Figures 1 and 2) are like the perfect square itself. As shown above, we come to know the truths of the theorem not by anything we measure with our eyesight. It is not from the perception of *the drawing*, but because the drawing triggers the thought of something *else* in the mind, a thought about *the square itself.* When we follow the steps of the theorem and realize why a square drawn on the diagonal has to be double in area, we get an 'aha!' feeling.

In some ways the experience 'Aha! Aby!' is like the experience 'Aha! The square constructed on the diagonal has double the area.' Drawings like Figures 1 and 2 can trigger that knowledge, as the name 'Amy' can trigger recollection of the name 'Aby'. The visible drawings in some ways are similar

to the purely intelligible objects they bring to mind. But if you did not already have that knowledge, the mere similarity would never bring them to mind, just as the mere similarity of 'Amy' to 'Aby' would never bring her name to your mind without prior knowledge. In both cases, mere sense perception alone cannot *give* me the knowledge. In both cases, the sense perception *triggers* knowledge I already had.

There is a difference between the two experiences. I first learned Aby's name using sense perception. When I first met this woman she said, "Hello! My name is Aby." But there was no prior time in anyone's embodied life when they could have learned how to double the area of a square. Sense perception never carries enough information about the nature of the square for someone to learn the geometry lesson.

Notice that a doctrine of reincarnation does not solve this problem. I once had a student who remembered being King Arthur and remembered that I had been his squire. Suppose my soul had been incarnated as a king's squire in the sixth century. I could not have learned geometry from sense perception in *that* body any better than I can now in *this* body. Sense perception does not give this sort of information, not in this life and not in any prior incarnation of my soul.

Since my soul already has this knowledge somehow in it at birth, Plato concludes that my soul learned it before birth. Since my soul cannot have learned it in a previous *embodied* time (as, say, King Arthur's squire), it must have learned it at a *disembodied* time, a time when it existed by itself apart from any material body.

Now, at last, we can give Plato's reply to the Need-for-Perception Objection. The Need-for-Perception Objection makes a true statement: sense perception of a visible diagram is essential to following the reasoning in the geometry lesson, at least for me. Plato agrees with the objection that perception is needed. But his geometry lesson shows that perception alone is not enough to *give* us knowledge of intelligible objects that are imperceptible. Sense perception only *triggers* knowledge that is already there. Plato explains this triggering as recollection. And such recollection can only be from a prior disembodied time when our soul existed.

Plato's theory of knowledge as recollection has added a new metaphysical object to his theory of being. In addition to the existence of *eternal forms*, the recollection argument shows the existence of *disembodied souls*. Indeed, it shows that *your* soul existed, disembodied, before you were born!

The Argument from Clarity

When you see a photograph of your parents and it triggers your memory of them, you also are able to observe ways in which the photo might *imperfectly* resemble your father or mother. Their eyes might be brown, not red as in the

photo; or perhaps the photo makes your father's face look thinner or fatter than it is. To take another example: if you meet me in the morning, you will easily recognize me in a crowd in the afternoon. In contrast, if you have never met me, but have only seen a photo of me, you will find it harder to recognize me in the flesh afterwards.

The *noticing* of the imperfection of the resemblance is a part of recollection. It is a third experience in addition to the *perception* of the trigger and the *thought* brought to mind by the trigger. We "notice whether in some way the trigger falls short of the thing that is recollected, falls short in respect of its similarity" to that object (74a6-7). This is another feature of the geometry lesson. In Figure 1, for example, you have already noticed one way in which the diagonal in the trigger (that is, in the visible drawing) falls short of the diagonal of the purely intelligible square itself. In the trigger we are *unable* to know without measuring whether that visible diagonal line divides that visible square into two visible triangles of equal area. But we are *able* to know without measuring that the diagonal of the square itself divides that square into two equal triangles. This is a way in which we have clearer awareness of *the square itself* than we do of *the visible drawing* of a square.

The third and final argument for the existence of forms turns on this clearer awareness of them. Here is how the third argument comes up. Right after Socrates observes our ability to notice how triggers can fall short of memories in clarity, he asks if Simmias believes in forms.

> "I suppose we say there is such a thing as *equal.* I am not talking about one stick equal to another, or one stone equal to another, or anything of that sort, but something else in addition to all these things—*the equal itself.* Shall we say there is such a thing, or not?"
>
> "We shall say so, by Zeus," said Simmias, "most decidedly" (74a9-b1).

Socrates then makes a point we have already discussed: the way children learn what equality is (or any other relation, for that matter) has the same structural features as recollection:

> "And do we know what equality is?"
>
> "Certainly," said he.
>
> "From where did we get the knowledge of it? Is it not from the things we were just speaking of—by seeing equal sticks or stones or other things—and from these we came to think of *it,* a thing different from these?" (74a9-b6)

Notice that, to this point, the discussion has assumed without argument the existence of equality or "the equal itself" as an object different from all perceptible equal sticks, stones, and whatnot. Next, Socrates reconsiders that

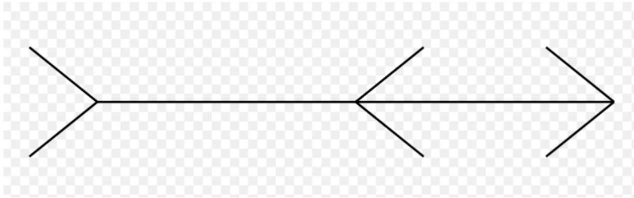
assumption: "Or doesn't it [equality] appear different [from equal sticks and stones] to you?" (74b6-7).[13]

Socrates answers his own question by giving what I call the Argument from Clarity. I've interpreted the text of that argument (74b7-c6) as two premises leading to a conclusion:

P1	Equal sticks and stones, while remaining the same, sometimes appear equal to one but unequal to another.
P2	The equal itself never appears unequal, nor equality inequality.
C	Thus, equal sticks, equal stones, and so on. are not the same as the equal itself.

Figure 3, the Müller-Lyer optical illusion, is an example that shows how equal lines can appear unequal.

Figure 3



As noticed above, it is hard to tell if perceptible drawings of lines are exactly equal. But we still manage to make use of the adjective 'equal' in a variety of expertises.

Socrates could have made the same sort of argument about the large itself (it never appears to be smallness) and large sticks and stones (which, while remaining the same, can appear large to one but small to another). Likewise with the small, the heavy, the light, the wide, the narrow, and so on.

The premise of the argument is not that two perceptible lengths can never be perfectly equal. Imagine a piece of rubber that is shorter than a yardstick. Then imagine stretching the rubber until it is longer than the yardstick. It is likely that as the rubber stretched, at some point it was equal in length to the yardstick. Thus, it is unlikely that no two perceptible objects are ever perfectly

[13] Some translators fail to translate this question (Hackforth is an example) while others do not make it a question (Jowett is an example). My guess is that they did not see that the question introduces an argument for the existence of forms.

equal in length or weight or whatnot. And it is evidently false to claim that one perceptible object can never be "perfectly" larger or smaller or heavier or lighter or wider or narrower than another. The premise of the argument is not about the equal *being imperfect* or *perfect* but about the equal *appearing unclearly* or *clearly*. The equal, insofar as we perceive it among perceptible objects, appears to us unclearly, while the equal among intelligible forms—that is, *the equal itself*—appears to us clearly.

There is a parlor game that illustrates the difference in clarity. The leader starts the game by saying "I went to the store and bought…" and then points to and names some object. Whatever object the leader points to has to follow a rule—or fit a form—that the leader secretly decides. For example, if the rule is that every object must be *bigger than a toaster,* the leader might point to a stove. Players then take turns guessing the rule by pointing to and naming objects. If a player says "I went to the store and bought this apple" the leader would say something like "They're all out of apples." But if the player indicates a sofa, the leader would approve their purchase without sharing why. The goal of the players is to keep pointing until they guess the secret rule.

The parlor game illustrates a difference in clarity between perceptual and intelligible objects. When the rule is indicated only by pointing at and naming perceptual objects, the players only grasp it with sense perception and can only guess without knowing: the rule in sense perception is unclear and ambiguous. When the rule itself is stated, the players grasp it with the intellect and know it: the rule itself is clear and unambiguous to the intellect.

Since the Forms have a clarity that perceptions lack, the argument concludes that the Forms must be different from sights and sounds and other perceptual appearances. As a non-theoretical person and a nominalist, I used to speak of the large and small and the equal and unequal. But if asked, I would have said that *all there is to the large* is large perceptible objects and the word 'large'. Like the Argument from Opposites and the Argument from Science, the Argument from Clarity has the power to turn the soul's attention from perceptible objects to recognize, in addition, the purely intelligible objects, the Forms.

The sun as an image of the Good

So far in this chapter, you have seen three of Plato's arguments for the existence of imperceptible forms. You have seen the Need-for-Perception Objection to those forms. And you have seen Plato's Knowledge-is-Recollection reply to the objection.

The reply that knowledge is recollection explains how we know forms. According to the explanation, our souls have a prior, disembodied existence. This explanation is far-fetched. Plato has another, less far-fetched

explanation of how we can have knowledge of forms. Instead of disembodied souls, this alternative explanation gives our minds a power analogous to eyesight.

Eyesight gives us information about the perceptible world. For example, thanks to eyesight you can see printed words, black squiggles on a white background. Those words exist apart from you. Eyesight somehow connects your mind with those black shapes. Eyesight does not work by triggering a memory of that information. Eyesight somehow receives information from the black squiggles and gives it to you. No recollection is needed.

The Image of the Sun given by Socrates in the *Republic* (507a-509a) is one of Plato's most famous passages. The Image lets Socrates explain our knowledge of the Forms without needing recollection. The Image presents the mind as having a power analogous to eyesight, a power that somehow connects our minds to forms by receiving information from the Forms and giving it to us.

There are six points of analogy between perceptible and imperceptible objects. The *sun* shines *light* upon *visible* objects, enabling us to *see* them by using the *eyes'* power of *sight*. The sun is an image of the *Good*, which casts *truth* upon *intelligible* objects, enabling us to *come to know* them by using the *intellect's* power of *understanding*.

My students naturally wonder what the Good is. Is it a person like the god of Abrahamic religions? Is it a moral code like the Ten Commandments? Socrates says he is like a *blind man* and cannot *see* the Good. Using the Image, we can translate: Socrates is *ignorant* and does not *know* the Good. He cannot tell us what The Good is; he can only tell us what it is like: the sun! This gives us a seventh point of analogy. Just as the sun is hard for the eye to look directly at, the Good is hard for the mind to directly understand.

If we are guided by the Image, the Good is the *purpose* of each thing, not its *god* or its *moral code*. The forms of artifacts, like couches and tables, illustrate how the Good "shines light" upon forms so that our intellect can "see" them. Imagine that I hire you to design a couch for me. You will need to know what form of couch will work for me. To come to know this form, you need to ask me what the *purpose* of the couch is. Is it for watching TV, for a conversation pit, for dining in the style of the ancient Greeks, or for something else? The purpose that the couch serves will guide you as you design the specific form this couch has. Like the sun, the purpose "shines light" upon the form so that your intellect can "see" it.

Aristotle used a function argument (Chapter 3) to show that true happiness must activate human intellect and emotion. That argument shows how organisms and their parts also have functions and therefore purposes. To generalize even further, notice that all of the forms generated by the Argument from Science—whether *steer, money, salt, the number two,* or whatever—are known to us by knowing those sciences, and each of those

sciences has a purpose in human life. Thus, the form Good, understood as *purpose,* fits the Image of the Sun in making every form known to us.

Historical perspective on Plato's ontology

Let the above serve as an introduction to Plato's arguments that Forms exist and his alternative accounts of how we know the forms. This section gives a rough sketch how philosophers have evaluated Plato in history up to state-of-the-art philosophy today.[14]

There was debate in ancient and medieval European philosophy about the existence of Forms (for Aristotle's view, see Chapter 6). From the beginning of the Scientific Revolution, philosophers tended to view Plato's theory of purely intelligible forms not merely as *wrong* but as entirely *unscientific.* With only a few exceptions, nominalism was taken to be the only reasonable view. It is hard to find any careful attention to the arguments from Opposites, Science, or Clarity in this period.

This changed in the mid-twentieth century with the work of Quine. Quine brought back arguments that our scientific theories give us "ontological commitments." Here is an example of how Quine reasoned. If I say, "Some dogs are white," I am saying that *there are some dogs that are white.* My words 'there are' in this speech means *there exist.* This sentence commits me to the existence of dogs and white things. In the very same way, "when we say that some zoological species are cross-fertile, we are committing ourselves to recognizing as entities the several species themselves, abstract though they be."[15] The point is simple: if a science I accept says, "There is an X," then I accept that an X exists. Since Quine, philosophers have tended to accept that insofar as sciences say *there are* things like Forms (for example, biological species) and insofar as we rely upon these sciences for our best account of the world, we are ontologically committed to those things. In this respect, philosophers today tend to be Platonists.

Quine's work shows why Socrates used the Argument from Opposites. Statements like "There are many beautiful sights and sounds" commit us to the existence of those sights and sounds, but not to the Form Beauty. However, statements like "Beauty and ugliness are opposites" and "Beauty is one" do commit us to the existence of Beauty and Ugliness.

[14] An excellent online source of the state of the art is the *Stanford Encyclopedia of Philosophy.* If you google SEP and the topic you want to know—for example, 'nativism' or 'fine-tuning arguments'—the search engine will usually find at least one hit in that encyclopedia.

[15] All quotes from Quine are from his 1948 article "On What There Is," in the *Review of Metaphysics.*

Historical perspective on Plato's epistemology

Plato's doctrine that we have some knowledge already at birth is nowadays called "nativism." Another example of a nativist is Descartes (1641). Descartes explained how we know things like geometry by supposing that God created each soul with such knowledge built in already at birth. Thanks to God's special creation, this version of nativism avoids Plato's need for prior, disembodied souls, which was heresy according to Descartes' religion.

To ancient Stoicism (and even, in a qualified way, to Aristotle) we can attribute the alternative to nativism, that at birth the mind is a blank slate (Latin: *tabula rasa*). The blank-slate doctrine became associated with naturalist philosophy and science, which look only to nature in their explanations. From the beginning of the Scientific Revolution, naturalists viewed nativism, whether Platonic or Cartesian, not merely as wrong but as entirely unscientific. These critics show that they do not understand the puzzle Plato is solving, that *sense perception does not carry enough information to give us knowledge of Forms.*

Noam Chomsky revived nativism as a scientific explanation in the mid-twentieth century. Like Plato, he argued that sense perception does not carry enough information. Instead of *geometry,* Chomsky's example was the knowledge of the language we first learn as children. Chomsky's nativism is supported by Darwin's discovery, a century earlier, of evolutionary processes that explain why animal brains, including human brains, are equipped at birth by natural selection with some of the knowledge they need to navigate their world. Since Chomsky, nativism has become the dominant view, although blank-slate-ism continues to find defenders. But no nativist philosophers today appeal to recollection from a prior, disembodied existence to explain *a priori* knowledge.

The Image of the Sun is Plato's alternative epistemology. Although the Image is famous, I think it has mostly been regarded as more like pretty poetry than as rationally compelling explanation. I am disappointed with history's disregard for this alternative explanation of how we know the Forms, an explanation that might complement nativism in important ways.

5

MORE OF PLATO'S EPISTEMOLOGY

The ancient Greek philosophy in this chapter comes from Plato's *Republic,* book 6, and *Theaetetus*. Book 6 of the *Republic* describes different methods of teaching. The *Theaetetus* tries to answer the question what knowledge itself is.

Why more?

This chapter tries to know knowledge itself: does it only come from perception, or can we get it in some other way? Here is how this question fits into the story I have been telling. According to my story, Socrates appeared at a time when people were caught up in different moral codes: traditional codes about the gods and what they want us to do, naturalist 'eye for an eye' codes that try to think of righteousness as part of natural balance, forward-looking codes that make righteousness a project of improving the happiness of everyone, self-serving codes that make righteousness a matter of using power to make my race or nation supreme, and still other codes that make righteousness relative to whatever culture you happen to belong to.

These codes cannot all be correct. They raise a life-threatening problem when they talk past each other, encouraging anger and violence. Socrates solves that problem by using a new method. Instead of *telling* others what to believe or what he believes, he *examines* others by asking them questions. His questions are designed to lead us to recognize that we do not have expertise at living well and that we need to do due diligence with our lives by looking for that expertise as a first priority.

In my story, Aristotle heeds Socrates' advice and is a model for us, examining what true happiness is and how to become truly happy. The final, truest happiness he found probably was a surprise to you: instead of doing anything practical, it was unemotional, purely theoretical activity. Aristotle encourages us to be our happiest by occupying our intellects with perfect

instead of imperfect reality, as far as we are able.

There was an obvious objection to Aristotle: what if 'perfect reality' is a figment of our minds? This objection led us to Plato's arguments proving the existence of perfect Forms, including a form of the Good. Those arguments, like Socrates, try to avoid talking past us. They do this by beginning with the practical crafts and expertise and science we already accept. *If* we accept those sciences, *then* we ought to believe there are eternal forms.

Plato's ontological arguments are a reply to the Figment-of-the-Mind objection to Aristotle's truest happiness. And his arguments do more: the very method of those arguments is an example of the purely theoretical activity that Aristotle recommends. Plato's arguments give us a chance to begin to cultivate in ourselves the love of the kind of activity Aristotle recommends as truest happiness.

But my story does not end here. There is another objection to eternally unchanging perfection. The objection comes from epistemology, the study of human knowledge. The most obvious account of our human knowledge is *Empiricism:* knowledge comes from sense perception. Empiricism, if true, seems to make any knowledge of eternal, perfect objects impossible, since they are not found in sense perception. So, Empiricism raises a problem for Plato's metaphysics and for Aristotle's truest happiness. Plato and the story I am telling need to pay attention to Empiricism.

Chapter 4 has already provided two non-empirical theories of knowledge of Forms. One theory was that we know them by recollection from a past, disembodied existence. The other was the Image of the Sun: the Good somehow "illuminates" the Forms for our intellect to "see" (perhaps by being the purpose of each Form). Neither of these theories directly attacks Empiricism. In this chapter you will study Plato's direct attack against Empiricism.

Philosophy students usually meet Empiricism by reading its leading critic and defender in modern times. The critic is Descartes (1596–1650), the defender Hume (1711–1776). The ancient Greek epistemology in this chapter comes from Plato's *Theaetetus.* To prepare you for the epistemology, this chapter begins with *methodology,* the study of methods. It will make the epistemology clearer, I hope, if I begin by comparing the method of the *Theaetetus* with the method of Descartes and Hume. I compare the methods by placing them on the Divided Line of the *Republic.*

Socrates describes the Divided Line in the *Republic* right after he gives the Image of the Sun. This is a happy coincidence for me, because it allows me to start this chapter right at the point in the *Republic* where Chapter 4 ended. But it means a digression on philosophical method as I prepare the reader to study how Plato examines empiricism.

I use the Divided Line to show the method Plato uses to examine Empiricism. Then I turn to his examination of Empiricism. Here is how the

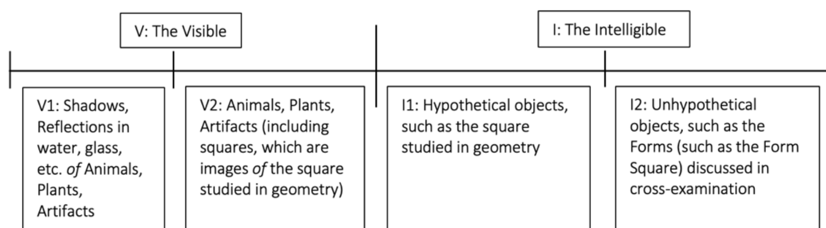
examination will run: the Socrates of the *Theaetetus* will raise a series of objections to Empiricism. For each objection, he will develop a reply on behalf of the empiricist. At each progressive stage, the reply will save Empiricism by purifying it. The reply purifies Empiricism by denying an assumption made by the objection. Ultimately, as Socrates will argue, purified Empiricism is skeptical of so much that it cannot explain how meaningful speech is possible. Those of us who believe in human speech—which includes everyone studying the discussion—will have to abandon such a view.

The Divided Line

After the Socrates of the *Republic* gives the Image of the Sun, he uses a diagram to further explain the likeness of the Sun to the Good. He divides a line into two segments. These two segments represent two kingdoms, the visible, which the sun "rules," and the intelligible, which the Good rules (509d2-3). To "rule" in Socrates' diagram means to make seen or known, and the division is according to the relative clarity and obscurity it can give to a mind (509d9, 511e3).

Socrates further subdivides the two segments. As shown in Figure 4, the visible kind of object has two subkinds, visible things and visible *images* of visible things. Imagine that you ask me what a square is. I might answer, "That's a square!" by pointing to a square's *shadow*, or I might answer by pointing to the square casting the shadow. The shadow answer gives you a less clear answer and a less clear idea what a square is.

Figure 4: The Divided Line (not to scale)



The shadow of a square, then, is only a *fraction* as clear an answer as the visible square. This clarity fraction (is it more like one tenth as clear or one millionth as clear?) would depend upon the accuracy, in some sense, of the shadow. When Socrates describes how to draw the Divided Line, he does not try to say what this fraction is, except that it cannot be one to one (509d6).

This seems right to me. The clarity of understanding you get by looking at a *shadow* of something can never be as clear as the understanding you get by looking at *the thing itself.* The clarity ratio between the two can never be 1:1. For no other reason than to fit the page, in Figure 4 I drew the length of the visible subsegment for shadows (labeled V1) to be 4/5th the length of the subsegment for animals, plants, and artifacts (V2), in other words, a ratio of 4:5.

Here is what the Divided Line means. Recall the parlor guessing game described in Chapter 4. Imagine that you ask me the rule I'm following in the game. In answer, I might point to something in the Visible segment, perhaps a visible square or a visible shadow. Or I might give you an answer from the Intelligible segment by actually telling you the rule: *bigger than a toaster.* There is no question that the visible answer is less clear than the intelligible answer. That is, the ratio between the visible and the intelligible is less than 1:1. The visible answer is more like 1/100th as clear than 4/5ths as clear. And so, Figure 4 is not drawn to scale, even though Socrates does not try to say what exactly the scale is.

For some reason (I am not sure why), Socrates' instructions for drawing the Divided Line tell us to draw the lengths of V and I so that they are "in the same ratio" as between V1 and V2 (509d7-8) and the ratio of I1 to I2. Socrates thinks these three ratios all have to be the same. For example, suppose someone wants to know what a steer is. Showing them an actual steer (V2) is a clearer answer than just showing them the shadow of a steer (V1). Let us say V2 is ten times clearer. Length I, then, must also be ten times the length of V. This means that the intelligible answer (like, *a steer is a castrated bovine male*) must also be exactly ten times as clear as the visible answer (like a shadow of a steer or an actual steer). In addition, if I cross-examine you to draw out from you what the words 'castrated' and 'bovine' mean, that sort of answer must also be ten times as clear as the case when I give you a one-sided lecture explaining what 'castrated' and 'bovine' mean. As I say, I do not know why Socrates thinks these ratios all have to be the same.

As you imagine playing the parlor game with me, notice how different answers give you different feelings. If I tell you the rule *bigger than a toaster,* you feel a sort of 'Aha! Got it!'. In Socrates' words, it is as if your mind has found something on which it can "support itself": it "knows" (508d5-6). If instead I only point to some visible shadow or object that happens to be bigger than a toaster, your mind finds no such support. Its ability to understand "is dim or dull," and you "go back and forth in your opinions" without *knowing* (508d8).

After some number of tries, you might have a guess how the rule might go. In the language of science, you formulate a hypothesis. With a bit of luck, after ten or so tries, you might even feel you have confirmed your guess. You can reach an answer by the observational method: 'Aha! I've got a guess!'.

But such an answer still feels capable of error, which is why the fraction of clarity it gives seems to me far smaller than 1/10th.

In the same ratio of relative clarity and obscurity as the subdivisions of the Visible, Socrates also subdivides the Intelligible. Here is an illustration. Euclid's *Elements* begins by stating five hypotheses, and then it demonstrates theorems based on those hypotheses. Plato would consider such a lecture as belonging to the "hypothetical" segment of his divided line. Its ability to give the reader clear answers is limited by the degree to which the reader happens to understand the author's premises and inferences.

In contrast to the hypothetical method of the lecture, Plato recommends an opposite method which he calls "cross-examination" (*dialektikē*, 533c7), a word sometimes translated 'dialectic'. Notice how Socrates' method of teaching geometry differs from Euclid's book. Socrates began with the *student's* hypothesis (at *Meno* 82e) how to double the area of the square ("Double the length of the square's side!"). Socrates tested the student's hypothesis until the student saw it was false. Socrates kept testing the student's hypotheses and showing them false until the student was at a loss. Socrates "treats the hypotheses not as starting points" that are taken for granted "but actually as hypotheses," the way Socrates tested his student's guesses (511b4-8). Then, by asking questions—not by telling answers—Socrates led the student to see an answer that does not depend on the student taking for granted any "hypothesis" from the teacher.

When I lecture at you or write a chapter for you to read, I risk talking right past you. I avoid this risk by cross-examining you rather than lecturing or writing for you. In cross-examination, I start from any premises—whatever starting beliefs you happen to accept—and nonetheless argue step by step to reach my conclusions. The *Republic* calls this method unhypothetical (511b6) because it takes no claim for granted. It begins from whatever starting beliefs you accept, even premises opposed to what the cross-examiner (the "dialectician") will demonstrate. The truths demonstrated to you by an expert at cross-examination are suited exactly to your level of understanding. In that way, they are clearer than the truths demonstrated in a lecture or book.

Of course, even such dialectic is hypothetical in other ways. For example, it assumes that the conversation partner is willing to have an earnest conversation. It also assumes that the conversation partner is *seeking the truth* in conversation rather than *seeking prestige* by avoiding contradiction at all costs.

I will present Plato's *Theaetetus* (157-182) as a written image of the clearest segment of the Divided Line. The topic is Empiricism and Rationalism. *Empiricism* is the doctrine that "knowledge is nothing but perception" (151e2-3). Empiricism is opposed to *Rationalism,* which claims that *knowledge is other than mere perception* (185c-186c). Socrates cross-examines Empiricism. He will give a demonstration of the truth of Rationalism by beginning with what

Theaetetus believes, which happens to be Empiricism. We readers do not get to enjoy the unhypothetical method itself. Socrates is not cross-examining us and our particular beliefs. We are only viewing a written image of the unhypothetical method.

Before turning to the *Theaetetus,* for the sake of contrast, I present the arguments of Descartes and Hume as examples of the second clearest segment of the Divided Line. Descartes and Hume give examples of “hypothetical” answers telling us what knowledge is.

Opposite arguments in Descartes and Hume

In 1641 Descartes published his *Meditations on First Philosophy.* Readers who practice the first meditation with Descartes as guru discover that they cannot find any of their beliefs to be certain. In the second meditation Descartes leads readers to their first certainties (that is a topic for another course). After doing that, he conducts a thought experiment inside the meditation. He speaks as if he is observing a solid piece of beeswax melt. But this way of speaking is not quite accurate. He actually is observing his *perceptions* of melting wax. The study of *beeswax* as it melts belongs to expertise in candle making. The study of *perceptions* of beeswax belongs to expertise in *phenomenology.*

If you have ever been fitted for eyeglasses, you have done phenomenology. The optometrist flips different lenses in front of you and asks, “Was the bottom line of the chart clearer *then*?” as they flip the lens, “or *now*?” They are not asking you if the letters on the card are more or less sharply printed. Such observations belong to printing expertise. They are asking you about your private visual images of those letters: an exercise in phenomenology.

Descartes studies the perceptions of wax melting to find out what sort of information perceptions can provide us. After establishing the limits of that information, he refutes Empiricism.

> This piece of wax . . . has been recently taken from the honeycomb. It has not yet lost all taste of its honey. It retains somewhat of the scent of the flowers it was gathered from. Its color, form, and size are manifest: it is hard, cold, and may be easily touched. If you hit it with your knuckle, it will give out a sound. In a word, we have everything here that seems [to the Empiricist] to be required in order that a body may be known as distinctly as possible.[16]

[16] All passages from Descartes are from *Meditation* 2. I revised my translations from R. Lowndes 1878.

Descartes takes stock of his perceptions of the wax as it changes.

> But see, while I speak, it is brought near a fire. Its remnant of a taste evaporates. Its scent dies out. Its color changes. Its form is gone. Its size increases. It becomes liquid, becomes hot can scarcely be touched. You may hammer at it, and it will give no sound.

He establishes the limits of perception by pointing out that "none of the things that I perceived through the senses" gives knowledge that the wax survived the change: "Whatever came under the heading of taste, scent, sight, touch, or hearing, are now changed, and yet the wax remains."

To his phenomenology of the limits of what perception can tell us, Descartes adds his own hypothesis. He takes for granted that our knowledge of *the wax's substance staying the same* is "distinctly understood": "Does it still remain the same wax? We must admit it remains. No one denies that; no one thinks otherwise."

Thus, he establishes Rationalism and refutes Empiricism:

> I must admit that I apprehend this wax by my mind alone. . . It is not perceived but by the mind … Its perception is not sight, nor touch, nor imagination, nor ever was so, though so it seemed to be at first, but an inspection of the mind alone.

I call this the Changing Substance Argument.

P1 *The Limits of Perception Premise:* When a piece of wax melts, there is no perception of substance-staying-the-same.

P2 *The Fact of Knowledge Premise:* We know that the wax, before and after the change, is the same substance.

C *The Rationalist Conclusion:* Therefore, knowledge is at least sometimes more than mere perception. In other words, Empiricism is false, and Rationalism is true.

It is normal for students to be dubious of the limits Descartes finds to perception. They cannot help but think that we do in some sense *observe* that it is the same wax that is first solid and then not, first yellow and then clear, and so on. When I ask them to tell me what color they observe that gives them the information *same substance,* of course they admit that the information is not coming to them as a visible color. When I press them to tell me what sort of perception it is that carries that information, of course they agree it does not come as anything visible, tangible, audible, testable, or smellable.

Good students sometimes suggest that we get the information *same substance* from the fact that all the observable changes happen gradually. The

observation is not sudden, like flipping a light switch. These students are right that the following record of the observation is too simple.

> At time t_1 the wax has a solid shape and color (it is a yellow cube, say), a honeylike taste, and a floral scent. It is hard and cold to the touch and makes a sound when tapped. At time t_2 the shape, color, taste, and scent are gone, as are the hardness, coldness, and sound.

Our observation of the wax melting is not like a couple of snapshots. It is like a continuous video and audio recording.

Let us agree with these students that comparing t_1 to t_2 only gives us the sensory information in the way that two snapshots might: first *this* and then *that*. If that is true, a videotape-like record of everything perceived will only give us many more thises and thats. Nowhere does the videotape carry in it the information *same substance here and here!*

The students are right that, given that *continuous* experience, we will want to say that the substance—the wax—went through a change from cold solid to hot liquid state, yellow to clear state, and so on. Descartes agrees with these students that, if asked, "'Does it still remain the same wax?' We must admit it remains." His point is that our idea does not come from information carried by perceptions, whether discretely or continuously experienced. Rather, just as he puts it, "This wax … is not perceived *but by the mind* … Its perception is not sight, nor touch, nor imagination, nor ever was so, though so it seemed to be at first."

While Descartes' argument concerned *sameness of substance*, he might have refuted Empiricism just as well with a parallel argument about *cause and effect*. Imagine your observation of one billiard ball striking and moving another. Think of the observation recorded as a video and audio experience, so that you can look at the experience frame by frame. In early frames you'll see one ball approaching another. Then there will be a frame where the first ball hits the second. In following frames you'll see the second ball moving away.

The observation is limited to sights and sounds. You see one ball moving, then touching the other, and then the second ball moving. The point is that to see one thing *after* seeing another is not to see *cause* or *effect*. Nowhere in any frame do you see that the first ball *causes* the second ball to move.

As with substance, if you think you *do* observe causation, ask yourself, *What color, shape, or sound does causation have?* Your observations can carry information about the color, shape, positions, movements, and sound of the two balls. But perceptions are limited to items that can be transmitted via the five senses: in this case, sights and sounds. This limit to perception means perception cannot give us information about cause and effect.

Here, then, is the parallel argument.

P1 *The Limits of Perception Premise:* When one billiard ball strikes and moves another, there is no perception of one-ball-causing-the-other's-motion.

P2 *The Fact of Knowledge Premise:* We know that one ball causes the other to move.

C *Rationalist Conclusion:* Therefore, knowledge is at least sometimes more than mere perception. In other words, Empiricism is false, and Rationalism is true.

This parallel argument allows us to understand Hume's empiricist reply (1748, a hundred years later) to Descartes' Rationalism. Hume, like Descartes, accepts the Limits of Perception Premise.

Hume writes in English, and so there is no need to rely upon a translator to read him. Notice that he sometimes uses words in a slightly different sense than we do and also spells some words, like 'connection', differently.

> When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find, that the one does actually, in fact, follow the other. The impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the outward senses.[17]

In other words, when one billiard ball moves another, there is no perception of one-ball-causing-the-other's-motion. Descartes would take for granted that we have knowledge of cause and effect. Hume, on the contrary, takes for granted that Empiricism is true:

> The thought of man . . . is confined within very narrow limits, and all the creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting or diminishing the materials afforded us by the senses and experience. . . . All our [conceptual] ideas are copies of our [perceptual] impressions (sec. 2).

For example, if we at one time perceive a horse and at another time a crow, we can remember these perceptions by making "copies," *compound* them in imagination to make, say, the idea of a crow riding on a horse, *transpose* them to make, say the idea of a winged horse, and *augment* and *diminish* them to imagine a crow as big as a horse or a horse as small as a crow.

[17] Section 7, part 1. This and the following quotation are to Hume's *Enquiry Concerning Human Understanding*, published in 1748.

These two premises give Hume his argument for a skeptical conclusion about cause and effect:

P1 *Limits of Perception Premise:* When one billiard ball moves another, there is no perception of one-ball-causing-the-other's-motion.
P2 *Empiricist Premise:* Knowledge is perception. More precisely, knowledge is nothing but copies of perceptions, copies that can be compounded, transposed, augmented, or diminished. In other words, Empiricism is true (and Rationalism is false).
C *Skeptical Conclusion:* We cannot know that one ball causes the other to move.

Likewise, Hume might just as well argue for skepticism about *substance* along the following lines:

P1 *The Limits of Perception Premise:* When a piece of wax melts, there is no perception of substance-staying-the-same.
P2 *Empiricist Premise:* Empiricism is true, and Rationalism is false.
C *Skeptical Conclusion:* We cannot know that the wax, before and after the change, is the same substance.

I summarize Cartesian Rationalism and Humean Empiricism as follows. They agree about the limits of perception. The rationalist Descartes *assumes* we have knowledge (of substance or cause), and concludes that Empiricism is false, because it does not provide that knowledge. In opposition, the empiricist Hume *assumes* that Empiricism is true and reaches the skeptical conclusion that we do not have the knowledge taken for granted by the rationalist.

According to Plato's Divided Line, the arguments of Descartes and Hume belong on the *hypothetical* segment. In contrast Socrates of the *Theaetetus* gives an *unhypothetical* argument against Empiricism.

Opposite arguments in the Theaetetus

Socrates' conversation with Theaetetus is set in 399, a couple months before Socrates' death and about twenty years after the death of Protagoras. Socrates asks Theaetetus to say what knowledge is. Theaetetus proposes that knowledge is perception. Socrates points out that such a definition has sophisticated credentials, being the view of the famously wise Protagoras. Both Socrates and Theaetetus are familiar with the writings of Protagoras, as the following exchange shows.

Protagoras has said that knowledge is perception, but in different words.

> For he says that a human being is "measure of all things, of things that are that they are, and of things that are not, that they are not." You've read it, I suppose?
>
> —Indeed, I've read it many times.
>
> Doesn't he state it in this way, that as each thing appears to me, so it is for me, and as it appears to you, so it is for you—you and I each being a human being?
>
> —Yes, this is how he puts it (152a1-9).

This exchange attributes to Protagoras three connected doctrines:

Empiricism: *knowledge is perception.*
Anthropometrism: *the human being is the measure of all things.*
Relativism: *as things appear to a human being, so they are for that person.*

Socrates will proceed to elicit from Theaetetus a series of arguments as objections against Protagoras's Empiricism. Anticipating Descartes by two thousand years, each of Socrates' objections argues from a *Limits of Perception Premise* and a *Fact of Knowledge Premise* to a *Rationalist Conclusion.*

Socrates presents himself as not knowing how Protagoras would reply to his objections. Socrates replies to his own objections on behalf of Protagoras. He presents his replies as what "Protagoras or someone else on his behalf will say" (162d4-5). The replies that Socrates gives anticipate Hume. Like Hume's reply to Descartes, each of Socrates' replies agrees with the *Limits of Perception Premise,* maintains the *Empiricist Premise,* and draws a *Skeptical Conclusion.*

Socrates' first objection, in another anticipation of Descartes (*Meditation* 1), notices that our perceptions in cases of dreams and madness are not trustworthy (157e-160d). For example, as Socrates says, if I am dreaming or insane, I might feel myself to be *hot* and *dry* when in reality I am cold and wet. I might perceive in my mouth a *sweet* taste of honey when my mouth is empty. And so, in the case of some dreams and some kinds of insanity, Empiricism, Anthropometrism, and Relativism are all false.

The dreams and madness objection is that these people are wrong in their perceptions. The objection assumes that *we know that we are awake and sane.* Socrates proposes, on behalf of Protagoras, a reply that is skeptical of this assumed knowledge. The skepticism is a reasonable objection for an empiricist to make. The skepticism is reasonable because of the limits of perception. In this case, the perceptions that you can have are not able to carry information that you are awake or sane. They cannot carry such information, because *any* experience that an awake and sane person has can be replicated just as well in the experience of a person who is dreaming or insane. Therefore, given the *Empiricist Premise*, we must draw a *Skeptical Conclusion:* we can have

no knowledge whether we are awake or asleep, sane or insane.

Socrates takes this reply to meet the objection, which shows that he agrees about the *Limits of Perception* in this case: there is no perception of *being awake* or *sanity*, just as Descartes and Hume noticed that there is no perception of *substance* or *cause*.

Notice that this is a drastic reply for an empiricist. Your high school science teachers taught you the importance of basing conclusions on empirical evidence. They were in some sense empiricists. But I doubt that they taught you that we cannot know if we are awake or sane! My conventional beliefs are like your science teachers'. I am tempted to say that Socrates' reply on behalf of Protagoras is not only false but indeed silly. This raises a question. Why does Socrates give a reply here that would be silly in a normal conversation? In other dialogues, Socrates never questions whether he is awake or sane.

The answer is that Socrates in this conversation is exploring the foundations of knowledge in the *Theaetetus*. Like Descartes and Hume, he is noticing the limits of what sort of knowledge can be established on the basis of perception alone, setting aside the conventional beliefs that custom and habit take for granted, and developing an empiricism purified of customs and habits of thought.

Socrates was not a student of Protagoras. He does not know "what truth Protagoras used to tell his students in secret" (152c10). But he charitably assumes Protagoras is a wise man. Socrates has no knowledge of later empiricists of European or Buddhist philosophy. Yet he develops on behalf of Protagoras an empirical philosophy just as powerful as those great empiricisms. It is just as powerful in its insight into the limits of perception and in its courage to draw the correct skeptical conclusions about imperceptible objects. Such a Protagoras is wiser than ordinary conventional beliefs, just as Socrates says (151e-152b).

When Socrates grants the skeptical conclusion to the Protagorean empiricist, he is using cross-examination to explore the foundations of knowledge. Someone who is sure of their conventional beliefs would talk past Protagoras by insisting that Protagoras is silly. Instead of doing this, Socrates meets Protagoreans on their own terms as he develops a second objection to them. The second objection follows from two premises that Protagoras himself accepts:

P1 (Anthropometrism) The human being is the measure of all things.
P2 (Relativism) As things appear to a human being, so they are for that person.

Socrates adds a third premise. The premise is about how things seem for "a human being, or rather for all human beings." Everyone "supposes that—

at some things—they are wiser than other people, while—at other things—other people are wiser than they (170a7-9). This third premise is most obvious when people face "the greatest dangers" and turn to, for example, doctors or military or political leaders (170a9-b1). The third premise also follows from the fact that in every walk of life we find people looking for teachers or offering to teach others. Perhaps there are followers of Protagoras who are exceptions to the third premise, followers who never judge others as wise or foolish. Even so, the third premise can be stated this way:

P3 As measured by most human beings, the doctrines Anthropometrism and Relativism *seem* false; these doctrines *seem* false for most people.

From these three premises, trouble follows for the Protagorean.

C As measured by most human beings, the doctrines Anthropometrism and Relativism *are* false; these doctrines *are* false for most people.

The objection is that the basic principles of Empiricism undercut themselves.[18] In reply to this objection, Socrates only says: "If Protagoras were present, he very likely would in many ways refute my argument as silly" (171d). Socrates does not spell out the grounds on which Protagoras would reply to this objection.

Here is my guess at a reply on behalf of Protagoras. Socrates' first objection assumed that there is knowledge of being *awake* and *sane.* The reflexive objection assumes that many different people can perceive and know one and the same doctrine or proposition. If Protagoras follows the pattern I have described, he can escape the objection by denying that there is knowledge of any such shared object of understanding as a proposition or doctrine, an object about which one person might be right and another person wrong. Protagoras might well deny the existence of such knowledge on strictly empirical grounds, by paying attention to the limits of perception. Although I do perceive *my* thoughts, I cannot perceive *my thought being perceived by you.* And so, I do not have the power to perceive such a thing as a *shared thought, proposition,* or *doctrine.*

Again, when I am not in the mood to cross-examine, I feel obliged simply to insist that it is silly to deny that one and the same proposition can be known by each of us. Socrates, of course, proceeds by cross-examination.

[18] This sort of objection to Empiricism reappears in the twentieth century. For example, the empiricist Carnap considered this "self-undercutting" objection in 1935 against the principle of "verifiability" in his book *Philosophy and Logical Syntax.*

Rather than insisting on assumptions that are not shared, assumptions about knowledge of being awake or shared propositions, he raises yet another objection, about self-advantage.

The objection is that cities and individuals can mistake *what is to their own advantage*. Chapter 2 noticed that the Socrates of the *Republic* made this point about mistakes. For example, Athens voted to send an expedition to wage war against the Spartans in Sicily, believing the expedition was for their own advantage. The expedition in fact led Athens to lose its war with Sparta. Athens had false perceptions about its own advantage. The example shows that there are false perceptions about self-advantage. Therefore, Anthropometrism, Relativism, and Empiricism are false about self-advantage.

On behalf of Protagoras, Socrates produces a reply to this objection. Let me save that reply until I present Socrates' next objection. This objection is based on *future* perceptions. As Socrates says, the advantageous "concerns future time" (178a7-8). Future experiences of advantageous or disadvantageous things are a special case of future experiences in general. The same reply will work for both objections.

Socrates' objection from future perceptions, like his previous objections, works within the empiricist's revised, more limited ontology. To do this, the objection makes no reference to objective physical reality or objectively shared propositions. It works within the narrow confines of a single subject's private perceptions. The objection is that experts know better than a non-expert what perceptions the non-expert will have in the future. Thus, Anthropometrism is false about future perceptions.

Consider, for example, the sensation of warmth, such as "when a nonexpert supposes that a fever will take hold of them and this sort of warmth will exist" for them, while "someone else—a medical expert—supposes just the opposite" (178c2-4). In this sort of case, we expect "the future to turn out according to the opinion" of the expert (178c4-5). Or consider a person with no knowledge of baking. If you give them a taste of baking powder or flour, they will likely think those ingredients taste awful. It is easy to imagine them protesting when you tell them you are putting them into the cake. You, with your knowledge of cake-making, can predict better than they can what sort of cake will taste better to *them*.

Socrates describes this objection about future experiences as giving Protagoras "measure for measure: Protagoras is compelled to agree that one person is wiser than another and that the wiser person is the measure," while a nonexpert is "not compelled to be a measure in any way" (179a10-b3).

The reply to this objection notices the following limit to our perception: there is no perception of a self that, as a kind of substance, stays the same through time. Hume did not have the benefit of a meditation app on his smart phone to guide his observations of himself. Nonetheless, he engages in such a practice, which he calls "serious and unprejudic'd reflection." Try

such a meditation! I bet that you, like Hume, will find that you never receive an "impression" of such a self when you pay close attention and observe your inner perceptions:

> If any impression gives rise to the idea of self, that impression must continue invariably the same, thro' the whole course of our lives; since self is suppos'd to exist after that manner. But there is no impression constant and invariable. Pain and pleasure, grief and joy, passions and sensations succeed each other, and never all exist at the same time. It cannot, therefore, be from any of these impressions, or from any other, that the idea of self is deriv' d.[19]

As shown above, Descartes would agree with this premise about the limits of perception. And he would add as a premise the fact of knowledge that we *do* have an "idea of self." From these two premises it follows that Empiricism is false. Hume gives the opposite argument: since Empiricism *is* true, "consequently there is no such idea" of self, and we should be skeptical about those who claim to know such a substance.

Hume makes fun of metaphysicians such as Descartes:

> He may, perhaps, perceive something simple and continu'd, which he calls *himself*; tho' I am certain there is no such principle in me. But setting aside some metaphysicians of this kind, I may venture to affirm of the rest of mankind, that they are nothing but a bundle or collection of different perceptions.

If Hume thinks little of the metaphysical alternative to Empiricism, he is not the first. Socrates imagines that the empiricist Protagoras "thinks little" of Socrates' objections (166a1). Nor is Hume the first to be skeptical of a self that remains the same through time. Like Hume, Protagoras allows into his philosophy only the direct evidence of the senses. Socrates' imagines Protagoras to say about our introspected self:

> If a man is becoming unlike, will anyone grant you he is the same as he was before becoming unlike—or even allow you to speak of 'one man' rather than 'many'—these becoming boundless, if the process of becoming unlike is ongoing (166b6-c1).

As Hume put it, our introspection detects nothing but "different perceptions, which succeed each other with an inconceivable rapidity, and

[19] This and the following quotation are from Hume's *Treatise of Human Nature*, book 1, part 4, section 6, "Of Personal Identity," published in 1739.

are in a perpetual flux and movement." If Empiricism is true, Protagoras is right to deny that I am a single self who persists through time, or even that I am many distinct persons succeeding one another. My selves are boundless and without boundaries.[20] Now we can give a reply on behalf of Protagoras to Socrates' objection.

Socrates' objection was that not I but the relevant expert is the measure of my private future experiences. Consider once more the fever example. Suppose that at noon I think that I will feel warm in an hour, while the expert disagrees about my future experience. One hour passes. Now I say, "I feel no fever. I was wrong an hour ago when I thought I would."

In this story, when I say, "I was wrong," I assume as a fact of knowledge that myself at noon is the same self as myself at 1pm. If Empiricism is true, we must be skeptical of this fact. Strictly speaking, the self at noon reported how things seemed to it, while the self at 1pm reports how things seem to it. That the later self has different private perceptions is no reason to deny the validity of the earlier self's private perceptions, no more than a difference between what *you* perceive now and what *I* perceive now gives me grounds to claim that your perceptions are somehow wrong for you. This reply saves Empiricism from this objection.

There are a number of ways to describe the series of objections and replies at *Theaetetus* 157-182. For the rationalist, Plato's series of objections drive the empiricist to more and more extreme claims—denying knowledge of shared reality, of physical objects, and even of an enduring self—implausible claims that make Empiricism less and less acceptable. On the other hand, the committed empiricist might see the series of replies to Plato's objections as a step-by-step deconstruction of the mythology of speculative metaphysics, deconstructing such myths as shared reality, physical objects, and an enduring self. Perhaps a more neutral description of the passage is in terms of ontological revision: as Empiricism becomes more skeptical, its ontology gets smaller. Empiricism in response to the objections progressively denied the existence of substances, causes, propositions, physical objects, and an enduring self.

Qualities: the ultimate refutation of empiricism

By this point in Socrates' dialectic treatment, the empiricist ontology is limited to nothing more than immediate perceptions in the here and now. So far, Socrates has refuted a Protagoras who believes in substances, causes, propositions, physical objects, or even just an enduring self.

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[20] On the basis of a kind of empiricism, early Buddhist philosophy also reached the conclusion that there is no permanent, underlying substance that can be called the soul.

Socrates claims that "one might refute such a Protagoras in many other ways by showing it is not the case that every opinion of every person is true" (179c1-2). But he has not yet refuted the empiricism of a Protagoras who, like Hume, believes that everything is "in a perpetual flux."

About this purified empiricism, Socrates says:

> It is harder to give a refutation about the present experience of each person, harder to show that the perceptions arising from present experience and the opinions that conform to them are not true. But perhaps I'm saying nothing. For there is a chance that present perceptions and beliefs are irrefutable. Those who declare such perceptions to be clearly evident and to be knowledge perhaps are stating the facts. In that case Theaetetus's definition of knowledge as perception has been right on target (179c2-d1).

After this warning of possible failure, Socrates presents his ultimate objection to empiricism. To be dialectically effective, this objection must work within very tight limits. "Our speech in defense of Protagoras gave us our orders" (179d2). That speech was back at 166a-168b. In that speech, as shown above, Protagoras denied the existence of an enduring self. In that same speech he also made the same claim as Hume, that "all things are in flux" (168b4-5), a claim based strictly on the evidence of my perceptions here and now.

Accordingly, Socrates turns to examine "this moving reality" (179d3) that is given to us in our private perceptions here and now, taking it and nothing else as the "starting point" (179e1) of his refutation. In this moving reality, it seems as if everything is changing in two ways. The first is spatial change: either moving from here to there in space or spinning around in the same place. The second is qualitative change, such as becoming warm or white or ceasing to be warm or white (181d9-e2).

Socrates proceeds to scrutinize the immediate perceptions that we have and the judgments we make based strictly on those perceptions. To take his example, the perception of warmth and whiteness might be the basis of this judgment: "Hot and white here now!" Socrates' scrutiny is nowadays called *phenomenology,* in his case, a phenomenology of perception. This phenomenology examines how the qualities warmth or whiteness seem to come to be in personal experience.

You can test Socrates' scrutiny for yourself. Do some phenomenology of perception with Socrates as your guide! Direct your attention at something white, such as a patch on the ceiling, or at something warm, perhaps a feeling on the palms of your hands. Perhaps as you attend to it, the whiteness becomes grayer and then whiter again, or the warmth becomes more a feeling of damp or of tingling. Under careful scrutiny, your experience of the

whiteness or the warmth is likely to show a qualitative change, more or less subtly, as time passes.

The instruction for phenomenology is like the instruction for other meditation: let your focus on the whiteness or the warmth relax you. As you relax, notice if thoughts pop up and carry you away from your focus as they run through your mind. These thoughts might be plans, regrets, daydreams, distractions around you, or whatnot. This sort of distraction happens to everyone. As soon as you notice a thought has distracted you, pop out of that thought and feel proud of yourself for escaping from it. Your awareness has escaped from inside the thought to a larger space outside of it. Let that thought now stay in the background or go away or do whatever it wants. You can return to relaxed enjoyment of the experience.

Now move your attention within the experience, to make some close observations, almost as if you are adjusting the focus on a pair of binoculars or zooming in on a computer screen. Here is Socrates' first close observation. If your experience is like Socrates', it seems as if *the ceiling* is white, or *your palms* are warm. If so, the ceiling or your palms seem to be objects in some sense causing the experience of the whiteness or warmth.

His second close observation is that within an experience of whiteness or warmth, in addition to a causing object, it also seems that there is something receiving the cause, that is, something *experiencing* the white ceiling or the warm palms. Socrates, in his defense of Protagoras (166b6-c1, quoted above), had Protagoras deny that this experiencing thing was a self with a substance that persists through time. There are many selves, one at each moment of time. These momentary selves are somewhat indeterminate, since, like moments of time, they lack any clear boundaries between one self and the next. Nevertheless, Protagoras believes that these selves are many in number, like clouds passing in the sky. So, each self has to be in some sense *one* self, even if it is a somewhat indeterminate one. Hume agrees with Protagoras. In Hume's denial of the experiencing self as a substance that persists through time, he recognized each self as a *one* in addition to the *many* perceptions it had. This agreement is clear from Hume's description of the self as "a bundle or collection of different perceptions" (quoted above). A bundle or collection is *one* bundle or collection.

Socrates makes even closer observations about the causing object and the object affected by the cause in the experience. Although in some sense the ceiling or palm causes or "makes" the whiteness or warmth, we do not experience that object *as* whiteness or warmth. In his words, "the thing that makes becomes neither *whiteness* nor *warmth*, but *white* or *warm*" (182b1-2). In general, he says, "the thing that makes [the experience of a quality] does not become *the quality;* it becomes *qualified* in some way" (182a7-8). And likewise, "the experiencing thing does not become *perception*—it becomes *perceptive*" of the whiteness or the warmth" (182a6-7).

Socrates makes these final very close observations. Within our experience of whiteness or warmth, "nothing is itself by itself one single thing, not even the object and subject of perception" (182b3-4). The perception of warm or white objects and of the qualities warmth and whiteness happen together (182a5). Moreover, the perception of warmth or whiteness is in some sense distinct from the subject and object, as if warmth and whiteness come into being in some way "in between" (182a5) subject and object.

Your phenomenology of perception might not reach the exact same conclusions. But Socrates wants you to notice the sorts of things that are and are not present in your immediate experience. It is enough for you to observe the truth of premise P1 in the following argument.

P1 The object of perception is ever changing as it becomes white (or warm or whatever).
C1 "Therefore, there is a flux even of this itself, *of the whiteness*, a change into another color."
C2 "Therefore, one is never able to call anything a color so as to name it correctly" (182d4-5).

Socrates extends the conclusion from qualities like color or warmth to perception itself. Since "all things are changing" (182e2), indeed "changing in every way" (182e4-5), there will be a flux even of seeing or hearing itself, so that:

C3 It is impossible for either seeing or hearing ever to remain in itself.
C4 "And thus one must not ever call anything *seeing* rather than *not seeing,* and one must not call it any other perception rather than not call it so."

Generalizing further from the same premise of Flux Theory, Socrates concludes:

C5 "Any answer to any question will be equally correct."
C6 "Thus no speech is possible on the Flux Theorists' own grounds."

Thus—given the limits of immediate sense perception—human beings are the measure of all things no more than they are not. Things no more are than they are not as they appear. And knowledge no more is than it is not perception.

Conclusion

Empiricism escaped Socrates' objections by reducing, further and further, its

ontological commitments. At last, in its purified form, it was committed only to the evidence given in immediate sense perception, the same evidence noticed by Hume where there is nothing but perpetual flux. But the flux of immediate perception is not enough to form meaningful judgments or opinions.

To judge 'White here now' requires some standard of whiteness to make it true. Immediate sense perception is so limited that not enough is given to make a perception or judgment *true*. Socrates has refuted Empiricism, demonstrating that "the perceptions and the judgments in accordance with those perceptions are not true" (179c3-4).

Aristotle describes some empiricists as accepting this result:

> Because they saw that all this world of nature is in movement and that no true statement can be made about that which changes, they said that nothing could truly be affirmed about that which everywhere in every respect is changing (*Metaphysics* 1010a7-9).

A moment's reflection will tell you that the affirmation that *nothing can truly be affirmed* is self-contradictory. Aristotle continues by mentioning how Cratylus avoided the refutation: "It was this belief that blossomed into the most extreme of the views above mentioned … such as was held by Cratylus, who finally did not think it right to say anything but only moved his finger (*Metaphysics* 1010a10-13).

Aristotle takes it that to be driven to speechlessness is to be refuted:

> It is absurd to seek for an argument against one who has no arguments of his own about anything, in so far as he has none; for such a person, in so far as he is such, is really no better than a vegetable (*Metaphysics* 1006a13-15, trans. Tredennick).

Socrates' dialectical examination in the *Theaetetus* does more than refute Empiricism on its own grounds. By showing the difficulties facing Empiricism, he at the same time gives positive support for the following theses:

Rationalism: Some of our knowledge is not derived solely from perception.
Sophometrism: Wisdom or "the wise person is the measure of all things" (179b2), and as things appear to the expert, so they really are (179b).
Fallibilism: "There are false perceptions" (158a1-2).

Finally, we can fairly take Socrates in the *Theaetetus* to provide yet another argument in favor of Platonic forms: since speech and judgment are possible, some things—namely, formal objects of knowledge that are intelligible—must be unchanging. These are the forms or "qualities" whiteness, warmth, and so on.

6

ARISTOTLE'S CATEGORY THEORY

> The ancient Greek philosophy in this chapter comes from Aristotle's *Categories, Sophistical Refutations,* chapters 22-24, *Metaphysics* books 1, 3, and 7, and *De Anima* books 1 and 2. This is one more chance to experience purely theoretical contemplation of eternal objects. Aristotle introduces Category Theory, which provides powerful solutions to a range of metaphysical problems, solutions that have been used across millennia of philosophy.

Chapter 3 showed how Aristotle accepts Plato's account of the superiority of a life of academic study of eternal, perfect objects, and accepts that there are such objects. Yet he ridicules the Theory of Forms. Aristotle deploys what he calls the "Third Man" Argument to destroy Plato's Forms. The Third Man takes premises that Plato accepts and draws consequences to show how silly Plato's theory is. The goal of this chapter is to show why the Third Man destroys Plato's theory of Forms but does not harm Aristotle's own competing theory of Universals. The Third Man is my favorite way to introduce Aristotle's metaphysics. It turns out that Aristotle's Theory of Categories saves his Universals from the Third Man. It has influenced many philosophers through the centuries. However, as I conclude, Aristotle's theory faces its own problems.

The Third Steer

In Chapter 3 Tex used his cowboy expertise to identify steers. Tex's expertise illustrated the Argument from Science. It is easy to modify the Argument from Science to produce the Third Man. In this section I review the Argument from Science in order to present the Third Man.

Tex's expertise allows him to identify steers. He is able to make his identifications by referring to some shared feature. This shared feature is

different from each and every perceptible steer, since it is something all those steers have in common. The Argument from Science proves two other conclusions—that the shared feature is eternal and that it is a pattern—but we can set those conclusions aside for present purposes.

The first premise of the Third Steer Argument is a list of expert identifications. It lists many objects that are steers. Animals raised for slaughter generally do not receive names, so I must resort to numbers to state this premise.

P1 Animal 1, animal 2, animal 3, and so on, are each a steer.

The second premise uses Aristotle's jargon.

P2 (Existence Premise) There exists something that is truly predicated of the many steers mentioned in P1—call it *Steer Itself*.

Do not let the jargon put you off. This premise is just stating the familiar conclusion from the Platonic Argument from Science (Chapter 4). To say *something is predicated of the many steers* is just another way of saying *the many steers share some feature*. Aristotle says the shared feature is "predicated" (or "truly predicated" or "predicated in common"); Plato says it is "present to" each of the many steers. In Aristotle's theory, the shared feature is a "universal"; in Plato's theory it is a "form." Instead of talking about the Form Steer or the Universal Steer, this premise uses the neutral term 'Steer Itself' for the shared feature of being a steer.

The third premise affirms this object's difference from the steers mentioned in the first premise. Instead of affirming the *existence* of the shared form, it affirms its *difference*. This premise, too, like P2, is familiar from the Argument from Science. The shared feature is not any one of the perceptible steers. Indeed, it is not even perceptible.

P3 (Difference Premise) *Steer Itself* is different from each steer mentioned in P1.

I use Plato's Divided Line (Chapter 5) to interpret the fourth premise. Given a question like "What is a square?" the Divided Line compares different answers that experts might give. There are two main types of answers, perceptible and intelligible. The perceptible type of answer plays the parlor game of pointing at perceptible objects and saying "That's a square! And so is that!" The other main type of answer indicates an intelligible object by telling you what a square is. Socrates in the *Republic* placed these different types of answers upon the same line, a line divided in proportion to how clearly each reply answers the given question.

For the Third Steer, the question we put to the expert is, "What is a steer?" The perceptible type of answer to the steer question points and says, "That first one's a steer! So are the second and third!" The intelligible type of answer tells you what a steer is: any castrated male of the species *Bos taurus*. A perceptible answer to the steer question indicates a perceptible steer. In contrast, an intelligible answer indicates the form *castrated male of the species* Bos taurus*,* that is, what we are calling Steer Itself.

There are many differences between perceptible steers and Steer Itself. A perceptible steer is only temporarily a steer. It is what it is: that is, it is *what it is to be a steer*. But it also is many other things as well: perhaps an economic investment, a supply of food, a weight of 1800 lbs., standing, ruminating, lowing, in a field, and so on. Steer Itself is not temporary but eternal. Like perceptible steers, Steer Itself is what it is to be a steer. But it is nothing other than this: just a steer itself, as its name suggests.

The fourth premise depends not on how the intelligible steer differs from the perceptible steer but rather on how they are alike. Both perceptible steers and Steer Itself are steers in this very same way: each gives us an answer to the steer question. In other words, each is *what it is to be a steer*. Premise P1 has already stated that each perceptible steer is a steer. It will make the most sense of the argument to read P1 as saying they are steers in the sense that each is what it is to be a steer. Then the following premise will talk about being a steer in the very same sense. Traditionally, this is called "self-predication," because in this sense the form *steer* is predicated of itself, the form *steer*.

P4 (Self-predication Premise) Steer Itself is legitimately said to be a steer. In other words, Steer Itself is a steer.

The first steer is a perceptible steer. The second steer is Steer Itself. The Third Steer Argument simply recycles these four premises to prove there is a third steer. I indicate the recycled nature of these premises by adding prime marks as below:

P1′ Animal 1, animal 2, animal 3, and so on, *and* Steer Itself are each a steer in the same sense.
P2′ (Existence) There is something that is truly predicated of the many steers mentioned in P1′—call it *Steer Itself Itself.*
P3′ (Difference) Steer Itself Itself is different from each steer mentioned in P1′.
P4′ (Self-Predication) Steer Itself Itself is legitimately said to be a steer. In other words, Steer Itself Itself is a steer.

The Third Steer argument does not stop at this point. It continues to recycle

the Existence, Difference, and Self-Predication premises, proving there is also a Fourth Steer, a Fifth, and so on without end.

Plato, not Aristotle, invented this sort of infinite regress as a challenge to his own theory. In the *Parmenides,* he has a seventeen-year-old Socrates present a theory of forms to the great monists Parmenides and Zeno. Instead of a Third Man or a Third Steer, Parmenides gives a Third Large argument in reply. Parmenides concludes by saying to Socrates, "Each of your Forms will no longer be one. Rather, their number is boundless" (132b1-2). It is striking that Plato leaves unanswered this challenge to his theory. It is also striking that he has even his character Parmenides continue to affirm the existence of forms.

Alexander of Aphrodisias in his commentary on Aristotle (Chapter 4) recorded the Third Man version, which he took from Aristotle's dialogue *On Forms*. He possessed a copy of this dialogue around 200 CE, but it has been lost to scholarship since then.[21]

As you now have noticed, the title of the 'Third Man' argument seems to have very little to do with the infinite regress argument. The problem is not the *third* man any more than it is the fourth or any number. And the argument is about a *man* no more than it is about a steer or largeness or any one other thing that can be "truly predicated of many." But leave those oddities aside.

In the *Metaphysics,* Aristotle endorses the Third Man as one of the "problems" for the "more accurate of the arguments" for Plato's Forms (990b15-17). Aristotle makes some cutting remarks, for example, that Plato's theory is "absurd" (997b5-6) and that the Forms are "twittering" (*Posterior Analytics* 83a33). The Third Man is designed to make you give up your Platonism and, at some point in the regress, agree with Aristotle that Steer Itself Itself Itself … Itself is "twittering" and "absurd."

Aristotle thinks his own metaphysical theory is not harmed by the Third Man. An examination of the Third Man, premise by premise, will show what is distinctive about Aristotle's own metaphysics. More importantly, it will help you discover your own metaphysical beliefs. Premise P1 represents an expert report that lists many objects and states that each is a steer or a man or large or whatnot. The truth of this premise is not a question for metaphysics. It is plain old science.

The Existence and Difference Premises

The metaphysics begins with the existence premise P2, which states that there *exists* something that is predicated of the many. This existence will be denied by the *nominalists* of Chapter 4, who reappeared as *empiricists* in Chapter 5. By denying premise P2, they escape from the clutches of the Third Man. This

[21] Alexander, *Commentary on Aristotle's Metaphysics* I 83.34-84.7 and 84.21-85.5.

might lead you to wonder if Aristotle is a nominalist.

The answer is no. In the *Posterior Analytics,* for example, Aristotle shows that he accepts versions of P2 and P3 for the same reason you are likely to accept it: Plato's Argument from Science.

> For there to be scientific reasoning, you do not need the existence of a Form or something *apart from* the many. However, you do need it to be true to say something of many things. For unless you have this much, there will not be a Universal. And if you do not have a Universal, you won't have any generality, or, therefore, any scientific reasoning. So there has to be something *over* the many, something that is one and the same (77a5-9).

In other words, you *do* need a one-over-many, but it is a Universal, not a Form. This raises questions. What are Universals? How are they different from Forms? How are they "over" but not "apart from" the many things of which they are predicated? Answering these questions is the goal of this chapter. So far, we know this much about Universals: they exist (that is, Aristotle in his theory accepts some version of the existence premise P2), and they are "over" the many (that is, he accepts some version of the difference premise P3). He also believes that Universals are "imperishable" (*Posterior Analytics* 85b15-22—see Chapter 4 for why the objects studied by science cannot be perishable thoughts).

The Self-predication Premise

The next step of the Third Man to examine is the self-predication premise P4. Many interpreters in the past century have thought that this premise is not true. They object to P4 by pointing out the many differences between perceptible steers and the form Steer Itself. Perceptible steers have a visible shape and color; they come and go as they move around; they can be noisy and smelly; they are warm and hairy to the touch; they can be slaughtered and made into tasty food. Steer Itself, being imperceptible, is none of these things.

The reply to this objection is that two different objects need to be alike in only one respect in order to share the predicate 'is a steer'. I stated such a respect when I introduced P4: both the visible and the intelligible steer are *what it is to be a steer*. The Third Man begins from P1, which states the original list of objects and says each *is a steer*. Let us interpret the predicate 'is a steer' in this premise to hold true of each of the steers in the sense that each *is what it is to be a steer*. It is in just this sense that premise P4 predicates 'steer' of Steer Itself. This reply meets the objection.

Aristotle seems to accept my reply to the objection. In the *Nicomachean Ethics* he affirms that perceptible men and the thing predicated in common

of all of them (whether this "Man Himself" is a Form or Universal) are *what it is to be a man* in the very same sense.

> What in the world do [Platonists] mean by 'a thing itself', if (as is the case) in Man Himself and in a particular man the account of man [namely, the answer you give to the question, What is it to be man?] is one and the same? For insofar as they are man, they will in no way differ (1096a34-b2).

As we would expect, then, Aristotle finds the notion of self-predication to make sense and be true. For example, in the *Topics* he writes:

> Each kind of predicate, whether it be asserted of itself [for example, '*man* is a man'], or its genus be asserted of it [for example, '*man* is an animal'] signifies [an answer to the question] what it is (103b35-37).

Aristotle thinks the Third Man shows that Plato's Theory of Forms is absurd twittering. Yet Aristotle accepts, in his own theory of Universals, premises P1, P2, P3, and P4. I hope you find this puzzle as intriguing as I do!

Category mistakes

In his work on logical fallacies, the *Sophistical Refutations*, Aristotle identifies the Third Man argument as containing a logical fallacy.

> There is also the argument that there is a third man apart from Man Himself and particular men. The fallacy is that the predicate 'man' and everything predicated in common signify not a definite object but either a quality or a quantity or a relation or something of that sort (178b36-39).

The fallacy made by the argument is called a *category mistake.* It mistakes something in one category—such as definite object, quality, quantity, or relation—for something in another category.

Here is an example of a category mistake. If you are feeling obnoxious, try this "sophistical refutation" out the next time someone tells you that they bought a pair of gloves. Ask them, "Did the pair contain a left-hand glove and a right-hand glove?" They will say yes. Then ask, "So, you bought a left-hand and a right-hand glove?"—"Yes." "So, you admit that you bought three items: a left-hand glove, a right-hand glove, *and* a pair of gloves!"

I admit, the Glove Refutation is silly. But it illustrates what a category mistake is. Aristotle is happy to admit the truth of these four premises.

P1 One item I bought is this left-hand glove.

P2 One item I bought is this right-hand glove.
P3 One item I bought is this pair of gloves.
P4 It is not the case that either this left-hand glove, this right-hand glove or this pair of gloves are the same item.

Yet he thinks it is twittering to conclude:

C1 Therefore, I bought three items: a left-hand glove, a right-hand glove, and a pair of gloves.

The left-hand and right-hand gloves are in the category of definite objects, while a pair of gloves is in the category of quantity.

The problem lies with the conjunction ‘and’ in C1. In C1, ‘glove’ is a noun, and ‘pair’ is a noun. And English grammar permits us to use the word ‘and’ to conjoin any two nouns, as in the list ‘a left-hand glove, a right-hand glove, and a pair’. This list is grammatical, but Category Theory deems it illogical. The list treats the *quantity* of gloves as if it were an additional item belonging to a list of *gloves*. If we insisted on making the grammar correspond to the logic of these two categories (*gloves* and *quantities*), Category Theory would have us say: “a left-hand glove and a right-hand glove *in* a pair,” not “*and* a pair.”

Thus, Aristotle’s *Sophistical Refutations* would classify the Glove Refutation as a fallacy “due to grammatical form,” which “occurs when what is not the same is expressed as the same, for example, when . . . quality is expressed by a quantity or quantity by quality or an active by a passive or a condition by an active and so on according to the distinctions” between categories (166b10-14). In the list in C1, the Glove Refutation expresses a quantity (a pair) as a substance (a like a glove). He says that we can deal with fallacies of grammatical form, "since we possess the different kinds of categories" (178a5-6).

To understand the fallacy in the Glove Refutation, we distinguished two categories: *substances,* like gloves, and *quantities*, like pairs. These two categories are enough to show the fallacy in the following Third Quantity argument:

P1 Animal 1, animal 2, animal 3, and so on, are each one in quantity.
P2 (Existence) There is something that is truly predicated of the ones mentioned in P1—call it *One-in-Quantity Itself.*
P3 (Difference) One-in-Quantity Itself is different from each one (namely, each animal) mentioned in P1.
P4 (Self-Predication) One-in-Quantity Itself is legitimately said to be one in quantity. In other words, One-in-Quantity Itself is one in quantity.
P1′ Animal 1, animal 2, animal 3, and so on, *and* One-in-Quantity Itself

are each one in quantity in the same sense.

P2′ (Existence) There is something that is truly predicated of the ones mentioned in P1′—call it *One-in-Quantity Itself Itself*—and so on!

Aristotle is able to grant the first four premises of the Third One argument, just as he does for the Glove Refutation. His Category Theory blocks the infinite regress at premise P1′ for the following reasons. English grammar permits us to use 'and' to conjoin nouns, like 'animal 1', and proper nouns, like 'One-in-Quantity Itself', as in the list 'animals 1, 2, 3 … and One-in-Quantity Itself'. But this grammatical form can mislead us about the proper logical form, which requires lists and conjunctions to contain only objects belonging to the same category. Thus, it forbids adding a quantity as one more item in a list of substances.

If we insisted on making the grammar correspond to the logic of these two categories (*substances* and *quantities*), we ought to say: "animals 1, 2, 3 … *in* the quantity of one each" instead of "… *and* One-in-Quantity Itself." According to Category Theory, premise P1′ is twittering. It is not true, and so the infinite regress is blocked.

The Categories

Before I can explain the fallacy in the Third Man, I need a more general theory of categories. Things in the world belong to metaphysical categories in the same sort of way that parts of speech belong to grammatical categories. The parts of speech include subjects, adjectives, and verbs. In a corresponding way, things in the world include substances, qualities, and activities. As a general rule, verbs indicate activities; adjectives indicate qualities; and subjects of sentences indicate things in the category of substance. But there are exceptions to such rules. The Glove Refutation and the Third Quantity argument are cases where the grammatical form does not accurately indicate the metaphysical category to which a thing belongs.

According to Aristotle's *Categories,* we mention things in the category of substance when we want to say *what a thing is*. We mention things in the category of quantity to say *how many it is*. In addition to indicating either what it is or how much of it there is, we can also mention "*what sort* it is [its quality] or *in what relation* it is to something [its relation] or *where* it is [its location] or *when* it is [its time] or *how it lies* [its orientation or posture] or *what state* it is in [its state] or what it is *doing* [its activity] or what is *being done* to it [its passivity]. To give a rough idea, here are some examples in *Categories*:

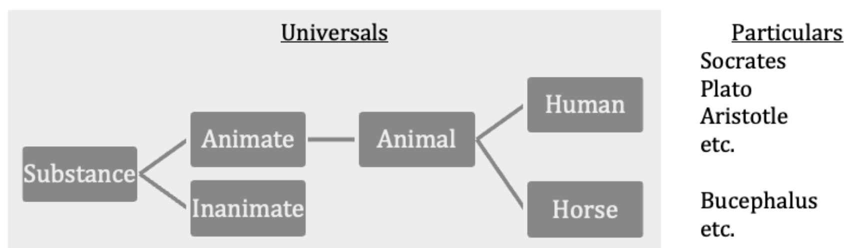
Substance: man, horse
Quantity: one meter, two meters
Quality: white, literate

Relation:	double, half, larger
Location:	in the Lyceum, in the marketplace
Time:	yesterday, last year
Orientation:	lying down, sitting
State:	shod [that is, wearing shoes], armed
Activity:	cutting, burning
Passivity:	being cut, being burned (1b25-2a4).

Above I invented a Third Quantity argument. Using the two categories of Substance and Quantity, Aristotle explains the fallacy in the Third Quantity. Parallel to the Third Quantity, we can invent eight additional arguments: the Third Quality, the Third Relation, and so on to the Third Passivity. Using the above categories, Aristotle can explain the fallacy in each of those arguments.

But the above categories are not enough to explain the fallacy of the Third Man. Aristotle provides additional distinctions in the *Categories*. To explain the fallacy of the Third Man, we need his distinction between universal and particular. See Figure 5 for an example of this distinction in the category Substance.

Figure 5: Universals and Particulars in the Category Substance



In Figure 5, the category Substance branches into a division tree. The tree branches from left to right from the most general universal, Substance, to the most specific universals, Human and Horse. Every universal in this tree is part of the category Substance. In addition to universals, the category Substance also contains particulars such as Socrates, Plato, Aristotle, and Bucephalus. In other words, Socrates, Plato, Aristotle, and Bucephalus share the feature of being a substance.

One kind of category distinction is between categories like Substance and Quantity. But Figure 5 shows a different kind of category distinction, between Universals and Particulars. It is this distinction that shows the fallacy of the Third Man, as Aristotle says in the *Sophistical Refutations:*

> There is also the argument that there is a third man apart from Man Himself and particular men. The fallacy is that *man* and everything predicated in common is not a particular but a universal (178b36-39).

To see the fallacy, look at this statement of the Third Man argument, which is like the Third Steer above.

P1 Socrates, Plato, Aristotle, and so on, are each a man.
P2 (Existence Premise) There exists something that is truly predicated of the many men mentioned in P1—call it *Man Himself.*
P3 (Difference Premise) Man Himself is different from each man mentioned in P1.
P4 (Self-predication Premise) Man Himself is legitimately said to be a man.
P1′ Socrates, Plato, Aristotle, and so on, *and* Man Himself are each a man.
P2′ (Existence) There is something that is truly predicated of the many men mentioned in P1′—call it *Man Himself-Himself.*

Aristotle can admit the first four premises. But the distinction between universals and particulars allows him to call premise P1′ twittering. Here is why: English grammar permits us to use 'and' to conjoin proper nouns, like 'Socrates' and 'Man Himself', as in P1′. But the grammatical form can mislead us about the proper logical form. As we have seen, category theory requires that sentences using the conjunction 'and' contain only objects belonging to the same category. Category Theory, given the distinction drawn in Figure 5 between universals and particulars, forbids adding a universal like Man Himself as one more item to a list of particulars like Socrates, Plato, and Aristotle. If we understand the categories Universal and Particular, we will say: "Socrates, Plato, Aristotle and so on, *being men*, are each a man." The conjunction 'and' in premise P1′ makes that premise absurd twittering. Whoever thinks premise P1′ is saying something meaningful and true has been misled by the superficial grammar and does not understand the underlying categories.

The Mind-Body Problem

Category Theory does more than escape the Third Man. It solves a wide range of metaphysical problems. For example, one metaphysical problem is about the nature of the human mind and animal souls in general. Consider the following argument, which begins with two unquestionable premises.

P1 My body exists (it is something; indeed, it is some *one* thing).

P2 My mind exists (it is something; indeed, it is some *one* thing).

My body and its activities have a location where they occupy space. But it does not seem true that my mind and its thoughts take up space. If this is true, a body cannot be mental, nor can a mind be a body. This sort of reasoning leads to premise P3:

P3 It is not the case that my mind is a kind of body, or that my body is a kind of mental object.

It is natural to draw this conclusion:

C There are two different kinds of substance: body and mind.

Conclusion C is a statement of mind-body dualism.

There are good reasons to be dualists about mind and body, and yet dualism faces difficult problems. One problem is to explain how body and mind interact. For example, if my body ingests alcohol, my mind can become drunk. And my mind at least sometimes controls what my body does. The problem is to explain *how* this interaction between these two substances takes place.

One solution to the interaction problem is to posit that there is some third substance that acts as a bridge between body and mind. The idea is that this third substance is like a bridge between body and mind, and body and mind interact across this bridge.

Unfortunately, the third substance generates an infinite regress much like the Third Man. Since the third substance is different from both mind and body, we need to explain how it interacts with them just as much as we needed how to explain the interaction of mind and body. We seem to need a fourth substance that acts like a bridge from the Third Substance, and a fifth and so on, without ever solving the problem.

Many philosophers have found interaction and other problems insoluble and become *monists*, which holds that there is just one substance. If you deny that there is a mental realm apart from the bodily, you are a *materialist*. If you deny that there is a bodily realm apart from the mental, you are an *idealist*. If you hold that both mind and body are real, yet that they are the same sort of stuff, you hold a *dual-aspect* theory. But all of these positions face problems as bad or worse than dualism. What to do?

Notice a similarity between the Dualist Argument and the Glove Refutation. The Glove Refutation concludes that I bought three items: a left-hand glove, a right-hand glove, *and* a pair of gloves. Aristotle finds a category mistake in the conclusion, which improperly lists a *quantity* (a pair) as if it were a *substance* like a glove.

The Dualist Argument concludes that body *and* soul are two items. But consider the underlying categories. A body is a *substance* that can undergo a change in state from alive to dead. To say that a body "has a soul" is to say that it is alive. And a soul, therefore, is not a substance but a *state*, the state of being alive. Likewise, to have a mind is just to be rational, so that a mind is just the *state* of being rational.

The fallacy made by the Dualist Argument is a case of a category mistake. The three premises P1, P2, P3 above are true. The words 'body', 'soul', and 'mind' are nouns, and this fools people into thinking these are three substances. Conclusion C speaks of "body *and* soul," as if these are two substances. But the conjunction 'and' makes it twittering. Properly revised, conclusion C would not confuse the categories substance and state. The proper revision would say "a body, ensouled," or "an animate body."

A monist thinks body and soul are one thing, while a dualist thinks body and soul are two things. In *De Anima,* Aristotle is *neither*. He says, "You should not ask if the body and soul are one" (412b6). You should not ask, because the conjunction "body *and* soul" in the question makes it more twittering.

The metaphysics of scientific explanation

Science and expertise in general do more than *identify* objects as steers or human beings or whatnot. They also find explanations and causes. Aristotle inquires about such explanations. That inquiry lets him apply the categories yet again to solve another puzzle. And his solution makes a good review for this chapter.

In the *Metaphysics,* he observes that human beings inquire about questions like, "Why are these things—for example, bricks and stones—a house? Plainly such a question looks for something that will provide the explanation" (1041a26-28). In general, "the question 'Why?' always asks 'Why is one thing predicated of another?'" (1041a10-11).

The nominalist explanation of the house is that it is nothing but the bricks and stones.

Nominalism The house = the bricks and stones.

The bricks and stones are the elements of the house. Likewise for the nominalist the syllable 'ba' is just its elements: the letter 'b' and the letter 'a', and flesh is just its elements: carbon-based molecules (or, according to the science of Aristotle's day, the elements fire and earth).

Aristotle refutes Nominalism with the Decomposition Argument.

> The syllable is not its elements: a 'b' and an 'a' are not the same as 'ba'. Nor is flesh fire and earth. For after the flesh and the syllable are

> decomposed, the flesh and syllable no longer exist, but the elements still do. The fire and earth will still exist. Therefore, the syllable is something, and not just the elements—the vowel and consonant—but something else. And the flesh is not just fire and earth … but something else (1041b12-16).

The Decomposition Argument might lead you to Platonism. The house is more than bricks and stones. There has to be "something else," call it the form House.

Platonism The house = the bricks and stones *and* the form House.

Notice that the word 'and' in this account makes the form House one more element in addition to the bricks and stones. Likewise, for the Platonist, the syllable 'ba' is its elements 'b' and 'a' *and* some other form of composition, and the flesh is its elements fire and earth *and* some other form of composition.

Just as you might expect, Aristotle refutes Platonism with another regress argument like the Third Man. For the Third Man, he recycled an Argument from Science. Here he recycles the Decomposition Argument. When the flesh is decomposed, it will no longer exist, but the elements—fire, earth, *and Composition*—still do. We know that, like the fire and earth, the form is not destroyed by decomposition. They do not cease to exist when their perceptible instances are destroyed. So, there must be some *other* element. "And then the flesh will be composed of fire, earth, Composition, *and* something else. And so on to infinity" (1041b21-22). Aristotle concludes: "Evidently, the syllable is not the elements *and* composition, nor is the house bricks *and* composition" (1043b4-6).

Aristotle's own position is also predictable. "It would seem that the something else does exist and is not an element. And it is this which provides the explanation why *this* material is flesh and why *that* is a syllable and so forth for [the house and] all the other cases" (1041b25-7). We can state his position this way:

Aristotelianism "The house = the bricks and stones *composed thus*" (1043a8-9).

The bricks and stones are elements; the composed form is a state. The Platonist's mistake is to think that these exist in the same categorical way. The lesson of the *Metaphysics* is that, since there are categories, each exists in its own different way, as an element or as a state. The lesson is that there is no one overarching category of being. "Things are said to be in many ways" (1028a1).

Historical influence of Category Theory

Category Theory has been important in the history of philosophy. Since most philosophy in the millennium and a half following Aristotle took place within the boundaries of commentaries on Aristotle, it is no surprise that in this historical period, late antiquity and the Middle Ages, Category Theory was largely accepted.

Descartes ushered in the period called, oddly enough, "modern philosophy" (really, eighteenth-century European philosophy) by reintroducing the sort of skeptical problems you saw in the *Theaetetus*. Attention to Category Theory ceased to be a centerpiece of philosophical solutions. Gilbert Ryle in 1949 (and he is not alone in making this diagnosis) attributes the metaphysics of this period of philosophy—fantastic dualism, crude materialism, and incredible idealism—to a failure to appreciate Category Theory.

At the end of the nineteenth century, a category theory resurfaces in the work of Gottlob Frege, and, at the beginning of the twentieth century, because of Frege's influence, Bertrand Russell. Both of these philosophers incorporate the key ideas of Category Theory into systems of formal (that is, symbolic) logic and mathematics.

Another philosopher of the twentieth century to use Category Theory is Ludwig Wittgenstein. He relies on this theory both in his early, systematic work, the *Tractatus Logico-Philosophical*, and his later informal remarks, such as the following excerpt, which acknowledges his debt to Frege, and uses Aristotle's very example.

> To say that a red circle is *composed of* redness and circularity, or is a complex with these component parts, is a misuse of these words and is misleading ... Neither is a house a complex of bricks *and* their spatial relations—that goes against the correct use of the word.[22]

Is Category Theory coherent?

As we have seen, Aristotle escapes from the Third Man with this claim.

Claim 1 Conjunctions like 'Socrates *and* Man Himself' (in premise P1′ of the Third Man) are meaningless twittering.

If we use this phrase in a sentence, the sentence cannot be true. In fact, it cannot even be false. False speech at least makes sense. According to Category Theory, such a sentence is not false but meaningless.

[22] *Philosophical Remarks*, edited by R. Rhees and translated R. Hargreaves and R. White. Chicago: University of Chicago Press, p. 302.

You might remember why a conjunction like 'Socrates *and* Man Himself' makes a sentence meaningless. According to Category Theory:

Claim 2 Socrates and Man Himself belong to different categories of being.

Claim 2 uses the very phrase forbidden by Claim 1: 'Socrates *and* Man Himself'. The problem for Category Theory is obvious: if Claim 1 is true, Claim 2 cannot be true: it itself is a category mistake and twittering. Call this the Incoherence Objection: if Category Theory is true, it is meaningless. So, it cannot be true.

There is a reply that the Category Theorist might make to this objection. The reply explains how, *in their different contexts*, both claims can be true. Here is an example to show why a difference between contexts might save the day for Category Theory. Imagine that next time you host a baby shower, you play the game *You Can't Say That!* Here are the rules:

> Give each guest a beaded necklace as they come to the baby shower. Let them know that they cannot say the word 'baby'. If anyone at the party hears a player say this word, they turn to that person and say, "You can't say that!" Then, they take the necklace from that player and put it around their own neck. The winner is the player with the most necklaces at the end of the party.

Next, imagine that one of the guests is a smart aleck. As soon as you tell them the rules, they say to you, "You can't say that!" It is true that you just said the forbidden word. Nevertheless, I think it is reasonable to tell the smart aleck that they are wrong to try to take your necklace. Your rule-giving speech is not part of the game. It sets up the game. *Setting up the game* and *playing the game* are different contexts. The rules of the game only apply to the game, not to the rule giving.

Aristotle escapes the Incoherence Objection by noticing the difference between the context for Claim 1 and the context for Claim 2. Claim 2 sets up the rules for 'game' of science, while Claim 1 is part of science. Notice the difference between these two questions: 'Are there substances?' (*Physics* 185a27) and 'Are there centaurs?' (*Posterior Analytics* 89b32). We would discover centaurs, if there were any, by making scientific observations. But we do not discover substance by scientific observations. The limits of perception (see Chapter 5) make it impossible to observe substance in the way we do observe black swans or in the way we would observe centaurs, if they existed. For Aristotle, we know there are substances not from science but in a way that is somehow *prior* to science, a way that somehow governs how science makes its investigations. This way is analogous to the way you might lay down the rules for a game before you play it.

Aristotle calls the rules of science its "first principles." And he calls the context that sets up the rules of science "dialectic." In the *Topics*, he writes that the task of discussing the first principles of any science "belongs properly, or most appropriately, to dialectic; for dialectic is a process of criticism in which lies the path to the principles of all [scientific] inquiries" (101b2-4). "It is impossible to discuss [dialectical questions] from the principles belonging to the particular science in hand, since the principles [which are established by dialectic] are prior to everything else" (101a37-b1).[23]

The difference between dialectical and scientific context lets Category Theory escape the Incoherence Objection. Recall premises P1 and P1′ of the Third Man:

P1 Socrates, Plato, Aristotle, and so on, are each a man.
P1′ Socrates, Plato, Aristotle, and so on, *and* Man Himself are each a man.

Premise P1 lists particular men. We verify that the items on that list—Socrates, Plato, Aristotle, and so on—are men by scientific observation. And, of course, Premise P1 is a true sentence as shown in its scientific context.

Claim 1 of the Incoherence Objection rules out the conjunction 'Socrates and Man Himself' *only* in a scientific context like P1. Premise P1′ looks like it is in the same sort of scientific context as P1. Claim 2, which states that Socrates and Man Himself belong to different categories of being, is not verified by scientific observation. Claim 2 does not belong to a scientific context; it belongs to the dialectic context that sets up the rules for how to play the 'game' of science.

The reply claims that what is nonsense in one sort of "scientific" inquiry

[23] Above, I mentioned Wittgenstein as a twentieth-century example of a philosopher who follows Aristotle in using Category Theory to solve philosophical problems. Wittgenstein also follows Aristotle's escape from the Incoherence Objection. Like Aristotle, he draws a distinction between contexts. For Wittgenstein one context is that of his 1921 book (translated as the *Tractatus Logico-Philosophicus*), the context of *preparing* the reader to "see the world." The other context is when the reader sets aside the preparation and *does* "see the world." Notice in the following quotation that, just as for Aristotle, what is meaningless in one context is not meaningless in the other.

> My statements [in this book] make things clear in the following way. Anyone who understands me recognizes them as meaningless when, at the end, by means of them, he has stepped up on top of them and gone above them. (You might say that he has to throw the ladder away after he has stepped up it.) He must rise above these statements; then he will see the world right (proposition 6.54, my translation).

may have a point in "dialectical" inquiry. It will be nonsense to say, "Socrates and Man Himself are each a man," but not to say, "Socrates and Man Himself belong to different categories." Category theorists can have their cake and eat it, too.

Perhaps this reply is good. But it does not convince me. I agree that the statement "Socrates and Man Himself belong to different categories" does not belong to any scientific context but to a metaphysical or "dialectical" context. But the alleged nonsense that "Socrates and Man Himself are each a man" comes from the Third Man, which is certainly not a scientific context. It too belongs to a metaphysical or "dialectical" context. For the solution to work, one sentence would have to be used in a radically different inquiry than the other; but both have belonged to one single inquiry in this chapter.

Conclusion

From one point of view, the choice between Plato's Forms or Aristotle's Universals is no big deal. The two doctrines broadly agree that there are eternal perfect objects that human beings can study. Their broad agreement is enough to save Aristotle's truest happiness from the objection raised that there might not exist such objects (Chapter 3), even if the two doctrines disagree about the details. In that respect their broad agreement is like the broad agreement of Christianity and Islam to a metaphysics of supernatural monotheism, even if the two religions disagree about the details.

Nevertheless, the Third Man Argument raises deep metaphysical questions. It appears to demolish Plato's position. Aristotle's Category Theory gives a neat solution. But it is threatened by the Incoherence Objection. We have not settled these questions.

I end this book with a statement Thomas Nagel made in 1986. "The history of philosophy is a continual discovery of problems that baffle existing concepts and existing methods of solution."[24] I hope that the negative ending to this book leaves you not with a sense of disappointment but with a sense of wonder. As Socrates said in the *Theaetetus*: "The sense of wonder is the mark of the philosopher" (155d).

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[24] *The View from Nowhere* (Oxford: Oxford University Press), p. 11.

ABOUT THE AUTHOR

George Rudebusch grew up in Wauwatosa. He took his first philosophy course at Carroll University and has been fascinated with Socrates' arguments ever since a graduate seminar on Socratic Ethics with Terry Penner at the University of Wisconsin, Madison, in 1977. He lives in Flagstaff, where he teaches philosophy at Northern Arizona University.