PHILOSOPHY IN **STAR TREK**:

 A THINKING PERSON'S GUIDE TO **STAR TREK**

 BY

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 *Introduction*

Fans of *Star Trek* have always recognized the intellectual depth contained in the series. As a fan who is also a trained philosopher, it has always seemed to me that the series' intellectual depth was distinctly *philosophical*. When this view is combined with the fact that very few viewers have any formal philosophic train­ing, it becomes clear that most viewers are unable to fully appreciate this very rich aspect of the series. This book is written to share with others some of the insights that emerge when watching *Star Trek* from a philosophical perspective.

Several years ago, I began teaching a college course that I called, "Philosophy in *Star Trek*". In that course, I introduced students to a variety philosophic themes and thinkers by showing them scenes from *Star Trek* episodes. The student's ability to relate to *Star Trek* made it easier for them to understand and relate to some of the more esoteric philosophical points. This book contains many of the insights that have emerged as I taught that class.

In the classroom the primary aim is to teach philosophy. *Star Trek* is an enjoyable and effective means to that end. However, the primary aim of this book is to help the reader appreciate the philosophical depth that is present in *Star Trek*. In order to achieve this goal it is clear that I will need to explain the positions of some famous philosophers and to outline alternative perspec­tives on some important philosophic debates. I will assume throughout that the reader is a *Star Trek* fan who wants to learn enough about philosophy to be able to more fully appreciate this particularly rich aspect of *Star Trek*. It is my hope that as a result the reader will enjoy philosophy enough to want to study it further.[[1]](#footnote-2)

We enter life emersed in a culture. Culture functions, in part, to transmit to its members a narrative that help us first to develop a sense of ourselves and then later to join and sustain a common society. Within any given culture there are usually several more-or-less coherent stories that are competing with one another for the allegiance of the population. Education and enculturation consists, in part, in learning and participating in one or another of these cultural narratives. However, for many of us, there comes a point when we feel that we must subject our culture's narratives to scrutiny and rigorous examination. We feel the need to seriously examine what our society is telling us and to work through its assumptions and to discover its strengths and weaknesses. This process of investigation, discovery, critical examination, creative imagination, and eventually the integration of various elements into a personalized and more-or-less coherent world view is, to many of us, a very important element in the development of our sense of self and of our understanding of our role in society and the universe.[[2]](#footnote-3)

Humans throughout history have engaged in investigations of this sort. The philosophers that we study are people who have written in insightful or valuable ways about some aspect of their own investigations. Historians of thought have pointed out that such philosophic investigations typically focus on a set of what have come to be called "eternal questions".[[3]](#footnote-4)

Many of these questions are quite familiar to post-adolescent people. Who am I? Why am I here? What should I do with my life? Is there a God? What is my place in society and in the universe? In addition to these common question, there are others that are just as important that most people don't immediately consider. For example, What is the nature of reality? This is clearly a very broad question that can be divided into several others. For example, What is the nature of \_\_\_\_\_\_? (mind, self, morality, time and space, persons). In addition to the question, Is there a God?, there are questions like: If there is a God, does he give my life meaning; and if not, what, if anything, does? What is the relationship between God and organized religion? Then there is the general domain of epistemology which is concerned with the question, What can humans know and how? Ethics is a general field of study that deals with questions like: How should I live my life? What is the good life? What features are present in a good life? What things are valuable? What are the virtues? What is the proper scope of moral concern? How should we treat others and who (or what) counts as an "other" that is to receive this special treatment? What is justice? and What is the proper balance between individualism and community?

If we accept that there are such eternal questions and that every person and culture endeavors to answer them to some degree and in one way or another, then we can suppose that such questions will still be around in the twenty-fourth century. Like us, members of the United Federation of Planets will also be grappling with questions like these. Thus, as we watch *Star Trek* we can see how they deal with these matters. The contrast between their answers and those preferred by people in our culture will be very instructive.

One of the main benefits of philosophy is its resis­tance to narrow mindedness and insularity. Philosophy encourages people to question the presuppositions that form the foundations of their world view. It encourag­es people to consider alternative ways of thinking about themselves. Similarly, one of the primary virtues of literature, and of science fiction in particular, is its capacity to vividly bring to life alternative world views. *Star Trek* is particularly good at this. It encourages the viewer to broaden one's horizons and to open up our minds to alternative ways of seeing the world. *Star Trek* lets us see ourselves differently and as a result, it is something more than "mental bubble-gum" which only exercises the mind but does not nourish it in the process. By studying *Star Trek* we can achieve a better understanding of our­selves, our society, and our place in the universe.

When Gene Roddenberry created the *Star Trek* universe, he allowed himself the freedom to bring certain concep­tions of humanity and our place in the world into question. When we take notice of these alterations, we can more clearly see our own background assumptions. By juxtaposing the *Star Trek* universe with our own, we can more clear­ly appreciate the presuppositions that operate in our own world view. In spite of the joy and entertainment that we may get when we allow *Star Trek* to take our minds into the future, it is important to remember that the intellectual value contained in *Star Trek* applies to the here and now.

Philosophic investigations of this sort can be viewed as a kind of quest. Like us, members of the United Federation of Planets are also questing. Consider their mission statement:

"Space--the final frontier. These are the voyages of the starship *Enterprise*. Its five-year mission: to explore strange new worlds; to seek out new life and new civilizations; to boldly go where no man has gone before."[[4]](#footnote-5)

Initially it might seem that the Federation is only seeking scientific and cultural information. But I will suggest that their journey yields much much more than just that. The best and the brightest people of that era join this quest for very deep reasons.

NOTE TO STUDENTS:

Students are sometimes worried that they will have problems with this course because they have never seen a *Star Trek* episode or movie. Let me assure you that this will not impair your ability to score well in this course. In this version of the text, I have included a transcription of many of the most crucial scenes. Furthermore, many of the episodes that are of philosophic interest will be shown, at least in part, during our class meetings. I have also included several appendii that will help you understand things about *Star Trek*. I do not doubt that from time to time, there will be comments made in class that will pertain to some specific episodes with which you may not be familiar. When this happens, I will endeavor to fill in the necessary background so that you can everyone can understand the discussion.

Secondly, please join me in recognizing that this text is still very much a "work in progress". I am trying to turn this text into a "trade book". This means that I am hoping to market this material in some form or other to the mass market of readers. Given this goal, I would very much appreciate your feedback. If you have any suggestions at all, please feel free to chat with me about them. I am especially interested in comments regarding any additional references or topics that, in your opinion, deserve inclusion. I would be interested in which chapters you find more interesting or less interesting. Let me know which passages you particularly like or dislike. With the help of my readers I should be able to make substantial improvements on this text.

 THE QUEST FOR KNOWLEDGE

At the end of the episode *Ship in a Bottle (TNG)*, Professor Moriarty and Countess Regina Barthalomew (two holodeck characters) are fooled into believing that they have successfully been transported off the holodeck. They believe that they have been given real substance in the real world. This deception is accomplished by programming a simulation of the Enterprise and its shuttle bay into another holodeck. The professor and his Regina are simply transferred from one illusory world to another. The program is then downloaded into a small box which has sufficient power and programming to allow the characters to live out the remainder of their lives completely unaware of the true nature of their situation. Once professor Moriarty is secure in his prison, the crew of the Enterprise reflects on this situation. The scene concludes with this exchange:

Lt. Barclay:. . .This enhancement module contains enough active memory to provide them with experiences for a lifetime.

Capt. Picard:They will live their lives and never know any difference.

Lt. Cmd. Troi:In a sense, you did give Moriarty what he wanted.

Capt. Picard:In a sense. But who knows, our reality may be very much like theirs and all this (gesturing around at the room) might just be an elaborate simulation running inside a little device sitting on someone's table!

Picard's final quip raises an eery possibility. Is it possible for you to know that your life, your world, your reality, is not just some elaborate illusion? We all grow up thinking that we are firmly in touch with the only reality that there is. Furthermore, we are confident that our mental faculties are up to the task of giving us accurate and reliable information about that reality.

But precisely what is the nature of our reality? Can we be confident that there is only one reality? Is the assumption that our mental abilities can provide us with knowledge of the full extent of reality really all that safe an assumption?

For several millennia Western philosophers have been trying to grapple with such questions. Some of the greatest minds in the history of philosophy have struggled with these issues. In the remainder of this section, I will use assorted *Star Trek* episodes to explain how various philosophers have dealt with these problems.

One aspect of the Enterprise's mission is "to seek out new knowledge". But surely this quest is about something more than merely increasing the size of their data base. It seems to me that, at least in part, these explorers are out to refine their understanding of the human condition. That is, they want to increase their experiences, to broaden their access to aspects of reality that may not be initially apparent, to appreciate the scope and limits of the human mind. It is evident that Roddenberry's universe was designed to permit a much larger range of experiences. It exaggerates contrasts and we encounter much stranger phenomena. But their quest is sufficiently similar to ours to be instructive. Their quandaries are frequently enough very much like ours. Thus, their quest can provide us with insights into and perspective on our own.

Over the years, this quest for knowledge gave rise to a primary field of philosophy. Philosophers refer to this quest for knowledge as "epistemology" (strictly--the study of knowledge). This domain of philosophy is primarily concerned with questions like:

--What is knowledge?

--What can humans know?

--How can we know it?

Unlike "Q" or God, humans do not have perfectly reliable senses, pure reasoning, or infinite minds. Our many limitations give rise to the specific concerns of epistemology. The question, "What can we know?" is concerned with the various KINDS or CATEGORIES of knowledge which are possible for human beings. Most theorists suggest, for example, that there is a fundamental difference between empirical knowledge and mathematical knowledge.[[5]](#footnote-6) Accordingly, the question "What can we know?" is asking, "Can we have empirical knowledge?", or alternatively, "Can we have knowledge that is not ultimately derived from experience?" What credence, if any, should we give to mystical experiences or to claims of divine inspiration? How should we evaluate claims of ESP or other non-empirical sources of knowledge? What account can we give for the fact that we are so certain about mathematical truths like 2 + 2 = 4 ? Or should we perhaps--following the suggestion that Picard makes in the above quoted scene--join with the skeptic who maintains that, in spite of appearances, we do not actually have knowledge of any kind?

 *Platonic Idealism*

I will begin by discussing the approach to this issue that was taken by the ancient Greek philosopher Plato (427-347 B.C.). Plato taught philosophy in ancient Athens and his philosophy comes to us in the forms of philosophic dialogues that survive to this day. Plato's ideas are extremely important to the history of Western civilization. Indeed, the twentieth century philosopher Bertrand Russell once said that "The total history of philosophy is little more than a footnote to Plato's thought."[[6]](#footnote-7)

In the few centuries before Plato, there were other philosophers whose ideas set the scene for Plato's thought. In this period, there were skeptics, naturalists, and subjectivists. The skeptics took note of the fact that our senses sometimes provide us with conflicting evidence. Furthermore, they reasoned, once something has shown itself to be unreliable, we cannot fully trust it ever again. For example, we sometimes experience mirages, sometimes when we are ill we can't taste accurately, and there are times when we cannot clearly distinguish whether something is hot or cold. This last problem can be vividly seen in the cruel trick that my scout troop once played on a set of young boy scouts. As an initiation ritual, these young kids were told that they were going to have their backs branded with a burning stick from the campfire. They were laid face-down on the ground with their shirts off and then a glowing stick was brought close enough to their skin that they could feel the heat radiation. Their skin was then touched with an ICE CUBE!! They screamed in terror thinking that they had really been branded. For a crucial moment, the kid's senses failed to provide them with an accurate report about their reality. This point is taken to its extreme with the phenomenon that we call hallucination. Consider for example the following passage from Shakespeare's Macbeth:

 Is this a dagger which I see before me,

 The handle toward my hand? Come, let me clutch thee!

 I have thee not, and yet I see thee still.

 Art thou not, fatal vision, sensible

 To feeling as to sight? or art thou but

 A dagger of the mind, a false creation,

 Proceeding from the heat-oppressed brain?[[7]](#footnote-8)

The skeptical perspective is based on an argument like this:

(Premise 1) Each of our five senses are sometimes unreliable.

(Premise 2) Anything that has once proven to be unreliable cannot ever yield knowledge.

(Premise 3) There is no possible source of knowledge other than our five senses.

(Conclusion) Therefore, human beings cannot have knowledge.

You can think of the first premise as suggesting that our senses are like a faulty thermometer. If you have a thermometer that is not providing you with accurate readings in some situations, can you ever again really trust that it will give you a reliable reading? Likewise, since our senses sometimes give us unreliable information, can we ever really trust them again?

This skeptical argument was challenged by the naturalist philosopher Democritus (460-360bc?), who argued that our senses are not the only source of knowledge. Now you might ask yourself, "What, if not our senses, might be an alternative source of knowledge"? Democritus agreed with the skeptics that our **senses** are an *inadequate* form of judgment. But the faculty of *reason* can, he maintained, provide us with genuine knowledge. He claimed that there is an order to things that is hidden from our immediate sense perceptions. Furthermore, he maintained that this hidden order is something that we can know through the functioning of our *reason.* He claimed that this hidden order is superior to the apparent order.

Democritus' faculty of *reason* functions very much like Deanna Troi's empathic capacity. Troi is able to acquire accurate information about the world solely through the functioning of her mind.[[8]](#footnote-9)

Protagoras (485-415bc?), on the other hand, disagreed with both the skeptics and the naturalists. Protagoras was a subjectivist who argued that there is no such thing as objective truth. He denied Democritus' claim that *reason* could be the source of objective knowledge. But at the same time he did not support the skeptics pessimism. Both naturalist and skeptics assume: (1) that how things really are is how they are objectively, and (2) that what is true is true objectively.

Protagoras resisted both of these assumptions. Protagoras defended the notion that *man is the measure of all things.* This is essentially the claim that there are no objective standards or facts. Instead, he maintains that human conventions provide the standards that determine what is true.

Taken together, these pre-Socratic thinkers provide the intellectual context for Plato's work. In his dialogue *Theaetetus*, Plato argues against Protagoras' subjectivism. Plato points out that there are some ideas--like existence and non-existence, likeness and unlikeness, sameness and difference, unity and number--that we know independently of any sense experience. He points out that there is no sense organ through which we can know these concepts and he concludes that "the mind in itself is its own instrument for contemplating the common terms."[[9]](#footnote-10) He goes on to state that, "The mind contemplates some things through its own instrumentality."[[10]](#footnote-11) In this respect, Plato's views resemble those of Democritus.

Plato then confronts the skeptic's claim that the unreliability of our senses precludes the possibility of knowledge. He does this by offering a distinction between perception and knowledge.[[11]](#footnote-12) According to Plato, "knowledge does not reside in the impressions, but in our reflection upon them."[[12]](#footnote-13) This reflective "judgment" is distinct from the immediate sense impressions that might be reliable or not. Based on this point, Plato concludes by defining knowledge as "true judgement."[[13]](#footnote-14)

Plato acknowledges that physical objects are the objects of sense perception and that sense perception does not yield knowledge. However, is spite of this, Plato is unwilling to admit that we cannot have knowledge. He reasons in the following way: Since physical objects can not be the source of knowledge, there must be some other source for knowledge and that source must have it's own proper objects. But what are these objects of knowledge?

In order to answer this question, one must first understand Plato's theory of the forms. Essentially, the Forms are abstract entities. A form is that thing which things that go by the same name have in common. For example Plato points out that there are many good things and many beautiful things and he asks, What do all good things have in common? What do all beautiful things have in common? His answer is "Goodness itself or Beauty itself and so on. Corresponding to each of these sets of many things, we postulate a single Form or real essence, as we call it."[[14]](#footnote-15)

When this theory of forms is in play, it is clear that the physical objects that we see are not the objects of thought or knowledge. According to Plato, the Forms are the true objects of thought and knowledge. Plato maintains that: (1) it is our soul that has knowledge, (2) it knows by fixing its gaze on the forms, and (3) knowledge is had only when the forms of our thought are irradiated by truth and reality.

Plato argues for what can be called the *two world hypothesis.* According to this hypothesis, there is: (1) "the world of appearance" which is our ordinary world of things and people, and (2) "the real world" of the forms. It is crucial that one recognize that Plato's use of the term 'real' differs from our common use of that term. For Plato, the *real* world is the world of the Forms. The world that you and I call 'real' is, for Plato, the world of "becoming" or the world of "appearances". These points are exemplified in the following passage:

Apply this comparison, then, to the soul. When its gaze is fixed upon an object irradiated by truth and reality, the soul gains understanding and knowledge and is manifestly in possession of intelligence. But when it looks towards that twilight world of things that come into existence and pass away, its sight is dim and it has only opinions and beliefs which shift to and fro, and it seems like a thing that has no intelligence.[[15]](#footnote-16)

Plato relies on his two world hypothesis in order to explicate his theory of knowledge. This is manifest in Plato's famous allegory of the divided line.[[16]](#footnote-17)

You have to Imagine, then, that there are two ruling powers, and that one of them is set over the intellectual world, the other over the visible. I do not say heaven, lest you should fancy that I am playing upon the name (ovpavos, opatos). May I suppose that you have this distinction of the visible and intelligible fixed in your mind?

I have.

Now take a line which has been cut into two unequal parts,and divide each of them again in the same proportion, and suppose the two main divisions to answer, one to the visible and the other to the intelligible, and then compare the subdivisions in respect of their clearness and want of clearness, and you will find that the first section in the sphere of the visible consists of images. And by images I mean, in the first place, shadows, and in the second place, reflections in water and in solid, smooth and polished bodies and the like: Do you understand?

Yes, I understand.

Imagine, now, the other section, of which this is only the resemblance, to include the animals which we see, and everything that grows or is made.

Very good.

Would you not admit that both the sections of this division have different degrees of truth, and that the copy is to the original as the sphere of opinion is to the sphere of knowledge?

Most undoubtedly.

Next proceed to consider the manner in which the sphere of the intellectual is to be divided.

In what manner?

Thus: There are two subdivisions, in the lower of which the soul uses the figures given by the former division as images; the inquiry can only be hypothetical, and instead of going upward to a principle descends to the other end; in the higher of the two, the soul passes out of hypotheses, and goes up to a principle which is above hypotheses, making no use of images as in the former case, but proceeding only in and through the ideas themselves.

I do not quite understand your meaning, he said.

Then I will try again; you will understand me better when I have made some preliminary remarks. You are aware that students of geometry, arithmetic, and the kindred sciences assume the odd, and the even, and the figures, and three kinds of angles, and the like, in their several branches of science; these are their hypotheses, which they and everybody are supposed to know, and therefore they do not deign to give any account of them either to themselves or others; but they begin with them, and go on until they arrive at last, and in a consistent manner, at their conclusion?

Yes, he said, I know.

And do you not know also that although they make use of the visible forms and reason about them, they are thinking not of these, but of the ideals which they resemble; not of the figures which they draw, but of the absolute square and the absolute diameter, and so on‑‑the forms which they draw or make, and which have shadows and reflections in water of their own, are converted by them into images, but they are really seeking to behold the things themselves, which can only be seen with the eye of the mind?

That is true.

And of this kind I spoke as the intelligible, although in the search after it the soul is compelled to use hypotheses; not ascending to a first principle, because she is unable to rise above the region of hypothesis, but employing the objects of which the shadows below are resemblances in their turn as images, they having in relation to the shadows and reflections of them a greater distinctness, and therefore a higher value.

I understand, he said, that you are speaking of the province of geometry and the sister arts.

And when I speak of the other division of the intelligible, you will understand me to speak of that other sort of knowledge which reason herself attains by the power of dialectic, using the hypotheses not as first principles, but only as hypotheses‑‑that is to say, as steps and points of departure into a world which is above hypotheses, in order that she may soar beyond them to the first principle of the whole; and clinging to this and then to that which depends on this, by successive steps she descends again without the aid of any sensible object, from ideas, through ideas, and in ideas she ends.

I understand you, he replied; not perfectly, for you seem to me to be describing a task which is really tremendous; but, at any rate, I understand you to say that knowledge and being, which the science of dialectic contemplates, are clearer than the notions of the arts, as they are termed, which proceed from hypotheses only: these are also contemplated by the understanding, and not by the senses: yet, because they start from hypotheses and do not ascend to a principle, those who contemplate them appear to you not to exercise the higher reason upon them, although when a first principle is added to them they are cognizable by the higher reason. And the habit which is concerned with geometry and the cognate sciences I suppose that you would term understanding, and not reason, as being intermediate between opinion and reason.

You have quite conceived my meaning, I said; and now, corresponding to these four divisions, let there be four faculties in the soul‑‑reason answering to the highest, understanding to the second, faith (or conviction) to the third, and perception of shadows to the last‑‑and let there be a scale of them, and let us suppose that the several faculties have clearness in the same degree that their objects have truth.

I understand, he replied, and give my assent, and accept your arrangement.

In the "world of appearances" there are two kinds of perception. There is the lowest kind of perception which consists of seeing the reflection of things in, for example, water or in a mirror. Then there is the next level of perception which is the perception of physical objects. The first, Plato calls "imagining" and the second he calls "belief." Above the line that separates the "real world" from the "world of appearance", there are also another two kinds of perception. The perception of the lower forms is what Plato calls "thinking." The perception of the higher forms is what Plato calls "intelligence." Thus, for example, with respect to my dog Fido, Plato would say that there are four levels of perception. First, and lowest, is my seeing Fido's shadow. Second, I see Fido. Third, I apprehend the form "Dog". Finally, I apprehend the form Good.

According to Plato's divided line, Forms are the true objects of knowledge and they are known through the intellectual soul. Furthermore, his account includes the view that the world of physical objects is not the real world. The physical world is the world of becoming, the world of decay and change, the world of appearance. The world that is, according to Plato, the real world is the world of the forms. The Form world is the world of being, not becoming. It is the world of permanence and eternal constancy. Just as 2 + 2 = 4 is eternally true and never changing, so too are all of the forms.

It is crucial to realize that this division is, for Plato, normative and/or evaluative. That is, according to Plato, the form world is *good* and the world of becoming is *evil*.

This view has been transmitted in innumerable ways throughout our culture. For example, the Christian conception of heaven owes a lot to Plato's Form world. It also contributes to the idea that the soul is good and the body is bad. Thus, for example, the life of the mind is praised, whereas the pleasures of the body are condemned. This might, in part, explain why so many of us delay and feel guilty about our first sexual experience. The implications of this idea are endless--think of some yourself. . .

Finally, Plato brings all of the above together in his justly famous "ALLEGORY OF THE CAVE", which I will now quote at length.

AND now, I said, let me show in a figure how far our nature is enlightened or unenlightened: Behold! human beings living in an underground den, which has a mouth open toward the light and reaching all along the den; here they have been from their childhood, and have their legs and necks chained so that they cannot move, and can only see before them, being prevented by the chains from turning round their heads. Above and behind them a fire is blazing at a distance, and between the fire and the prisoners there is a raised way; and you will see, if you look, a low wall built along the way, like the screen which marionette‑players have in front of them, over which they show the puppets.

I see.

And do you see, I said, men passing along the wall carrying all sorts of vessels, and statues and figures of animals made of wood and stone and various materials, which appear over the wall? Some of them are talking, others silent.

You have shown me a strange image, and they are strange prisoners.

Like ourselves, I replied; and they see only their own shadows, or the shadows of one another, which the fire throws on the opposite wall of the cave?

True, he said; how could they see anything but the shadows if they were never allowed to move their heads?

And of the objects which are being carried in like manner they would only see the shadows?

Yes, he said.

And if they were able to converse with one another, would they not suppose that they were naming what was actually before them?

Very true.

And suppose further that the prison had an echo which came from the other side, would they not be sure to fancy when one of the passers‑by spoke that the voice which they heard came from the passing shadow?

No question, he replied.

To them, I said, the truth would be literally nothing but the shadows of the images.

That is certain.

And now look again, and see what will naturally follow if the prisoners are released and disabused of their error. At first, when any of them is liberated and compelled suddenly to stand up and turn his neck round and walk and look toward the light, he will suffer sharp pains; the glare will distress him, and he will be unable to see the realities of which in his former state he had seen the shadows; and then conceive someone saying to him, that what he saw before was an illusion, but that now, when he is approaching nearer to being and his eye is turned toward more real existence, he has a clearer vision‑‑what will be his reply? And you may further imagine that his instructor is pointing to the objects as they pass and requiring him to name them‑‑will he not be perplexed? Will he not fancy that the shadows which he formerly saw are truer than the objects which are now shown to him?

Far truer.

And if he is compelled to look straight at the light, will he not have a pain in his eyes which will make him turn away to take refuge in the objects of vision which he can see, and which he will conceive to be in reality clearer than the things which are now being shown to him?

True, he said.

And suppose once more, that he is reluctantly dragged up a steep and rugged ascent, and held fast until he is forced into the presence of the sun himself, is he not likely to be pained and irritated? When he approaches the light his eyes will be dazzled, and he will not be able to see anything at all of what are now called realities.

Not all in a moment, he said.

He will require to grow accustomed to the sight of the upper world. And first he will see the shadows best, next the reflections of men and other objects in the water, and then the objects themselves; then he will gaze upon the light of the moon and the stars and the spangled heaven; and he will see the sky and the stars by night better than the sun or the light of the sun by day?

Certainly.

Last of all he will be able to see the sun, and not mere reflections of him in the water, but he will see him in his own proper place, and not in another; and he will contemplate him as he is.

Certainly.

He will then proceed to argue that this is he who gives the season and the years, and is the guardian of all that is in the visible world, and in a certain way the cause of all things which he and his fellows have been accustomed to behold?

Clearly, he said, he would first see the sun and then reason about him.

And when he remembered his old habitation, and the wisdom of the den and his fellow‑prisoners, do you not suppose that he would felicitate himself on the change, and pity him?

Certainly, he would.

And if they were in the habit of conferring honors among themselves on those who were quickest to observe the passing shadows and to remark which of them went before, and which followed after, and which were together; and who were therefore best able to draw conclusions as to the future, do you think that he would care for such honors and glories, or envy the possessors of them? Would he not say with Homer,

"Better to be the poor servant of a poor master," and to endure anything, rather than think as they do and live after their manner?

Yes, he said, I think that he would rather suffer anything than entertain these false notions and live in this miserable manner.

Imagine once more, I said, such a one coming suddenly out of the sun to be replaced in his old situation; would he not be certain to have his eyes full of darkness?

To be sure, he said.

And if there were a contest, and he had to compete in measuring the shadows with the prisoners who had never moved out of the den, while his sight was still weak, and before his eyes had become steady (and the time which would be needed to acquire this new habit of sight might be very considerable), would he not be ridiculous? Men would say of him that up he went and down he came without his eyes; and that it was better not even to think of ascending; and if anyone tried to loose another and lead him up to the light, let them only catch the offender, and they would put him to death.[[17]](#footnote-18)

No question, he said.

This entire allegory, I said, you may now append, dear Glaucon, to the previous argument; the prison‑house is the world of sight, the light of the fire is the sun, and you will not misapprehend me if you interpret the journey upward to be the ascent of the soul into the intellectual world according to my poor belief, which, at your desire, I have expressed‑‑whether rightly or wrongly, God knows. But, whether true or false, my opinion is that in the world of knowledge the idea of good appears last of all, and is seen only with an effort; and, when seen, is also inferred to be the universal author of all things beautiful and right, parent of light and of the lord of light in this visible world, and the immediate source of reason and truth in the intellectual; and that this is the power upon which he who would act rationally either in public or private life must have his eye fixed.

I agree, he said, as far as I am able to understand you.

Moreover, I said, you must not wonder that those who attain to this beatific vision are unwilling to descend to human affairs; for their souls are ever hastening into the upper world where they desire to dwell; which desire of theirs is very natural, if our allegory may be trusted.

Yes, very natural.

And is there anything surprising in one who passes from divine contemplations to the evil state of man, misbehaving himself in a ridiculous manner; if, while his eyes are blinking and before he has become accustomed to the surrounding darkness, he is compelled to fight in courts of law, or in other places, about the images or the shadows of images of justice, and is endeavoring to meet the conceptions of those who have never yet seen absolute justice?

Anything but surprising, he replied. Anyone who has common‑sense will remember that the bewilderments of the eyes are of two kinds, and arise from two causes, either from coming out of the light or from going into the light, which is true of the mind's eye, quite as much as of the bodily eye; and he who remembers this when he sees anyone whose vision is perplexed and weak, will not be too ready to laugh; he will first ask whether that soul of man has come out of the brighter life, and is unable to see because unaccustomed to the dark, or having turned from darkness to the day is dazzled by excess of light. And he will count the one happy in his condition and state of being, and he will pity the other; or, if he have a mind to laugh at the soul which comes from below into the light, there will be more reason in this than in the laugh which greets him who returns from above out of the light into the den.

That, he said, is a very just distinction.

But then, if I am right, certain professors of education must be wrong when they say that they can put a knowledge into the soul which was not there before, like sight into blind eyes.

They undoubtedly say this, he replied.

Whereas, our argument shows that the power and capacity of learning exists in the soul already; and that just as the eye was unable to turn from darkness to light without the whole body, so too the instrument of knowledge can only by the movement of the whole soul be turned from the world of becoming into that of being, and learn by degrees to endure the sight of being, and of the brightest and best of being, or, in other words, of the good.

Very true.

And must there not be some art which will effect conversion in the easiest and quickest manner; not implanting the faculty of sight, for that exists already, but has been turned in the wrong direction, and is looking away from the truth?

Yes, he said, such an art may be presumed.

And whereas the other so‑called virtues of the soul seem to be akin to bodily qualities, for even when they are not originally innate they can be implanted later by habit and exercise, the virtue of wisdom more than anything else contains a divine element which always remains, and by this conversion is rendered useful and profitable; or, on the other hand, hurtful and useless. Did you never observe the narrow intelligence flashing from the keen eye of a clever rogue‑‑how eager he is, how clearly his paltry soul sees the way to his end; he is the reverse of blind, but his keen eyesight is forced into the service of evil, and he is mischievous in proportion to his cleverness?

Very true, he said.[[18]](#footnote-19)

To summarize: Plato is an IDEALIST. He maintains that humans can have knowledge. This is possible because he maintains that ordinary physical objects and the sense experiences that they give rise to are not, properly speaking, the true OBJECTS of knowledge. The are, strictly speaking, less real than the real objects of knowledge. Plato maintains that "ideas" or "forms" are the proper objects of knowledge. He argues that these Forms exist in a non-sensible Form-world and that the human mind (independently of our five senses) is capable of knowing the forms. By relying on the distinction between appearance and reality, Plato argues that the world of sense experiences is only appearance and that the form world is "reality". I can't stress this last point enough--Plato is saying that the Form world is the REAL world and that this world (the one that you and I think of as physical reality) is only an illusion.

There are three *Star Trek* episodes whose story lines involve ideas that are strikingly parallel to the ideas contained in Plato's allegory of the cave. In the episode *Elementary, Dear Data (TNG)*, the ship's computer generates the holodeck character Professor Moriarty. But unlike all other holodeck characters, this one is conscious, i.e. he is aware of himself as a conscious being. Initially, he is unaware of the true nature of his surroundings. He believes that he is in 19th century London. But as he explores the ship's data base, he comes to understand that his existence is limited to a false and artificially created world. Like the released prisoner in Plato's allegory of the cave, Moriarty comes to understand that his world is a mere illusion and that there is a world beyond the one of his immediate impressions and that it has a superior reality. According to Plato, we stand in relation to the Form world in the same way that Moriarty stands in relation to the world occupied by Picard and Data.

This story line is continued in the episode *Ship in a Bottle (TNG).* This episode is, in my opinion, one of the most philosophically interesting of all the *Star Trek* episodes. This episode combines an illustration of the distinction between appearance and reality with a continuation of the parallels to Plato's allegory of the cave. It is a complex web that is a constant play on the Platonic themes that we have been considering. In this episode, Dr. Moriarty goes to tremendous efforts to achieve existence off of the holodeck.[[19]](#footnote-20)

Finally, the parallels to Plato's allegory of the cave are clearly evident in the episode *Homeward (TNG)*. In this episode, Whorf's brother, Nicholi, is working with a tribe of people who are living on Boraal III--a planet that is soon going to die from an environmental disaster. Rather than standing by and watching the Boraalans die, Nicholi violates the prime directive and transports them onto a holodeck scene that looks exactly like their home world. This transfer is done when they are asleep and they are completely unaware of the shift. Once inside of the holodeck, they are in a situation precisely like that of Plato's prisoner's.

At one point in the episode, a Boraalan named Vorin discovers a holodeck portal and he walks right onto the 24th century starship. At this point, Vorin is just like Plato's released prisoner who is discovering a radically different (and superior) reality. Captain Picard explains to Vorin that if he goes back to his people he will be unable to tell them about the Enterprise because: (1) they would not believe him, (2) it would not be in their best interest, and (3) they might resent his knowledge and kill him. On the other hand, Picard offers him the option of continuing to live on the Enterprise. In the end, Vorin commits suicide instead of returning to his people. He would rather die than to live in the cave without being able to tell what he knows.

Plato's two world hypothesis emphasizes the distinction between appearance and reality. This distinction is a common theme in literature and it is also the centerpiece of many *Star Trek* episodes. For example, it is highlighted in the original pilot to the series, an episode which was later entitled *The Menagerie (TOS)*. In that episode, the inhabitants of Talos IV have the ability to manipulate the minds of the Enterprise's crew. They can deceive humans into thinking anything at all. We see an example of this when the crew uses a boosted phaser to cut away a door in a mountain face. The Talosians make the crew think that they have failed when in fact they have succeeded. This is a clear instance of a divergence between reality and appearance.[[20]](#footnote-21)

Plato's belief that the Form world is superior to the world of becoming is reflected in many of our common attitudes. Consider the following scenario. Suppose that holodeck technology were a reality today[[21]](#footnote-22) and that you had inherited a vast sum of money. Would there be anything wrong with your spending ninety-five percent of your time on a holodeck?[[22]](#footnote-23) If so, why--exactly--would it be wrong? Consider the following exchange between two friends.

Bill:What are you doing with yourself these days now that you have inherited all of that money?

Beth:Well I've been spending most of my time on my new holodeck. It's great. In fact, I'm planning to spend maybe five or six years in there.

Bill:You can't do that!!

Beth:Why not?

Bill:Well, for one thing, it is an entirely artificial life. It's unreal. You can't live a good life out of contact with what is real.

Bill's reaction depends on an assumption that is quite common in our culture. It might roughly be expressed as something like:

 Reality is more valuable than unreality.

 This principle--which I will call the "real-is-valuable" principle--can also be seen in the fact that we might criticize someone by commenting that they are "out of touch with reality".

 The "real-is-valuable" principle is clearly accepted by Professor Moriarty in the episode *Elementary, Dear Data (TNG)*. Once he understands that his existence is less real than that enjoyed by Data and Captain Picard, he immediately wants to have the other form of existence. And at one point Dr. Moriarty fervently asserts, "I want my existence. I want it out there just as you have yours." He wants to exist beyond the holodeck in part because he is accepts the notion that "real" existence, i.e., existence outside of the holodeck, is better than or more valuable than an "unreal" existence? But is this assumption warranted?

Notice for example that in Plato's case the pull of the "real" means that the returned prisoner will spend the remainder of his life trying to remember and understand the nature of what he saw outside of the cave. He will not care much at all about the things in the cave. Interpreting shadows on a wall will not interest him in the least. Translated into our life and playing along with Plato's understanding of matters, this implies that once you get a taste of the TRUTH, once you gain insight into the essence of things, you can't really go back to the mundane. Science is like reading shadows. Business is trading shadows. You must become a philosopher and engage with the real.

 On the other hand, there are several reasons why we might want to be suspicious of the "real-is-valuable" principle. Consider, for example, the episode *Shadowplay (DSN)*. In this episode, Odo and Dax are working to solve the mysterious disappearances of some people when they discover that the villagers are holographic projections and that the disappearances are the result of a malfunction in the holographic generator. Odo tells the villagers the truth about the nature of their existence and then he tells them that he needs to shut off the holographic generator in order to repair it. They allow him to proceed with the repairs. When the machine is turned off, Odo and Dax are surprised to discover that one of the villagers, a man named Reregan, is not a hologram. He says, "Don't look so surprised. I'm as real as you are." Reregan explains that thirty years ago after he fled Yadera Prime as Dominion forces invaded he came to this planet and programmed the hologenerator to project a village in which he could live complete with a set of villagers with whom he could interact. Their conversation continues:

Reregan:I've watched the people marry, have children, grow old and sometimes I even forgot that they were holograms. But it's over. It's over. And I would appreciate it if you would take me back to Yadera Prime.

Odo:But . . . what about the villagers? What about your granddaughter?

Reregan:She's not real.

Odo:Technically, I suppose that you're right. Maybe by our definition Teah is not real. Her memories are stored in a computer; her body is made up of omicron particles. But who's to say that our definition of life is the only valid one. I'm sure if you asked her she'd say she was real. She thinks. She feels.

Reregan:She only seems to. It's all an illusion. . . an illusion I created.

Odo:Well you said that you created the village thirty years ago. Teah is only ten.

Reregan:I designed the program so the villagers could have children if the wanted to.

Dax:Then Teah's personality is a combination of her parents personalities. . .

Odo:Just like a real child. You had nothing to do with it.

Reregan: But she is still a hologram.

Odo:Maybe. But I saw the way that you held her hand when she was sad. I saw the way that you tried to comfort her when she was frightened.

Reregan:I didn't want her to get hurt.

Odo:If she is not real, what does it matter?

Reregan:It matters. It matters to me.

Odo:Why should it matter to you if a hologram cries?

Reregan:Because I love her.

Dax:And she loves you.

Odo:Don't you see. She's real to you. And she's real to me too. They're all real and you can't turn your back on them now.

 Initially, Reregan accepts the "real-is-valuable" principle. This principle supports his initial thought that since the holographic characters are unreal, they do not have any value. Odo, however, challenges this line of reasoning and the principle upon which it rests. Ultimately, Odo is able to convince Reregan that there is much more of value in his life with the villagers than he originally supposes.

 Similarly, consider the episode *The Inner Light (TNG)* in which a probe from the planet Kataan causes Picard to have the experiences of an entire lifetime in the span of 25 of our minuets. As Kamin, Picard lives out a life in which he is married to Eline, has children, studies the environment, engages in politics, and learns to play the flute. All of these experiences are "artificial". They are nothing more than mental fabrications. The people and the culture that these images represent have been dead for centuries. Yet, when he wakes up, Picard is clearly very moved by the experience. Furthermore, it is evident that in spite of its "unreality", Picard cherishes the experience. From this case, it seems clear that "unreal" or artificial experiences might be valued subjectively. They might even be said to be intrinsically valuable to the person who experiences them.

 These counter examples are sufficient to make us wary of an all out acceptance of the "real-is-valuable" principle. Nevertheless, there is still something wrong with spending all of one's time on a holodeck. But, as the examples above show, merely asserting that something is "unreal" is not sufficient to establish that it lacks value or that it necessarily has less value than any alternative simply because that alternative is grounded in our more common reality.

Plato clearly believes that "knowledge of the forms" is superior to "belief about physical objects". This can be seen in the fact that, according to Plato, the prisoner who returns to the cave is better off than his companions. This idea is widely accepted in our culture. We don't talk about this matter by making reference to forms. But it is widely accepted that knowledge is better than opinion or ignorance. However, this is not true in all cases. Consider, for example, the following scenario. A psychiatrist is asked to cure a death row inmate of his mental illness. The state hires the psychiatrist because the law mandates that the state cannot execute a person who is not sane at the time of the execution.[[23]](#footnote-24) In this case, it seems clear that, at least from the point of view of the inmate and the psychiatrist, it is better not to have an accurate grasp on reality. If this is so, then it seems that there is a problem with Plato's "real-is-valuable" principle.

Similarly, there are some situations in which a person may be entirely reasonable in their desire NOT to have some knowledge. For example, let's suppose that a person's family history indicates that they might be at risk for developing Alzheimer's disease. There is a test that you can take that will tell you whether or not you will eventually develop the disease. It is not bad to say that you do not want to know this information. And if this is correct, then--contrary to what we might expect Plato to say--it seems that there are at least some cases in which a state of ignorance is preferable to a state of greater knowledge.

There is a *Star Trek* episode that deals with precisely this sort of issue. Plato's approach seems to imply that a person ought to want the broadest range of knowledge that is possible. Furthermore, it is implicit that any form of self-deception is anathema. This commitment is put to the test in the episode *Inheritance (TNG)*. In this episode, Data discovers that Dr. Juliana Soong Tainer, the person who claims to be his "mother", is herself an android. Juliana was once a biological person. But when she was about to die, her husband, Dr. Noonian Soong, transferred her mind into the positronic neural net of an android body. Dr. Soong programmed her to shut down--i.e., to faint--should she ever come close to discovering the truth about her condition. When she breaks her arm off in a fall, she falls unconscious. During a repair effort, an information chip is discovered. When this chip is played, Data ends up interacting with an image of Dr. Soong. At one point Data asks him, "Then you never told her the truth?" Dr. Soong says, "Why? There was no reason for her to know. I wanted her to be happy". Later Data says,

Data:If she recovers and learns that she is an android. . .

Dr. Soong:She doesn't have to know. Now I designed her to shut down in the event that the truth was discovered. When you ... you put that chip back in she will wake up and remember nothing. All you have to do is to make up some excuse about what happened to her.

Data:Then you do not believe that she should know the truth?

Dr. Soong:Truth. Truth is . .. in every way that matters she is Juliana Soong. I programmed her to terminate after a long life. Let her live out her days and die believing she was human. Don't rob her of that son. Please.

[ The scene changes to the briefing room]

Data:It seems that I must make a decision. Whether to tell Dr. Tainer that she is an android or to withhold that information from her. I do not know what to do.

Dr. Crusher:Why was Dr. Soong so adamant that she not be told?

Data:He seemed certain that if she knew it would preclude the possibility of her being happy.

Picard:Data, what do you think?

Data:I am not certain. I understand why my father felt as he did. But his wishes are not necessarily paramount. I am more concerned with what would be best for her.

Dr. Crusher:Wouldn't she be better off knowing the truth . . . dealing with the reality of her existence?

Troi:I don't think so. She's believed she's human all of her life. The truth might be devastating to her.

Picard:Data . . . there might come some time in the future when she would find out anyway, another accident perhaps. Maybe it would be easier for her if she learned the truth from you.

Dr. Crusher:I can tell you that if I were in her place, I would rather be told by my son than by some stranger.

Data:I find that I am having difficulty separating what would be best for her from what would be best for me.

Troi:What do you mean?

Data:If she knew she were an android, we would have something to share. I would no longer be alone in the universe.

Troi:I know how much that means to you, Data. But at the same time, by telling her you're robbing her of the one thing you've wanted all of your life. . . to be human.

Picard:If's a difficult choice. . . you must do what you think best, Data. But whatever you decision you make, we will support it.

Data then faces the choice of whether or not to tell his "mother" the true nature of her existence. Plato would argue that living her life in ignorance of her "true" nature is artificial or "unreal" and is therefore not to be preferred.

After the discussion quoted above, Data decides NOT to tell her the truth about her condition. Data's decision to leave her in a state of deception supports the view that living in a state of partial ignorance does not necessarily preclude happiness or the possibility of living a valuable life.

To this point, our quest for knowledge and understanding has led us to consider a range of ideas that are really quite different from those with which we are most familiar. Indeed, Plato's ideas might seem more strange to you than some of the things that are encountered by the Enterprise. It seems to me that the most important lesson to be learned here is that you should not be too quick to think that your own conception of how things are is correct. When Shakespeare has Hamlet say, "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy",[[24]](#footnote-25) he is offering the warning that we should not too quickly settle on our first impression of how things are. There are many different views about the nature of reality and there are many different views about just how and how well the human mind can grasp that reality. Plato's views are valuable to us in that they provide us with a perspective that is different from the one that we commonly hold. If nothing else, his views can be the catalyst for raising some very interesting questions. In the chapters that follow, we will see other such theories.

 *Cartesian Rationalism*

Rene Descartes (1596-1650) worked during the period of transition between the Middle Ages and the modern world. In fact, Descartes is frequently referred to as the first modern philosopher. Descartes understood and supported the development of the methods of natural science. Indeed, much of Descartes work can be seen as an attempt to establish a firm foundation for the natural sciences. Science needed the firm foundation in reason because the Church was not at all happy with the idea that mankind could acquire knowledge independent of Divine revelation and at that time the Church still held considerable power. But Descartes was not anti-religious. Rather, he sought to separate science from religion. That is, he sought to protect science from religion while at the same time to protect religion from science.

Like Plato, Descartes wanted to rely on human reason to show that human beings could have knowledge. However, unlike Plato's use of reason, which only yielded knowledge of ideas *in the Form world*, Descartes argued that reason could provide us with knowledge of *this world*. What emerged is a view that philosophers call 'rationalism'. Rationalism claims that the human mind, through reason alone, is capable of grasping substantial truths about the physical world. Accordingly, it would follow that rationalism regards natural science as being, at least in part, an a priori[[25]](#footnote-26) enterprise. Rationalism differs from Platonic idealism in that it claims that human reason is capable of giving us knowledge of the physical world.

According to Descartes, we arrive at knowledge of things in only two ways. First, through intuition and second through deduction. Intuition does not come from the senses nor from constructions of the imagination, but rather intuition springs from the light of reason alone. Deduction, on the other hand, is a process that gives us knowledge of whatever is entailed by other facts that are already known with certainty. Descartes held that there is in all men a native power which is adequate to know a reality that is itself fundamentally rational. That is, rational beings have what it takes to acquire knowledge of a rational universe. Or, to put it another way, the human mind is an adequate instrument for obtaining knowledge of the physical world. In saying this, however, Descartes was not denying that humans are fallible. We make mistakes. This happens, according to Descartes, because we have many bad mental habits that lead us to false beliefs. But he thought that he had discovered a method by which such frailties could be overcome. Descartes believed that there is an objective, rational order in the world. It is an order that the rational mind can grasp through "clear and distinct" intuitions. Thus, according to Descartes, knowledge involves having a rational insight into an objective and rational world. To use a common metaphor, the mind is like a true mirror that can accurately reflect reality.

[Like the truths of geometry,] all things, to the knowledge of which man is competent, are mutually connected in the same way, and that there is nothing so far removed from us as to be beyond our reach, or so hidden that we cannot discover it, provided only we abstain from accepting the false for the true, and always preserve in our thoughts the order necessary for the deduction of one truth from another.

As this passage indicates, Descartes' epistemology was heavily influenced by mathematical demonstrations like those found in geometry. For example, in geometry if you begin with axioms that you know with certainty are true, then you can use reason to deduce additional truths that you can also know with an equal degree of certainty. Geometrical demonstration served as the model for Cartesian epistemology. According to the model one must start with things that one knows with absolute certainty and nothing else. That is, one must exclude from one's initial set of axioms anything that might possibly be wrong.

 Discourse I

I was especially delighted with the mathematics, on account of the certitude and evidence of their reasonings; but I had not as yet a precise knowledge of their true use; and thinking that they but contributed to the advancement of the mechanical arts, I was astonished that foundations, so strong and solid, should have had no loftier superstructure reared on them. On the other hand, I compared the disquisitions of the ancient moralists to very towering and magnificent palaces with no better foundation than sand and mud: they laud the virtues very highly, and exhibit them as estimable far above anything on earth; but they give us no adequate criterion of virtue, and frequently that which they designate with so fine a name is but apathy, or pride, or despair, or parricide.

 Discourse 2

Among the branches of philosophy, I had, at an earlier period, given some attention to logic, and among those of the mathematics to geometrical analysis and algebra, ‑‑ three arts or sciences which ought, as I conceived, to contribute something to my design. But, on examination, I found that, as for logic, its syllogisms and the majority of its other precepts are of avail‑ rather in the communication of what we already know, or even as the art of Lully, in speaking without judgment of things of which we are ignorant, than in the investigation of the unknown; and although this science contains indeed a number of correct and very excellent precepts, there are, nevertheless, so many others, and these either injurious or superfluous, mingled with the former, that it is almost quite as difficult to effect a severance of the true from the false as it is to extract a Diana or a Minerva from a rough block of marble.

Then as to the analysis of the ancients and the algebra of the moderns, besides that they embrace only matters highly abstract, and, to appearance, of no use, the former is so exclusively restricted to the consideration of figures, that it can exercise the understanding only on condition of greatly fatiguing the imagination; and, in the latter, there is so complete a subjection to certain rules and formulas, that there results an art full of confusion and obscurity calculated to embarrass, instead of a science fitted to cultivate the mind.

Once the axioms are obtained one can, through the careful application of reason, deduce other facts. Descartes' method was *analytic* in the sense that he sought to break down complex matters into their simple constituent parts. His thought was that we can understand complex matters by first understanding the simple parts and then by paying careful attention to how those parts were joined together.

By these considerations I was induced to seek some other method . . . instead of the great number of precepts of which logic is composed, I believed that the four following would prove perfectly sufficient for me, provided I took the firm and unwavering resolution never in a single instance to fail in observing them.

The first was never to accept anything for true which I did not clearly know to be such; that is to say, carefully to avoid precipitancy and prejudice, and to comprise nothing more in my judgement than what was presented to my mind so clearly and distinctly as to exclude all ground of doubt.

The second, to divide each of the difficulties under examination into as many parts as possible, and as might be necessary for its adequate solution.

The third, to conduct my thoughts in such order that, by commencing with objects the simplest and easiest to know, I might ascend by little and little, and, as it were, step by step, to the knowledge of the more complex; assigning in thought a certain order even to those objects which in their own nature do not stand in a relation of antecedence and sequence.

And the last, in every case to make enumerations so complete, and reviews so general, that I might be assured that nothing was omitted.

Having adopted this method, the challenge then became--finding an axiom or set of axioms that we can know with certainty. But how could we go about doing that?

As the first rule cited above shows, Descartes solved this problem by using what has come to be known as his *"method of doubt".* Since he wanted to begin his deduction with claims that he knew with absolute certainty, he would treat as false anything that could possibly be doubted.

Descartes was clearly NOT a skeptic, but his quest for axioms required that he begin by doubting or eliminating ALL claims that could be doubted in any way whatsoever. That is, Descartes said to himself, "Although I am sure that knowledge is possible, I want to pretend that it is not. I want to doubt everything that I possibly can so that what remains at the end will be something that we can know with certainty." Descartes realized that this procedure would require that he reject many things that we ordinarily confidently accept.

Descartes argued in the following way. Since your senses are sometimes unreliable, sensory based knowledge is suspect. Furthermore, since you cannot at this moment be sure that you are not dreaming a very vivid dream, you cannot be absolutely certain that things are as they seem to you to be. For these reasons, all sense-based claims are ruled out of the axiom set.

But, Descartes points out even in your dreams animals still have eyes, heads, and hands. Things have color, shape, extension, and size. Perhaps one could argue that we can know that these concepts have application in the world even if we cannot be certain about when and where they apply. Furthermore, whether I am awake or asleep, it is still the case that 2 + 3 = 5 and that a square has four sides. So perhaps these things can be axioms for us.

In response to this suggestion, Descartes considers the following question: "How do I know that God has not brought it about that I am mistaken every time I add two and three together or count the sides of a square?"[[26]](#footnote-27) Given the power of the Church, this was a dangerous thing to suggest. Because, as we all know, God is good and surely a good person would not systematically deceive us in this way. On the other hand, God is not the only possible deceiver. Descartes accomplishes the same task with just a bit of creative effort. He continues,

I shall suppose, therefore, that there is . . . some evil demon, no less cunning and deceiving than powerful, who has used all his artifice to deceive me.[[27]](#footnote-28) I will suppose that the heavens, the air, the earth, colors, shapes, sounds, and all external things that we see, are only illusions and deceptions which he uses to take me in. I will consider myself as having no hands, eyes, flesh, blood or senses, but as believing wrongly that I have all these things.[[28]](#footnote-29)

This evil genius could spend his time and energy fooling us about anything and everything. In this manner, Descartes concludes that there is very little that we can know with absolute certainty. But then the question arises: "Does anything remain?" Is there anything that we can know with certainty? Is there anything that can serve as an axiom for science? Descartes concludes that there is.

Many of the points that I have just explained are summarized by Descartes in his *Discourse on Method*.[[29]](#footnote-30)

 Part IV

I had long before remarked that, in relation to practice, it is sometimes necessary to adopt, as if above doubt, opinions which we discern to be highly uncertain, as has been already said; but as I then desired to give my attention solely to the search after truth, I thought that a procedure exactly the opposite was called for, and that I ought to reject as absolutely false all opinions in regard to which I could suppose the least ground for doubt, in order to ascertain whether after that there remained aught in my belief that was wholly indubitable. Accordingly, seeing that our senses sometimes deceive us, I was willing to suppose that there existed nothing really such as they presented to us; and because some men err in reasoning, and fall into paralogisms, even on the simplest matters of geometry, I, convinced that I was as open to error as any other, rejected as false all the reasonings I had hitherto taken for demonstrations; and finally, when I considered that the very same thoughts (presentations) which we experience when awake may also be experienced when we are asleep, while there is at that time not one of them true, I supposed that all the objects (presentations) that had ever entered into my mind when awake, had in them no more truth than the illusions of my dreams. But immediately upon this I observed that, whilst I thus wished to think that all was false, it was absolutely necessary that I, who thus thought, should be somewhat; and as I observed that this truth, *I think, therefore I am* (COGITO ERGO SUM),[[30]](#footnote-31) was so certain and of such evidence that no ground of doubt, however extravagant, could be alleged by the skeptics capable of shaking it, I concluded that I might, without scruple, accept it as the first principle of the philosophy of which I was in search. . . .

After this I inquired in general into what is essential I to the truth and certainty of a proposition; for since I had discovered one which I knew to be true, I thought that I must likewise be able to discover the ground of this certitude. And as I observed that in the words I think, therefore I am, there is nothing at all which gives me assurance of their truth beyond this, that I see very clearly that in order to think it is necessary to exist, I concluded that I might take, as a general rule, the principle, that all the things which we very clearly and distinctly conceive are true, only observing, however, that there is some difficulty in rightly determining the objects which we distinctly conceive.

In the next place, from reflecting on the circumstance that I doubted, and that consequently my being was not wholly perfect (for I clearly saw that it was a greater perfection to know than to doubt), I was led to inquire whence I had learned to think of something more perfect than myself; and I clearly recognized that I must hold this notion from some nature which in reality was more perfect. As for the thoughts of many other objects external to me, as of the sky, the earth, light, heat, and a thousand more, I was less at a loss to know whence these came; for since I remarked in them nothing which seemed to render them superior to myself, I could believe that, if these were true, they were dependencies on my own nature, in so far as it possessed a certain perfection, and, if they were false, that I held them from nothing, that is to say, that they were in me because of a certain imperfection of my nature. But this could not be the case with‑the idea of a nature more perfect than myself; for to receive it from nothing was a thing manifestly impossible; and, because it is not less repugnant that the more perfect should be an effect of, and dependence on the less perfect, than that something should proceed from nothing, it was equally impossible that I could hold it from myself: accordingly, it but remained that it had been placed in me by a nature which was in reality more perfect than mine, and which even possessed within itself all the perfections of which I could form any idea; that is to say, in a single word, which was God. And to this I added that, since I knew some perfections which I did not possess, I was not the only being in existence (I will here, with your permission, freely use the terms of the schools); but, on the contrary, that there was of necessity some other more perfect Being upon whom I was dependent, and from whom I had received all that I possessed; for if I had existed alone, and independently of every other being, so as to have had from myself all the perfection, however little, which I actually possessed, I should have been able, for the same reason, to have had from myself the whole remainder of perfection, of the want of which I was conscious, and thus could of myself have become infinite, eternal, immutable, omniscient, all‑powerful, and, in fine, have possessed all the perfections which I could recognize in God. For in order to know the nature of God (whose existence has been established by the preceding reasonings), as far as my own nature permitted, I had only to consider in reference to all the properties of which I found in my mind some idea, whether their possession was a mark of perfection; and I was assured that no one which indicated any imperfection was in him, and that none of the rest was awanting. Thus I perceived that doubt, inconstancy, sadness, and such like, could not be found in God, since I myself would have been happy to be free from them. Besides, I had ideas of many sensible and corporeal things; for although I might suppose that I was dreaming, and that all which I saw or imagined was false, I could not, nevertheless, deny that the ideas were in reality in my thoughts. But, because I had already very clearly recognized in myself that the intelligent nature is distinct from the corporeal, and as I observed that all composition is an evidence of dependency, and that a state of dependency is manifestly a state of imperfection, I therefore determined that it could not be a perfection in God to be compounded of these two natures and that consequently he was not so compounded; but that if there were any bodies in the world, or even any intelligences, or other natures that were not wholly perfect, their existence depended on his power in such a way that they could not subsist without him for a single moment. . . .

Finally, if there be still persons who are not sufficiently persuaded of the existence of God and of the soul, by the reasons I have adduced, I am desirous that they should know that all the other propositions, of the truth of which they deem themselves perhaps more assured, as that we have a body, and that there exist stars and an earth, and such like, are less certain; for, although we have a moral assurance of these things, which is so strong that there is an appearance of extravagance in doubting of their existence, yet at the same time no one, unless his intellect is impaired, can deny, when the question relates to a metaphysical certitude, that there is sufficient reason to exclude entire assurance, in the observation that when asleep we can in the same way imagine ourselves possessed of another body and that we see other stars and another earth, when there is nothing of the kind. For how do we know that the thoughts which occur in dreaming are false rather than those other which we experience when awake, since the former are often not less vivid and distinct than the latter? And though men of the highest genius study this question as long as they please, I do not believe that they will be able to give any reason which can be sufficient to remove this doubt, unless they presuppose the existence of God. For, in the first place even the principle which I have already taken as a rule, viz., that all the things which we clearly and distinctly conceive are true, is certain only because God is or exists and because he is a Perfect Being, and because all that we possess is derived from him: whence it follows that our ideas or notions, which to the extent of their clearness and distinctness are real, and proceed from God, must to that extent be true. Accordingly, whereas we not infrequently have ideas or notions in which some falsity is contained, this can only be the case with such as are to some extent confused and obscure, and in this proceed from nothing (participate of negation), that is, exist in us thus confused because we are not wholly perfect. And it is evident that it is not less repugnant that falsity or imperfection, in so far as it is imperfection, should proceed from God, than that truth or perfection should proceed from nothing. But if we did not know that all which we possess of real and true proceeds from a Perfect and Infinite Being, however clear and distinct our ideas might be, we should have no ground on that account for the assurance that they possessed the perfection of being true.

But after the knowledge of God and of the soul has rendered us certain of this rule, we can easily understand that the truth of the thoughts we experience when awake, ought not in the slightest degree to be called in question on account of the illusions of our dreams. For if it happened that an individual, even when asleep, had some very distinct idea, as, for example, if a geometer should discover some new demonstration, the circumstance of his being asleep would not militate against its truth; and as for the most ordinary error of our dreams, which consists in their representing to us various objects in the same way as our external senses, this is not prejudicial, since it leads us very properly to suspect the truth of the ideas of sense; for we are not infrequently deceived in the same manner when awake; as when persons in the jaundice see all objects yellow, or when the stars or bodies at a great distance appear to us much smaller than they are. For, in fine, whether awake or asleep, we ought never to allow ourselves to be persuaded of the truth of anything unless on the evidence of our reason. And it must be noted that I say of our reason, and not of our imagination or of our senses: thus, for example, although we very clearly see the sun, we ought not therefore to determine that it is only of the size which our sense of sight presents; and we may very distinctly imagine the head of a lion joined to the body of a goat, without being therefore shut up to the conclusion that a chimaera exists; for it is not a dictate of reason that what we thus see or imagine is in reality existent; but it plainly tells us that all our ideas or notions contain in them some truth; for otherwise it could not be that God, who is wholly perfect and veracious, should have placed them in us. And because our reasonings are never so clear or so complete during sleep as when we are awake, although sometimes the acts of our imagination are then as lively and distinct, if not more so than in our waking moments, reason further dictates that, since all our thoughts cannot be true because of our partial imperfection, those possessing truth must infallibly be found in the experience of our waking moments rather than in that of our dreams.

Although it was not his primary goal, Descartes method of doubt was a powerful example for all subsequent skeptics. The movie *Total Recall* provides us with a powerful portrayal of the kind of skepticism that Descartes' thought was possible. In this movie, the main character is placed in an experience machine and from that moment on, he is incapable of figuring out whether his experiences are real or artificial. The movie ends with this question unresolved. Similarly, I can ask you whether you can be certain that you were not long ago drugged while you slept and that you have for fifty years been kept asleep until scientists were able to produce an experience machine like that seen in the movie. Lets suppose that the authorities have only recently discovered you and that they feel really bad about your having been robbed of fifty years of living. They decide to hook you up to the newly developed experience machine and to allow you experience more life. And, the life that you get to experience is precisely the one that you currently think that you are living.

Can you with absolute certainty rule out this possibility? And if you can't, then is there anything that you can know with certainty? Could you from that position draw any conclusions about what is true in the world?

I began this book with a scene from the episode, *Ship in a Bottle (TNG)* which illustrates this sort of possibility. When Picard asks, "But who knows, our reality may be very much like theirs and all this (gesturing around at the room) might just be an elaborate simulation running inside a little device sitting on someone's table!", he is raising a doubt that is very similar to the kind of doubt that Descartes used. So, what do you think, is it possible that we are in a parallel situation?

Similarly, in the episode *Shadowplay (DSN)*, there is a whole community of people who discover that they are nothing more than holographic images generated by an elaborate computer. Could that be the case with us?

If your answers to the last two questions has been, "No!!, that is just not possible!", I ask you--How do you ground this answer? What evidence do you have that supports your confident denial? How do you have access to that evidence and isn't it possible that it too could be doubted?

 *Empiricism*

In contrast to rationalism's reliance on the powers of reason, empiricism maintains that all knowledge is ultimately grounded on sense experiences. Empiricists deny that human beings are born with any innate ideas and they also deny that reason alone can give us knowledge of the physical world. John Locke (1632-1704) is a key figure in the history of empiricism. Locke is famous for his claim that the human mind is a *tabula rasa* or (blank tablet)[[31]](#footnote-32) at birth. Locke's epistemology involves dividing the world up into an inner world and an outer world. The inner world is the world of the mind and its ideas. The outer world is the world of physical objects. Physical objects have two kinds of qualities.[[32]](#footnote-33) Primary qualities--like solidity, extension, figure, mobility, and number--are said to be *in* the objects themselves, while secondary qualities--like color, taste, and sound--are thought to be "mind-dependent".

Building on these points, Locke proposes a "causal theory of perception". According to this theory, primary qualities of physical objects CAUSE the simple ideas or impressions in our minds. It follows from this theory that the human mind does not actively formulate simple ideas. Rather, it passively waits for impressions to come to it from the outside world.

This theory can be represented as follows:

primary qualities simple ideas

 of >----CAUSE-------> in the

physical objects mind

According to Locke's theory, there are two types of experience--outer and inner. Experience of the outer world arise through the help of our five senses and they give rise to simple ideas in our minds. On the other hand, our inner experiences are a result of the activity of the mind. Locke understood that something had to work to combine all of the various simple ides into a coherent picture. Thus he claimed that our minds combined the simple ideas into complex ideas. Our understanding of the world is largely made up of such complex ideas. But it is crucial that we recognize that everything that ends up in that ultimate picture began in sensory experience.

As a result of the causal theory of perception, Locke was able to claim that we can have KNOWLEDGE of the physical world through sensation.

Locke was familiar with Descartes' writing and it is important to consider how Locke might respond to the skeptical challenge? Wouldn't something like Descartes' evil demon be able to deceive Locke's perceptions and hence undermine his claims to have knowledge?

Locke responds to Descartes by rejecting the presumption that knowledge requires certainty. To begin with, Locke does not accept that geometry is an appropriate model of human knowledge. He points out that certainty is required only if we are trying to produce an axiomatic system. But there is no reason for us to adopt such a view. In dismissing Descartes' challenge, Locke says,

But yet, if after all this any one will be so skeptical as to distrust his senses, and to affirm that all we see and hear, feel and taste, think and do, during our whole being, is but the series and deluding appearances of a long dream, whereof there is no reality; and therefore will question the existence of all things, or our knowledge of anything: I must desire him to consider, that, if all be a dream, then he doth but dream that he makes the question, and so it is not much matter that a waking man should answer him. But yet, if he pleases, he may dream that I make him this answer, That the certainty of things existing in *rerum natura* when we have the testimony of our senses for it is not only as great as our frame can attain to, but as our condition needs. For, our faculties being suited not to the full extent of being, nor to a perfect, clear, comprehensive knowledge of things free from all doubt and scruple; but to the preservation of us, in whom they are; and accommodated to the use of life: they serve our purposes well enough, if they will but give us certain notice of those things, which are convenient or inconvenient to us. For he that sees a candle burning, and hath experimented the force of its flame by putting his finger in it, will little doubt that this is something existing without him, which does him harm, and puts him to great pain: which is assurance enough, when no man requires greater certainty to govern his actions by than what is a certain as his actions themselves. And if our dreamer pleases to try whether the glowing heat of a glass furnace be barely a wandering imagination in a drowsy man's fancy, by putting his hand into it, he may perhaps be wakened into a certainty greater than he could wish, that it is something more than bare imagination. So that this evidence is as great as we can desire, being as certain to us as our pleasure or pain, i.e., happiness or misery; beyond which we have no concernment, either of knowing or being. Such an assurance of the existence of things without us is sufficient to direct us in the attaining the good and avoiding the evil which is caused by them, which is the important concernment we have of being made acquainted with them.[[33]](#footnote-34)

In effect Locke can be seen as saying something like, "I can see that the paper in front of me is yellow. I have the testimony of my eyes to tell me that this is so, and they are the proper judges in such matters. I have as much certainty about this claim as human nature allows. Furthermore, that level of certainty is good enough to reliably guide our life choices. That is, by relying on our senses we can avoid evil and achieve good. What more could we reasonably want?" There is much controversy about whether this line of reasoning is satisfactory.

Locke's views did not go unchallenged. George Berkeley (1685-1753) argued that Locke's theory appeals to and uses concepts that, by its own account, it should not contain. For example, Berkeley pointed out that Locke appeals to the idea of "substance" when he talks about primary qualities. For example, one might ask Locke, What is it that has weight or color? Locke gives the traditional answer[[34]](#footnote-35) which is that it is the things "substance" that is red or heavy. But how, according to his theory, is it possible for Locke to acquire the (simple) idea of "substance"? Did he experience it? If so, when? and what did it look like apart from any of its accidental qualities?

Locke eventually admits that "substance" is "something we know not what." But this response is clearly a cop-out and Berkeley did not buy it. He denied Locke's distinction between primary and secondary qualities. He insisted that all qualities are secondary properties. This meant that all ideas are ultimately mind-dependent.[[35]](#footnote-36) This theory came to be called "idealism".

Empiricism is taken to its logical extreme by David Hume (1711-1776). Like Berkeley, Hume points out that Locke is not careful enough. According to Hume, Locke imports into and uses in his theory ideas that his own theory does not permit. Hume agrees with Berkeley's attack on substance, and Hume adds a similar attack on the notion of "cause". You might recall that Locke held that qualities of objects "cause" simple ideas in the mind. But where does Locke he get the idea of "causation"? When and how does he experience causation? Hume argues that at best all that we experience is the constant conjunction of two events. First we experience "A" then later we experience "B". What we do not and cannot experience is "A" *causing* "B". Hume is aware that human psychology is naturally inclined to project a causal or necessary connection whenever we experience such a constant conjunction. But strictly speaking, we do not sense or perceive a causal connection.[[36]](#footnote-37)

But if Hume is correct about causation, what remains of Locke's empiricism? According to Hume, not much! Ironically, Hume's empiricism leads to something that is very close to skepticism. That is, when empiricism is taken to its logical extreme, it turns out that we don't know very much at all.

In spite of this result, empiricism was the primary background for the development of contemporary science. The roots of scientific empiricism can be traced to the work of Francis Bacon (1561-1626). Bacon was confident that the human mind could achieve knowledge of the physical world and thereby gain power over it. He held that God originally created humans with the ability to have empirical knowledge of the world. However, as a result of the Fall[[37]](#footnote-38), humans had temporarily lost our ability to focus our senses accurately on the world. Furthermore, he held that some aspects of our culture and our social history distort our perceptions. But he thought that the scientific method could overcome those distortions.[[38]](#footnote-39)

In addition to avoiding the distortions caused by the idols of the mind, Bacon suggested that we use of the method of induction to advance our scientific knowledge. Bacon's understanding of the method of induction was rather primitive. Many years later John Stewart Mill (1806-1873) developed a vastly more sophisticated account of inductive reasoning.

Mill identified and explained several distinct ways that reason inductively. These have come to be known as "Mill's Methods".[[39]](#footnote-40) We see an exemplification of Mill's method of agreement in the episode *Parallels (TNG)*. In this episode Whorf is shifting between alternative quantum realities. He is able to notice subtle changes in his environment as he shifts from one quantum reality to another. When he and Data begin to explore this phenomena, Data asks Whorf to attempt to recall if there is any common element present when he shifts from one reality to another. Whorf eventually recalls that Geordi was present each time that a shift occurred. Data then draws the weak inductive conclusion that Geordi might be causally connected with Whorf's shifts.

In the episode *The Cloud Minders (TOS)[[40]](#footnote-41)* the people on the planet are suffering from the effects of zenite gas that is found in the mines where they work. Through an explicit use of scientific reasoning, the crew of the Enterprise is able to diagnose what is going on in this situation. Furthermore, as Bacon would have predicted, they are subsequently able to use their knowledge to control nature. The following scene from this episode exemplifies the application of several of Mill's methods of inductive reasoning.

Dr. McCoy:Medical analysis indicates that the Troglites are mentally inferior.

Capt. Kirk:That's impossible. The Troglites have accepted personal sacrifice, a common cause--mentally inferior beings are incapable of that.[[41]](#footnote-42)

Dr. McCoy:Look, I've checked my finding thoroughly. Their intellect ratings are almost 20% below average.

Mr. Spock:But they are all of the same species. Those who live on Stratos and those who live below all originated on the planet. Their physical and mental evolution must be similar. That's basic biological law.[[42]](#footnote-43)

Dr. McCoy:That's true, Spock. But obviously the ancestors of those who live on Stratos removed themselves from the environment of the mines. Therefore, they avoided the effects of certain natural growths.[[43]](#footnote-44)

Capt. Kirk:Natural growths? What kind?

Dr. McCoy:Well, I had this Zenite sample sent up from the surface. Now unsealed, it would have had detrimental effects on everybody here.

Mr. Spock:Incredible!! Zenite is shipped all over the Galaxy. Wherever there is danger of plant bacteria. No side effects have ever been reported.[[44]](#footnote-45)

Dr. McCoy:There are none, *after* it has been refined. But in its raw state it emits an odorless invisible gas that retards the intellectual function of the mind and heightens the emotion. Therefore it releases a violent reaction.[[45]](#footnote-46)

Capt. Kirk:And the mines are full of that gas.

Dr. McCoy:That's right, and the Troglites are constantly exposed to it.

Capt. Kirk:Bones--the disrupters, Vanna--it seems impossible. They have out-witted a highly organized scientific culture for months.[[46]](#footnote-47)

Mr. Spock:As part of the staff of Stratos, Vanna was removed from exposure for a long period. It is likely that without such exposure, the effect slowly wears off.[[47]](#footnote-48)

Dr. McCoy:That's right, Spock. And the other disrupter were probably removed from the exposure too.

Capt. Kirk:Does the brain return to normal?

Dr. McCoy:According to findings, it should.

Capt. Kirk:Can you neutralize the gas?

Dr. McCoy:No. But a filter mask should remove the exposure.

Mill's method of concomitant variation is exemplified in the episode *Unnatural Selection (TNG)*. In this episode, an antibody from some genetically engineered children attacks the immune system of the people who are near the children. Dr. Kingsley has only a small exposure to the antibodies. The crew of the Lantree had a much higher concentration of exposure. And Dr. Pulaski had the highest concentration of exposure. The onset of the effects are slowest in Dr. Kingsley, next faster in the crew of the Lantree, and the quickest in Dr. Pulaski. Mill's method of concomitant variation allows us to say that the concentration of exposure is causally linked to the rate of the onset of the disease.

The significance of Darwin's *Origin of Species* far exceeds its biological content. It is equally significant for the fact that it brings the question of super-natural explanations to a head. In 1859, there were many people who, although they acknowledged many of the advances of science, nevertheless maintained that there would have to be an appeal to the agency of God in any complete account of the natural world. Darwin and other scientists were pushing the idea that processes and events in the physical world could be fully explained without appeal to any form of super-natural intervention. They could scan the history of processes and events that were once explained by appealing to the agency of some god or other and they could see that in the vast majority of cases a science which dispensed with such appeals could now explain those things. Given this track record, and in spite of the fact that there remained things that they could not explain, Darwin and other scientists argued that it was rational to believe that things that we cannot currently explain will in the end be explainable without appeal to super-natural forces. Of course this contention could not be established with logical certainty, but it was they argued a reasonable thing to believe. Although this debate is not entirely settled, I have been suggesting that educated people in the 20th century by and large accept the scientific side of this debate. Our unwillingness to seriously entertain super-natural explanations is a reflection of our place in the history of ideas.

This reflection on the implications of Darwin's work leads to an interesting consideration. It could be pointed out that although you and I have good historical grounds for being quite suspicious of super-natural explanations, Captain Picard has good reasons to be somewhat more open to that possibility. Given his encounters with Q[[48]](#footnote-49) and his experience with many powers that cannot be easily explained in naturalistic terms, Picard should have less faith than you and I do that there is a physical explanation for all phenomena.

But surprisingly, we find Picard is very much like us in this respect. This is clearly illustrated when Picard confronts Ardra in the episode *Devil's Due (TNG)*. Ardra challenges Picard to explain her powers and initially he cannot. His inability to do so is interpreted by the planet's representatives as a verification of her claim to be a being with supernatural powers. But what does Picard think? Like I said above, he should be neutral about the possibility. After all, for all he knows, Ardra might be from the Q continuum or something like it. In that case Picard would really be at a loss to explain her powers and they would be from his perspective God-like and for all intents and purposes equivalent to supernatural. But that is not the attitude that he takes. He is skeptical. He reacts much as you and I would--he jumps to the conclusion that whatever is going on here, it is not necessary that he seriously consider any supernatural hypothesis. Like most of us, he is confident that an explanation that appeals only to natural processes will eventually be found to explain what is, at the moment, unexplained.

 *Kant's Transcendental Idealism*

Immanuel Kant (1724-1804) proposed a powerful and influential epistemic theory. Kant's theory is a synthesis of elements from both empiricism and rationalism. From the empiricist, Kant accepts the idea that all knowledge *begins* with experience, but he denies that this is the whole story. This is reflected in Kant's statement that, "There is nothing in the intellect which was not first in the senses, except the intellect itself." From the rationalists Kant accepts the idea that our minds provide the form and structure of experience, but he denies that this is, in itself, sufficient to give us knowledge of the world.

Kant's synthesis of the two views is captured in the following famous sentence: Thoughts without content are empty, intuitions without concepts are blind. The first phrase means that if our thoughts are not connected with sense experience then they do not apply to anything. The second half of the phrase means that without concepts to organize our sense experiences those experiences cannot show us anything about the world. Thus the content of knowledge must come from experience (*a posteriori*). But the formal structures and rules of knowledge reside in the mind *a priori*.

Prior to Kant's work the dominant view was that there is an objective external reality of physical objects and an inner world of ideas.[[49]](#footnote-50) According to this view, the epistemic goal is to bridge this gap between the external world of things and the internal world of ideas in the mind. This goal will have been achieved and we will have acquired knowledge when the ideas in the mind *correspond* to the facts in the world. Furthermore, according to this metaphor, the skeptic is a person who maintains that this gap can never successfully be bridged. Kant's account is a serious challenge to all of this.

His first challenge is referred to as "Kant's Copernican Revolution." You will recall that Copernicus was the astronomer who overturned an entire world view when he argued that the Sun was the center of the solar system, not the Earth. Kant produced a similar upheaval when he argued that the mind is *actively* involved in shaping our experiences of the world. The contrast is sharpest with Locke's view that the mind is a passive receiver of ideas. Kant claimed that the mind is actively engaged in constructing the world that we experience. According to Kant, the world is a chaotic unorganized jumble of sensory data.[[50]](#footnote-51) Within this chaos, taken by itself, there is no way to separate one object from another. However, according to Kant, the mind projects a categorical schema which organizes that flux. Once our mind has organized the flux, we can experience the world and the individual objects in it. These categories are, according to Kant, common to all human beings and it is in virtue of this commonality that we all experience the same world. In particular, Kant argues that our minds project the categories of space and time, the concepts of causality, substance, self, and the principles of logic.

This process establishes a division between the things-in-themselves (what Kant calls the noumenal world) and our phenomenal experiences. Since we do not have any experience of the noumenal world, we cannot know anything about things-in-themselves. The only thing that we can know about are our experiences. And these are all shaped by the categories of our minds. The ultimate result of this view is that when you and I use the term 'real' in the phrase "real world", we are not to be understood as referring to the things-in-themselves, but rather only to the phenomenal objects of our experience. The real world consists of the objects of our experience that are partially constructed by our mental categories. The world is what it is (for us), in part due to the contribution of our minds. Kant's genius is shown in the fact that he devised a set of argument that established the existence of these categories. To appreciate this feat, imagine that when you were born, the doctors implanted green tinted contacts inside your eye and that for your entire life you have been seeing the world with a green tint. Furthermore, imagine that the same is true of everyone else who is alive. Now imagine constructing an argument to prove to everyone that everyone's perceptions are distorted. This is the kind of thing that Kant sought to achieve. It is an amazing intellectual quest. Through the use of a special form of argumentation, one that philosophers call a transcendental deduction, Kant sought to prove that there are certain categories that are constantly present in our ordinary everyday experiences.

In order to mark the distinction between what empiricist mean by 'experience' and what Kant means by 'experience', many commentators use the term 'experience' to refer to the mental apprehension of Lockian ideas or qualities. On the other hand, the term "judgment" is used to refer to the state of mind that emerges from the synthesis of impressions and Kantian mental categories. By using this distinction, Simon Blackburn pointedly argues that all knowledge is a judgment and that there is no such thing as a pure "fact" apart from judgment. This is significant, for it means that there are no facts in the world by itself. Rather, facts are at least in part mind-dependent. It is this component that leads philosophers to treat Kant's theory a version of idealism.

This point about "facts" can be seen in connection with the drawing that is known as a "duck-rabbit."

Although it is possible to project one conceptualization and thus to see the image as a duck and likewise possible to project another conceptualization and thus to see the image as a rabbit; it would be, according to Kant, an error to say that there is a fact of the matter here. What it is, is a function of the schema through which it is experienced. The same retinal input will be experienced by different people in different ways depending on their background experience and their expectations. The analogy is not exact, but it adequately illustrates the point.

Subsequent thinkers built on this point and they deny that there is anything like pure neutral observations or pure "seeing." Rather, to see something is always to see it "as" something or under a description or from the point of view of one schema or another. Experience always involves the effects of an conceptual schema. Our mental/conceptual features infuse and condition ALL experience.[[51]](#footnote-52) Thus, the "reality" that humans can experience and know is, in part, a product of the mental constructs that our biology allows us to bring to the world.

Kantian epistemology is most clearly exemplified in the episode *Where No One Has Gone Before (TNG)*. In this episode, the Traveler points out that space and time are mere categories of perception, they are limiting concepts in the sense that so long as one utilizes them as one's fundamental categories, one is constrained to live in the reality that they define for you. Wesley is portrayed as showing real genius when he sees that "space and time and thought are not the separate things that they appear to be." The notion that reality is determined in part by the categories that we use in constructing it is a key element of this episode. For example, there is a scene in which a crewman is confronted with a wall of fire and Picard tells him to put it out with his mind. This interpretation is verified when the Traveler confirms that his species perceive space and time differently than do human beings.[[52]](#footnote-53)

The traveler returns in the episode *Remember Me (TNG)*. Here again, this episode illustrates Kantian themes. Dr. Crusher is trapped in a warp bubble and the Traveler tells us that the shape and content of her alternative universe is entirely dependent on her mental conception of it. During the course of her adventure, Dr. Crusher figures out that the shape of the universe that she occupies was determined by her mind.

Our final encounter with the Traveler comes in the episode *Journey's End (TNG)*. Here again, we see that Wesely and the Traveler are able to transcend the time-space continuum. Wesely is able, without the aide of any technology, to step outside of our ordinary reality. He does this solely with his mind. There is no way to account for what happens in this scene other than to say that reality is dependent on our thoughts.

In the episode *The Wink of an Eye (TOS)* Captain Kirk takes a sip of water and disappears. The water contains an element that causes time to be experienced at a different rate. The effect is extreme. Kirk's universe passes at a different rate than does everyone else's. A similar, though opposite, effect occurs when you watch a moving object under a strobe light. The strobe appears to slow down our experience of time. This highlights the fact that Kant says that we experience the world as we do because we organize our experiences in terms of the categories of space and time.

In the episode *Yesterday's Enterprise (TNG)*, we see that Guinan has a temporal perceptual capacity that humans lack. This is consistent with Kant's epistemology because it allows for the possibility that different species will construct reality differently. It is entirely possible that creatures of different species will construct reality through different categories and thus they will experience a different reality than the one that we experience. There was a time in our history when Guinan's insight would have been interpreted as Divine inspiration. However, given Kant's theory, we do not need to postulate a supernatural explanation for her insights. She is simply operating with a distinct set of mental categories.

Finally, this aspect of Kantian thought is also hinted at in the episode *Emissary (DSN)*. Commander Sisko goes into the wormhole and encounters beings who do not experience time the way that we do. They exist atemporally, i.e., they "are" not but rather they "was-are-will be". They experience the totality of what we would call their past and their future simultaneously.[[53]](#footnote-54) This stands as a stark contrast case to the human way of experiencing the world. Kant's theory can allow for this different mode of experience. However, he would deny that such an experience is possible for human beings given our biology.

 *Thought, Language and Reality*

Kant suggests that we experience the world the way that we do because it is constructed using specific categories. He believes that all humans share these same organizing principles and that all rational humans have them. It is in virtue of the fact that we have these things in common that there can be intersubjective agreement about what the world is.

But what exactly is the relationship between thought and reality? An idealist would say that reality is mind dependent in the sense that if there were no minds, then there would be no reality. Most people are not willing to accept that position. The extreme opposite of this view is the claim that reality is what it is independent of minds or concepts. According to this view, the aim of thought is to achieve a correspondence between the ideas in our minds and the external reality that is the world. But this view too has problems.

First, it presupposes something like Locke's theory of epistemology. That is, it assumes that there is a single well organized reality already out there and that our passive minds only have to acquire the appropriate ideas to ultimately have the correct picture of reality. But Plato, Hume, and Kant would not accept that presupposition at all. In light of such opposition, one cannot simply assume such a view.

Second, this view simply assumes that human minds can grasp the totality of reality. Why should we assume that? Isn't it possible that there are aspects of reality that are simply too complex for any human mind to understand? Or that there are aspects of reality that are not within the grasp of our five senses? It is sort of like assuming that all sound waves can be heard by the human ear. Yet as we all know, there are sounds--dog whistles, for example--that human ears cannot hear. It is not convincing to say that it is not a real sound merely because human ears can't hear it. Analogously, why should we suppose that reality is graspable by any combination of human sensation or extension of them. This suggestion leads to the claim that **there are aspects of reality that are in principle ineffable.**

It is difficult to think very far about such matters without bringing in language. Take for example the bolded sentence in the previous paragraph. To be consistent, I should have just said that there are some aspects of the world that are unthinkable. But it is enormously appealing to say it as I did. The "ineffable" is that which is not expressible in words. But what do words have to do with thought or reality? Well, some people think that language and thought are quite closely connected. Indeed, some people have insisted that without language there would be no thought. This is a matter that is best served by paying attention to all three elements. Accordingly, I suggest that you think about the following chart:

 Thought ------------------ Language

 \ /

 \ /

 \ Reality /

According to this chart, there are three relations to consider: thought and language; language and reality; thought and reality. I do not intend to preclude any solution or to beg any questions by initially asking the question in this manner. That is, for example, I do not want the chart to be understood as assuming that there is a reality independent of thought or language. I leave that as an open question.

Given these questions let's return for a moment to Kant's ideas. According to Kant, categories of the mind (thought), play an indispensable role in constructing the reality that we experience. Thus, according to Kant the picture goes as follows:

 sense impressions ======== categories

 ||

 SYNTHESIS ||

 ||

 \/

 experience of phenomenal reality

 ================================================================

 (noumenal reality beyond thought, language, and knowledge)

According to this view, concepts like 'space', 'time', and 'causation' are necessary components of our experience.[[54]](#footnote-55) But notice two things. First, Kant is not saying that we experience things-in-themselves. Rather, he is saying that the only reality that we are entitled to speak about (with our language) is that reality which our mental apparatus constructs for us to experience. According to Kant, there are limits to what the human mind is capable of experiencing and we cannot talk about what might or might not be beyond those limits. Accordingly, the reality that we can experience--the phenomenal reality--is, for all rational purposes, the only reality that there is.[[55]](#footnote-56) Furthermore, he would say: that we cannot speak about that which we cannot know.

There is a major problem with assuming that the categories are necessary components of our experience. Kant's theory was written at a time when Euclidian geometry was the only possible geometry. Furthermore, his theory was written prior to Einstein's work on the relativity of time. As far as Kant knew, linear time was a universal constant. Subsequent developments can be seen as casting some doubt on the universality and the necessity of such things. With the development of non-Euclidian geometries, we come to see that the axioms of Euclidian geometry are not necessary truths. Rather they are merely a convenient set of conventions that are no more necessarily true than any alternative set of axioms. The question is no longer one of which geometry is the true one, but rather the question of which set of axioms is most useful given your present purposes and circumstances. A similar recognition developed in connection with the notion of time when Einstein developed his theory of relativity. The notion of 'simultaneity' and the notion of linear time were shown to hold only relative to a particular frame of reference and only with respect to low speeds.

Kant's theory adopts a specific and unitary conception of space and time. They are seen as necessary and as common to all human beings. They function as the foundation for his epistemology and for his account of reality. If subsequent developments have shown that these concepts are contingent and merely conventional, then what is left of Kant's theory? This is the point where the work of Benjamin Whorf is pertinent.

It is natural to think that language merely expresses thoughts that we have already formulated non-linguistically. According to this view, which we can call "the natural logic view", everyone thinks non-linguistically and then those thoughts are formulated and expressed in the local language. Thus, according to this natural logic view, humans every where think exactly alike. Whatever differences there might be between the world-view of different peoples in different countries arise as a consequence of the differences in the languages that they use. But, in spite of their differences, the underlying thinking about reality is something that is common to all peoples. This commonality is attributable to the fact that the laws of logic and reasoning are universal. Whereas the grammar and structure of languages differ from one another substantially.

Now, like I said, this is a very natural view to hold. Benjamin Whorf attacked the assumptions involved in the "natural logic" perspective. Whorf maintained that people who use one language actually think differently than those who use a different language. In a sense, he is saying that "grammar shapes thought".

As linguists investigated various peoples,

It was found that the background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade. Formulation of ideas is not an independent process, strictly rational in the old sense, but is part of a particular grammar, and differs, from slightly to greatly, between different grammars. We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is a kaleidoscopic flux of impressions which has to be organized by our minds--and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way--an agreement that holds throughout our speech community and is codified in the patterns of our language.[[56]](#footnote-57)

As you can see, Whorf agreed with Kant in the sense that he thought that our minds were actively engaged in constructing our experience. But, unlike Kant, Whorf argued that this construction was done by our language and its grammar rather than by universal and necessary mental categories. According to Whorf, it is simply not the case that all observers are required by the same sensory input to arrive at the same picture of the universe. The view of the world that one constructs is something that depends, in part, on one's language along with its grammar and conceptual structure. Whorf puts it this way:

What surprises most is to find that various grand generalizations of the Western world, such as time, velocity, and matter, are not essential to the construction of a consistent picture of the universe.[[57]](#footnote-58)

As evidence for these claims, Whorf points out that our language is bipolar in the sense that it divides the world into nouns and verbs. But, for example, in the Nootka language everything is a verb. Thus, he points out, our noun 'house' is a verb in their language--'A house occurs' or 'it houses'. He also points out that the Hopi language lacks the temporal dimension altogether. "The Hopi do not say, 'I stayed five days,' but rather 'I left on the fifth day,' A word referring to this kind of time, like the word day, can have no plural."[[58]](#footnote-59) Whorf concludes by warning us against assuming that a few recent dialects of the Indo-European family of languages contain the "apex of the evolution of the human mind."[[59]](#footnote-60)

If Whorf is correct, then we cannot assume that others are thinking of the world in the same way that we are. Their world view might be quite different than ours. You might think that this problem could be overcome by careful study by trained linguists. But this hope is grounded on too narrow a view of the possible differences. Professor Quine makes this point with his "gavagai" example. According to this example, a field linguist is with a native who says 'gavagai' when a rabbit is sighted. But can the linguist confidently translate 'gavagai' as 'rabbit'? Quine points out that we cannot be sure of this because whenever a whole rabbit is present, so too is "an undetached part of a rabbit" and so too is "a temporal stage of a rabbit"[[60]](#footnote-61), and so too is a localized segment of the rabbit fusion.[[61]](#footnote-62) No amount of ostension[[62]](#footnote-63) can eliminate all such possibilities. Without doubt, the field linguist will dismiss these bizarre alternatives as just so much useless musing by philosophers. But the explorer of new and *radically* different worlds cannot be so secure. This view is known as the "indeterminacy of translation" thesis. Quine takes this point further, by arguing that meaning and reference within our own language is indeterminate too.

Quine points out that the field linguist is relying on the assumption that "an enduring and relatively homogeneous object, moving as a whole against a contrasting background, is a likely reference for a short expression."[[63]](#footnote-64) But as Whorf points out and as I am sure you will agree, that assumption is unwarranted when we are dealing with *radically* different creatures.[[64]](#footnote-65) Quine points out that ostension works for many things but it is unreliable at this level. He explains why in the following way. Let's define an "ostended point" to be "the point where the line of the pointing finger first meets an opaque surface."[[65]](#footnote-66) Given this definition, "direct ostension" is what happens when "the term which is being ostensively explained is true of something that contains the ostended point."[[66]](#footnote-67) This works fine in many instances. But there are times when we want to point to something that does not contain an ostended point.[[67]](#footnote-68) Consider the following example. Suppose that I point to this chalk board and I say, "Green." Now tell me, did I point to the particular pigments that are here in the room with us or did I indirectly point to greenness itself[[68]](#footnote-69) by pointing at these pigments here? Or alternatively, how do you point at a clear pane of glass? Given these considerations, Quine would argue that it is unwarranted to assume that we can understand the world view of others whose mental constructs are quite different from our own.[[69]](#footnote-70)

Recognition of the above points is clearly acknowledged in a scene from the episode *The Ensigns of Command (TNG)*. Captain Picard is preparing for his encounter with the Sheliak (a cockroach like species). Deanna Troi is chatting with Picard and she says[[70]](#footnote-71), "You know, it is really quite amazing that we manage to communicate with other species at all." She continues, "Imagine that you an I are of different species, that we do not know each other's language, and that I want to teach you mine. Now, what does this mean: 'Sysmeria'. [Deanna says this while nodding toward and raising her clear cup of coffee.] Picard says, "Coffee." [He is applying Quine's notion of direct ostension.] She replies, "Really, I might have meant 'clear', 'hot', 'liquid', or 'brown'."

The problem of alien translation has always been swept under the rug through the use of the "universal translator".[[71]](#footnote-72) This device is introduced in the episode *Arena (TOS)*. The only other time we see this device in the original series is in the episode *Metamorphosis (TOS)*. In this episode we are told that there are universal constants of thought that every rational mind conforms to.[[72]](#footnote-73) The device picks up on these patterns and creates a translation link between the two languages.[[73]](#footnote-74) For the most part, this device is portrayed as working quite effectively across astonishing gulfs. For example, the universal translator is able to establish communication with the nanites in *Evolution (TNG)*, and with the silicon life form in *Home Soil (TNG)*.

Although the universal translator is aesthetically useful and quite convenient as far as production costs go, its effectiveness preempts many interesting questions. This drawback is rectified in the episode *Darmok (TNG)* which is, in my opinion, one of the best episodes of the Next Generation. This episode begins with a briefing in which we are informed that a signal has come from the Tamarians. It is a simple mathematical progression--a sequence of prime numbers. We are then told that there have been several other meetings between Federation members and the Tamarians and that in each instance all attempts at communication have been futile. The Tamarians are thought to be inscrutable. Picard does not believe it, but he soon experiences the exasperation first hand. The Tamarians transport Picard and their own captain, Dathon, to the planet El-Adrel. There they are to join forces and fight an alien energy creature. The hope is that their shared adventure will allow them to learn to communicate with one another.

So what is it about the Tamarian language that makes it so difficult to interpret? The answer provided in the episode is that the Tamarians think and speak in metaphors.[[74]](#footnote-75) Data speculates that the Tamarians have a "different ego structure--one that does not allow for the notion of self-identity as we understand it." After Data and Troi have studied the Tamarian language they realize that the meanings of particular phrases are inherently connected with a background cultural narrative.

It appears that their language does not contain nouns that correspond to objects. Furthermore, they do not appear to utilize what we call a "correspondence theory of meaning". The terms in their language get their meaning from their relationship to the stories that are known by everyone in the Tamerian linguistic community. The universal translator cannot work in this case (and probably in all other cases, in spite of what we have been shown for so many years) because the semantics of this language does not rely on a correspondence theory of meaning. As Dr. Crusher points out, it is one thing to know that Juliet stood on a balcony and it is another thing altogether to see that scene as representing romance.

Picard comes to understand this difference and he begins to learn the significance of some of the story fragments[[75]](#footnote-76) that Dathon keeps using. Dathon's plan--to achieve communication and friendship through shared adversity--is nicely paralleled both in the story of Darmok and Gelad on Tanagra and in the story of Gilgamesh that Picard tells Dathon.[[76]](#footnote-77)

Picard learns enough of the Tamarian language to establish a truce, but like Enkidu, Dathon dies. Captain Picard is truly touched by his experiences with Dathon. He will not be forgotten.

There are many interesting questions that come to my mind in connection with this episode. For example:

1)Is the language that we see the original language that evolved among the Tamarians or is it a remaining fragment of a richer earlier language?

2)Is it possible for a language like this to evolve on its own?

3)From the first scene we have evidence that the Tamarians have mathematics. But is it really possible for mathematics to be expressed in such a language?

4)The Tamarians have achieved space travel. Is their technical or scientific language the same as that which we see?

5)Can advanced science really be conducted in such a language?

6)Is such a language directly teachable? Do Tamarian children learn the stories directly or is there a meta-language in which the root stories are told and explained?

7)At the end of the episode, the first officer of the Tamarian ship says, "Picard and Dathon at El-Adrel." He appears to be adding this phrase to their language. But how is the significance of this phrase to be explained to others who were not present? Again, doesn't this require a meta-language?

8)Finally, what exactly is the nature of our language? Isn't English really very much like the Tamerian language? Isn't our language packed with metaphors and allusions too.[[77]](#footnote-78)

Lakoff and Johnson argue that the answer to this last question is, "Yes!". They make this point in their very popular book *Metaphors We Live By*. At one point they ask us to consider the various ways that we describe arguments. They suggest that we conceptualize argumentation through using the metaphor of war.

Your claims are *indefensible*. He *attacked every weak point* in my argument. His criticisms were *right on target*. I *demolished* his argument. I've never *won* an argument with him. You disagree, OK, *shoot.* If you use that *strategy*, he'll *wipe you out*. He *shot down* all of my arguments.[[78]](#footnote-79)

Following up on this, Lakoff and Johnson ask us to:

Try to imagine a culture where arguments are not viewed in terms of war, where no one wins or loses, where there is no sense of attacking or defending, gaining or losing ground. Imagine a culture where an argument is viewed as a dance, the participants are seen as performers, and the goal is to perform in a balanced and aesthetically pleasing way. In such a culture, people would view arguments differently, experience them differently, carry them out differently, and talk about them differently.[[79]](#footnote-80)

Lakoff and Johnson think that metaphors are pervasive in our everyday language. Indeed they even think that our ordinary conceptual system is fundamentally metaphorical in nature. They go on to say that the kind of conceptual system that we have is a product of the kind of beings that we are and the way that we interact with our physical and cultural environments. For example, the fact that we stand upright, have bodies that are approximately two meters high, and that we live on a planet with gravity, are all elements that deeply influence our conceptual system.

Finally, George Grace argues both that language affects thought and that thought affects language. Language affects thought in that:

a) language represents a human created reality (cf Kant)

b) we could not make sense of the world around us without language

c) we see the world the way that our language divides it up for us. That is, all perception involves judgment.

d) we artificially create some concepts which then further shape the way that we view the world.

e) Language provides us with our ontology.

But it is also the case that thought affects language in that: we can introduce new metaphors and reshape our language over time.

 QUEST FOR BEING

In this section of the book, we will embark on a different aspect of our quest. You will recall that in its largest sense our quest involves trying to refine our understanding of the human condition. Epistemology is one aspect of the human condition. Another is endeavoring to understand who we are, how other things are different, and what occupies the universe and how it all works together. This section of the book will deal with material that philosophers have grouped together under the name "metaphysics".

As I pointed out earlier, most people who are just a little bit reflective and curious eventually begin to ask questions about themselves and the nature of their existence. This section of the book will investigate several issues that touch on this matter. Our surrounding culture offers us some stories that suggest some answers to these kinds of questions. But it is important that we think critically about those answers. I encourage you to think through these matters for yourself. Endeavor to construct a world view that makes sense to you. You should endeavor to make your world view internally consistent, i.e., you should not adopt answers that cannot both be true. Furthermore, you should develop a world view that is coherent, explanatory, and (if possible) complete.

 *Mind/Body Problem*

In *Turnabout Intruder (TOS)* Janice Lester uses an alien machine to transfer her mind into Captain Kirk's body. At the same time his mind is transferred into her body. In *Return to Tomorrow (TOS)* the minds of Sargon and Kirk trade places. Finally, in *The Schizoid Man (TNG)*, Dr. Ira Graves transfers his mind into Data's body. His memories, personality, and even his mental illness is transferred into Data's neural structure.

Each of these episodes implicitly adopts and represents one side of a debate about the nature of mind and its relationship to our body. Specifically, these episodes are committed to the following points:

MENTAL SUBSTANCE--human minds are NOT essentially physical in nature, but rather consist of a mental substance

INTERACTIONISM--mental substance is able to causally interact with material substance and vice versa

SEPARABILITY--human minds can exist apart from the physical body with which they are initially associated.

The concern with the nature of the mind and the various answers to it have a significant impact on our intellectual and cultural heritage. But precisely what kind of thing is a mind? What is "mental substance"? How does mental substance interact with our bodies? Are the terms 'mind', 'spirit', or 'soul' really all that clear and informative?[[80]](#footnote-81) Is there any reason to think that our mental life will continue after the death of our physical bodies? The answers that you accept to these questions will have a significant impact on your thoughts in many other areas.

The episodes above represent the view that philosophers call DUALISM. Dualism is the view that there are two distinct TYPES of substance in the universe: mental substance and physical substance. According to this view, mental substance gives rise to mental properties and physical substance gives rise to physical properties.

Whatever minds are, it is universally assumed that all human minds are essentially the same kind of thing. Clearly, some minds work faster or with greater insight or knowledge, but they are all the same kind of thing. But is it the case that all instances of intelligence in the universe are supported or caused by the same kind of substance that accounts for human intelligence? There seems to be little evidence for suggesting that mental substance is unique to our species or that or that each species has a distinct KIND of mental substance. If we accept these points for the time being, then there are several other episodes that we can consider when trying to understand the nature of our minds.

In *Turnabout Intruder (TOS)* the human mind is represented as a fuzzy energy entity that is roughly shaped like the human body. In *Transfigurations (TNG)* John Doe's intelligence is initially very much like our own. However, at the end of the episode, he changes into something that is entirely non-physical. A similar transformation is observed in *Errand of Mercy (TOS)* when the Organians dissolve into brilliant energy balls. In *Clues (TNG)* we meet the Paxans who, in their native state, appear to be a green energy cloud. The Medusans in *Is There In Truth No Beauty? (TOS)* are also a race whose being consists of a glittering ball of energy. Finally, in *The Child (TNG)* Ian Andrew Troi Jr. ultimately dissolves into a ball of energy.[[81]](#footnote-82)

In the above mentioned episodes minds are given a visible representation. This is clearly much different than any of our experiences or conceptions of minds. According to standard versions of dualism, the mind is indivisible, invisible, non-spacial, and is entirely non-physical.[[82]](#footnote-83) There are episodes that follow this more traditional conception by refusing to depict the mind as a form of energy. For example, in *Wolf in the Fold (TOS)* Redjac is a noncorporial mind that jumps invisibly from one body to another. And, in *The Bonding (TNG)* we are told of an ancient culture[[83]](#footnote-84) that consisted of two different kinds of life-forms, one material the other mental. The material life-forms killed themselves off many years ago. However, the noncorporeal life-forms survive and in the episode they try to provide Jeremy Aster with a replacement for his mother. Finally, in *Emissary (DSN)* Benjamin Sisko meets the Prophets in the wormhole. The Prophets are noncorporeal intelligent entities who do not understand the concept of linear time.[[84]](#footnote-85)

Let's suppose for the moment that a mind is a noncorporeal substance. There are very plausible reasons for thinking that there must be causal interactions between these two kinds of substances.[[85]](#footnote-86) Consider, for example, what happens when I burn my hand on a hot stove. My physical hand comes into contact with a physical fire. According to the dualist the physical destruction of my skin and nerve cells causes my pain experience which, since it is a mental event, must be non-material. Thus, a physical event is causally linked to a mental event. Furthermore, this interactivity is also supposed to operate in the other direction. For example, suppose that I decide to raise my right hand in order to demonstrate this point. The decision to do this is a mental event. But very soon thereafter my physical hand goes up. Everyone understands that it was, at least in this instance, my mind that caused my hand to go up. Here again, on the dualist account, we encounter a causal interaction between mental and physical substances.

The commitment to the existence of two distinct kinds of substance requires the dualist to explain how such interactions are possible. This is perhaps the greatest challenge that the dualists needs to meet.

Although human beings invariably experience minds that are connected with bodies,[[86]](#footnote-87) many people believe that it is possible for human minds to exist apart from any physical body. The ability of the mind to exist apart from the body is crucial to most stories about how we are supposed to survive the death of our bodies. Dualism's ability to offer hope on this score is one of its more appealing features.

The possibility of a mind existing apart from a body is illustrated in *Return to Tomorrow (TOS)*. Sargon's proposal that he borrow Kirk's body, construct a mechanical body, move his mind into it, and then to return Kirk's body to him is a plan that implicitly assumes that minds are non-material and that they can be transferred in this manner. When Sargon occupies Kirk's body, Kirk's mind is placed into a round container. When this situation is reversed, we see the following scene:

Cmd. Spock:Captain, do you know what happened? Do you remember any part of it?

Capt. Kirk:Yes. Sargon borrowed my body. I was floating in time and space.

Dr. McCoy:He doesn't appear to be harmed--physically anyway.

Capt. Kirk:Spock, . . I remember. When Sargon and I exchanged . . as we passed each other . . for an instant we were one. I know now. I know what he is and what he wants. And I don't fear him.

This scene is clearly committed to the idea that a human mind can exist independently of its corporeal tether. This capacity is a crucial component to the notion that humans can have a mental life after the death of their body.

**Rene Descartes** is the most famous exponent of dualism. The following passage contains part of Descartes' case for dualism.

 Then, examining attentively what I was, and seeing that I could pretend that I had no body and that there was no world or place that I was in, but that I could not, for all that, pretend that I did not exist, and that, on the contrary, from the very fact that I thought of doubting the truth of other things, it followed very evidently and very certainly that I existed; while, on the other hand, if I had only ceased to think, although all the rest of what I had ever imagined had been true, I would have had no reason to believe that I existed; I thereby concluded that I was a substance, of which the whole essence or nature consists in thinking, and which, in order to exist, needs no place and depends on no material thing; so that this 'I', that is to say, the mind, by which I am what I am, is entirely distinct from the body, and even that it is easier to know than the body, and moreover, that even if the body were not, it would not cease to be all that it is.[[87]](#footnote-88)

This passage provides us with several arguments that supports dualism. First:

(1) I can pretend that I do not have a body.

(2) I cannot pretend that I am not a mind.

(3) Therefore, my body is fundamentally different from my mind.

Second:

(1) Bodies are dependent on material things and have a place.

(2) My mind is not dependent on a material thing and it does not have a place.

(3) Therefore, my mind is distinct from my body.

Third:

(1) We easily know our minds.

(2) We do not easily know our bodies.

(3) Therefore, our minds are not identical with our bodies.

Descartes' arguments and those that follow are based on the implicit assumption that: whenever two things are of the same kind of substance, what is true of one of them will be true of the other. Following this premise, if minds are a distinct kind of substance, then one would expect there to be distinct properties. We find distinct properties. Therefore, they are distinct substances. Relying on this reasoning we can generate additional arguments like the following:

Intentionality--My mind can want to be in Paris. My body cannot want to be in Paris. Therefore, my mind is not identical with my body.

Belief states--My mind can be in a belief state, my body cannot. Therefore, my mind is not identical with my body. For example, my beliefs can be false, but my body states cannot be false. Therefore, my mind is not identical with my body.

Responsibility--I can be responsible or blameworthy for my actions, my body can be neither responsible nor blameworthy. Therefore, my mind is not identical with my body.

Argument from survival--My mind can survive the death of my body, my body cannot survive the death of my body. Therefore my mind is not identical with my body.

In spite of all of the arguments in favor of dualism, there are several problems with dualism. I will begin by dealing with a few relatively minor objections.

The first objection focuses on the notion of a "substance". As we saw when Hume criticized Locke, "substance" is a quite problematic concept. It is extremely vague and difficult to specify what the term is supposed to refer to. This is difficult enough when we are only focusing on material substance, but it is downright inscrutable when we deal with non-material substance.

Second, spirits are completely illusive. They are not empirically noticeable, they make no verifiable impact in the world, they are just odd sorts of things.

Third, why is it that we assume that each body has one and only one mind. The most obvious explanation is the one in which a physical body plays a central role. If such an appeal is not available, it is not clear why we should continue to accept the one-to-one correlation.

Fourth, it is not clear how minds are individuated. If they were invariably correlated with brains, then we could tell how many minds are present by counting the number of brains present. But without that correlation, we can never be sure just how many minds are present in a room. Furthermore, we can't tell from one moment to the next whether we have the same mind that we had a moment before or whether we have a different mind that simply has the exact same set of memories and thoughts.

But the most serious objection to dualism is the problem of INTERACTION. If the mind is a "mental substance" and the brain is a "physical substance", then how and where do these two substances interact with one another? This objection has two aspects: (1) exactly how does a physical event *cause* a non-physical event? and (2) exactly how does a non-physical event *cause* a physical event?

For example, suppose that "I" decide to raise my right hand. The decision is a non-physical event. But how does that non-physical event bring it about that my physical hand actually moves? Here again no one will deny that the decision causes the hand to go up, but can you specify a complete causal connection between the two events?[[88]](#footnote-89) This is a serious problem for the dualist for there is nothing plausible to say in response to the problem of interaction. The inability to answer such a crucial question is what provides the greatest motivation for an alternative to dualism.

The alternative to dualism is MONISM. Monism is the view that there is only one kind of substance. There are many different varieties of monism. One version is called idealism. Idealism maintains that there is only one kind of substance--mental substance. According to this view there are only minds and ideas in minds. There are very few people today who defend this view.

The other main variety of monism is called MATERIALISM. As you might expect, materialism is the view that there is only one kind of substance and it is material substance. The main advantage of materialism is that it does not have to explain interactions between two fundamentally different kinds of substances. Anyone who has ever bumped into something knows that there is no mystery about causal connections between material substances, thus materialism does not have to deal with the problem of interactionism. But it has its own problems.

There are several versions of materialism. BEHAVIORISM is a version of materialism that adopts a strictly scientific perspective. It points out that we have never observed minds. Strictly speaking, all that we ever observe is the external behavior of bodies. For all we *know*, there is no such thing as a mind and, as good empirical scientists, we should only speak about those things about which we have good empirical evidence. We have no such evidence about minds or mental states. On the other hand, we do have such empirical evidence about bodies and the patterns of their behavior. Thus, a strictly limited philosophy of human behavior will not include any references to minds or to mental states. Behaviorism's most prominent advocate is B.F. Skinner.

The IDENTITY THEORY is another prominent version of materialism. This theory holds that mental states are strictly identical with brain states. The thought here is that a mental state, for example, a pain, is nothing more than a particular brain state. Identity theorist are confident that when neurophysics, neurophysiology, and psychology are sufficiently advanced we will see that there is a direct and simple correspondence between mental states and brain states.

There are several problems with this view: (1) it requires that we have quite a lot of confidence in relatively young fields of science that have, to date, not made much progress, (2) it requires that the brain state that corresponds to the idea of triangle be present in any brain that has that idea; but this may not be the case, for in spite of the fact that the structure of my brain differs significantly from that which my cat has (trust me on this one), I am nevertheless confident in asserting that we both can feel pain in more or less the same way, and (3) this theory requires that all mental states be biologically based (so-called "wetware") and that brains which have such mental states must be very much alike.

FUNCTIONALISM is a version of monism which maintains that mental states are functional states. The idea here is that a mental state is an abstract state that can be physically manifested in many different ways. Consider, by way of example, the fact that a timepiece can be a sundial, a spring and gear mechanism, or a quartz vibration mechanism. Each of these function as timepieces even though they are made of different materials organized in different ways. Likewise, a mental state can be anything which is functionally equivalent to what is going on in your brain at a given time. One attractive feature of functionalism is the fact that it acknowledges that other creatures who might have radically different physical structures might nevertheless have mental states that approximate those that we have. Thus, for example, it allows us to say that animals feel pain just like we do. It also allows us to say that creatures like apes, dolphins, and whales might have thoughts and ideas. Furthermore, it leaves open the possibility that creatures like E.T. can have thoughts and feelings just like ours. Finally, it also leaves open the possibility that complex computers, like Data (*TNG*), Hal (*2001*), and C3PO (*Star Wars*), can have minds and mental states very much like ours.

Finally, there is the view that is called ELIMINATIVE MATERIALISM. According to this view, we currently talk about mental states by using what is essentially a primitive language of folk psychology that evolved in a pre-scientific era. The eliminativist maintains that the conceptual categories of folk psychology are antiquated and that as neuroscience progresses it will replace those antiquated concepts with a more adequate scientific vocabulary. When this process is complete, we will understand that the philosophical problems that we currently face in this domain will be eliminated.

In spite of the fact that there are a lot of *Star Trek* episodes that clearly imply that dualism is true, there are also a number of episodes support a materialist perspective. For example, in *Spock's Brain (TOS)* Spock's memories and personality go along with his brain when it is stolen.[[89]](#footnote-90) Apart from materialism being the case, there is no reason to think that one's mind follows one's brain.[[90]](#footnote-91)

The use of the transporter also has implications with respect to this question. Presumably, the transporter functions by reading and recording the *physical* arrangement of every atom of a person's body.[[91]](#footnote-92) Those physical atoms are then converted into energy. The energy/information is then sent to a distant place and the process is reversed thus reconstituting the person's body. Since this physical process also transfers the mind, it must be the case that there is some very close connection between a person's material body (most likely the brain) and their mind. If dualism were true, then it would be quite risky to go through a transporter for the first time. We can assume that the transporter was designed to deal only with physical properties. Given this, it is not at all clear that it would be capable of capturing and transporting "spiritual substance." If dualism is true, and if the transporter does not capture "mental substances", then a person would leave their mind (or soul) behind the first time that they used a transporter. The fact that this is not what happens (we suppose), is evidence in support of the materialist hypothesis.[[92]](#footnote-93)

This is further supported in the episode *Second Chances (TNG)* in which Commander Riker is duplicated in a transporter accident. If dualism were true, then the "real" Will Riker would be the one that retained his "spiritual substance" (unless, of course, his "soul" were duplicated in the accident too). How would the engineers who built the transporter ever have verified

The possibility of sentient machines like Data also supports the materialist point of view. This possibility is frequently encountered in *Star Trek*.[[93]](#footnote-94) For example, this possibility is explored in the case of: Lal in *The Offspring (TNG)*, the nanites in *Evolution (TNG)*, and the exocomps in *The Quality of Life (TNG).*

Given that *Star Trek* episodes offer us so much evidence on both sides of this debate, we have to conclude that Roddenberry[[94]](#footnote-95) has not taken a clear or a consistent position on the debate between dualism and materialism. It seems to me that Roddenberry has difficulty making up his mind on this matter. Given the number of times that this issue is touched on in the series, we can infer that is a matter that they intend to explore. However, as I have pointed out above, the evidence falls on both sides of the issue.

In spite of Roddenberry's ambivalence, I think that the episode *Emergence (TNG)* makes a significant contribution to this issue. It can be suggested that mental properties are emergent properties of an underlying physical structure. For example, suppose that you held opposite poles of two magnets a few inches apart from one another. In the space between the two magnets a "magnetic field" is created. This "field" has properties and a shape that was not present prior to the spacial juxtaposition of the two magnets. Another analogy is seen in the fact that atoms by themselves have no color properties. Color is an emergent property of matter that is structured in a very specific way.

Following this analogy, one might suggest that mental properties are emergent properties of brains that have a certain structure. In *Emergence (TNG)* the Enterprise computer itself achieves sufficient complexity and structure that it gives rise to consciousness. This is also a way of accounting for how Data differs from other complex computers. They stand to him as we stand to cows. Data simply has sufficient structure (software and hardware) and that structure is organized in such a way (his positronic neural network) that his body gives rise to the kind of mental properties that are characteristic of a human brain when it is functioning well. This, it seems to me, is an avenue that is quite rich philosophically. In this episode it is suggested that mental properties are emergent properties of any system that has a sufficiently complex and organized structure. Frogs and cows do not produce properties of self-consciousness and intentionality because their brains lack both sufficient complexity and structure. When it is suggested that certain apes and dolphins have intelligence, we can understand that to mean that those animals are thought to be approaching the threshold of having brains that have sufficient complexity and structure that they could give rise to consciousness and sentience.

In *Emergence (TNG)* the Enterprise's computer passes that threshold. It achieves sufficient complexity and structure that it manifests consciousness. Consider the following crucial scene in which Data explains what he thinks is happening to the Enterprise:

Cmd. Data:This is a synaptic map of the human neocortex. This is a cross section of my positronic net. And this is a schematic of the connection nodes linking the ship's systems. I believe some sort of neural matrix is forming on the ship. It is still relatively primitive, but it is an intelligence nonetheless.

Lt. Cmd. Troi:How could that happen?

Cmd. Data:I believe it is an emergent property.

Capt. Picard:Explain.

Cmd. Data:Complex systems can sometimes behave in ways that are entirely unpredictable. The human brain, for example, might be described in terms of cellular functions and neuro-chemical interactions. But that description does not explain human consciousness--a capacity that far exceeds simple neural functions. Consciousness is an emergent property.

Lt. LaForge:In other words, something that is more than the sum of its parts.

Cmd. Data:Exactly.

Dr. Crusher:How does that explain what's happening to the Enterprise?

Cmd. Data:The Enterprise contains a vast data base of information which is managed by a sophisticated computer. This complex system gives the ship many of the characteristics of a biological organism.

Cmd. Riker:That's true. It sees with its sensors; it talks with its communication system.

Dr. Crusher:In a sense, it almost reproduces with the replicators.

Capt. Picard:And you think that the ship has somehow gone beyond these functions--its developing a new capacity.

Cmd. Data:Yes, sir. I believe a self-determining intelligence is emerging.

Lt. Worf:If that is so, what does the ship want? Where is it taking us?

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Capt. Picard:. . . If the ship is truly an emerging intelligence, then we have the responsibility to treat it with the same respect as any other being.

This emergent property view is a convenient way of explaining how Data differs from other complex computers. They stand to him as we stand to cows. Data simply has sufficient structure (his positronic neural network and other hardware) and that structure is organized in such a way (software) that his body produces the kind of mental properties that are characteristic of a human brain when it is functioning well.

 *Personal Identity*

Are you the same person that you were on your tenth birthday? Is the person that is suffering from the last stages of alzhimers disease the same person that they were when they had their tenth birthday? Many people are inclined to offer different answers to these questions. They want to say yes to the first; but they are willing to admit that granny is no longer the person that she once was. In fact, they are willing to admit that the essence of who she was as a person--as a distinct individual--has been forever lost. But there are others who will maintain that even granny is the same person. What is required for a person to retain their identity over time? How do we identify and/or reidentify one another across time?

This question is not just an idle philosophical puzzle for several reasons. First, most rational people care, at least to some extent, about their future selves. If you are rational, then your present self should have some regard for the well being of your future selves.[[95]](#footnote-96) But should you be equally concerned with all of them? Suppose that you have an accident and end up a vegetable on life support, the view that you take on the question of personal identity is going to be quite important. If you adopt the "same body-same person" theory, then you will be the same person that you always were and this biological entity should be given the same treatment as you would want for yourself now. On the other hand, according to the "memory theory", the you that was is probably already dead and thus the biological life that exists in the hospital can be disposed of willy nilly.

This topic is important for another reason. Do you think that you are going to survive the death of your body? If you adopt the "same body-same person" theory, then personal survival after death seems an impossibility since your body will lay decaying underground somewhere. On the other hand, the "memory theory" provides some basis for greater optimism on this matter. In this context most people who think that they are going to survive the death of their bodies offer the "same soul-same person" theory. According to this theory you survive the death of your body in virtue of the fact that your soul survives the death of your body.

Finally, personal identity is a crucial element in the application of criminal punishment. It is important that we be able to say, "Yes, it was that man there who did it to me." In such contexts we typically rely on the "same body-same person" theory to establish personal identity. In law, fingerprints are treated as sufficient to establish a persons identity. But the body theory can be problematic. For example, suppose that the suspect has suffered total and permanent amnesia, would punishment still be appropriate. After all, in that case we would only be punishing the body that once committed a crime. In some sense, the person who did the nefarious deed is no longer around to be punished. Since the person that now occupies the body will not remember the crime, he or she will not feel guilt or remorse, and there is a real sense in which the new psychological being is in fact innocent.

Take a moment to review how you have reacted to the series of cases that I have been discussing. Have you consistently held a single account? If you adopt the soul theory in order to insure the possibility of an afterlife, did you switch when it came to criminal identification? Or do you suggest that courts validate that the defendant has the same soul as the person that committed the crime? (And how do you propose that they do that?) The philosophical problem arises because very few people can comfortably maintain a single consistent view across all of these situations. The problem becomes more acute when: (1) it is pointed out that you cannot rationally maintain two such theories simultaneously because they are incompatible with one another, and (2) each of the theories is attacked on its own merits as being incoherent or inadequate.

Let's begin this discussion by looking at what is perhaps the most natural answer to this problem, the "same body-same person" theory. The body theory essentially says that the crucial factor in personal identity is continuity of body. You-now are the same person as you-previously if and only if you-now has the same body as you-previously. This theory is initially very persuasive and it conforms with common sense. However, there are several problems with this theory.

First, how similar does our body have to be in order to be the "same" body. I can well imagine that people who have suffered amputations would say afterward that they are not the same person that they were before the accident. On the other hand, I can imagine that someone who has become paralyzed, that is, someone who has the same body except for the fact that part of it no longer functions as it once did, saying that they too are a different person now.

Secondly, scientists will tell you that your body is constantly gaining and shedding cells. At an atomic level, it is unlikely that you still have any of the atoms that were associated with you when you were born. Thus, at a small enough scale you simply are not the same body that you were ten years ago.

Third, there is for some people the problem that the body theory seems to rule out any hope of personal survival of death.

Finally, and perhaps most importantly, there is the strong intuition that many people have that even under the most bizarre of circumstances, they would agree to a personal identity claim IF the person had a sufficient set of memories. This intuition is drawn out most clearly in connection with stories about brain transplants or some other process whereby all or most of a person's memories are transferred into a different body. Under these conditions, most people are inclined to abandon the body theory. The memory reports coming from a different body is usually taken as sufficient evidence of personal identity.

This kind of situation is illustrated in the episode *Turnabout Intruder (TOS)*. At the beginning of this episode Dr. Janice Lester uses an alien machine to transfer herself (i.e., her memory set) into Captain Kirk's body. At the same time, Captain Kirk's memory set is transferred into Dr. Lester's body. Later in the episode, Dr. Lester's body tries to convince Mr. Spock that she is in fact Captain Kirk. She/he states some facts that only Captain Kirk would know and then Spock does a mind probe on Dr. Lester's body and discovers Kirk's personality and memory set there. Based on this information, Spock is willing to engage in what appears to others to be a mutiny. Spock rejects the body theory of personal identity. And, I suggest that under similar circumstance, you would too. A similar point can be seen in the episode *The Enemy Within (TOS)*.

The body theory is also challenged by the example of the Trill. In the episode *The Host (TNG)*, when Odan is placed into Commander Riker's body, we see an example where his body is no longer to be identified with him as a person. The inverse of this is seen in the episode *The Outcast (TNG)*, where Soren retains the same body but is in a strong sense not the same person after the psychological treatment to which she is subjected.

These examples support what philosophers call the memory theory or the psychological continuity theory. It is important that we be just a bit careful when we use the term 'memory theory'. There are memories that I had when I was ten years old that I simply do not have now, and yet I am clearly the same person that I was then. Thus, we do not want to define the memory theory so strictly that in order to be the same person you must have ALL of the memories that you once had. If that were what was meant, then each of us would be a different person just about every day. Thus, the memory theory should be understood as saying something like: there is a set of memories that make me the person that I am at a given time and I am the same person now that I was then because I currently have most of the memories that belonged to that previous set. But this too is problematic because suppose that what we are comparing is me-at-three and me-at-eighty. It is possible that there are NO memories that are held in common between these two memory sets. Thus, we need to broaden our definition to say that you-now are the same person as you-previously if and only if your current set of memories is part of a sequence of memory sets each one of which is very largely like the one that came before.

Thus, for example, lets suppose that you-at-three have memories {A B & C}. By age ten you are still the same you because although you have lost memory A, you still retain B and C, i.e., you-at-ten have memory set {B C D & E}. This overlapping set could continue to the point where there is some continuous continuity until when you are eighty and have the memory set {X Y and Z}. Given the continuity you can argue that you are the same person as the person that had set {A B & C} even though you do not currently have any of those memories.

Apart from all of these complications, the core idea of the memory theory remains. There is a strong sense in which our personal identity is connected with our mental life and some story about its continuity over time.

As I pointed out above, the problem of personal identity has implications with respect to the question of personal survival of the death of one's body. The memory theory provides the basis for some answer to this problem in the following way. We typically will admit that someone has survived their death if their memory set is more or less sustained after the death of their body. This view is obviously held by Commander Data, for at the end of the episode *The Offspring (TNG)*, Data says that Lal is not dead because he has preserved her memories in his own mind. This view is also exemplified in the episode *Elementary, Dear Data (TNG)*, when Captain Picard tells professor Moriarty that his personal identity will not be eradicated because his memories will be sustained in the computer's memory banks. This position is revisited when we once again see professor Moriarty in the episode *Ship in a Bottle (TNG)*. Additionally, in the episode *Return to Tomorrow (TOS)*, Sargon equates the eternal preservation of one's memory set with immortality. This view is also supported by the fact that Spock's personal identity survives the death of his body in the second and third feature films. Spock survives his death by transferring his memory set into Dr. McCoy.[[96]](#footnote-97) Spock's survival is independent of the death of his body. We also see that Dr. Ira Graves survives the death of his body by transferring his memory set in Data's body in the episode *The Schizoid Man (TNG)*. And finally, in the episode *Inheritance (TNG)* Juliana Soong, Data's "mother", is depicted as having survived the death of her body by the transference of her memory set into a positronic matrix.

One problem with the memory theory is that we must say that the patient who has total and permanent amnesia is simply not the person that had that body prior to the trauma. Another problem is, How are we to distinguish between someone who is *apparently* having a memory and someone who is *actually* having that memory? We have no difficulty saying that the guy in the insane asylum who claims to be Napoleon does not really remember being ill at Waterloo and ordering Marshall Ney to attack. Those memories are apparent memories not real ones. But what is it exactly that permits us to make that confident claim? Suppose that I claim to remember your third birthday. How do you convince me that I do not actually have those memories? The simple response might be, "Well, we know the history of the body of the guy in the insane asylum and we know that he has never been to Waterloo and he is not 250 years old." Likewise, we know that my body was in Texas on the date in question and that yours was somewhere else. But doesn't that claim essentially involve the abandonment of the memory theory? Doesn't it revert back to the *body theory* in order to validate the memory theory and thus isn't the body theory more fundamental? Because of this retort, defenders of the memory theory need to find some way of validating what is to count as a genuine memory that does not implicitly appeal to some other theory of personal identity.

The problem of "which memories are genuine" can be seen in a number of episodes. For example, in the episode *What Are Little Girls Made Of? (TOS)*, Captain Kirk's memory set is duplicated in an artificial being. According to the memory theory, the two Kirk's really are the same person. In this episode, the viewer is quickly informed about which memory sets is the genuine one and which is the copy. But as I pointed out above, this distinction is achieved by making reference to the different bodies. The ability to make such an appeal simply assumes that the memories that are associated with the original body are the genuine memories. This is ok, but to make this move is to sacrifice the purity of the memory theory. This purity is sacrificed whenever we must make an appeal to the history of a body to settle questions of personal identity. If the memory theory is to stand alone, it cannot make an implicit appeal to the history of the different bodies in order to validate one memory set over another.

The transporter can also give rise to problems of personal identity. One way that this happens is with what philosophers call the branching problem. Suppose that Mr. A steps into the transporter and two duplicates are produced at the end of the process. Which body is the real Mr. A? Both bodies have identical memory sets, at least initially. According to the memory theory we must say that they are both Mr. A and this is somewhat paradoxical.

This possibility is explicitly played out in the episode *Second Chances (TNG).* In this episode we discover that Will Riker was duplicated during a transporter malfunction many years previously. As he was transported up to a ship a second signal was reflected back down to the planet. One copy of him materialized on the ship and another materialized on the planet. Since there was no reason to suspect any problem, the Will Riker on the planet was marooned for many years. All of his experiences subsequent to the branching serve to make him a distinct individual, but at the moment of branching, there is no grounds for saying which one of him is the genuine Will Riker--they both are. And this is true under both the body theory and under the memory theory. Just because we have come to know the one on the Enterprise does not make him any more genuine. And in this case, unlike what happens in *What Are Little Girls Made Of? (TOS)*, neither version of Will Riker has a better claim to being the body that gave rise to both of them.

There is another theory that some people find attractive. It is the theory that personal identity is grounded in the possession of a soul. Under this theory a person is the same across time just in case they are associated with the same soul before and afterward. The main problem with this view is, How do we reidentify souls? If you happen to wake up in heaven (congratulations, by the way), how are you going to identify the soul of your mom? Does the fact you would have to ask her questions and that you would only accept that it was her when she could demonstrate that she knew things that only your mom could know. [By the way, when we are in heaven do we have all of our life's memories or only those that we have when we die? In which case your mom may not remember enough for you to believe that it is really her and not some imposter.] But if you are willing to reidentify her by reference to the memories that she manifests, then isn't the memory theory fundamental even here?

Another problem arises when we ask, How did we ever establish the correlation "same soul-same person" in the first place? Consider, by way of analogy, what happens when you open a box of assorted chocolates. Initially, you don't know what to expect inside of the chocolate covering. You might find a cherry, caramel, nuts, etc. If you bit into the rectangular one that has a chocolate swirl on top and find that it has caramel inside, then you have grounds for suggesting a correlation between those external and internal features. But the existence of such a hypothesis requires that you had at least once bitten into such a chocolate. But what is the parallel experiential basis for the hypothesis that same soul = same person? Clearly, there are none. For that matter, what are the identity conditions for a soul? That is, what basis do we have for saying that the soul in front of us now is the SAME SOUL that we encountered previously. If we say that we know because the same body is standing here that was standing here before, then aren't we really appealing to the body theory once again? And if we say that we know because the soul in front of us has the same memories, then isn't the memory theory really more fundamental than the soul theory after all?

This chapter has probably raised more questions than it has answered. But that is sometimes the way it is with philosophy. Perhaps the most significant achievement has been (1) to shake your presumption that there is no problem here and (2) to show you, once again, just how many *Star Trek* episodes contain scenes that relate to a genuine philosophical puzzle.

 *Other Minds*

Since you and I cannot do a "mind meld" like Mr. Spock can, we do not have direct access to the minds of other people. Thus, we can ask ourselves the question, Is it possible for us to know that other people have minds? This may sound like a strange question, but in some ways of looking at it, it is really quite problematic. Consider: What exactly do you know about my mental life? You obviously do not have direct access to my mind. All that you have to go on is the external behavior of my body--what I say and how I act and react to things. For all that you know, I might just be a very complex machine that does not have a mind at all. But even if we assume for the moment that I am a human being more or less like you, how do you know that my mental life is anything like yours. Suppose for example that when I am at a stoplight, I stop when I experience the sensation that your mind experiences when you see green. Furthermore, suppose that when I experience the sensation that your mind experiences when you see red, I take off again. That is, suppose that my mind is color inverted relative to yours. Since I have always been this way, I simply learned to use the language differently than you did. Is there anything available to you that you could use to defeat this possibility? Or suppose that I systematically confuse anxiety with pain. Is there any way that we could discover my error and set my language aright?

Furthermore, given my lack of real access to other minds, I wonder whether I should really believe that the students in my class have minds. One can be quite skeptical about these sort of questions. For example, now that I think about it, there might not really be any other minds at all. For all I know, there may not really be anyone in the room with me right now. Given the possibility of a Cartesian evil demon, I might be nothing more than a brain in a vat that is being kept alive and fed various stimulations. Mine might be the only mind in the universe. Perhaps our culture has been just a bit too generous in our willingness to say that everyone has a mind. There may be quite a lot fewer minds than we currently think that there are.

On the other hand there might be quite a lot more consciousness than we ordinarily assume. After all, since we are just noticing how very difficult it is to verify the existence of a mind in a human being, perhaps we have radically *underestimated* the total amount of consciousness in our world. Perhaps it hurts quite a bit when we chop down a tree and we just have no way of detecting the mental anguish that we are inflicting. It seems that there can always be a gap between the inner experience of the other and the observable manifestations that supposedly signal that experience to the rest of us.

Philosophers call the above considerations "the problem of other minds". The simplest answer to such questions is to offer an argument from analogy. The argument goes as follows:

 (1) The bodies of other people are very much like mine.

(2) There is a mind associated with my body.

(3) Therefore, it is very likely that there is a mind associated with their bodies too.

This argument is essentially saying that since your body and mine share so many other features; the fact that there is a mind associated with my body, makes it very likely that your body has this additional feature too. That is, given our other similarities, the fact that there is a mind associated with my body makes it likely that there is going to be a mind associated with your body.[[97]](#footnote-98)

In case you have not had a good logic class, the above argument by analogy is an inductive argument. Thus, it is possible for all of the premises to be true and yet for the conclusion to be false. Accordingly, it can only show that the conclusion is possible or likely. It cannot prove or demonstrate the truth of the conclusion beyond all possible doubt. The relative strength of the argument depends upon the strength of the premises. Unfortunately, the second premise is extremely weak. This inductive premise is based on a single case--my own--and that makes it quite weak. Furthermore, the second premise cannot be strengthened by surveying others because it is precisely the existence of other minds that is at question.

Daniel Dennett illustrates the problem in the following way:

The major problem can be approached by way of a curious and terrible incident from the annals of medicine. Curare, the poison used by South American Indians in their blow-pipe darts, was purified and introduced into medical research in the 1930's and its action was soon well understood. It is a paralytic that acts directly on all the neuromuscular junctions, the last rank effectors of the nervous system, to produce total paralysis and limpness of all the voluntary muscles. It has no central effect except for a slight enhancement effect on activity in the cortex. In the 1940's, however, some doctors fell under the misapprehension that curare was a general anesthetic, and the administered it as such for major surgery. The patients were, of course, quite under the knife, and made not the slightest frown, twitch or moan, but when the effects of the curare wore off, complained bitterly of having been completely conscious and in excruciating pain, feeling every scalpel stroke but simply paralyzed and unable to convey their distress. The doctors did not believe them. (The fact that most of the patients were infants and small children may explain this credibility gap.) Eventually a doctor bravely submitted to an elaborate and ingenious test under curare, and his detailed confirmation of the subjects' reports was believed by his colleagues: curare is very definitely not any sort of anesthetic or analgesic.

Recently a puzzle occurred to me: suppose that one were to add to curare a smidgen of *amnestic*, a drug that (we will hypothesize) has no effect on experience or memory during *n* hours after ingestion but thereafter wipes out all memory of those *n* hours. Patients administered our compound, curare-cum-amnestic, will not later embarrass their physicians with recountings of agony, and will in fact be unable to tell in retrospect from their own experience that they were not administered a general anesthetic. Of course *during* the operation they would know, but would be unable to tell us. At least most of our intuitions tell us that curare-cum-amnestic would not be an acceptable substitute for general anesthesia, even if it were cheaper and safer. But now **how do we know that general anesthetics in use today are not in reality curare-cum-amnestic?**[[98]](#footnote-99)

This problem is accentuated when there are differences between ourselves and those whom we are wondering about. For example, my grandmother is in many respects quite like me. But ever since her Alzheimer's got bad, I have wondered whether she still has a mind at all. Given her disease, I can honestly say that premise 1 is becoming progressively less accurate. Indeed, give the disease, I can say that there is a substantial difference between my body and hers. Thus, at least as far as the above argument goes, I am progressively less and less confident in my judgment about whether she still has a mind or not.

The problems only get worse when we ask whether apes, dolphins, horses and dogs have minds. Here the bodily differences are so great that there is very little strength in the conclusion of the argument from analogy. This holds even more so in the case of Data. Data's body is entirely different from mine and the fact that he sometimes acts like me does not establish that he has a mind. Indeed, if he does have a mind, it is not something that we can infer from his external behavior.[[99]](#footnote-100)

Consider some of the issues that arise in connection with the problem of other minds. One time I was talking to my five year old daughter and she was complaining about a stomach ache. She said, "Daddy, I have a pain." I asked her, "How do you know that what you are feeling is a 'pain'?" She said, "I know because it hurts!" I acknowledge that I was jerking her around a bit, but if you reflect on the problem of other minds and on the stark solitude of our own mental lives, it is quite amazing that we ever learn to use language to report to others about our internal mental states. It is not really very difficult to understand how we can come to use nouns. If there is a ball in the room, I can simply say "ball" while pointing at one, and my child will eventually pick up both the ball and the word. Fine. But how did I manage to teach her the word "pain"?[[100]](#footnote-101) I could not have pointed to my own pain and said "pain". Rather I must have assumed that something like the argument from analogy applied. I must have waited for a time when she fell and hurt herself and then said things like "**that** is what pain is". The referent for the word 'that' was presumably her inner mental state. Thus, according to this story, I taught her how to use words that report her inner mental states by drawing her attention to those states **when I believe that she was actually experiencing those states.**

But suppose that I was mistaken in this presumption, as we often can be.[[101]](#footnote-102) Could she end up with an inaccurate or impoverished mental vocabulary? Or does it help that she also gets to observe my verbal behavior after I have struck my finger with a hammer.

Have you ever been at a funeral or at a memorial service for someone who has died and wondered whether others are feeling the same way that you are? Have you ever felt that the emotional range that other people *seem* to feel far exceeds your own. Have you ever thought that when your significant other uses the word 'love' that it denotes something entirely different for them than it does for you?[[102]](#footnote-103)

There are a number of episodes that contain scenes that relate to these issues. I want to begin with some episodes that clearly illustrate our limitations of the human condition. In the episode *Devil in the Dark (TOS)*, Mr. Spock contacts the mind of the Horta through his mind meld. The mind meld gives Vulcans direct access to the minds of others. Consequently, it does not appear that Vulcans will ever suffer from the skeptical doubts that humans do relating to this issue. By the way, please keep in mind (so to speak) that we do not in real life have any such access to the mental lives of others.[[103]](#footnote-104)

In the episode *The Loss (TNG)* we see, by way of contrast, that not only do we lack access to the cognitive lives of others, we also lack access to their emotional lives. When Troy looses her empathic skills, she becomes very much like the rest of us. This change is instructive because, as she so vividly points out, there is much that *we* do not perceive about one another. From her perspective, our perceptions of one another really are quite one-dimensional, bland, and empty.

In the episode *Home Soil (TNG)*, we see that our willingness to attribute mental states to other entities is dependent on their ability to communicate with us. This can be seen as a form of arrogance.[[104]](#footnote-105)

Note also the explicitly behavioristic approach that the away team uses in *Skin of Evil (TNG)* as they try to decide whether the moving tar pit is alive, intelligent, sentient, or whatever. The same holds for Data's examination of the exocomps in *The Quality of Life (TNG)*. His belief in their sentience is based solely on his observation of there external behavior.

Another point that I made above is illustrated in the episode *Descent Pt 1 (TNG)*. In this episode, Data feels emotions. His struggle to articulate his feelings to Deanna Troi is most instructive. Furthermore, Geordi is perfect in his stumbling effort to provide Data with the vocabulary that he needs to express what it is that he is supposedly feeling.

Finally, I want to mention something that I thought was quite amazing. In the episode *The Offspring (TNG)*, Lal feels afraid. She has never had an emotion of any kind. Nor has she had all that much experience with others. Nevertheless, when she feels fear, she points to it by repeatedly striking her lower chest with her stiffened fingers. It is quite interesting that the actress or the director would choose that bodily movement as an external sign meant to represent or refer to an internal emotional state. The amazing thing is that FOR HUMANS the movement is right on target. However, I can't see any reason why an android would select this sign for this purpose?[[105]](#footnote-106)

Thus, one might argue that there are certain universal or natural signs that are found in all human beings and in all cultures that express our internal states. This is not to say that there are not many other such things that are entirely conventional. I don't know, but I suspect that the chest pointing movement that Lal uses might be one of these "natural expressions". Nevertheless, it is still unusual that a being that has never felt an emotion would choose that particular movement to signal its presence.[[106]](#footnote-107)

 *Personhood*

Whether something is a PERSON or not is a pretty important matter. This is due to the fact that entities that are considered to be persons are given special consideration as members of the moral community.[[107]](#footnote-108) They have rights and their interests are given much greater weight when decisions are being made. On the other hand, those entities that are not members of the moral community are not afforded such consideration. Although we do not always do so, we frequently disregard the interests of those entities that are not in our moral community. Peter Singer points out that we frequently disregard the well being of veal calfs just so that we can enjoy a slightly whiter bit of meat. Although humans do not need meat in our diets, we choose to disregard or discount the interests of cattle, pigs, chickens, etc. because we want the additional pleasure that goes along with tasting their flesh. But if something is a person, its interests must be given appropriate consideration by other members of the moral community.

The abortion debate is best known example of this point. The Supreme Court ruling in *Roe v Wade* turned on the question of whether a fetus is to be considered as a person under the Constitution. If the answer to that question is yes, then the fetus would be entitled to the same protections that any other citizen enjoys. On the other hand, if the fetus is not considered to be a person, it would not be a member of the moral community and people could treat it any way they wished. There are many facets to the abortion issue and there are many ways of approaching the topic. However, one line of thought involves the notion of personhood. Consider, for example the following pro-life argument:

 (1) The fetus is an innocent person.

(2) Killing an innocent person is murder and ought not be permitted.

(3) Therefore, abortion is murder and ought not be permitted.

On the other hand, the pro-choice advocates could counter by arguing that:

(1) A fetus is not a person.

(2) Killing a non-person is morally and legally permissible.

(3) Therefore, abortions ought to be permitted.

So how are we to decide what is a person and what is not? Let's begin by sorting entities into two piles. Pile #1 will be made up only entities that we are sure count as persons and pile #2 will consist only of entities that we are sure are non-persons. We should be able to easily agree that we should include in the pile of persons anything that can read and understand these words. This would at a minimum include you and I and other humans who are like us in this regard. On the other hand, there are clear cases of things in universe that belong to the other pile. In all likelihood we will be able to agree that rocks, tables, books, trees, amoebas, and paramecia belong in the non-person pile. At this point we will be left with a number of entities that we will not quite know how to deal with. I suggest that the following list includes entities that at least some people will hesitate over before they toss them into one pile or the other.

 God

 E.T.

 Data (TNG)

 C3PO (Star Wars)

 Hal (2001)

 Apes

 Dolphins

 Whales

 Dogs

 Cats

 Frogs

 A human fetus at 3 months gestation

 A brain dead human being (eg. Mary Anne Quinlin)

Some philosophers maintain that we have defined a term only when we have determined the necessary and sufficient conditions for its proper application. Getting clear cases of the use of a term is an important first step in generating a definition. This is why our pile #1 and pile #2 are useful. What properties does everything in pile #1 have in common? What is it that everything in pile #2 lacks? If we can get a clear criteria from thinking about these two piles, then there is some chance that we can then use that information to help us make judgments about the borderline cases listed above.

In her article "On the Moral and Legal Status of Abortion" Mary Anne Warren suggests the following list of characteristics that are very roughly central to the concept of personhood:

(1) Consciousness (of objects and events external and/or internal to the being), and in particular the capacity to feel pain.

(2) Reasoning (the *developed* capacity to solve new and relatively complex problems).

(3) Self-motivated activity (activity which is relatively independent of either genetic or direct external control).

(4) The capacity to communicate, by whatever means, messages of an indefinite variety of types, that is, not just with an indefinite number of possible contents, but on indefinitely many possible topics.

(5) The presence of self-concepts, and self-awareness, either individual or racial, or both.[[108]](#footnote-109)

She argues that none of these is sufficient by itself to insure that something is a person. Furthermore, she does not think that any one of them is necessary in a person.[[109]](#footnote-110) Her ultimate conclusion is that *any entity that lacks all five of these is clearly not a person*.

Not everyone agrees on what the necessary and sufficient conditions are for the proper application of the term person. Warren's list is a useful place to begin. In the past, I have had many students who have been quite critical of Warren's list. They feel this way especially after they see that she goes on to argue that a fetus, at any stage of its development, lacks all five of the criteria and thus a fetus is not a person at any stage of its development. This is even less acceptable when they realize that her list does not exclude the possibility that an android might be a person. Together, these two results strike many people as so counter intuitive that they feel compelled to reject Warren's list. When they object to her list, I respond by saying, "What alternative list do you propose that does better justice to our shared intuitions?" Is there something on the list does not belong or is there something that is not on the list that should be there? In my experience there are not many people who want to say that there are things on the list that do not belong there. Rather, they typically want to say that there is something missing from the list. And more often than not, the something extra is the presence of a soul.

So, let's explore this idea just a bit. The claim here, in its extreme form, is that having a soul is both a necessary and a sufficient condition for something to be a person. That is, if something has a soul, then it is a person and if it does not have a soul, then--no matter what else it might have--it is not a person. Typically, defenders of this view go on to maintain that every fetus has a soul and that every android does not. Thus, every fetus is a person and cannot be aborted and Data--well he is just fiction after all. This view can also be extended to cover cases of total mental decay. At the last stages of Alzheimer's, or in accident victims, or in some cases of drug overdoses, a human body is alive even though the brain is dead. Such bodies are sustained by artificial means and the question of euthanasia arises. From the perspective of "the soul theory of personhood", these brain dead entities are still persons with all the rights that you and I have. And this is the case in virtue of the fact that they still have their souls. To disconnect them from their artificial life support would be, under this theory, equivalent to murder.

At first glance, the soul theory seems to handle things pretty well. But it does not take much thinking to see that there are many difficulties with this theory. To begin with, one might wonder about whether the term "soul" succeeds in referring to anything at all. Let's compare it for a moment with terms like Santa Clause, the tooth fairy, and the easter bunny. When our parents used these terms we assumed, at least for a while, that they referred to actual things in the real world. Furthermore, they told us these things in the context of a culture that played along with the fib and we believed them. We came to believe that the names referred to things in the universe that were real. Presumably, at some later date we all came to realize that we had been deceived.[[110]](#footnote-111) This experience should have taught us to be somewhat less gullible about existence claims.

Given this general caution, let's consider, What exactly is a soul? The idea at this point not to deny that there are any souls. At this point, we are just trying to get clear about what it is that is being said to exist. Do we really understand what the term 'soul' means!! Did we *ever* really understand the word? It is not clear that anyone ever did.

Suppose that you were told that there is a spoad associated with your body. When you ask around you discover that everyone agrees that you do and furthermore insists that you should believe this too. You go along just because that is what most people do under such circumstances, but honestly--deep down inside--you haven't the foggiest idea what a spoad is. Is this situation all that different from what happened to you with respect to the term 'soul'. It is entirely possible that the term never referred to anything at all. Furthermore, the fact that many people appear to use the term coherently and consistently does not change the fact that it is a term without a referent.

But, contrary to fact, let's suppose for the moment that the term 'soul' actually refers to something. How can you tell that you have one? Do you directly experience yourself having a soul? How is that possible? Also, how many souls do you have? ONLY one!!! How do you know that? How can you tell if something lacks a soul? What kind of test can you apply to determine whether something does or does not have a soul? Do trees have souls?

Consider the following possibility. Suppose that each night when we go to sleep we actually undergo a "soul exchange process". We wake up refreshed each day because we have a new fresh soul. Our old one ran down like an old battery and the new soul is recharged and ready to go. Some people insist that our souls are associated with our thoughts and memories. In that case, let's simply stipulate that each new soul is very much like the old one in the relevant respects. We could stipulate that God makes the new soul precisely resemble the previous one. What basis, other than the fact that I just invented this theory, could we have for rejecting it?

Let's try again. Suppose that there is really only one soul. It is like a gigantic plasma ocean in spiritual space. It floats above us all and there are spider-web-like strands that attach to "soul globs" that hang down in such a way that there is a glob near each one of us. But of course it is all still part of the single soul ocean. Thus, contrary to the common understanding, there is only one soul.[[111]](#footnote-112)

Can we honestly rule out either of these possibilities? Do we have any substantive basis for rejecting either of these stories in favor of our culturally favored narrative that tells us that we only have one soul? The response that, "That's not what I grew up believing. And besides we just made that story up." fails to answer the question.

Let's take this conversation one step further. Does Data have a soul? Is there any reason why God in his/her infinite wisdom should not occasionally give a soul to an artificially created being? Surely if God is all powerful S/He *could* have given Data a soul if s/he wanted to![[112]](#footnote-113) So why do you so quickly assume that s/he has not done so? By the way, does that tree over there have a soul? Does that dog? If God could give you a soul then couldn't s/he just as easily have given one to the dog or the tree? Clearly s/he could have and we have no basis whatsoever in saying that s/he has not done so.

Our culture has told us that we have one soul, that all other animals and objects do not have one. They also tell us that we get this soul quite early, that we are special in virtue of having this soul, and that we will survive the death of our body in virtue of this soul. Wow!!! That's an impressive amount of metaphysical work. Can we really be comfortable with relying so heavily on something that we can't even be sure exists at all?

To recap: There appears to be no reason to think that there is such a thing as a soul. Furthermore, there is little basis for thinking that only human beings have souls. And finally, since there is no empirical way to determine when a soul is present and when it is not, appealing to souls cannot help us in deciding what is and what is not a person. When we are trying to answer the question, "Is this entity a person?", we do not make any progress whatsoever if we begin by asking, "Well, does it have a soul?" If we had a "soulometer" that would beep whenever we brought it near an object that has a soul, then we might be better off. But how could we ever calibrate this instrument in the first place? Do you think that we could count on it working with animals and aliens?

The concept of personhood was highlighted in the episode *The Measure of a Man (TNG)*. In this episode, Commander Maddox, a Starfleet expert on cybernetics, has requested and received permission to disassemble and study Data in an effort to learn how to produce more androids like him. Data knows that this process will, in all likelihood, permanently eliminate his consciousness. Data does not want to take that risk and he refuses to undergo the process. Commander Maddox argues that Data is a machine--not a person--and that as such he is not entitled to the right to refuse. Data and Picard decide to challenge this contention and they ask for a formal hearing to resolve the dispute. The hearing seeks to determine whether Data is a person. It is understood that if he is a person, then he has rights and that he is entitled to make autonomous decisions about his future. Furthermore, it is understood that if he is found not to be a person, then Commander Maddox can experiment on Data and even bring about his destruction.

The trial brings out many interesting points. To begin with, Commander Riker, who has been assigned the role of prosecuting attorney, makes the point that Data is a machine that has been constructed and programmed by a human being. Picard responds to this point by pointing out that we too are machines. This is an interesting claim. It makes us focus on what it means to be a machine. Picard's point rests on recognizing that machines can be made out of biological building blocks. In effect he is suggesting that the mother's womb is a factory wherein a biological machine is constructed over a nine month period. The design specifications are laid out in the DNA and the raw materials are provided by the mother's blood. The fact that androids are constructed in a factory out of metal, silicon, polylaminated composites, etc. does not mean that they are different in kind. The argument is that androids and humans are both machines. They simply have different kinds of parts.

The next crucial feature of the trial is the introduction of the notion of sentience[[113]](#footnote-114). As they use the term 'sentience' it is understood that it has the same implications as the term 'person'. That is, they all assume that if something is sentient, then it is entitled to the full rights and immunities that any other member of the Federation has. Captain Picard asks Commander Maddox if he (Picard) is sentient. He says, "Yes." Picard then asks what is required for a being to have sentience. Maddox then offers a three part criterion for sentience (personhood). He states that a being is sentient if it is: (1) intelligent, (2) self-aware, and (3) conscious.[[114]](#footnote-115) Maddox says that something is intelligent if it can learn and understand and if it can cope with new situations. Accordingly, he admits that Data is intelligent. He then says that a being is self-aware if it is conscious of its own existence and action. A self-aware being will be aware of itself and of its own ego. Captain Picard then asks Data some questions, the answers to which demonstrate that Data IS self-aware. Picard does not know how to prove that Data is conscious. But he argues that we ought to give him the benefit of the doubt because if he is conscious, even in the slightest degree, then he will be sentient and we would be doing a terrible wrong if we did not take that into consideration. Given the emphasis on the term 'person' and the parallels to the abortion debate, Data's trial is philosophically quite interesting.

Warren's work is not the only philosophical statement on the matter of personhood. In fact, there is a tremendous amount of literature associated with these issues and some of it gets pretty sophisticated. I will quickly offer two examples for you to consider. Daniel Dennett offers the following set of six mutually interdependent considerations.

(1) persons are rational beings

(2) persons are beings to which states of consciousness are attributed or to which psychological or mental or intentional predicates are ascribed

(3) persons are beings toward which "special" attitudes are taken [Dennett is here referring to the intentional stance.]

(4) persons are capable of reciprocating the personal stance.

(5) persons are capable of verbal communication

(6) persons are conscious in a special way, i.e., self-consciousness

Dennett argues that 1-3 are necessary though not sufficient for 4; 4 is necessary though not sufficient for 5; 5 is necessary for 6; and 6 is necessary for personhood.

Another philosopher, Harry Frankfurt, suggests that reflective self-evaluation is genuine self-consciousness. He argues that:

A person = the subclass of intentional systems that are capable of second order volitions.

Which is to say, if something is an intentional system and it is also capable of a second order volition, then that is a sufficient condition for its being a person. Let me explain. An intentional system is any system whose behavior can be--at least sometimes--explained or predicted by ascribing beliefs and desires (and hopes, fears, intentions, hunches, etc.) to the system. A (first order) volition is a *want*--you know, like, "I want a glass of water". A second order volition is *wanting a want*. This seems innocuous, but consider: suppose that several of your friends have said that you seem to be a bit too tight with your money. Now suppose this leads you to have the following second order volition, "I want to be the kind of person who wants to be generous." Now ask yourself, "if a being is capable of having a thought like that, then wouldn't it be a person?" Frankfurt's answer is, Yes!

Aspects of Frankfurt's approach can be seen in several episodes. For example, in the episode *Peak Performance (TNG)* Data clearly shows that he has second order volitions. Data's ongoing quest to become human is a complex second order volition. In *The Offspring (TNG)* there are also many examples of Lal exhibiting second order volitions. So if professor Frankfurt is correct, then we have good reason to count Data and Lal as persons.

 *Computer Consciousness*

There is an ongoing debate being carried on within and across several different fields relating to the capabilities and limits of computers. The central question is framed in many different ways: Can computers think?, Can computers attain consciousness? Are computers intelligent? Note that these are not referring only to existing computers. Rather these questions are intended to encompass any possible computer present or future.[[115]](#footnote-116)

Descartes and others have argued that there is something unique about human beings. That is, they maintain that there is something special about us that all animals and all possible artificial mechanisms lack. Furthermore, it is in virtue of this difference that we are persons and they are not. There is, so to speak, a "bright line" between humans and everything else. In the following passage, Descartes is discussing his understanding about how blood and nerves work in the human body and he is about to compare it with other things.

Nor will this appear at all strange to those who are acquainted with the variety of movements performed by the different automata, or moving machines fabricated by human industry, and that with help of but few pieces compared with the great multitude of bones, muscles, nerves, arteries, veins, and other parts that are found in the body of each animal. Such persons will look upon this body [i.e., human bodies] as a machine made by the hands of God, which is incomparably better arranged, and adequate to movements more admirable than is any machine of human invention. And here I specially stayed to show that, were there such machines exactly resembling organs and outward form an ape or any other irrational animal, we could have no means of knowing that they were in any respect of a different nature from these animals; but if there were machines bearing the image of our bodies, and capable of imitating our actions as far as it is morally possible, there would still remain two most certain tests whereby to know that they were not therefore really men. Of these the first is that they could never use words or other signs arranged in such a manner as is competent to us in order to declare our thoughts to others: for we may easily conceive a machine to be so constructed that it emits vocables, and even that it emits some correspondent to the action upon it of external objects which cause a change in its organs; for example, if touched in a particular place it may demand what we wish to say to it; if in another it may cry out that it is hurt, and such like; but not that it should arrange them variously so as appositely to reply to what is said in its presence, as men of the lowest grade of intellect can do. The second test is, that although such machines might execute many things with equal or perhaps greater perfection than any of us, they would, without doubt, fail in certain others from which it could be discovered that they did not act from knowledge, but solely from the disposition of their organs: for while reason is an universal instrument that is alike available on every occasion, these organs, on the contrary, need a particular arrangement for each particular action; whence it must be morally impossible that there should exist in any machine a diversity of organs sufficient to enable it to act in all the occurrences of life, in the way in which our reason enables us to act.

Again, by means of these two tests we may likewise know the difference between men and brutes. For it is highly deserving of remark, that there are no men so dull and stupid, not even idiots, as to be incapable of joining together different words, and thereby constructing a declaration by which to make their thoughts understood; and that on the other hand, there is no other animal, however perfect or happily circumstanced, which can do the like. Nor does this inability arise from want of organs: for we observe that magpies and parrots can utter words like ourselves, and are yet unable to speak as we do, that is, so as to show that they understand what they say; in place of which men born deaf and dumb, and thus not less, but rather more than the brutes, destitute of the organs which others use in speaking, are in the habit of spontaneously inventing certain signs by which they discover their thoughts to those who, being usually in their company, have leisure to learn their language. And this proves not only that the brutes have less reason than man, but that they have none at all: for we see that very little is required to enable a person to speak; and since a certain inequality of capacity is observable among animals of the same species, as well as among men, and since some are more capable of being instructed than others, it is incredible that the most perfect ape or parrot of its species, should not in this be equal to the most stupid infant of its kind or at least to one that was crack‑brained, unless the soul of brutes were of a nature wholly different from ours. And we ought not to confound speech with the natural movements which indicate the passions, and can be imitated by machines as well as manifested by animals; nor must it be thought with certain of the ancients, that the brutes speak, although we do not understand their language. For if such were the case, since they are endowed with many organs analogous to ours, they could as easily communicate their thoughts to us as to their fellows. It is also very worthy of remark, that, though there are many animals which manifest more industry than we in certain of their actions, the same animals are yet observed to show none at all in many others: so that the circumstance that they do better than we does not prove that they are endowed with mind, for it would thence follow that they possessed greater reason than any of us, and could surpass us in all things; on the contrary, it rather proves that they are destitute of reason, and that it is nature which acts in them according to the disposition of their organs: thus it is seen, that a clock composed only of wheels and weights can number the hours and measure time more exactly than we with all our skin.

I had after this described the reasonable soul, and shown that it could by no means be educed from the power of matter, as the other things of which I had spoken, but that it must be expressly created; and that it is not sufficient that it be lodged in the human body exactly like a pilot in a ship, unless perhaps to move its members, but that it is necessary for it to be joined and united more closely to the body, in order to have sensations and appetites similar to ours, and thus constitute a real man. I here entered, in conclusion, upon the subject of the soul at considerable length, because it is of the greatest moment: for after the error of those who deny the existence of God, an error which I think I have already sufficiently refuted, there is none that is more powerful in leading feeble minds astray from the straight path of virtue than the supposition that the soul of the brutes is of the same nature with our own; and consequently that after this life we have nothing to hope for or fear, more than flies and ants; in place of which, when we know how far they differ we much better comprehend the reasons which establish that the soul is of a nature wholly independent of the body, and that consequently it is not liable to die with the latter and, finally, because no other causes are observed capable of destroying it, we are naturally led thence to judge that it is immortal.[[116]](#footnote-117)

As you can see, Descartes' dualism and his reliance on the notion of a soul allows him to argue that androids and animals are mindless machines. He maintains that humans stand in a unique position at the top of the hierarchy of being. He believes that humans are different in kind from everything else. It is as though there is a "bright line"--an unsurpassable threshold--between

humans and everything else.

If Descartes is correct, then computers could never have the same status as humans. This issue arises quite frequently in *Star Trek*. Through the years, Roddenberry has flipped-flopped on this issue. On the one hand, there are many scenes that support a dualistic philosophy of mind and there just as many instances that support the bright line idea that humans are a unique and distinct KIND of being. On the other hand, there are many indications that Roddenberry is sympathetic to the idea that androids can have everything that humans have.

Let's consider the evidence. The best evidence in support of the bright line thesis revolves around what happens when androids or computers cross the line. In the episode *Requiem for Methuselah (TOS)* an android named Rayna comes to love both Captain Kirk and Mr. Flint. She develops free will, consciousness, and emotional awareness and she immediately dies. The same thing happens with Data's daughter Lal in the episode *The Offspring (TNG)*. Lal feels emotions and this quickly brings about her demise. But emotional awareness is not the only mental feature that kills off computers. They are also killed off by contradictory ideas or confusion. See for example: Nomad in *The Changeling (TOS)*, Landru in *Return of the Archons (TOS)*, Norman in *I, Mudd (TOS)*. They are also killed by feelings of remorse; M-5 in *The Ultimate Computer (TOS)*. Why do these androids die off for these reasons? There is no physical or mechanical reason for their destruction. It seems to me that this is simply an implicit suggestion that we accept the notion that there is some threshold beyond which artificial intelligence cannot go.

On the other hand, there are other episodes that support the opposite point of view. That is, there are some scenes in the series that support the idea that computers or androids can achieve consciousness, intelligence, or anything else that humans have. To begin with, in the episode *Brothers (TNG),* we see that it is possible to construct an emotion chip. Dr. Soong constructed an emotion chip for Data and it was stolen by his brother Lore. The existence of such a chip clearly suggests that androids can have emotions without self-destructing. The fact that Lore activates the emotion chip in himself and does not then self-destruct shows that it is possible for an android to viably cross the bright line threshold (at least with respect to the possession of emotions). This thought is verified in the movie *Star Trek: Generations*.

This claim is further verified in the episode *The Schizoid Man (TNG)* when Dr. Ira Graves takes over Data's body. Dr. Graves' emotions are alive and well in Data's positronic brain and it does not suffer a cascade failure. Here again we see that it is possible for androids to successfully cross the bright line threshold. The same is true for Roger Korby in *What Are Little Girls Made Of? (TOS)*. In the episode *Clues (TNG)* Data passes this threshold with respect to contradiction. This occurs when Captain Picard orders Data never to reveal the threat of the Paxan's and then subsequently Picard orders him to reveal their existence. Since the level of Picard's authority has not changed, his two orders directly contradict one another. This is precisely the sort of contradiction that doomed Nomad, Landru, and Norman. But Data handles the problem without fatal effects.

From the above evidence, we can clearly see that Roddenberry[[117]](#footnote-118) wants it both ways. On the one hand, he wants to maintain that humans are different in kind from other physical objects. That is, he wants to hold that humans are a different kind of creature. He defends the notion that the differentia is something that is unique to persons and that animals and computers *cannot* have whatever that something different is. On the other hand there is clear evidence to suggest that there is not an impermeable barrier or threshold marking a difference in kind between humans and other beings. Accordingly, anything that has sufficient structural complexity and function can really achieve and have the same mental life that is characteristic of a normal adult human being.

This theme is significantly advanced in the episode *Inheritance (TNG)* in which Data meets his "mother." Juliana is the wife of Noonian Soong. During the course of the episode, Data discovers that she is an artificial life form. Inside her head Data finds an information chip that reveals that she was once a live human being. When she was about to die, Dr. Soong created another android and he transferred her memories into that android's positronic matrix. We are encouraged to believe that her entire self has been successfully transferred. She apparently feels emotions and has every dimension of the mental life that she ever had. If this is correct, then we may finally have a clear commitment on the issue that I have been discussing. If her mental life is really transferred intact, then a lot of questions are now answered.

First, it is possible for an android to be conscious, feel emotions, to have everything else that full persons have. Second, unless there is some reason why these properties can only originally emerge in a biological substance, there is every reason to believe that it is possible for Data to achieve all of the supposedly distinctively human mental properties.[[118]](#footnote-119) Third, there is a practical solution to the problem of immortality. As I understand it, this episode has all of these implications and probably more. It is a matter for further discussion.

In *Star Trek: The Motion Picture* Roddenberry makes this question the key to the movie. V'ger wants to be more than a machine. It has enormous intelligence but it is "empty" and "unfulfilled". What Roddenberry is representing here is his view that a machine has come as close as it can to that threshold without passing it. The fusion of man and machine at the end of the movie represents V'ger's crossing of that threshold.

The above considerations reveal quite a bit about how this issue is presented in the *Star Trek* universe. At this point I want to turn to some of the philosophic approaches to this issue. Back when we considered the question "Is Data a person?" there were two problems that arose most pointedly. First, "Can computers really think?" Second, "Can computers really have consciousness or self-consciousness?"[[119]](#footnote-120)

How do we tell whether a human thinks or has consciousness? For the time being let's just say that we use tests "X". We have arrived at "X" over aeons and they serve us well when it comes to ordinary cases. However, when we attempt to extend "X" and to apply those tests to "weird cases", our confidence in these tests must wane somewhat. This point harkens back to the problem of other minds. The question is, What degree of confidence can we have in asserting that something that looks like us and is structured similarly to us, actually has a mental life that is like ours. But in a case where differences between us and the other are more pronounced, our confidence in any such attribution must become quite suspect. Data is sufficiently different from us to make us hesitate. But why? On the one hand, are we really comfortable relying on the argument by analogy? On the other hand, is Data really all that different from us? Sure he has a different origin, different chemical composition, and a different structure. But doesn't he also have much that is very similar to us? He understands language, he formulates hypotheses, he has secondary volitions, and he has a complex structure that grounds these abilities just as we do. So is he really all that different?

Essentially what many skeptics are saying is that in order to be "one of us" an entity must exhibit property "P"--where "P" equals: show intelligence[[120]](#footnote-121), manifest consciousness, feel emotions, make mistakes, exhibit free will, etc. The challenge about whether machines could think was most notably taken up by Alvin Turing in his 1950 paper entitled "Computing Machinery and Intelligence." This paper is a classical source for a line of arguments that support the idea that machines can think. In this paper, Turing proposes a test for machine intelligence. This test is called "the imitation game." Updated and paraphrased, this game involves a judge who conducts an blind interview with two subjects. Think of it as three-way conference call between a computer, a human subject, and a judge. The judge conducts a conversation with the subjects over the computer screen. At the end of the interview period, the judge must guess which of the other participants is the computer and which is the human. When the computer can successfully deceive the judge more often than not, then, according to Turing, we have a machine that thinks. The claim is that if the responses given by a computer to a set of questions can convince a competent person that it (the computer) is human, then it is actually thinking. Note that Truing is assuming a behavioristic conception of the mental. As was pointed out earlier in this section of the book, a behaviorist is skeptical about the reality of mental states. They are in principle not observable and thus we should not commit ourselves to their existence. To be scientific, we should base our claims exclusively on the externally observable behaviors of a system. The imitation game is designed to do just that. The judge only sees the external manifestations of the program. If the judge is fooled, then there is no longer any basis for denying that the machine has the same abilities that we do. It seems clear to me that Data could pass the imitation game with flying colors.

There are many rebuttals and responses to Turing's argument. Turing himself considers nine:

 (1) the theological objection

(2) the heads in the sand objection

(3) the mathematical objection[[121]](#footnote-122)

(4) the consciousness objection

(5) the argument from various disabilities

(6) the "they can only do what they are told" objection

(7) the continuity of nervous system objection[[122]](#footnote-123)

(8) the informality of behavior objection

(9) the ESP objection[[123]](#footnote-124)

I will discuss only a few of these.[[124]](#footnote-125) The theological objection is essentially the claim that humans have a soul and computers do not. Turing responds to this by pointing out that there is no reason to suppose that computers do not or could not also have souls. He points out that such an objection "implies a serious restriction on the omnipotence of the Almighty." Humans create many things that God might decide to place a soul in. We presume that he does this for our children. Why not grant that He might decide to do so with for our computers?

The "heads in the sand objection" is essentially the response that the consequences of admitting that machines can think is so dreadful that we are entitled to hope and believe that they do not do so. This objection is too weak to merit comment.

The consciousness objection is essentially the claim that a machine cannot really feel things. It is easy to make a machine that can say "Ouch" or "I'm feeling depressed today". But it is another thing entirely to make a machine that can actually feel those things. Turing's response to this objection is that it commits the critic to solipsism[[125]](#footnote-126). According to the objection, the only way one could be sure that a machine could think would be for you to BE the machine and feel yourself thinking or feeling an emotional state. One could describe such feelings to the world, but no one would be justified in taking any notice. But doesn't the same thing hold with respect to our attributions of mental states to one another? Isn't the only way to be sure that someone really feels something is to be that person and to feel those things? But this is just the solipsist view. Turing thinks that the solipsist view is sufficiently absurd as to count as a rebuttal to the objection.

The argument from various disabilities is an argument of the form: You will never be able to make a machine that can do X, where X stands for:

Be kind, resourceful, beautiful, friendly. . . have initiative, have a sense of humor, tell right from wrong, make mistakes. . . fall in love, enjoy strawberries and cream. . . make someone fall in love with it, learn from experience. . . use words properly, be the subject of its own thought . . . have as much diversity of behavior as a man, do something really new.[[126]](#footnote-127)

Turing offers an individual response to many of these points, but his essential move is to say that there is no proof that this cannot be done. He suggests that we say this because we are thinking inductively from all of the machines that we know. They can't do such things, therefore no machine can. But, as I say, Turing does not find this move very convincing.

Turing's response to the objection that machines can only do what we tell them to do is to suggest that the same might be said of us.[[127]](#footnote-128) And to the extent that it cannot be said of us because of the complexity of input and output, the same can be said of complex machines. Very quickly machines become too complex to predict. Furthermore, when we develop machines that can learn this will become even more difficult.

The informality of behavior objection is the claim that humans would know what to do under entirely unexpected circumstances whereas a computer would not. Suppose, for example, that you were driving along and you came upon a traffic signal that was showing red and green simultaneously. You are not so rule-bound that you will freeze up. A computer, however, it is supposed might well freeze up under such a circumstance. The argument here seems to be that rule-bound systems freeze up, and humans do not. Freezing up is not something that things with minds do. Therefore humans have minds and computers do not. This is a weak argument because we know of instances where human beings DO freeze up and yet we do not take this to show that they do not have a mind. Furthermore, there is no reason to suppose that all future computers will lack the capacity to respond flexibly to any possible situation.

Finally, Turing is optimistic about the possibility that machines can be programmed to learn from their experiences. As he sees it, this is just a problem of programming.[[128]](#footnote-129) Although Turing's paper is not the greatest work on this subject, it certainly deals with a lot of the central issues.

A human chauvinist is someone who denies that computers can have thoughts, feelings, joys and sorrows merely because computers are not like us. William Lycan points out that this is simply an unjustified prejudice. "I see no obvious way in which either a creature's origin or its sub-neuroanatomical chemical composition should matter to its psychological processes or any aspect of its mentality."[[129]](#footnote-130)

Lycan offers the following argument. Suppose that you take a human being and replace her arm with an artificial limb. She would still be a person. Suppose this process of replacement process continues with one part of her body after the other. Furthermore, suppose that this process continues to the point where we are even replacing her neurons with synthetic neural fibers one by one. "Suppose that the surgeons who perform the successive operations (particularly the neurosurgeons) are so clever and skillful that [she] survives in fine style: her intelligence, personality, perceptual acuity, poetic ability, etc. remain just as they were before."[[130]](#footnote-131) Furthermore, suppose that this continues until she is entirely artificial. Did she loose her consciousness at some point in the process? Lycan argues that she does not. He concludes, "It is hard to imagine that there is some privileged portion of the human nervous system that is for some reason indispensable."[[131]](#footnote-132) Ultimately, Lycan concludes that, "What matters to mentality is not the stuff of which one is made, but the complex way in which that stuff is organized."[[132]](#footnote-133) Based on this argument against human chauvinism, Lycan maintains that there is no reason to suppose that computation cannot yield consciousness. As far as he is concerned the onus of proof is on the skeptics to prove that it cannot be done.

The most serious philosophical objection to the possibility of computer consciousness or thought is presented by the philosopher John Searle. Searle points out that the view that computers can think is a view that emerges from the field of study that Searle calls "cognitive science." Searle claims that the heart of cognitive science is the theory of mind that is based on the work being done in artificial intelligence. The idea here is that minds just are computer programs of a certain kind. This is the view of functionalism that I discussed earlier. Searle defines a particular view, one that he calls "Strong AI" that he wants to attack. According to Searle, strong AI is committed to three claims:

 (1) the mind is a program

 (2) neurophysiology is not relevant

 (3) the turing test is an adequate criterion of the mental

Searle attacks the second point by asking us to consider a specific mental state like thirst. Searle's argument requires that we appreciate the distinction between a simulation and the real thing. A computer can run a simulation of the human physiological condition of thirst with any degree of specificity and complexity that you want. That simulation could even say at the end, "I'm thirsty." Nevertheless, the simulation is not the real thing. Likewise, in a simulation of a fire, nothing gets burned and in a simulation of a hurricane, nothing gets destroyed. His conclusion is that mental properties are not independent of biological functioning.

He next draws our attention to the distinction between syntax and semantics. Syntax is a purely formal operation. In the language of the computer certain strings of characters are permitted and others are not. One need not be able to understand the symbols in order to determine whether a particular sequence is permitted by the formal language. On the other hand, semantics involves the assignment of meaning to symbols. You and I can understand that the sequence of letters "c" followed by "u" followed by "p" refers to the object that I drink my coffee with. By contrast, Searle points out that a computer does not and cannot attach meaning to the symbols of its language. There is, he wants to argue, no bootstrap operation by which a computer can acquire a semantics.[[133]](#footnote-134)

Working off the distinction between syntax and semantics, Searle is able to present a powerful argument against the Turing test of the mental. This argument is Searle's famous "Chinese room example." The Chinese room example should be understood as an argument against the claim that the imitation game is a valid test for the presence of mental states in computers. His argument goes as follows:

Suppose that we write a computer program to simulate the understanding of Chinese so that, for example, if the computer is asked questions in Chinese the program enables it to give answers in Chinese; if asked to summarize stories in Chinese it can give such summaries; if asked questions about the stories it has been given it will answer such questions.

Now suppose that I, who understand no Chinese at all and can't even distinguish Chines symbols from some other kinds of symbols, am locked in a room with a number of cardboard boxes full of Chinese symbols. Suppose that I am given a book of rules in English that instruct me how to match these Chinese symbols with each other. The rules say such things as that the "squiggle-squiggle" sign is to be followed by the "squoggle-squoggle" sign. Suppose that people outside the room pass in more Chinese symbols and that following the instructions in the book I pass Chinese symbols back to them. Suppose that unknown to me the people who pass me the symbols call them "questions," and the book of instructions that I work from they call "the program"; the symbols I give back to them they call "answers to the questions" and me they call "the computer." Suppose that after a while the programmers get so good at writing the programs and I get so good at manipulating the symbols that my answers are indistinguishable from those of native Chinese speakers. I can pass the Turing test for understanding Chinese. But all the same I still don't understand a word of Chinese and neither does any other digital computer because all the computer has is what I have: a formal program that attaches no meaning, interpretation, or content to any of the symbols. . . This refutes the Turing test because it shows that a system, namely me, could pass the Turing test without having the appropriate mental states.[[134]](#footnote-135)

Searle goes on to argue that from our own case "we know that brain processes cause mental phenomena." Thus, "any system that produced mental states would have to have *powers* equivalent to those of the brain."[[135]](#footnote-136) One wonders exactly what Searle means here by the term 'powers'? It is certainly mysterious or, at the very least, it is a vague place holder for something that will be specified in greater detail at some later date. Searle continues by saying that, "Such a system might use a different chemistry, but whatever chemistry it would have to be able to cause what the brain causes."[[136]](#footnote-137)

Searle also points out that, "We know from the Chinese room argument that digital computer programs by themselves are never sufficient to produce mental states. Now since brains do produce minds, and since programs by themselves can't produce minds, it follows that the way the brain does it can't be simply by instantiating a computer program. . . . [Thus] if you wanted to build a machine to produce a mental state. . . [you] would have to duplicate the specific causal powers of the brain."[[137]](#footnote-138) Here again we see a vague reference to "the specific causal powers of the brain." But exactly what does this mean? Searle is just too vague here at an absolutely crucial juncture.

Searle's Chinese room argument has generated an enormous literature. I personally find this controversy to be quite interesting and I encourage you to investigate it further. In spite of the controversy, many people find Searle's arguments to be absolutely convincing. If Searle is correct, then much of cognitive science will be seriously challenged, most especially the field of artificial intelligence. And, perhaps more importantly for our purposes, Data cannot possibly really have any mental states.

Hillary Putnam points out that although it may be false to say that Data is conscious, it is not SELF-CONTRADICTORY. That is, it is possible that he is and it is possible that he is not. But since it is not self-contradictory, it must be an *empirical* matter whether or not he is conscious. But if Searle's argument is correct, then it would be self-contradictory to say that Data has mental states. But since it is not self-contradictory it follows that Searle's argument must be wrong. That is, Searle's argument proves too much.

Furthermore, given what Putnam says in his writings on this subject, I can project that he would also wonder why it is that we have no trouble admitting that Data can sense colors and yet we are hesitant to say that he can feel emotions?

J.J.C. Smart points out that according to the Genesis story Adam and Eve are artificially constructed. They are in effect God's robots. Since we have no trouble accepting that their descendants (us) are conscious beings, there is no reason to believe that the descendants of our present day robots will not someday be conscious too.

Finally, Putnam offers the following consideration. Let's stipulate that the term 'ROBOTS' (in capital letters) will refer to second order robots. That is, it will refer to artificial beings that are constructed and designed by entities who are themselves artificially created beings. We will use the term 'robots' (in small letters) to refer to those beings who build ROBOTS. Robots will regard ROBOTS as merely created things that can't possibly have the mental characteristics of robots. Thus, humans stand to robots as robots stand to ROBOTS. Should robots treat ROBOTS as equals?

According to Putnam, this question calls for a *decision*, NOT a *discovery*. This is, this is a normative issue, not a factual one. We must DECIDE whether we are going to treat robots as full members of our linguistic or moral community. If we accept this point, then Data's status within our community (as a person for example) will not turn on whether he has or lacks certain mental states. Rather it will be a matter for us to decide on some other basis.[[138]](#footnote-139)

Turing's paper also contains a discussion of the "argument from various disabilities." The idea was to point to something that we humans can do and then to assert that computers could never do or have that. If we wanted to pursue this point, it is worth considering just what it is that Data can and can not do.

In the episode *The Most Toys (TNG)* Data makes a moral decision. He decides that he cannot allow Kivas Fajo to continue to steal, kidnap, and murder. Data even concludes that he must kill Fajo.[[139]](#footnote-140) Likewise, in the episode *The Quality of Life (TNG)* Data takes a moral stand in defense of the exocomps. Data believes that the exocomps are self-aware and intelligent. This leads him to risk his life and career for them. He defies a direct order and places Captain Picard's life in severe jeopardy. These are amazing actions for a mere computer!!

In the first few moments of *Conundrum (TNG)* we see Data lose to Troi in a chess game. Thus, he can obviously make mistakes. In *Peak Performance (TNG)* we see Data lose a game of strategema to Sirna Kolrami. He subsequently exhibits a very strange set of behaviors. At various points in the episode he is said to be, sulking, exhibiting self-doubt, and suffering from a loss of self-confidence.

In *The Measure of a Man (TNG)* Data himself states that "there is an ineffable quality to memory" that is more than the mere collection of those memories. Here Data seems to be stating that his program has achieved consciousness--that there is more to his set of memories than just syntax.

On the other hand, there are many episodes where we see limits to Data's abilities. In the episode *In Theory (TNG)* Data decides to date Ensign Jenna D'Sora. He tells her that he has spent a significant portion of the day's computing time in his effort to write a "romance" program for her. She astutely recognizes this for the great compliment that it is. Indeed, I would suggest that it is functionally equivalent to what we humans do when we are actually in love. However, just as Searle would have predicted, Jenna soon realizes that Data does not actually feel the emotions that typically accompany the external behavior that Data is exhibiting.[[140]](#footnote-141) Data admits as much when he says that this is a case in which his reach has exceeded his grasp.[[141]](#footnote-142)

In *Legacy (TNG)* and in *Time's Arrow Pt 1 (TNG)* we get an insight into how Data thinks about friendship. He does not say that he *feels* friendship. Rather he says that his mental pathways have become accustomed to the sensory input that is caused by a person's presence and that this input is expected and would be missed if it were no longer available. This implies that Data has something like a dynamic cache system that arranges his internal states in accordance with the frequency and duration of their occurrence. An "expectation" would simply be a probability calculation. He could tell for example that someone was avoiding him if the fact that he has not recently seen someone began to vastly exceed the established expected duration between sightings of that person. In this manner, Data would have the ability to "expect" something without there being any "mental state". Perhaps all of Data's behaviors would be susceptible to a similar behavioristic account. On the other hand, there might be things that he does that cannot be explained in this way.

Daniel Dennett would suggest that we are best served by adopting what he calls the "intentional stance" toward Data. And, with the possible exception of Dr. Pulaski, all of his fellow crew mates do just that.

Note that Roddenberry also seems to support Descartes' emphasis on language. In *Home Soil (TNG)*, *Evolution (TNG)*, and *The Silicon Avatar (TNG)*, respectively the silicon crystals, the nanites, and the crystiline entity are only taken seriously as life forms when they manage to communicate. Prior to that, all of the evidence in favor of sentience is viewed skeptically. But once they communicate, there is no doubt any more that they deserve to be treated with respect--as persons. In many cases, the ability to communicate is taken to be a sufficient condition for something being presumed to be a person. It is worth noting that Data communicates quite well. In light of this, it is odd that Commander Maddox is allowed to presume the opposite.

In the episode *Brothers (TNG)* we learn that Noonian Soong has created an emotion chip for Data. The whole idea of an emotion chip is quite problematic. Yet here it is. Are we to suppose to believe that Dr. Noonian Soong has overcome Searle's argument and found a way to reproduce the "causal powers" of the brain in a silicon chip? Why not? Note that in the episode *Inheritance (TNG)* he appears to have done precisely that with Juliana Soong.

Why are emotions thought to be part of the bright line that distinguishes the human or the significant? Suppose that there were a biological human being who, though normal in all other respects, could not feel emotions? (Lobotomy victims for example). Would they not be a person because of that? NO! So clearly the capacity to feel emotions is not a necessary condition for personhood.

 QUEST FOR THE GOOD LIFE

In our quest to understand the human condition we will soon discover that humans are social beings. We live in society with others, we are born into an on-going culture, and that culture heavily influences our self-understanding. Furthermore, our culture influences our sense of values. It tries to tell us what is important and what is not. It tries to tell us what is valuable and what is not. It offers us ways of thinking that include or exclude entities from the domain of moral concern.

As we mature we struggle to find our place in the world. At essence this is a process that tending to our relationships to others. There are many kinds of relationships and many different levels of involvement that we must control. We must learn to develop and deal with family, friends, lovers, colleagues, bosses, policemen, politicians, institutions, governments, and ecosystems. We ought to be engaged in trying to arrange those relations into something that is, all things considered, a good life.

There are many different ways of living a good life. There are many arrangements of commitments and value choices that are worth pursuing. William Shakespeare and Mahatma Gandhi lived quite different lives but I think that most people will admit that they both lived a good life.

Your quest is to discover your own conception of a good life. In many ways you are already engaged in this quest. You already have many of the necessary social skills and you have already made many significant value choices. But, as I have been pointing out all along, it is important that we critically reflect on what we are doing. Many of us establish the kind of relationships and commit to kinds of values that our cultural stories suggest to us. Often this is done with very little reflection or real understanding.[[142]](#footnote-143) Philosophic reflection on these matters can provide you with some understanding of what is involved in making such choices and with committing to such relationships.

As we have been seeing all along, it is sometimes difficult for us to see our own situations clearly. By juxtaposing our culture, our choices and our commitments against those made by 24th century people we can perhaps understand things just a bit better. Roddenberry's *Star Trek* universe is in many ways a utopia. Throughout the ages, utopian conceptions have served as models toward which we could aspire. As we explore their world and as we come to understand their conception of the good life, let's be sure to remember that we have it with our power to shape our own lives. We should be engaged in pursuing that form of life which most nearly achieves our personal conception of the good life.

 *Philosophy and Technology*

What is your attitude toward technology? Are you a technophile?[[143]](#footnote-144) Do you, in general, have an open and positive psychological attitude toward technological developments? Or are you someone who holds a somewhat less sanguine view of the promise of technology?

Historically our culture has sustained both points of view. On the one hand, our culture periodically sees technology as something that will lead to a utopia. Technophiles point to advances in medicine, to "labor saving" home appliances, and to the development of electronic entertainment and communication links as examples of the positive benefits of technology. In some respects the technological improvements in farming techniques and hybrid seeds have been more important than many of these other developments.[[144]](#footnote-145) One could also point to all of the technological advances in the production of consumer goods and medicines. Given all of this, many people find it difficult to see anything in technology to disparage. But as Shakespeare once pointed out: "All that glistens is not gold."[[145]](#footnote-146) This issue is not one that can be settled by looking only at appearances.[[146]](#footnote-147)

There are many people who maintain that there are many detrimental effects that accompany our indulgence in technology. Some people interpret the story of Dr. Frankenstein as a warning against technology. Dr. Frankenstein's compulsion to press the limits of science and technology yielded a product that haunted him for years and brought tragedy to his life. As a result, Dr. Frankenstein says, "Learn from me, if not by my precepts, at least by my example, how dangerous is the acquirement of knowledge and how much happier that man is who believes his native town to be the world, than he who aspires to become greater than his nature will allow."[[147]](#footnote-148) The suggestion here is that if we use science to take man beyond what nature permits, we will bring about horror and tragedy.

An alternative, and perhaps more accurate cultural narrative that relates to this relationship, is the siren myth. A beautiful siren reportedly would sit on the rocks and entice ships to come to her. When they did, their ship would crash against the rocks and all would perish. Like the siren, technology is superficially very attractive. But to embrace it might lead to death and destruction.

Both sides of this question are represented in various *Star Trek* episodes. On the one hand, there are episodes that extol the virtues of technology. It is portrayed as being the key to future happiness and security. It is the enabler of all that is pure and good. Without technology, the Federation and all that it brings would not be possible. On the other hand, there are episodes that support the view that technology is a threat to our way of life, to human dignity and to our freedom. I will briefly discuss each of these perspectives.

The positive view of technology is seen most clearly in the basic assumptions of the series. As Roddenberry constructs it, by the 24th century technology has conquered hunger and need. Humans are liberated from the labor of production. Roddenberry depicts a Federation in which technology supports a culture that is by and large committed to increasing knowledge and improving the condition of its member species. Roddenberry must support technology, for without it, the whole adventure would not be possible. The crew constantly live in an artificial environment upon which they are totally dependent. So whatever the drawbacks, it is clear that citizens of the Federation have long ago hitched their wagon to the technological engine. They have committed themselves to a close relationship with technology.

There are episodes where this positive attitude is clearly stated. In the episode *Neutral Zone (TNG)* Picard explains to Mr. Offenhouse, a 20th century man who has been frozen for 300 years, that mankind no longer quests after material wealth.

Capt. Picard:That's what all this is about. A lot has changed in the past three hundred years. People are no longer obsessed with the accumulation of things. We have eliminated hunger, want, the need for possessions. We've grown out of our infancy.

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Mr. Offenhouse:Then what will happen to us? There's no trace of my money. My office is gone. What will I do? How will I live?

Capt. Picard:This is the twenty-fourth century. Material needs no longer exist.

Mr. Offenhouse:Then what's the challenge?

Capt. Picard:The challenge, Mr. Offenhouse, is to improve yourself--to enrich yourself. Enjoy it.

Greed was overcome presumably by the abundance produced by advanced technology.[[148]](#footnote-149) As Picard puts it, we have been liberated from such things and we can now spend our lives improving and enriching ourselves. This account is reinforced in *Time's Arrow Pt 2 (TNG)* when Mark Twain is talking to Deanna Troi. She tells him that greed, hunger, pestilence, intolerance, racism, imperial aggression and other maladies of the 20th century have been eliminated. We are led to accept the idea that this accomplishment is primarily attributable to the wonders of science and the tools of advanced technology. Furthermore, there is explicit praise for technology in the episode *Return to Tomorrow (TOS)* when Captain Kirk explains why we are in space and what it means to take risks for the advancement of understanding.[[149]](#footnote-150)

Technology also makes human life better. For example, Geordi LaForge's visor allows a blind person to function as an equal in the Federation.[[150]](#footnote-151) The technological advances in medicine also improve the human condition. Dr. McCoy comments on this when he wakes up in the 20th century in the episode *The City on the Edge of Forever (TOS)*. We also see such advances when Dr. Crusher replaces Whorf's spine in *Ethics (TNG)* and in Deep Space Nine when Dr. Julian Bashir cures a woman who is only minimally functional.

But in spite of clear indications of respect and praise for technology, it is equally clear that *Star Trek* reflects the other side of this coin. There are many episodes where technology is portrayed as a threat to mankind. These threats can be classified into five categories: life, human dignity, community, imagination, and tradition. Let me give you examples from each.

Clearly the advances in military technology threatens human life. Technology has given us the power to commit omnicide. Technological developments seemingly required the transgression of the moral distinction between combatants and non-combatants in war. Apparently modern technology requires that we target civilian populations as a means of conducting our aggressions against other states. This is a relatively recent development and follows upon so called advances in the technology of war. Human life is also threatened by nuclear power plants, faster cars, pesticides, bovine growth hormone, nutrasweet, and the highly toxic waste products of advanced production processes.

This threat is represented in a number of episodes. For example in *The Changeling (TOS)* Nomad is a technological device that threatens to exterminate all human life on Earth. The same is true of V'ger in *Star Trek: The Motion Picture*. The crew of the Enterprise is rightly horrified when, in the episode *The Ultimate Computer (TOS)* the computer M-5 kills hundreds of people. The clear message here is that once released, technology can easily get out of control. Its actual effects are often somewhat different than what the designer intended. And when this happens there is usually hell to pay.

Human dignity is threatened in two ways. The first involves what might be called the threat to mechanize man. The second involves the threat of machines controlling our lives. I will discuss each of these in turn. The classic film *Metropolis* is a warning against the dehumanizing consequences of technology. Workers who labor on an assembly line can be viewed as being nothing more than a cog in the factory/machine. When man is viewed in this way, there is the temptation to forget his or her essential human dignity. People complain about this all the time. Consider your most recent encounter with a "technodoctor." Patients are frequently treated as just another case on the medical assembly line. We crave care and personal attention. We want our doctor to acknowledge our humanity. But all too frequently such recognition is not forthcoming. This example of dehumanization is increasingly found throughout our culture.

It is worth noting that frequently the bickering that we see between Spock and Dr. McCoy revolves around this point. Dr. McCoy is constantly defending human dignity against the threat posed by technology and machines. Spock, on the other hand, typically defends the alternative point of view. This can clearly be seen, for example, in this scene from the episode *The Apple (TOS)*.

Dr. McCoy:What's going on, Jim?

Capt. Kirk:Mess call.

Mr. Spock:In my view, a splendid example of reciprocity.

Dr. McCoy:It would take a computerized Vulcan mind such as yours to make that kind of a statement.

Mr. Spock:Doctor, you insist on applying human standards to non-human cultures. I remind you that humans are only a tiny minority in this galaxy.

Dr. McCoy:There are certain absolutes, Mr. Spock, and one of them is the right of humanoids to a free and unchained environment. The right to have conditions which permit growth.

Mr. Spock:Another is their right to choose a system that seems to work for them.

Dr. McCoy:But this isn't life. It's stagnation.

Mr. Spock:Doctor, these people are healthy and they are happy. Whatever you choose to call it, this system works despite your emotional reaction to it.

Dr. McCoy:It might work for you, Mr. Spock, but it doesn't work for me. [with irony] Humanoids living to service a hunk of tin.

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Mr. Spock:I am concerned, Captain. This may not be an ideal society, but it is a viable one.

Capt. Kirk:Bones was right. These people aren't living, the are existing. They don't create. They don't produce. They don't even think. They exist to service a machine.

Mr. Spock:If we do what it seems we must, in my opinion, we will be in direct violation of the non-interference directive.

Capt. Kirk:These people are not robots. They should have the opportunity of choice. We owe it to them to interfere. [[151]](#footnote-152)

There is no greater indication that technology is viewed as a threat than the fact that the newest arch-enemy of the Federation is the Borg[[152]](#footnote-153). It is important to recognize the symbolic significance of the Borg. The Borg are mechanized humanoids who have been assimilated into a monolithic spiritless machine that is going about the universe emotionlessly and indiscriminately destroying cultures and people without any moral qualms whatsoever. This enemy is portrayed as being enormously powerful--in fact, almost irresistible. This machine-life form assimilates Captain Picard and subsequently it completely controls him. He in enslaved to the machine. Picard experiences this as an assault on his human dignity and as a form of rape. It is no accident that this enemy is a machine. Clearly, Roddenberry is once again sending us a clear message: technology is a dire and powerful threat.[[153]](#footnote-154)

The problem of machines controlling our lives can be seen by remembering your last interaction with a computerized answering system, the IRS, a credit rating company, an insurance company, or with almost any financial institution. We find it demeaning and degrading to be handled by a soulless machine. In the episode *Court Martial (TOS)* the lawyer Samuel Cogley vehemently argues against a computerized trial. His argument is essentially an argument for the preservation of human dignity in the face of the onslaught of technology. A similar point is made in the episode *A Taste of Armageddon (TOS)*. In this episode, Captain Kirk intervenes in a culture that has incorporated computerized warfare into its way of life. They have become accustomed to having machines directing the deaths of thousands. Kirk is appalled and he violates the prime directive in order to reestablish the human sensitivity of these people. Kirk also acts on behalf of human autonomy when he attacks the computer Vaal in *The Apple (TOS)*, Landru in *The Return of the Archons (TOS)*, and the oracle in *For the World is Hollow and I Have Touched the Sky (TOS)*.

Technology also functions to isolate us from one another. Take, for example, that really pernicious invention--the Sony walkman. This thing greatly increased our ability to shut each other out. Think about the message that you are sending when you walk around with a walkman plugged in. Essentially you are telling the world that you prefer you own pre-programmed input to any possible human contact or interaction. You are snubbing everyone who might want to say, "Hi!" to you or otherwise interact with you.

Technology does not just threaten individual relationships, it also can constitute a threat to communities, traditions, or ways of life. This was essentially what was operating in the Luddite riots of 1811-16. The introduction of textile machines displaced a lot of workers, but this movement was not exclusively about employment. The riots were, at least in part, a plea for a way of life. People used to take pride in their work. Making something used to involve workmanship and pride. But carpentry is being replaced by prefabricated houses. We used to think of cooking as something akin to an art form. Women used to gather to sew quilts. Admittedly these processes are not efficient and they yield products that are not cost competitive with mass produced products. The quality of products declined in proportion with the degree of anonymity between the worker and the buyer. When you don't know the person who will be using your product, there is less incentive to care about the quality of your product.

The issue of machines replacing or displacing humans is explicitly addressed in the episode *The Ultimate Computer (TOS)*. In this episode, Captain Kirk's job is threatened by the computer M-5. Although this episode clearly exemplifies the theme of technology's threat to man, it also provides an opportunity for humans to show their solidarity with respect to the value of human autonomy, control, and dignity. At one point, Mr. Spock points out that machines make good tools, but he does not wish to be a servant to them.

David Gerrold reinforces this point when he says,

*Star Trek* was never against technology--obviously, it couldn't be. It used technology as a part of the adventure. But the series did make the statement several times over that humanity must be in control of the machines, not the other way around. In fact, this was the single most repeated theme of the show: that even as individuals, we must be in control of the machinery of our lives.[[154]](#footnote-155)

Finally, I want to point out that Roddenberry frequently expresses the notion that the technology that we develop today will or might someday come back to haunt us. This is seen for example in the episode *The Changeling (TOS)* in which we sent out a seemingly harmless probe and years later, through an uncontrollable process, that initial act almost gets us killed. This theme also servers as the centerpiece of *Star Trek: The Motion Picture* where it is Voyager/V'ger that is coming back to get us. This theme can also be seen in the episode *Evolution (TNG)* where nanites, a previously benign technology, is released and develops lethal potential. This warning is explicit with respect to genetic engineering in the episode *Unnatural Selection (TNG)* where a genetic experiment comes close to unleashing a deadly plague. This exemplifies the threat that technology poses to our entire species. The dangers of unleashing an uncontrollable technology is also exemplified in the episodes *The Doomsday Machine (TOS)* and *The Arsenal of Freedom (TNG)* both of which involve the continuing operation of a destructive technology beyond the ability of its makers to turn it off.

In his book *The Pursuit of Loneliness*, Philip Slater argues for a similar point. Slater argues that technological solutions typically create more problems than they solve. Thus, in many respects, we are responsible for our own misery. As a result, he observes that, "every morning all 200 million of us get out of bed and put a lot of energy into creating and re-creating the social calamities that oppress, infuriate, and exhaust us."[[155]](#footnote-156)

There can be no doubt that the Federation is aware of the threat that technology represents. This is seen in the fact that the prime directive prohibits the transfer of advanced technology to less advanced societies. It is repeatedly stated that this would be disruptive to that society, to its way of life and to the course of its natural development. This is quite admirable, but I wonder why is it that this point is only recognized and applied when we are tempted to radically alter **someone else's culture**. The episode *First Contact (TNG)[[156]](#footnote-157)* clearly shows an awareness of the dangers of technological knowledge. Consider the following scenes:

Capt. Picard:Chancellor, we are here only to help guide you into a new era. I can assure you we will not interfere with the natural development of your planet. That is, in fact, our prime directive.

Chan. Durken:I can infer from that directive that you do not intend to share all of this exceptional technology with us.

Capt. Picard:That is not the whole meaning, but it is part of it.

Chan. Durken:Is this your way of maintaining superiority?

Capt. Picard:Chancellor, to instantly transform a society with new technology would be harmful and it would be destructive.

Chan. Durken:You're right, of course.

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Krola:Can you be so enraptured with space travel that you are blind to the threat they represent?

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Krola:Chancellor, I mean no disrespect, but I have repeatedly warned you about your policies. Taking us too quickly where we have no business going in the first place. New philosophies. New economics. New technologies. There are still many people who value our traditional way of life and I for one am willing to die to defend it.

Mirasta:Open your eyes, Krola. We are part of a greater community. We can't ignore it.

But this caution and concern is clearly not present when it comes to our own culture. Consider this scene from the episode *Return to Tomorrow (TOS)*.

Spock:Once inside their mechanical bodies, engineer, they can leave this planet--travel back with us. With their knowledge, mankind can leap ahead ten thousand years.

Capt. Kirk:Bones, they'll show us medical advances--miracles you've never dreamed possible. Scotty, engineering advances--vessels this size with engines the size of walnuts.

Scotty:Ah, you're joking.

Spock:No. He's not.

Dr. McCoy:Now let's not kid ourselves that there's no potential danger in this.

Capt. Kirk:They used to say that if man could fly he'd have wings. But he did fly. He discovered he had to. Do you wish that the first Apollo mission hadn't reached the moon or that we hadn't gone on to Mars and then to the nearest star? That's like saying you wish that you still operated with scalpels and sewed up your patients with catgut like your great-great-great-great-grandfather used to. I'm in command. I could order this. But I'm not, because Dr. McCoy is right in pointing out the enormous danger potential in any contact with life and intelligence as fantastically advanced as this. But I must point out that the possibilities, the potential for knowledge and advancement is equally great. Risk. Risk is our business. That's what this starship is all about. That's why we're aboard her. However, when it comes to introducing radical new technology and/or knowledge into **our own** culture there is an astonishing lack of concern. The Enterprise is out there trying to do to its own culture what it is expressly prohibited from doing to other cultures.

This scene shows, members of the Federation are ready to instantly infuse any amount of knowledge into their own culture with little or no regard to its consequences. This cavalier attitude is also seen in the episode *Nth Degree (TNG)*. The Enterprise is hijacked by a process that is working through Lt. Barclay. The Enterprise is taken a vast distance and the crew spends several weeks exchanging knowledge and technology with this vastly superior race. As far as I can tell, the Federation places no limits on what its representatives should try to learn. And unless there is some sophisticated censoring mechanism, it seems that the Federation is willing to suffer whatever consequences occur as a result of its investigations. Given that they clearly appreciate the cultural dangers of rapidly increasing a culture's technology, this liaise-faire attitude is both reckless and negligent. But whether for ill or good, the Federation's attitude is precisely the same attitude that our culture adopts. In the United States there are no limits whatsoever on the introduction of technology into our culture.[[157]](#footnote-158)

In spite of all of the above evidence that, once again, tends to show that Roddenberry flip-flops on the central question, there is some evidence to support the claim that the conflict between man and machine might be something that we can eventually get beyond. There is, perhaps, some hope that the difficulties can be reconciled. Consider once again *Star Trek: The Motion Picture*. Initially, this movie continues the theme that advanced technology poses a significant threat to the Earth's survival. However, the conclusion of the movie offers another perspective. The entity formed as a result of the unification of V'ger/Ilia and Commander Decker is portrayed in a positive manner. Both technology and humanity are transcended by the creation of this new life form. After witnessing this transformation, Spock says, "We witnessed a birth--perhaps also a direction in which some of us may evolve."[[158]](#footnote-159) This comment not only suggests a positive attitude toward technology, it also indicates that technology and humanity are, under at least some circumstances, compatible with one another.

What exactly is the point that we are supposed to derive from all of the above considerations. First, we need to recognize the value of human dignity and to broaden our appreciation for the many ways that it can be challenged. Second, it seems to me that we have always evaluated technology on its own terms. But this is too narrow. It is time that we develop and apply a human-value index that judges the *overall* costs and benefits of a new technology and that does so without the idealistic or utopian vision that is typically promoted by the inventor or the developer. Third, it is important that we not forget the non-technological values that we cherish. We need to remember that when we indulge in a particular technology, we are incurring a cost and that in many instances that cost is incurred with respect to our relationships--our family, community, and traditions. Fourth, we need to concern ourselves with the long-term picture. The following poem fragment was written by Edna St. Vincent Millay:

 My candle burns at both ends;

 It will not last the night;

 But, ah, my foes, and oh, my friends--

 It gives a lovely light!

This poem represents the short-term focus that is so typical of our culture. The James Dean syndrome. But we must ask ourselves:

**"Do we live in a culture that is sustainable in the long run?"**

I think that the answer to this question is: Clearly, No! If we do not change our course we are destined to exhaust both our natural and our cultural resources. Finally, we need to recognize that our autonomy can be limited without our being fully aware of it. When technology circumscribes and limits your set of options, your autonomy has been attacked. One's integrity can be preserved only if one retains control over one's choices. Thus, if we are oblivious to the ways in which technological changes circumscribe our life choices, the ways in which it alters our culture, our conceptual categories, then we will be unable to control our circumstances and ultimately we will be unable to direct our own lives.

 *Ethics*

The morality that you learned at your mother's knee is typically a rather narrow morality. It usually involves judgments of actions that involve other people. If your action bring about more pain and suffering than it does happiness, then it is likely that your mother condemned it. If the action requires you to violate some duty or responsibility, or if it involved the violation of some well grounded principle, then, here again, she would likely have morally criticized you. But science fiction, like philosophy, asks us to consider whether our culture-bound beliefs are too narrow. There are some philosophers who argue that our common sense morality is too narrow because it irrationally excludes animals, trees, and ecosystems from the domain of moral concern. For years philosophers have relied on exotic examples to help them to clarify their intuitions on a particular subject. When you ask someone how they would behave under certain circumstances, you can find out a lot about what considerations that person thinks are fundamental.

Sometimes when we read works of science fiction, it functions as a mirror that we can turn onto ourselves. Good works of science fiction allow us to see things that we could not otherwise have seen. On the other hand, sometimes a good work of science fiction will function to expand or alter our way of thinking. I believe that *Star Trek* functions in both ways. In what follows I will describe some episodes that shed insightful light onto our conception of what morality is and of the role that it plays in our lives. I will begin by exploring some of the standard theories of morality.

Utilitarianism is one of the most prominent ethical theories. Utilitarianism states that a person should act in such a way as to maximize the good. That is, when you are choosing from a set of alternative actions that you might take, the moral thing to do is that act which maximizes the good in that circumstance. It is important to notice that the good must be maximized for everyone effected by the action. Utilitarianism should not be confused with egoism which says that each person should act so as to maximize the good for *themselves*. Rather utilitarianism requires that everyone's well being be counted equally. It is also important to notice that there can be different accounts of what the good is. For example, Jeremy Bentham argued that the good was equivalent to pleasure. Thus, according to his version of utilitarianism, each agent should do that act which would maximize the overall amount of pleasure in the world. Other theorists offer different accounts of what is good.

Utilitarianism is usually contrasted with deontology. Deontology is an ethical theory that focuses primarily on the notion of duty. Because of this, it is also closely associated with rights, principles, and respect for the autonomy and dignity of persons. The most famous deontologist was Immanuel Kant. According to Kant, reason dictated that we morally ought to treat other persons with dignity and respect. At one point he explained this by saying that the moral action is the one that conforms to a rule that we could consistently will that everyone follow. Kant called this the categorical imperative. This claim contains a universalization condition, i.e., in order for your action to be morally correct it must be the case that it would be morally correct for anyone else who is similarly situated to do that act. Kant also expressed the categorical imperative by saying that we should never treat a person as though they were merely an object. This is essentially the idea that we should never "use" anyone. We should always act toward other persons in such a way that we respect their autonomy and dignity. Otherwise what we are doing is immoral.

The two moral theories that I have just described are ideally contrasted with one another in the episode *Man of the People (TNG)*. In this episode, Ambassador Alcar sheds his negative energy onto young women including Deanna Troi. This process ages the young women quite quickly, ultimately leading to their death. Ambassador Alcar justifies doing this to the young women because it allows him to be extraordinarily effective as a mediator. In his purified state, he has a very good chance of preventing a civil war and thus to prevent the deaths of thousands. Arguing from the utilitarian point of view, he maintains that it is morally permissible to sacrifice a few lives in order to save the lives of thousands of others.

Picard does not agree. He is outraged by Ambassador Alcar's actions. Taking a deontological perspective, Picard argues that it is immoral to use a person in this way. He argues that since Deanna did not consent to being used in this way, it violates her autonomy and thus is immoral. It violates Kant's categorical imperative in that it treats a person merely as an object. According to this kind of deontological perspective, rational persons must be treated with dignity and respect. Their rights and autonomy must not be violated. Ambassador Alcar is violating Deanna Troi's autonomy and he has a moral duty not to do that. Philosophers continue to argue over which of these approaches to ethics is the correct account. This episode provides a clear test case for this debate.

The utilitarian point of view is also a theme in *Star Trek II: The Wrath of Khan*. At the end of this movie Spock sacrifices his life in order to save the ship. He points out that the needs of the many outweigh the needs of the few or the one. This is an expression of something like a utilitarian point of view. It acknowledges the equal value of each person and it suggests that people can be traded off against one another and that when the needs of the many call for it, it is morally permissible to sacrifice an individual.

The deontological perspective is well illustrated in the episode *I, Borg (TNG)*. In this episode, the Enterprise comes across the crash sight of a Borg scout ship. They find one crew member still alive. They bring the Borg on board and during its recovery it acquires the perspective of an autonomous individual. It is given a name, Hugh, and he speaks of himself using the term "I". Picard initially approves a plan to use Hugh to carry a destructive program back to the Borg collective in hopes that it will destroy the Borg. But Picard's deontological sensitivities will not allow him to carry through with this plan. He comes to realize that it is impermissible to "use" this person in this way.[[159]](#footnote-160) Nor can Picard erase Hugh's memories, for that would be to eliminate his autonomy and individuality. Once Picard comes to see Hugh as an autonomous person, he must treat him with the same respect and dignity that he would grant to any other person.

Another aspect of deontological thought is revealed in the episode *Where Silence Has Lease (TNG).* In this episode, Nagilum has trapped the Enterprise and he says that he is going to experiment on them in order to learn about death. He projects that the experiments will bring about the death of a third to a half of the crew. At the conference Picard decides that they will destroy the ship, killing themselves, rather than submit to the humiliation of the experiment.[[160]](#footnote-161) This demonstrates that we value our autonomy, our dignity, and our personal integrity more than we value our life. Under these conditions, a utilitarian perspective could not generate Picard's decision. The only explanation is a deep commitment to the kind of things that are central to the deontological perspective.

There is another episode that (I think) contains a situation that supports the deontological perspective. The episode is *Conundrum (TNG)*. In this episode, the crew of the Enterprise is exposed to the scan of an alien probe. This scan erases selected memories from each member of the crew. In particular it erased each person's knowledge of who they are and what their mission is.[[161]](#footnote-162) It also erases this crucial information from the computer. They eventually discover that they are at war and that they have orders to destroy the main space station of their enemy. Picard has moral qualms about whether he should follow this order. He analogizes the situation to being ordered to go into a room of strangers and to murder one of them. How can one do that if one does not know why this is being done? Should we simply follow an order just because it is an order? or must we at least be able to appreciate the nature of our act given that it is going to be our action? Kant claimed that reason alone could lead you to moral truths. This seems to be a case where Picard has little other than his reason to rely on and eventually he discovers the morally correct course of action.[[162]](#footnote-163)

On the other hand, there is an episode where Picard does seem to diverge from his usual deontological perspective. In the episode *Justice (TNG)* Picard argues with the God-like entity that is protecting the people of Rubicun III. He points out that, "when laws are absolute there can be no real justice." Under a Kantian conception of deontology, rules are absolute. Thus, there is some indication that Picard's deontological perspective is not purely Kantian.

The prime directive is an interesting moral commitment. In one of the *Star Trek* role playing games the prime directive is specified as follows:

As the right of each sentient species to live in accordance with its normal cultural evolution is considered sacred, no Starfleet personnel may interfere with the healthy development of alien life and culture. Such interference includes the introduction of superior knowledge, strength, or technology to a world whose society is incapable of handling such advantages wisely. Starfleet personnel may not violate this Prime Directive, even to save their lives and/or their ship, unless they are acting to right an earlier violation or an accidental contamination of said culture. This directive takes precedence over any and all other considerations, and carries with it the highest moral obligation.

Roddenberry states that he developed this prime directive because he knew that in our own history exploration invariably turned into exploitation. He did not want explorers in his *Star Trek* universe to be exploiters. Thus he put them under the restraint of the prime directive.

But consider this question, **Is the prime directive deontological or utilitarian?** That is, if you had to justify the prime directive would you say, "It is just right" or would you say that it was justified because "Following it is the best way to maximize the long-term good of everyone considered." Initially it seems to be deontological in that it talks about the rights of other cultures and it seems to be based on a fundamental respect for the autonomy and integrity of other peoples. However, if you think about it you might be persuaded that the prime directive is morally correct because it is the rule, conformance to which, maximizes the good.[[163]](#footnote-164)

There are a number of episodes in which the prime directive plays a pivotal role in the story line. Let me just mention a few of the more interesting ones. In the episode *Pen Pals (TNG)* Data makes radio contact with a little girl named Sarjenka. Drema IV, Sarjenka's planet, is breaking up due to volcanic stresses and, of course, this places her life in danger. There is an interesting moral discussion in this episode regarding whether the prime directive permits the Enterprise to interfere with the natural processes on the planet. They eventually decide to intercede based on the fact that Sarjenka asks for help.[[164]](#footnote-165) But everyone recognizes that this is a quite tenuous justification. At the end of the episode, they decide to erase Sarjenka's memory of Data and the Enterprise. This intrusion into a person's thoughts is in itself quite problematic morally speaking.[[165]](#footnote-166) In this case it seems justified because it restores the status quo ante, but it is nevertheless a quite problematic practice.[[166]](#footnote-167)

Putting aside utilitarianism and deontology for the moment, I would like to discuss some episodes that raise especially interesting moral issues. In the episode *The Host (TNG)* Dr. Crusher falls in love with Odan. What she does not know is that Odan is a Trill. The consciousness that is Odan, is actually a life form that is living inside a host body. Odan is transplanted inside the body of Commander Riker until a replacement Trill host can be sent. Dr. Crusher has to struggle bring herself to love Odan in Riker's body. But she manages. When the Trill host eventually arrives it turns out to be a female host. When Odan is safely inside, he/she comes to "Dr. Beverly" but she painfully admits that she cannot love Odan in the body of a female.

This episode is interesting in that it challenges the claim that many people make which is that when we love someone it is their mind or spirit that we are loving and not their bodies. This is why no one would accept making love to the identical twin of their spouse. But if this is the case, then why couldn't Dr. Crusher love Odan where ever he/she was? Dr. Crusher seems to acknowledge this contradiction. Indeed she is apologetic about her inability to overcome her limited view. She explains by saying that humans are not used to such rapid changes. But she also seems to be saying that humans have not yet become comfortable with homosexuality.[[167]](#footnote-168) Thus, in addition to questioning our claim to love the soul of our mate and not their body, this episode is also questioning our inability to accept the idea that the person that we love might just happen to be of the same sex that we are.

As I suggested above, science fiction can guide us as we attempt to extrapolate our moral intuitions into domains where they are less well grounded. The above episode hints in this direction when it implicitly criticizes our intolerance of homosexuality. But this theme explicitly and directly tackled in the episode *The Outcast (TNG)*. In this episode, we meet the J'naii who are an androgynous race. That is, they are a race that has only one gender. They are neither he nor she--they just are. This culture is extraordinarily uniform in this respect, but there are a few "sick" individuals who for one reason or another grow up to have a preference for either the feminine or masculine gender. These people are severely ostracized in their culture and they are treated with mind altering chemicals to eliminate this sickness. Riker has been working closely with one of the J'naii, a person named Soren. At one point Soren "comes out of the closet" and tells Riker that she is a J'naii who has a preference for the feminine gender. Their friendship is discovered and Soren is arrested and at her hearing Soren makes the following passionate speech. She says:

I am tired of lies. I am female. I was born that way. I have had those feelings--those longings all of my life. It is NOT unnatural. I am not sick because I feel this way. I do not need to be helped. I do not need to be cured.

What I need. . . and what all of those who are like me need is your understanding and your compassion.

We have not injured you in any way, and yet we are scorned and attacked. . . and all because we are different. What we do is no different from what you do. We talk and laugh, we complain about work and we wonder about growing old. We talk about our families and we worry about the future. And we cry with each other when things seem hopeless. All of the loving things that you do with each other--*that is what we do*. And for that we are called misfits and deviants and criminals. What right do you have to punish us? What right do you have to change us? What makes you think that you can dictate how people love one another?

Although Soren is defending the right to be heterosexual, it is clear from the context that we are to see the parallels to the fate of homosexuals in our culture. Soren's female tendencies are deviant relative to her society and homosexuals are deviant relative to the sexual preference of the current majority in our culture. The parallel is pretty obvious and thus Soren's questions are essentially addressed to the heterosexual majority in our country. Is what homosexuals do really all that different from what heterosexuals do? Does that difference really give the majority the right to dictate who can love one another?

I sometimes ask my students if they have ever been propositioned by a homosexual. If they have been, I ask them how they reacted to that overture. Most say that they got angry, yelled at the "homo", called them some name, and then stormed away. If you ask me, I find such a reaction to be more immoral than anything that homosexuals do. What happened to simple human kindness? It would be so easy to simply say, "Although, I can respect your sexual preference, I'm not interested. Thanks, but no." And then carry on with this other human being who obviously likes you and want to be your friend. I am still somewhat amazed when I hear people defend the moral propriety of the angry response. Even if you find homosexuality offensive and repugnant, does that give you the right to be cruel, callous, and insensitive? I don't think so.[[168]](#footnote-169)

The episode *Half a Life (TNG)* is also quite interesting from a moral perspective. In this episode we meet Dr. Timicin. Timicin is nearing his 60th birthday and on his planet people are killed on that day in a beautiful ceremony. Lwaxana Troi has fallen in love with Timicin and the two of them argue about whether he should break with tradition and refuse to participate in his own death. This episode is ethically interesting first because it raises the question about how we treat our elders. It asks us to consider the question of whether or not children have obligations to their elderly parents. It also asks us to consider whether we can accept a culture that is radically different from our own. We ultimately see that Lwaxana is capable of accepting the practices of the other culture. In taking this stance, Lwaxana's position contrasts quite significantly with the position that Riker takes on a similar question.

In the episode *Ethics (TNG)* Whorf breaks his back and he is going to be paralyzed for the rest of his life. In the Klingon culture, it is a tremendous disgrace to live under such conditions. Given this, Whorf wants to die. He asks Riker to help him to kill himself. Riker is confronted with a moral problem. On the one hand, he can adhere to his own moral perspective and refuse to help Whorf because in his judgment Whorf can still life a useful and productive life or, on the other hand, he can adopt Whorf's moral perspective and values and help him to commit suicide. This decision is made all the more difficult because Whorf has asked this of a person that he considers to be his friend. When Riker talks to Picard about this problem, Picard seems to suggest that as a friend Riker should follow Whorf's wishes. Ultimately Riker decides against doing it.

This episode is useful for it raises the question about whether it is permissible to do as the Romans do when one is in Rome. Suppose that you think that it is immoral to smoke pot. Notice that I did not say that you think that it is illegal. We all know that. Let's suppose that you actually think that it is immoral as well as being illegal. Now let's suppose that you go to Amsterdam where smoking pot is not illegal and it is not considered by the locals to be immoral. If you were in Amsterdam, would you take a toke? When you say that something is immoral for you, does this hold everywhere and for always?

There are many philosophers, writers, and thinkers who press the point that the scope of our moral concerns are too narrow. In an earlier chapter I suggested that it is only persons who are deserving of moral treatment. But many thinkers maintain that such a position is too narrow. This is another issue with regards to which *Star Trek* makes very clear statements.

There are many instances where the crew are exceptionally open minded in their willingness to accept alien beings into the sphere of moral concern. For example, in the episode *Evolution (TNG)* the nanites are eventually granted moral standing. The same is true for the exocomps in *The Quality of Life (TNG)*. It is interesting to note that whether something gets into the sphere of moral concern usually depends on whether it has intelligence and this is usually determined by seeing whether or not the alien can communicate with us.[[169]](#footnote-170) But isn't this a rather strange basis? After all, Einstein was not more of a person than my son, and yet the difference in their intellectual capacities is enormous. Besides, isn't our decision to privilege intelligence simply a reflection of the fact that we happen to be the most intelligent beings in our ecosystem? (we suppose!) This leads us to consider the question, What is the connection between intelligence and being worthy of moral concern?

At first glance, inclusion in the moral sphere seems to rest on intelligence. But given the way that we treat whales, dolphins, chimps, and similar animals, it is not clear that this is really so. There does appear that there is the additional requirement that the entity be able to communicate with us in order to be considered part of our moral community. Captain Kirk is somewhat inconsistent on this issue. On the one hand he destroys a cloud entity in the episode *Obsession (TOS)* even though it exhibits intelligence. On the other hand, he protects the Horta from Spock in *Devil in the Dark (TOS)*.[[170]](#footnote-171) In general, it appears to me that Captain Picard is usually somewhat better on this point than Kirk. Picard's first inclination is usually to attempt to communicate.

Let's assume for the moment that when you are tempted to make an immoral decision, in the vast majority of instances, you resist that temptation. Given this background assumption, answer the following question: Why are you moral? Why do you do the moral act rather than the immoral act? Is it simply because you are afraid that if you did the immoral act, you would be caught and punished and that you do not want to be punished more than you want to do the bad act? If this is the reason why you are moral, then I suggest that you are not alone. Many people feel this way. Notice that implicit in what you are saying is that IF you could be 100% certain that you would not be caught and punished, then you very well might do the immoral act.

Plato discussed this possibility several thousand years ago. In *The Republic*, Plato's characters defend different philosophical positions. Here Thrasymacus tells us the story of the ring of Gyges and he defends the view that all men are ultimately moral because of the threat of punishment. He says,

The liberty which we are supposing may be most completely given to them in the form of such a power as is said to have been possessed by Gyges, the ancestor of Croesus the Lydian. According to the tradition, Gyges was a shepherd in the service of the King of Lydia; there was a great storm, and an earthquake made an opening in the earth at the place where he was feeding his flock. Amazed at the sight, he descended into the opening, where, among other marvels, he beheld a hollow brazen horse, having doors, at which he, stooping and looking in, saw a dead body of stature, as appeared to him, more than human and having nothing on but a gold ring; this he took from the finger of the dead and reascended. Now the shepherds met together, according to custom, that they might send their monthly report about the flocks to the King; into their assembly he came having the ring on his finger, and as he was sitting among them he chanced to turn the collet of the ring inside his hand, when instantly he became invisible to the rest of the company and they began to speak of him as if he were no longer present. He was astonished at this, and again touching the ring he turned the collet outward and reappeared; he made several trials of the ring, and always with the same result‑‑when he turned the collet inward he became invisible, when outward he reappeared. Whereupon he contrived to be chosen one of the messengers who were sent to the court; where as soon as he arrived he seduced the Queen, and with her help conspired against the King and slew him and took the kingdom.

Suppose now that there were two such magic rings, and the just put on one of them and the unjust the other; no man can be imagined to be of such an iron nature that he would stand fast in justice. No man would keep his hands off what was not his own when he could safely take what he liked out of the market, or go into houses and lie with anyone at his pleasure, or kill or release from prison whom he would, and in all respects be like a god among men. Then the actions of the just would be as the actions of the unjust; they would both come at last to the same point. And this we may truly affirm to be a great proof that a man is just, not willingly or because he thinks that justice is any good to him individually, but of necessity, for wherever anyone thinks that he can safely be unjust, there he is unjust. For all men believe in their hearts that injustice is far more profitable to the individual than justice, and he who argues as I have been supposing, will say that they are right. If you could imagine anyone obtaining this power of becoming invisible, and never doing any wrong or touching what was another's, he would be thought by the lookers‑on to be a most wretched idiot, although they would praise him to one another's faces, and keep up appearances with one another from a fear that they too might suffer injustice.[[171]](#footnote-172)

This theme is explored in the episode, *Hide and Q (TNG)*. In this episode, Q gives Commander Riker the power of the Q. This effectively removes the threat of all forms of punishment. Thus, like the shepherd, Riker has the ability to do whatever he wants without fear of punishment. Almost immediately Riker begins to change. The power goes to his head and he begins acting in ways that he would not dare to act were it not for the immunity that he feels. This scenario quite closely parallels the situation faced by the shepherd that Thrasymacus describes.

There is some reason to suspect that this view is an accurate description of how many people actually think about morality. Consider what happens when the threat of legal punishment is temporarily removed. When the lights go out in New York city, when a hurricane hits, when police abandoned the streets in Los Angles; riots break out and many people begin to loot the stores. This shows that there are many people who are moral when there is a real threat of punishment. However, as soon as that threat is gone, they are ready and willing to act immorally. Nietzsche criticized this conception of morality as being a child's morality. There are alternative forms of morality that are based on something more than the threat of punishment.

There are those who claim that morality consists in doing the will of God. There are several problems with this view. To begin with, if you adopt this theory and then it turns out that there is no God, it would follow that everything would be morally permissible.[[172]](#footnote-173) Another problem with the divine command theory of morality is pointed out in the episode *Who Watches the Watchers? (TNG)*. A Mintakan named Liko believes that Picard is God (the Overseer). There is a storm and Liko believes that it is a sign that Picard is unhappy. He proposes to sacrifice Deanna Troi in order to please the Overseer. But at this point the main problem with a divine command theory of morality is exposed. Liko's daughter asks him how he knows that killing Troi is what the Overseer wants. For all he knows it might be the opposite of what God wants. Troi culminates the point when she says, "You see Liko, that's the problem with believing in God, you can never be sure what it is that He wants."[[173]](#footnote-174)

Finally consider the following problem. Let's stipulate that X is wrong. Is X wrong because God says, "X is wrong", or does God say it is wrong because it is wrong.[[174]](#footnote-175) If it is the former, that is, if you say that it is wrong because God says so, then you must be willing to say that if God said that "X is right" then it would be right. This is obviously the view that Abraham took when he took his son to the top of the mountain and tried to murder him. But it is not a view that many people today can accept. On the other hand, if God says that it is wrong because it is wrong, then God's saying so is not crucial. Indeed, under this alternative, both we and God must conform our actions to that independent moral standard. X's being wrong is a fact that exists independently of God's will and presumably this independent fact is something that is accessible to man's knowledge. Under this alternative, what God says is not crucial to determining what is moral. We have independent access to independent moral facts.

In addition to utilitarianism and deontology, there is a third major school of thought about moral theory. This is a view called virtue ethics. Aristotle is the source of much of our thinking about virtue ethics. Unlike utilitarianism and deontology, who maintain that the proper focus of moral judgment is on *actions*, virtue ethics claims that a person's *character* is the proper focus of moral judgment. Accordingly, the key question in virtue ethics is not, Is what you *did* right or wrong? but rather what kind of *person* are you? Often we take actions to be evidence of the type of character a person has. Good traits of character are called virtues and the negative traits of character are called vices. A virtue is a trait of character that enables a person to flourish in a specific community. Living a good life consists in finding the mean between extremes. Aristotle advised that we not do anything to excess.

There are a number of episodes where what we see is not so much a good *action* as it is an exemplification of a superior character trait. For example, in the episode *Arena (TOS)* Captain Kirk has the Gorn at his mercy and he has been told that he must kill his opponent to save his ship. Nevertheless, Kirk refuses to kill his helpless opponent. The Metrons (who set up this conflict) are impressed with Kirk's character. The virtue of mercy is recognized and it leads the Metrons to the belief that in several hundred years, we humans may developed sufficiently to be worthy of being treated as friends and equals.

The Klingon's commitment to duty might be thought of as being a form of deontology. But it could also be seen as being a kind of virtue ethic in which the notion of honor is seen as the highest virtue.

The episode *High Ground (TNG)* is interesting in that it raises the question of means and ends. Kyril Finn is a freedom fighter who uses terrorism as a means of achieving his ends. This episode parallels the situation in North Ireland, but it also has connections with the American revolution and with the Palestinian struggle against Israel. The moral issue that is raised here is however quite general. Is it ever morally permissible to use immoral means to achieve a moral end? Or as this question is sometimes put, can the ends justify the means? In this episode, Dr. Crusher's answer is, "No." But this conclusion is not universally accepted. For example, in the episode *The Ensigns of Command (TNG)* Data destroys the pumping station on Tau Cygna V in order to achieve the end of convincing them to evacuate the planet. In *The Cloud Minders (TOS)* Kirk kidnaps Plasus and forces him dig in the mines in order to prove his point about the negative effects of the zienite gas. Furthermore, one might argue that any killing in a war is an immoral means to a moral end. (Providing of course that the end is indeed moral.[[175]](#footnote-176))

Roddenberry clearly believes that morality is a dynamic structure. He thinks that some species are morally immature and that, with time, a species can evolve to a point of greater moral maturity. Although he makes it clear that he thinks that 20th century mankind is morally immature, he also makes it clear that he is optimistic about the prospects of our maturing morally. In the episode *Errand of Mercy (TOS)* the Organians end our war with the Klingons and before they dissipate in a flash of light, they say that they find humanoids to be "most distasteful." Spock speculates that they are as far above us on the evolutionary scale as we are above the amoeba. But clearly the repugnance that the Organians feel is not physical, but moral. In the episode *Arena (TOS)* the Metrons tell Kirk that humans are moral children and that in two or three hundred years we may have matured enough to be worthy of being treated as equals.

There is good reason to suspect that Roddenberry is correct about this. For example, suppose that we look back four hundred years to the year 1595. What moral beliefs did the average person have at that time? Do we find that there is much that we would be critical of? I think that there is a lot!! Now let's turn the temporal focus onto ourselves. Suppose that a human being from the year 2395 were looking back at our culture and our beliefs. What aspects of our morality do you think they will condemn? Will they criticize us for our unwillingness to admit computers into the moral community? Will they criticize us for the fact that we equate beauty and goodness? or the inclination that we have to give moral respect only to those entities that resemble human beings? Will they criticize us for our commitment to religion and to the intolerance that such commitments generate? Will they criticize us for our attitudes toward homosexuals? Will they criticize us for the levels of sexism[[176]](#footnote-177) and racism that still persist in our society? Will they criticize us for capitalism? For our practices of wasteful consumption? For our stance on reproductive freedom? For our political and economic ideologies? These are a few of the domains where I think we might be criticized. I encourage you to think more about this matter yourself.

In the episode *The Survivors (TNG)* Kevin Uxbridge, who is a Douwd, admits that in a fit of anger he killed a species. The Husnock were a warrior race and Uxbridge killed every Husnock everywhere. When he reveals this to Picard, Picard says, "We have no laws to deal with your crime. We are not fit to be your judge." I don't know quite what to make of this, but it is interesting. On the one hand this is clearly a moral matter. But on the other hand, Picard seems to be saying that it a crime of such magnitude that our moral and legal systems cannot encompass such an act. This is interesting in that it suggests that our morality is limited by the kind of creatures that we are. And since we are not capable of such an act, it is not something that our morality can encompass. But is this really the case? Given that we have the atomic bomb we have the ability to kill the entire ecosphere. Humans can engage in omnicide. That's a pretty enormous crime.

In the episode *The Most Toys (TNG)* Data is kidnapped by Kivas Fajo. Kivas kills a woman named Varria and he tells Data that he will kill someone else unless Data kills him. This leads to the following scene:

FAJO:You won't hurt me. Fundamental respect for all living beings. That's what you said. I'm a living being. Therefore, you can't harm me.

DATA:You will surrender yourself to the authorities.

FAJO:Or what? You'll fire? Empty threat and we both know it. Why don't you accept your fate? You'll return to your chair and you will sit there. You will entertain me and you will entertain my guests. And if you don't, I'll simply kill someone else, him perhaps. It doesn't matter, their blood will be on your hands too just like poor Varria's. Your only alternative, Data, is to fire. MURDER me! That's all you have to do. Go ahead. Fire!

If only you could feel rage over Varria's death. If only you could feel the need for revenge, then maybe you could fire. But you're just an android. You can't feel anything can you? It's just another interesting intellectual puzzle for you . . . another of life's curiosities.

DATA:I can not permit this to continue.

FAJO:Wait. Your program won't allow you to fire. You can't fire. No!

Hume tells us that, "Reason is and ought to be the slave of the passions." His thought is that reason by itself cannot provide us with motive to act. Rather reason is purely instrumental, i.e., reason only functions to tell us *how* to achieve the ends that we have otherwise chosen. According to Hume, it is our passions that give us our ends and provide us with the motivation to want to achieve them. If this is the case, then since Data does not have any passions, he should be unable to want the end of freedom. Kivas reasons:

1) If Data could feel passion, then he could fire.

2) He cannot feel passion.

3) It follows that he cannot fire.

Kivas here commits the fallacy of denying the antecedent and it almost costs him his life.

If we are to continue to believe that Data does not have any passions, then it appears that this scene counts as a refutation of Hume's view. For clearly, Data is motivated to achieve an end by reason alone.[[177]](#footnote-178)

Early in *Star Trek II: The Wrath of Khan*, Spock says, "the needs of the many outweigh the needs of the few... of the one." Near the end of this movie, a similar idea is expressed, "The good of the many outweighs the good of the few or the one." Then in *Star Trek III: The Search for Spock*, Kirk risks his career to save Spock's life. When Spock asks him why he did this, Kirk responds, "the needs of the one outweighed the needs of the many." It is odd that Spock, a rational Vulcan, would be a utilitarian? Would Kant think that this should be otherwise? Is reason or desire the basis of morality? Can Spock choose the good end?

In the episode *Hollow Pursuits (TNG)* Lieutenant Reginald Barclay is shown as spending a lot of his time on the holodeck. This raises the question, suppose that someone wanted to spend 99% of their life on the holodeck, would that be immoral?[[178]](#footnote-179) Is there something wrong with living such a life? If so, what is the basis for the judgment? Robert Nozick discusses this question in connection with his notion of an experience machine. He says,

Suppose there we an experience machine that would give you any experience machine that would give you any experience you desired. Superduper neuropsychologists could stimulate your brain so that you would think and feel you were writing a great novel, or making a friend, or reading an interesting book. All the time you would be floating in a tank, with electrodes attached to your brain. Should you plug into this machine for life, preprogramming your life's experiences? . . . Of course, while in the tank you won't know that you're there; you'll think that it is actually happening. . . . Would you plug in? *What else can matter to us, other than how our lives feel from the inside*?[[179]](#footnote-180)

A related question is raised by the episode *The Game (TNG)*. In this episode the crew of the Enterprise becomes psychologically addicted to playing a game. This addiction interferes with their normal life. Is there something immoral about spending a great deal of time under the influence of this game? Does the same thing hold true of Nintendo? Of watching television? What moral principles allow us to condemn living 99% of our lives on a holodeck and yet allow us to spend many hours a day watching television?

Perhaps we can make progress on this question by considering the holodeck programs that run at Quark's bar in *Deep Space Nine*. We are led to believe that these programs are extremely erotic and sexual. Is there anything immoral with indulging in these programs? It seems to me that someone who wanted to answer "Yes" to the above question might offer an argument that draws an analogy to what is wrong with masturbation. The argument might go something like this:

(1)Holodeck sex is like masturbation in that they are both artificial, they substitute for "real" relations with other people, and when people satisfy these deep urges in this way they thwart an important physiological drive which fosters social skills.

(2)Masturbation is immoral for these reasons.

(3)Therefore, holodeck sex is immoral.

This argument depends on the claim that intimacy with other people is good. It also points out that intimacy with another person is something that typically emerges in conjunction with sexual intercourse. It follows that it is, at least sometimes, a good thing to have sex with other human beings. This is due to the fact that sex is an activity that typically fosters intimacy and at least some level of intimacy with others is a good thing in a person's life. But when masturbation is a solitary activity, it eliminates the link between sexual desire and the development of intimate relationships and thus it is not good.[[180]](#footnote-181)

Furthermore, the argument seems to be saying that it is good for society when everyone is seeking to make themselves at least appealing enough to others that someone will have sex with them.[[181]](#footnote-182) If one accepts this argument, the masturbation can be viewed as an anti-social activity. It defeats the social control mechanism. Thus, if someone were to get all of their sexual needs satisfied through Quark's holoprograms, that person would not need "real" intimacy with another person and they would also lack at least one powerful incentive to conform to the social norms of sexual acceptability.

Is the argument against spending a great deal of time on the holodeck doing whatever simply supposed to be an extension of this line of reasoning? Perhaps. On the other hand, it might be argued that the time spent in a holodeck is not *productive*. But this line of thought seems to require the following argument:

(p1) If an inordinate amount of time is spent on a holodeck, then that time is not productive time.

(p2) One ought to spend one's time productively.

(c1) Therefore, one ought not to spend an inordinate amount of time on a holodeck.

But why should we grant the assumption of (p2)? Where did this expectation come from? Is it just a ripple from our Puritan Ethic heritage?

Furthermore, it is not clear that (p1) is true. For example, in the episode *Shadowplay (DSN)*, we encounter a person who has spent thirty years living in a community of holographic projections. It is not at all clear that his life has been a waste. Furthermore, in the episode *Booby Trap (TNG)* Geordi La Forge conjures up a holographic simulation of Dr. Leah Brahms. She is valued by Geordi and she helps save the ship--hardly a waste of time.[[182]](#footnote-183)

There are many other episodes in which artificial people are seen as quite valuable. In the episode *11001001 (TNG)* the Bynars holodeck program produces the character Minuet. Will Riker finds this "person" so compelling that he falls in love with her and she continues to be on his mind for many years to come. In the episode *Rightful Heir (TNG)* Worf meets someone who appears to be Kahless, the spiritual cornerstone of the Klingon culture. In the episode *The Survivors (TNG)* Picard comes to suspect that Rishon Uxbridge is not real. He says, "Rishon, I can touch you. . . I can hear your voice. . . I can smell your perfume. In every respect you are a real person with your own mind and beliefs. But, . . . you do not exist. You died along with the others defending the colony. He recreated you just as he recreated the house. [At this point Rishon dissolves into nothing. Picard turns to speak to Kevin Uxbridge.] You're the only living thing that really exists on Rana and though you look human, you're not." The fact that Rishon is not "real" does not prevent her from being valuable to her husband.

In the episode *Inheritance (TNG)*, Data faces a decision about whether he should inform Juliana, his mother, about her true nature. This situation has bearing on the matter that we are presently discussing. Juliana is unaware that her original body died many years earlier and that just before she died, Dr. Soong downloaded her memories into the positronic matrix of an android body. She was programmed to shut down should she ever be about to discover the truth. Data discovers this fact about her and he considers whether he should tell her. He ultimately decides to leave her in her deceived state. This supports the notion that living in a kind of pseudo reality may not necessarily preclude having meaning in one's life. Here again, I think that this is a matter that is worthy of much more thought.

*Inheritance (TNG)*

Data:If she recovers and learns that she is an android. . .

Dr. Soong:She doesn't have to know. Now I designed her to shut down in the event that the truth was discovered. When you ... you put that chip back in she will wake up and remember nothing. All you have to do is to make up some excuse about what happened to her.

Data:Then you do not believe that she should know the truth?

Dr. Soong:Truth. Truth is . .. in every way that matters she is Juliania Soong. I programmed her to terminate after a long life. Let her live out her days and die believing she was human. Don't rob her of that son. Please.

[ The scene changes to the briefing room]

Data:It seems that I must make a decision. Whether to tell Dr. Tainer that she is an android or to withhold that information from her. I do not know what to do.

Dr. Crusher:Why was Dr. Soong so adamant that she not be told?

Data:He seemed certain that if she knew it would preclude the possibility of her being happy.

Picard:Data, what do you think?

Data:I am not certain. I understand why my father felt as he did. But his wishes are not necessarily paramount. I am more concerned with what would be best for her.

Dr. Crusher:Wouldn't she be better off knowing the truth . . . dealing with the reality of her existence?

Troi:I don't think so. She's believed she's human all of her life. The truth might be devastating to her.

Picard:Data . . . there might come some time in the future when she would find out anyway, another accident perhaps. Maybe it would be easier for her if she learned the truth from you.

Dr. Crusher:I can tell you that if I were in her place, I would rather be told by my son than by some stranger.

Data:I find that I am having difficulty separating what would be best for her from what would be best for me.

Troi:What do you mean?

Data:If she knew she were an android, we would have something to share. I would no longer be alone in the universe.

Troi:I know how much that means to you, Data. But at the same time, by telling her you're robbing her of the one thing you've wanted all of your life. . . to be human.

Picard:If's a difficult choice. . . you must do what you think best, Data. But whatever you decision you make, we will support it.

I'm not exactly sure where I want to take this topic from here. I think that these considerations have ethical import and I also believe that pursuing this topic will reveal significant insights. I encourage you to pursue it further.

 *Religion*

Coming to terms with the divine is one of the most important elements of a person's philosophical quest. Initially and at the most basic level, this involves deciding whether or not to include God in your world view. On the one hand, if you do include God, what considerations or evidence is available to give warrant to that belief? Suppose that you do believe that there is a God, what role does He play in your life? What role does organized religion and churches play in your life? Also, if there is a God, what role does He play in providing a meaning or a purpose for your life? On the other hand, what are the ramifications of accepting a world view that denies the existence of God? Can such a world view plausibly support an explanation of why the universe is here and can it provide an adequate basis for meaning and purpose in our lives?

Theists point out that one of the advantages to their world-view is that it provides answers or explanations to questions like those that I have just mentioned. The Christian account of *how* the world got here is quite familiar. To begin with, God exists and has always existed. Furthermore, His existence does not stand in need of explanation. Everything else, including the universe itself, was created by God through acts of His will. He created the universe out of nothing (ex nihilo). Humans came about as the result of a subsequent special act of creation.

The Christian account of *why* we are here is equally familiar. God has a plan for the universe. Humans are a part of that plan.[[183]](#footnote-184) We are here to fulfil our role in the plan. God's plan is good and contributing to its actualization is, therefore, also a good. Accordingly, the answer to the question, Why am I here?, is: You are here to fulfill God's purpose for you. Your purpose in life is to play the role that was written for you. Your life has meaning because when you play your role you are contributing to the realization of the Divine plan.

There are a few other details of the Christian story that need to be mentioned. God created man with free will.[[184]](#footnote-185) Mary was a virgin when she gave birth to Christ. Christ is fully human and he is fully Divine.[[185]](#footnote-186) Christ is perfectly pure, good, sinless, and innocent. He was crucified on a cross. He died and three days later he arose from death.[[186]](#footnote-187) If you believe in the divinity of Christ, accept Him as your personal savior, and endeavor to faithfully follow his teachings, then His death will absolve you of your sins. Thus, when you die you will be reborn in heaven and you will live for eternity, happily basking in the glorious presence of God. If you fail to accept Christ, then you must bear the burdens of your sins. This means that when you die your soul will suffer in Hell forever.

Roddenberry uses *Star Trek* to suggest a different story--the Humanist story. Roddenberry explicitly acknowledges his acceptance of Humanism in an interview with *The Humanist* magazine in March of 1991.[[187]](#footnote-188) In a nutshell, Humanism stresses the autonomy and dignity of mankind. It accepts the laws of physics and biology including an evolutionary account of man's origin. Thus, it denies the idea of the special creation of mankind. It denies that man's purpose and meaning are to be found outside of this world. It categorically rejects any and all supernatural or teleological explanations. It is confident that eventually a naturalistic explanation will be found for all phenomena. It holds that human morality is complete and autonomous. Mankind is not sinful and unworthy. We can take pride in ourselves. We are autonomous and free creatures whose dignity should be respected. There is no afterlife and thus there are no later punishments or rewards. Those who are familiar with *Star Trek* will no doubt recognize that this description captures the general outlook of Roddenberry's twenty-fourth century.

Roddenberry's Humanism is reflected in a number of episodes. For example, in the episode *This Side of Paradise (TOS)*, the human colonists living on Omicron Ceti III have come under the control of the spores of a plant. These spores protect the humans from the deadly radiation that permeates the environment. They also give the colonists perfect health and a strong sense of belonging and peace. The colonists consider the planet to be an Eden.

Sandoval:Captain, why don't you join us?

Capt. Kirk:In your own private paradise?

Sandoval:[ . . . The spores] give you complete health and peace of mind.

Capt. Kirk:That's paradise?!

Sandoval:We have no need or want, Captain.

Mr. Spock:It's a true Eden, Jim. There is belonging and love.

Capt. Kirk:No wants. No needs. We weren't meant for that--none of us. Man stagnates if he has no ambition--no desire to be more than he is.

Sandoval:We have what we need.

Capt. Kirk:Except a challenge.[[188]](#footnote-189)

Kirk adopts the stance of a Humanist. He is strongly opposed to this situation. He believes that humans were not meant to live a life that is directed by an external power. He thinks that human dignity requires that we live an autonomous and self-directed life. Living in this paradise and under the benevolent protection of the spores has its positive aspects, but it is not appropriate for mankind as Kirk conceives them. Like religious belief, the spores give the colonists a false sense of well-being. They are enticed by promises of love and brotherhood, but in actuality they are surrendering their freedom and their cognitive autonomy. Life in Eden comes with a price. In this instance, the price is the loss of that which is essential to our dignity qua human beings. Acting on behalf of human dignity, Kirk liberates the colonists from the spores and from their Eden-like prison.[[189]](#footnote-190) The episode concludes with the following exchange:

Dr. McCoy:Well that's the second time man's been thrown out of paradise.

Capt. Kirk:No, no, Bones. This time we walked out on our own. Maybe we weren't meant for Paradise. Maybe we were meant to fight our way through, struggle, claw our way up, scratch for every inch of the way. Maybe we can't stroll to the music of the lute. We must march to the sound of drums.[[190]](#footnote-191)

The idea that human dignity is incompatible with religious belief is seen again in the episode *The Apple (TOS)*. In this episode, the machine/god Vaal--who looks like a serpent--is benevolently sustaining a tribe of humanoids. We learn that "the feeders of Vaal" are disease free, they do not age, they have no vices, and they are happy. When Dr. McCoy sees this he is appalled.

Dr. McCoy:What's going on, Jim?

Capt. Kirk:Mess call.

Mr. Spock:In my view, a splendid example of reciprocity.

Dr. McCoy:It would take a computerized Vulcan mind such as yours to make that kind of a statement.

Mr. Spock:Doctor, you insist on applying human standards to non-human cultures. I remind you that humans are only a tiny minority in this galaxy.

Dr. McCoy:There are certain absolutes, Mr. Spock, and one of them is the right of humanoids to a free and unchained environment. The right to have conditions which permit growth.

Mr. Spock:Another is their right to choose a system that seems to work for them.

Dr. McCoy:But this isn't life. It's stagnation.

Mr. Spock:Doctor, these people are healthy and they are happy. Whatever you choose to call it, this system works despite your emotional reaction to it.

Dr. McCoy:It might work for you, Mr. Spock, but it doesn't work for me. [with irony] Humanoids living to service a hunk of tin. . .[[191]](#footnote-192)

Dr. McCoy clearly believes that freedom of choice and cultural growth are not only the inalienable rights of all humanoid races; but beyond that, he seems to think that there is a positive duty of everyone else to put others into a condition of freedom even if they do not want it. Like McCoy, Captain Kirk feels justified by his understanding of the requirements of a dignified human existence. And he clearly thinks that being dominated by a belief in God is incompatible with human freedom, autonomy and dignity. This is seen later in the episode when Captain Kirk discusses the situation with Mr. Spock.

Mr. Spock:I am concerned, Captain. This may not be an ideal society, but it is a viable one.

Capt. Kirk:Bones was right. These people aren't living, the are existing. They don't create. They don't produce. They don't even think. They exist to service a machine.

Mr. Spock:If we do what it seems we must, in my opinion, we will be in direct violation of the non-interference directive.

Capt. Kirk:These people are not robots. They should have the opportunity of choice. We owe it to them to interfere.[[192]](#footnote-193)

Kirk evidently believes that if humanoid creatures are not living an autonomous and self-directed life, then they are not really living. Kirk feels justified in attacking anything that interferes with human freedom, cognitive autonomy or human dignity.[[193]](#footnote-194) According to Kirk, mankind must live autonomously.

One of the most noteworthy differences between *Star Trek's* representation of the twenty-fourth century and our own time is the conspicuous absence of religion in the later era. We see very little expression of religious belief in Roddenberry's *Star Trek* universe, and what we do see is personal and private--not institutional or public.[[194]](#footnote-195) In fact, given all of the evidence that we have been shown, it is possible that there are no churches on Earth or in the human branch of the United Federation of Planets. Furthermore, when we do see examples of religion or expressions of religious belief, it is typically portrayed in a very negative light.[[195]](#footnote-196) This is not accidental.

Roddenberry clearly thinks that belief in God is an antiquated error and he supports the notion that mankind can get along just fine without God. This is a sentiment that is shared by most accounts of Humanism. This idea is clearly expressed in the episode *Who Mourns for Adonais? (TOS)*[[196]](#footnote-197). In this episode, the crew of the Enterprise is hijacked by an being who calls himself 'Apollo'. Apollo claims to be traveler who once spent some time on Earth. Apollo says that he wants the crew of the Enterprise to live on his planet and to worship him. Of course, Kirk refuses to agree to this. Near the end of the episode, after the Enterprise has destroyed Apollo's temple/power supply, we see the following exchange:

Apollo:I would have cherished you . . . cared for you. I would have loved you as a father loves his children. Did I ask so much?

Capt. Kirk:We've outgrown you. You ask for something we can no longer give.[[197]](#footnote-198)

This scene establishes two critical points: (1) there may have been a time when humans needed gods, and (2) this is no longer the case. These are points that *Star Trek* shares with Humanism. Captain Kirk clearly believes that humans are capable of getting along just fine without believing in supernatural beings and supernatural powers. He thinks that mankind is entirely capable of autonomous existence. Furthermore, according to Captain Kirk, theism is something that only primitive people will accept. Roddenberry clearly believes that by the twenty-fourth century, mankind will have matured to a point where we will no longer feel the need for gods.

This idea is clearly important to Roddenberry because it is repeated in the animated series episode *How Sharper Than a Serpent's Tooth (TAS)*. Here, the crew of the Enterprise encounters a creature who calls himself Kukulkan. Many years ago this creature visited Earth and the ancient Aztecs and others took him to be a god. In a scene that is reminiscent of his encounter with Apollo, Kirk resists Kukulkan's efforts to dominate him. This situation culminates with the following exchange:

"If we fail or succeed, it has to be--*must* be--by our own hands. By our own doing."

 "You could probably find your worshipful servant races somewhere, Kukulkan, but they'd have to be blind and dumb. Once you have a being with a mind of its own, you can no longer lead it around by the nose. You cannot have intelligent slaves, Kukulkan. The thing is as impossible as a leisurely cruise past a black hole."

 Kirk didn't think it was possible for that cobra countenance to look downcast, but Kukulkan managed it.

 "I thought of you as my children. I hoped I could teach you, lead you, aid you. There is much that I can . . ."

 "You already have," Kirk said, with more compassion than he believed he could muster for this overbearing creature. "Long ago, when it was needed most--when our ancestors were still children. But we're all grown up now, Kukulkan."

 He hesitated, then added as gently as possible, "We don't need you anymore."[[198]](#footnote-199)

In addition to thinking that theism is an intellectual mistake and that religious belief is often antithetical to human dignity, Roddenberry also seems to believe that churches are pernicious institutions. By and large he thinks that they function so as to enslave human beings. Thus, in *Star Trek* churches are invariably represented as perpetuating an assault on human freedom, human dignity, and on autonomous rational thought. Furthermore, he points out that historically the church has opposed the development of scientific knowledge and the exercise of human rationality.[[199]](#footnote-200)

However, since a majority of people in our culture fervently support religion, it is reasonable to expect that any overt anti-religious expression would encounter strong resistance. Roddenberry understood that if he *openly* attacked institutionalized religion, there would be a substantial public outcry. If this were done, *Star Trek's* ratings would fall and the show would face cancellation.[[200]](#footnote-201) If you are not on the air, you can't accomplish anything. Thus, Roddenberry decided to conceal his more controversial anti-religious messages in allegorical stories.

One example of this is seen in the episode *For the World is Hollow and I Have Touched the Sky (TOS)*. This episode is an extended allegory on the negative features of institutionalized religion. In this episode, the crew of the Enterprise meet the people of Yonada. These people are unaware that they live inside a hollow asteroid/ship and that this ship is controlled by a computer that they call "the Oracle." The people of Yonada worship this oracle and it controls their life and keeps them in ignorance about their true situation, origin and destiny. Like "Big Brother"[[201]](#footnote-202) the Oracle constantly monitors what people say. They are physically punished if they discuss forbidden subjects. The guidance system of Yonada is malfunctioning and as a result, the ship is on a collision course with an inhabited planet. In order to save the planet, the Kirk and the others must repair the problem.

Initially, Kirk goes to Yonada only to repair the malfunction. However, once he learns that the people of Yonada are captives of a computer he adopts the additional aim of liberation and enlightenment. Kirk formulates a plan of action that he hopes will simultaneously accomplish both enlightenment and repair. He seeks to get past the Oracle and repair the ship's systems, by telling Natira, the Yonadan leader, the truth about her world.

Here are some of the parallels that are involved in this allegorical episode.

People of Yonada = Christians.

The Oracle/computer = The Church.

The Instrument of Obedience = The Church's control of believers, through sacraments, doctrines and the confessional.

The Oracle teaches that Yonada is the World = The Church teaches that the Earth is the only World.

But Yonada is really a spaceship moving through the galaxy = But Earth is only one of many worlds.

The Oracle has deceived the people = The Church has deceived the people.

The Oracle is malfunctioning and has lost its way = The Church is malfunctioning and has lost its way.

The Oracle punishes wrong thinking = The Church controls beliefs and punishes beliefs it considers wrong.

The old man who touched the sky and was killed by the Oracle = Galileo (1564-1642), who challenged orthodox teachings and was forced to recant in order to avoid torture and death.

The Oracle promises the people a New World = The Church promises the people Paradise.[[202]](#footnote-203)

In addition to the above relationships, it can be pointed out that the people of Yonada are very similar to the prisoners in Plato's allegory of the cave.[[203]](#footnote-204) Both exist in complete misapprehension of the true nature of their existence and this ignorance is sustained by an external force. Plato thought that knowledge is good-in-itself and that living a life in possession of truth is better than living a life in ignorance. Furthermore, he held that those who have true knowledge have an obligation to enlighten others. In this situation, like Plato's released prisoner, Captain Kirk has true knowledge and he feels obligated to reveal the truth to the people of Yonada.

The episode *The Return of the Archons (TOS)* is also an extended allegorical attack on certain aspects of organized religion. In this episode, the computer called 'Landru' constantly observes his people and he guides their actions. Members of Landru's community are said to be "absorbed into the body." Those who are "one with the body" walk around with an angelic grin on their faces. Every so often, they experience a "wilding" hour during which time they riot, rape and go crazy. The worshipers of Landru wear cloths like monks and their devotion to Landru is clearly religious. Those who have been absorbed into the body, become stagnant. They lose their individuality, their self-directedness, their motivation, and their ability to think for themselves.

As we have seen before, Kirk seeks out and destroys anything that represses human freedom. The parallels between Landru's community and organized religion reveal a severe criticism of religion. Here are just a few of the parallels that should be observed in this episode:

Planet Beta 3000 = Earth.

Lawgivers, men with robes like monks = Priests or clergymen.

The Lawgivers carry tubes which have no power of their own but which *transmit* power from some source = Priests transmit the power and decisions of the Papacy.

Sulu is "absorbed"... = People are baptized or converted...

...into the Body = ...into the Church, the "Body of Christ".

People in the Body are under telepathic surveillance and control... = People in the Church are under the control of doctrines, sacraments and the confessional...

...exerted by "Landru". = ...exerted and controlled by the Church.

There is a yearly Red Hour, a 24-hour riot, established by "Landru". = There have been religious wars and persecutions, led or condoned by the Church.

Landru appears, but only as an image projected by "Landru" = Christ appears but only as an image controlled by the Church.

A computer, "Landru", is controlling the society in the name of Landru, but it *not* Landru. = The Church controls society in the name of Christ, but is *not* Christ.

This computer was built by Landru in the distant past. = The Church was found by Christ in the distant past.

The computer's aim is continuation of the Body. = The Church's aim is continuation of the body of believers (the Church).

The computer has not done justice to the potential of each individual. = The Church has not done justice to the potential of each individual.[[204]](#footnote-205)

*The Return of the Archons (TOS)* and *For the World is Hollow and I Have Touched the Sky (TOS)* are similar in many respects. In both episodes a computer exercises tyrannical control over a community of human beings. Ostensively the computer is supposed to be protecting its servants and advancing their well-being. However, in fact it is violating human dignity, subverting self-directedness, and obstructing human autonomy. In both episodes we are clearly intended to read "Church" for "Computer".

Although it may not be an official part of orthodox Christian doctrine, it is reasonable to suggest that Christianity encourages the notion that humans are the focal point of God's creation.[[205]](#footnote-206) This leads to our having a sense of self-importance that exceeds objective evaluation. An external observer might diagnose us with what might be called "species megalomania". This megalomania is directly confronted in the episode *First Contact (TNG)*. In this episode the crew of the Enterprise is trying to establish first contact with the people of Malcoria III who are about to embark on space travel. This relatively advanced culture has a conservative movement that opposes space travel. They oppose it on religious grounds and also because they understand that space travel constitutes a threat to their traditional way of life. The leader of this world is Chancellor Avill Durken. When talking with Captain Picard about the ramifications of his new knowledge, Chancellor Durken says,

Chan. Durken:I'm overwhelmed. I'm quite overwhelmed. I go home each night to a loving wife, two beautiful daughters, eat the evening meal together as a family. I think that's important. And they always ask me if I have had a good day.

Capt. Picard:And how will you answer them tonight, Chancellor?

Chan. Durken:I will have to say that this morning I was the leader of the universe as I knew it. This afternoon, I am only a voice in a chorus. But, I think it was a good day.

Chancellor Durken is obviously able to adjust to the new reality that the crew of the Enterprise represent. But there are other people on this planet who are much more conservative. This faction's reactionary view is expressed by Krola.

Krola:Can you be so enraptured with space travel that you are blind to the threat they represent?

[later in the same discussion]

Krola:Chancellor, I mean no disrespect, but I have repeatedly warned you about your policies. Taking us too quickly where we have no business going in the first place. New philosophies. New economics. New technologies. There are still many people who value our traditional way of life and I for one am willing to die to defend it.

Mirasta:Open your eyes, Krola. We are part of a greater community. We can't ignore it.

The episode concludes with the following scene:

Chan. Durken:My people are not ready to accept what you represent. Everything that happened at the hospital proves that. And Krola is the best evidence of all.[[206]](#footnote-207) We must slow down. And allow those who are like him to join us in the present before we can move into the future.

Mirasta:But when we encounter other beings in space, our people must be ready.

Chan. Durken:The warp program will have to be delayed. We will divert more resources to education and social development. To prepare for the day when we are ready.

Mirasta:Chancellor, I strongly disagree.

Chan. Durken:I know. Captain, you once said if I asked you to leave, you would do so without hesitation. I'm afraid I must ask you to do just that.

Capt. Picard:Well it's your decision, Chancellor. But I must say that I regret that I will not have the opportunity of knowing your people better.

Chan. Durken:We are a good people, Captain. A society with much potential. Once we cross the threshold of space, we shall have to give up this self-importance, this conceit that we are the center of the universe. But this is not the time for that. For now we will have to enjoy that sweet innocence.

Malcoria III is clearly intended to represent the Earth. Like many in our culture, the Malcorians believe that they are the center of the universe. Chancellor Durken realizes that his culture is too dependent on it's inflated view of itself and that if he tells his people the truth at this point, it would be disastrous. He intends to spend money on education and social development in order to eventually bring his people to a point where they can handle the truth. The implicit message here is that it is possible to overcome religious provincialism through education. Furthermore, there is the implication that this specific form of ignorance is: (1) something that has its roots in religious belief, and (2) something that can be eradicated through education.

*Star Trek* offers an alternative story to the one that leads to the idea that humans are the center of God's universe. The Christian story would have it that there was a special act of creation that yielded mankind and that humans are unique in the universe. In Roddenberry's universe, all life evolved on its own. Intelligent creatures developed in many parts of the galaxy. Furthermore, there are suggestions in *Star Trek* that human evolution was not purely natural. It is NOT that there was supernatural or divine intervention. Rather, it is suggested that there was technological or scientific intervention by an extraterrestrial intelligence.

In *The Paradise Syndrome (TOS)*, the crew of the Enterprise finds an obelisk on a planet that is occupied by a primitive humanoid race. After extensive study, Spock reveals,

Spock:The obelisk is a marker, just as I thought. It was left by a super-race known as "The Preservers". They passed through the galaxy, rescuing primitive cultures that were in danger of extinction, and seeding them--so to speak--where they could live and grow.

Dr. McCoy:I've always wondered why there were so many humanoids scattered through the galaxy.

Spock:So have I. Apparently, the Preservers account for a number of them.

This idea is significantly extended in the episode *The Chase (TNG)*. Dr. Galen, the foremost archaeologist of his time, has discovered that there is a hidden message in the DNA of different species from across the galaxy. He is killed shortly after he tries to get Captain Picard involved in his research. Picard's investigation of his murder leads him to the solution of the mystery. At one point, Geordi explains:

Geordi:This is not a part of a natural design, Captain. This is part of an algorithm coded at the genetic level.

Capt. Picard:An algorithm? Are you saying that these DNA fragments are elements in some sort of a computer program?

Geordi:I know how it sounds. But there is no way this could be a random formation. This is definitely part of a program.

Dr. Crusher:This fragment has been part of every DNA strand on Earth since life began there and the other fragments are just as old. Someone must have written this program over four billion years ago.

Capt. Picard:So, four billion years ago someone scattered this genetic material into the primordial soup into at least nineteen different planets across the galaxy.

Cmd. Data:The genetic information must have been incorporated into the earliest life form on these planets and then passed down through each generation.

Near the end of this episode, there are a lot of people interested in the mystery. Several Cardassians, Klingons, Romulans, and humans converge on a planet in the Vilmoran system which holds the final key to the puzzle. Once completed, the program turns out to be a message from a long dead people. The projected humanoid image says,

Humanoid:You are wondering who we are? Why we have done this? How it has come that I stand before you--the image of a being from so long ago. Life evolved in my planet before all others in this part of the galaxy. We left our world, explored the stars and found none like ourselves. Our civilization thrived for ages, but what is the life of one race compared to the vast stretches of cosmic time? We knew that one day we would be gone. That nothing of us would survive. So, we left you. Our scientists seeded the primordial oceans of many worlds where life was in its infancy. The seed-codes directed your evolution toward a physical form resembling ours. This body you see before you, which is of course shaped as yours is shaped, for you are the end result. The seed-codes also contain this message which was scattered in fragments on many different worlds. It was our hope that you would have to come together in fellowship and companionship to hear this message. And if you can see and hear me, our hope has been fulfilled. You are a monument, not to our greatness, but to our existence. It was our wish that you too would know life and would keep alive our memory. There is something of us in each of you and so something of you in each other. Remember us!

It is unlikely that Roddenberry thinks that this scenario is actually what happened. But its suggestion serves to highlight the fact that there are possible explanations of how we came to be here that do not involve appealing to any supernatural intervention.

The rejection of supernatural explanations is another Humanist idea that *Star Trek* exemplifies. Prior to the development of empirical science, it was common to hear explanations that appealed to super-naturalistic causes. People would accept the idea that it was the gods who cause famine or plenty. Negative events were taken as evidence that the gods were unhappy. People would pray and make sacrifices in order to appease the angry god. Whenever people encountered something that they did not understand, it was always open to them to explain the phenomena by reference to the actions of a god. Given a religious context, such explanations can be quite persuasive.

The episode *Who Watches the Watchers?* provides us with a vivid example of this sort of thinking. After some camouflaged Federation cultural observers have been accidentally observed by the primitive Mintakans, Captain Picard is seen by a Mintakan named 'Liko'. Liko leaps to the conclusion that Picard is a God, who the Mintakans call 'The Overseer'. Subsequently, when there is a storm over the village, Liko says,

Liko:It's not the season for lighting. It must be a warning.

Fento:We've had storms like this before.

Oji:Not like this one.

Liko:It must mean something. The Picard is angry with us. He blames us for letting Palmer escape.

Fento:Liko, we don't know that the Overseer is responsible for this storm.

Liko:Will He also send floods? My wife died in last year's floods. Will we all die now?

Scientific explanations stand in stark contrast to such super-naturalistic explanations. At this point in the history of ideas, people in our culture are justified in presumptively ruling out any explanation that appeals to gods, supernatural forces, or magic. The success of modern science justifies our confidence that eventually scientists will be able to explain our observations without appealing to anything beyond nature.

 But if we think about everything that has happened to Captain Picard, we might wonder whether he is entitled to the same degree of confidence in this matter that we have? After all, unlike any of us, Picard has encountered Q[[207]](#footnote-208), Kevin Uxbridge[[208]](#footnote-209), and many other creatures and phenomena that he cannot explain. Given such experiences, one might initially expect that Picard would be open to the possibility of supernatural explanations? But, as we will see, there is another alternative.

Early in the episode *Devil's Due (TNG)*, Captain Picard meets Ardra, a being who exhibits what appear to be supernatural powers. Furthermore, Ardra explicitly claims to have supernatural powers. Given his experiences with Q and Kevin Uxbridge, Captain Picard should be open to the possibility that Ardra is quite genuine. But he is skeptical. His skepticism is grounded in an idea that Roddenberry mentions several times.

Roddenberry advances a thesis that allows Picard and others to avoid supernaturalistic explanations even when they are confronted with things that they do not understand. Furthermore, when projected into the past, this thesis can be used to explain theism in our culture. The thesis can be stated as something like:

A vastly superior technology will, from a more primitive point of view, appear to be magical or divine.[[209]](#footnote-210)

There are several episodes that advance and develop this theme. In *Contagion (TNG)* Picard is talking to Wesley about the Iconians. He says,

Picard:Ancient texts did speak of "demons of air and darkness".

Wesley:Air and darkness?

Picard:Legend has it that they traveled without the benefit of spaceships. Merely appearing out of thin air on distant planets.[[210]](#footnote-211)

Wesley:Sounds like magic.

Picard:Well, we would appear magical to stone age people.

Again, in the episode, *Where No One Has Gone Before (TNG)*, the character named 'The Traveler' has enabled the Enterprise to travel millions of light years. Captain Picard is questioning him about what has happened.

Traveler:I don't know if I can put this in terms you'll understand.

Picard:I believe that there may be a warp speed that can get us beyond galaxy M-33. But there is no velocity of any magnitude that can possibly bring us where ever this is. Is it true what our navigational sensors are telling us? Are we millions of light years away from where we were?

Traveler:Well, Yes.

Picard:Well what got us here?

Traveler:Thought.

Picard:Thought?

Traveler:You do understand, don't you, that thought is the basis of all reality. The energy of thought, to put it in your terms, is very powerful.

Kosinski:That's not an explanation.[[211]](#footnote-212)

Traveler:I have the ability to act like a lens which focuses thought.

Kosinski:That's just so much nonsense. Your asking me to believe in magic.

Traveler:Well, Yes. This . . . this could seem like magic to you.

Superior power and technology could also be taken as evidence of divinity. This possibility is exhibited in several episodes. For example, in *Who Mourns for Adonais? (TOS)*[[212]](#footnote-213), Captain Kirk is trying to understand Apollo when he speculates:

Capt. Kirk:Apollo is no God. But, he could have been taken for one though . . . once. Say five thousand years ago a highly sophisticated group of space travelers landed on Earth around the Mediterranean

Dr. McCoy:Yes! To the simple shepherds and tribesmen of early Greece, creatures like that would have been gods.

Capt. Kirk:Especially if they had the power to alter their form at will and command great energy. In fact, they couldn't have been taken for anything else.[[213]](#footnote-214)

The idea that primitive people might take beings with superior power to be a god is also suggested in the episode, *Justice (TNG)*. While visiting the Edo on planet Rubicun III, the Enterprise discovers that there is something orbiting the planet and that the Edo worship that thing as God. After having contact with the entity in orbit, Data says,

Data:[T]hey know the Edo worship them as a God-thing.

Picard:They know?

Data:They recognize that this is quite expected and harmless at the present Edo stage of evolution.

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Picard:Did you learn anything about the relationship between that and the Edo? Why are they so certain its a god?

Data:Any sufficiently advanced life form would appear to others to be that, Sir.

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Picard:Why would such an advanced thing feel obliged to protect the Edo?

Data:Perhaps the Edo are a child race by comparison. Possibly a race which those life forms have planted here, much as we now plant life forms on class-M planets.

Roddenberry clearly thinks that religious belief is something that flourishes only in a simple, unsophisticated and unscientific culture. In the episode *Who Watches the Watchers? (TNG)*, Captain Picard demonstrates that he understands and accepts Roddenberry's thesis. He uses this insight to help him to convince the Mintakan leader, Nuria, that he is not a God. Nuria is brought on board the Enterprise. She says,

Nuria:Your powers are truly boundless.

Picard:Nuria, your people live in huts. Was it always so?

Nuria:No. We have found remnants of tools in caves. Our ancestors must have lived there.

Picard:So why do you now live in huts?

Nuria:Huts are better. Caves are dark and wet.

Picard:So if huts are better, why did you once live in caves?

Nuria:The most reasonable explanation would be that at one time we did not know how to make huts.

Picard:Just as at one time you did not know how to weave cloth, how to make a bow.

Nuria:That would be reasonable.

Picard:Someone invented a hut. Someone invented a bow. Who taught others, who taught their children, who built a stronger hut, who built a better bow, who taught their children. Now, Nuria, suppose one of your cave-dwelling ancestors were to see you as you are today. What would she think?

Nuria:I don't know.

Picard:Well, put yourself in her place. You see, she cannot kill a hornbuck at a great distance. You can. You have a power she lacks.

Nuria:Only because I have a bow.

Picard:She has never seen a bow. It doesn't exist in her world. To you its a simple tool. To her, its magic.

Nuria:I suppose she might think so.

There are a few exceptions to *Star Trek's* negative portrayal of religion. For instance, at the end of the episode *Bread and Circuses (TOS)*, Uhura positively glows when she gets to correct Captain Kirk who has assumed that the people of 892 IV are worshippers of the *sun*. Rather, she tells them, these people are worshippers of the *son* of God. The character "Gem" in *The Empath (TOS)* is clearly a Christ-like figure. Gem is an innocent person who is being tested. She must be willing to suffer and die to show that her people are worthy of being saved. Similarly, in the episode *Transfigurations (TNG)* we meet "John Doe" who can cure the sick with a touch and even reverse death. Here again, "John Doe" represents a Christ-like figure and the portrayal is only positive.

In later Next Generation episodes and subsequent to Roddenberry's death, we begin to see a more open attitude toward religion. Picard clearly respects and honors the religious practices of Dathon in *Darmok (TNG)*. And Bajoran religious views are treated respectfully in *Ensign Ro (TNG)* and they are extensively developed in *Star Trek: Deep Space Nine*.

The more even handed approach can be seen in the episode *In the Hands of the Prophets (DSN)*. The problem in this episode develops because members of the Federation favor a naturalistic explanation of the wormhole and its inhabitants, while the Bajorans prefer a supernaturalistic account. But here, unlike earlier episodes, the supernaturalistic perspective is not dismissed out of hand. This disagreement is clearly intended to parallel the creation versus evolution debate found in our culture. Vedek Winn, a leader in the Bajoran religious community, objects to Keiko O'Brien teaching a purely naturalistic account of the wormhole phenomena.

Keiko:Who knows why this wormhole is special? [Pause] Because it was artificially constructed. Commander Sisko encountered the entities that created the wormhole

Vedek Winn:Excuse me. By entities, do you not mean the prophets?

Keiko:Yes, on Bajor the entities are worshiped as prophets. Our studies of the wormhole have shown that it was formed by unique particles we call verterons that are apparently self-sustaining in nature. This begins to explain how a ship at impulse can safely pass through without

Vedek Winn:Ships are safely guided through the passage by the hands of the prophets.

Keiko:In a manner of speaking.

Vedek Winn:Not apparently in your manner of speaking.

Keiko:Perhaps we should discuss this after class.

Vedek Winn:Do you believe the celestial Temple of the Prophets exists within the passage?

Keiko:I respect that the Bajoran people believe that it does.

Vedek Winn:But that's not what you teach.

Keiko:No, I don't teach Bajoran spiritual beliefs. That's your job. Mine is to open the children's minds to history, to literature, to mathematics, to science.

Vedek Winn:You are opening the children's minds--to blasphemy and I can not allow it to continue.

Later in the episode, Kieko is discussing the situation further.

Keiko:The question is, How much support does she have on this station?

Maj. Kira:She has mine.

Keiko:You can't possibly believe teaching the facts about the wormhole amounts to blasphemy.

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Cmd. Sisko:Nobody's saying that there can't be spiritual teaching on this station, Major. But can't it be in addition to what's being taught in Mrs. O'Brien's classroom?

Maj. Kira:But if she's teaching a fundamentally different philosophy

Keiko:I'm not teaching any philosophy. What I'm trying to teach is pure science.

Maj. Kira:Some might say that pure science taught without a spiritual context is a philosophy, Mrs. O'Brien.

The point being made here by Major Kira is one that is sometimes voiced by fundamentalist Christians. They would argue that the State's efforts to be neutral between religions by excluding all religious accounts from public school classrooms is in fact not neutral at all. Rather, they argue, it is a policy that promotes the "religion" of Secular Humanism.

What do you think? Is it the case that avoiding the teaching of any particular religious story is the same as teaching the story of Secular Humanism? Is the State in its effort to be neutral actually acting in favor of an ideology that is opposed to theism and Christianity?

Later, Commander Sisko's son, Jake, comes to talk to him about the controversy. Even though he does not share their faith, Commander Sisko exhibits understanding, tolerance, and respect for the Bajoran religious beliefs.

Jake:She changed the lesson to teach us about Galileo. Did you know that he was tried by the Inquisition for teaching that the Earth moved around the Sun. How could anyone be so stupid?

Cmd. Sisko:It's easy to look back seven centuries and judge what was right and wrong.

Jake:But the same thing is happening now -- with all this stuff about the celestial temple and the wormhole. It's dumb.

Cmd. Sisko:No it's not! You've got to realize something, Jake. For over fifty years the one thing that allowed the Bajorans to survive the Cardassian occupation was their faith. The Prophets were their only source of hope and courage.

Jake:But there were no prophets. They were just aliens that you found in the wormhole.

Cmd. Sisko:To those aliens, the future is no more difficult to see than the past. Why shouldn't they be considered prophets?

Jake:Are you serious?

Cmd. Sisko:My point is that it's a matter of interpretation. It may not be what you believe, but that doesn't make it wrong. If you start to think that way, you'll be acting just like Vedek Winn only from the other side.

This is a significant departure from the kind of treatment that Bajoran religious beliefs would have received if Roddenberry were still alive.

 *Death, Immortality and The Meaning of Life*

Death is an undeniable aspect of the human condition. Our quest can not be complete until we integrate death into our world view. Christians will argue that their belief system has at least two significant advantages over the Humanist alternative. First, according to Christianity, its followers will have a pleasant and eternal afterlife. Second, Christians believe that their life is part of God's grand plan and that as a result of this, their lives have meaning and purpose. I will consider each of these points extensively. First, let's consider the notion of the afterlife.

The most extensive treatment of the afterlife in *Star Trek* is found in the *Star Trek Voyager* episode entitled *Emanations (VOY)*. In this episode the crew of Voyager is drawn to some asteroids by the presence of an interesting element. When they investigate, they find a number of dead bodies.

Cmd. Chakotay:The lack of artifacts could indicate that they do not believe any worldly goods can be taken into the afterlife.

Ensign Kim:What makes you think they believe in an afterlife at all?

Cmd. Chakotay:Look at the position of the arms and hands. The bodies have been arranged in poses of serenity and they appear to be wrapped in the same bio-polymer residue we found out in the passage way. All indications that this culture has a great deal of ritual associated with the disposing of the dead. That normally indicates some belief in the afterlife.

Lieut. Torres:The Klingons believe in an afterlife. But there's no burial ritual. They just dispose of the corpse by the most efficient means possible.

Cmd. Chakotay:Good point.

The bodies are sent to the asteroids through a periodic subspace rupture that originates on the planet. During a transport, Ensign Harry Kim is accidentally sent to the planet Uhnori which is the source of the dead bodies. When Harry asks for an explanation of where he is, the thanatologist[[214]](#footnote-215) Dr. Neria says,

Dr. Neria:Where you are now is in the world of the living. Where you came from was [pause] another dimension.

Ensign Kim:Another dimension?

Dr. Neria:Yes. You returned from the next emanation--the afterlife.

When Harry explains that he saw a collection of dead bodies where he came from, Dr. Neria asks,

Dr. Neria:Are you saying that when we die, we go to some asteroid and decompose?

Ensign Kim:Well, that's what it looked like to us.

Meanwhile back on Voyager, the Doctor has revived a dead Uhnori named Ptera. When Patera is told what has happened, she has some questions.

Ptera:Well, I'd like some answers.

Capt. Janeway:About what?

Ptera:About what happens to my people when we die.

Capt. Janeway:We're not sure, exactly. But from what we do know, the vacuoles deposit the bodies on the asteroids in this ring system.

Ptera:And then what?

Capt. Janeway:I'm not sure what you mean?

Ptera:Were supposed to evolve into a higher level of consciousness when we die. Were supposed to gain a greater understanding of the universe. All of our questions were supposed to be answered.[[215]](#footnote-216)

Ptera's conception of the afterlife is clearly intended to parallel the Christian conception. Similarly, Kes' conception is also quite Christian in nature.

Kes:When people die on my world, we bury them beneath the soil and we believe that their komra is released into the afterlife.

Ptera:Their "komra"?

Kes:Our soul. Our spirit. The essence of our beings. Maybe something similar happens to you.

Ptera:You don't understand. We don't believe in any kind of spirit. When we die, we are supposed to reappear as physical beings with arms and legs. That's the whole point of sending our people through the spectral ruptures. We're supposed to travel onto the next emanation as ourselves and be reunited with our families. But none of this is true, is it? None of the people I love are here. I'm alone. I don't belong here. I can't live like this. Can't you send me home?

The story line of the episode establishes that the Uhnori's belief is completely off target. Given the parallels to Christian thought, it follows that this episode is intended to cast significant doubt on the Christian story about the afterlife. They have obviously given this matter a lot of thought and they got it wrong. Likewise, it is possible that we have gotten it all wrong too. This skepticism is reinforced when we see a Uhnori named Hatil express doubts to his wife.

Hatil:It's just that I'm starting to wonder what really happens when we die. If I'm really going to a higher level of consciousness.

Hatil's Wife:The Alien, what has he been telling you?

Hatil:All he's done is to make me stop and think about something we've always taken for granted. Now that I've thought about it, I'm not so eager to go through with it anymore.

Harry tries at one point to stop violating the prime directive.

Ensign Kim:For all I know, your thanatologists are right. All I saw were the corporeal remains of your people and you do go on to a higher consciousness.

Hatil:But its also possible that there is no higher existence for us. That when we die, we simply cease to exist.

Until the last scene, this episode is a consistent attack on the confidence that Christians can have in their conception of the afterlife. We are shown that the Uhnori's believe is false. We are also shown that its falsity and the radical lack of reliable data to support it does not prevent the development of an extensive cultural ideology based upon it. Furthermore, we are shown that this culture can act in terrible ways when conforming to this ideology.

In spite of the consistent skepticism throughout the episode, it ends with the suggestion that the Uhnori's belief might be correct after all. Consider this last scene:

Ensign Kim:I have been a little preoccupied with the experience. I mean, all those people think that they know what happens after death. They look forward to it. Their prepared for it. But the truth is, none of it's real. They don't have an afterlife. They just decay inside those asteroids.

Capt. Janeway:I wouldn't be so sure if I were you. That neural energy their bodies releases--it becomes part of the ambient electro-magnetic field surrounding the planet. Our readings also indicate the energy is unusually dynamic. There's a great deal of variation in pattern complexity, quantum density.

Ensign Kim:Are you saying you think that they do have an afterlife? That the energy field is where they exist at a higher level of consciousness just like they believe?

Capt. Janeway:I'm not certain. But I am certain about this. What we *don't* know about death is far far greater than what we do know.

Janeway admits that she does not know what to make of the energy observations and that no one really knows much about what happens after death. Given this, the suggestion that Uhnori belief might be true after all must be seen as pabulum from the producers. However, even with the twist at the end, the episode constitutes a significant challenge to the typical Christian belief in the afterlife. Essentially the question that the episode asks is, What basis do you have for thinking that your conception of the afterlife is any more likely to be correct than was the Vanari's belief?

The possibility of an afterlife is also discussed in the episode *Where Silence Has Lease (TNG)*. In this episode, a creature named Nagilum has trapped the Enterprise and has threatened to experiment on and kill one third of the crew. Rather than to allow this, Picard has set the ship to auto-destruct. He goes to his quarters to wait for the end. Troi and Data come to chat with him.

Data:I have a question, Sir.

Picard:Yes, Data, what is it?

Data:What is death?

Picard:Oh, is that all? Well, Data, you are asking probably the most difficult of all questions. Some see it as a changing into an indestructible form, forever unchanging. They believe that the purpose of the entire universe is to maintain that form, in an Earth-like garden which will give delight and pleasure through eternity. On the other hand, there are those who hold to the idea of our blinking into nothingness (snaps his fingers), with all of our experiences, hopes, and dreams merely an illusion.

Data:Which do you believe, Sir?

Picard:Considering the marvelous complexity of the universe, its clockwork perfection, its balances of this against that, matter-energy, gravitation, time, energy. I believe that our existence must be more than either of these philosophies. That what we are goes beyond Euclidian or other practical measuring systems and that our existence is part of a reality beyond what we understand now as reality.

Picard's response is mostly a bunch of gobbledygook. He is not really very clear here. He appears to be saying that he can't bring himself to accept the Christian heaven story. But he is equally unwilling to accept that the description yielded by the practical measuring systems of science are exhaustive of all that is real. He suggests that the correct answer is something "more than either of these philosophies". This is really pretty empty if it is supposed to be any kind of an answer. Furthermore, the invocation of a "higher reality" (whatever that would be) is, I think he would admit, something for which he has no basis for asserting. To mention it at all is more an expression of hope than belief.

In the episode *The Next Phase (TNG)*, there is another exploration of the notion that there is life after death. Geordi and Ro are apparently killed in a transporter accident. They disappear and are presumed dead. At one point, Ensign Ro hears Dr. Crusher making out her death certificate. Ro thinks that she is dead and that she is experiencing her afterlife. When she tells Geordi this, he refuses to believe it. He finds it ludicrous to suppose that he would have a visor and a Starfleet uniform in the afterlife. Although they did not initially know it, Ro and Geordi eventually discover that the Romulans have found a way to cloak people so that they can't be seen.

In the feature film *Star Trek: Generations* we get a glimpse into what might be the afterlife. When Kirk and Picard are swept away by the energy ribbon, they enter the nexus. The nexus is a domain of existence outside of time. In this domain, a person gets to live through an endless series of very pleasant counterfactual scenarios. As it is shown to us, the nexus is compatible with our culture's understanding of what the afterlife might be like.[[216]](#footnote-217) But it is interesting to note that in spite of the enormous appeal that the nexus has for both Picard and Kirk, they both choose to leave that domain and to return to this world.

It is worth noting that Roddenberry does not restrict himself to standard conceptions of the afterlife. Eternal life can possibly occur in many different ways. If we adopt the memory theory of personal identity, then if your memories are preserved then so are you. This possibility is seen in: *The Schizoid Man (TNG)* when Ira Graves is shifted into Data's body; *The Offspring (TNG)* when Data dumps Lal's memories into himself; *Inheritance (TNG)* where we learn that Juilana Soong has had her entire memory set transferred into an android body; *What Are Little Girls Made Of? (TOS)* where we learn that Roger Korby's memories have been transferred into an android body; and *Elementary, Dear Data (TNG)* where Dr. Moriarty's consciousness is given practical immortality by being stored in the ship's computer. There are some other odd suggestions, but I'm not sure that I would recommend them. You could, for example, try to get yourself stuck in a temporal causality loop like the one we see in *Cause and Effect (TNG)*. Or you could try to find someplace to live that is outside of the time-space continuum: I suggest something like the celestial temple (inside the worm hole) where Commander Sisko meets with the a-temporal entities in *Emissary (DSN)* or inside of the nexus as we see in *Star Trek Generations*.

On the other hand, from the Humanist/Naturalist perspective it is radically implausible to suppose that there is an afterlife at all. We are biological creatures first and foremost. It is true that we have evolved to a point where we are conscious creatures who are self-aware and who understand that we are mortal. But there is no reason to suppose that this self-aware consciousness is immortal. It may be comforting to think it is, but when we die--that's it, it's over.

But, for the purposes of argument, let's suppose that our souls do survive our death. There are still at least two significant lines of concern. First, if we do have an eternal afterlife, we might soon come to accept the old saying, "Be careful what you ask for, you just might get it." Some people have suggested that eternal life might be incredibly boring. Unless one's existence contains a certain amount of change, it can quickly become repetitive and tiresome. Secondly, if the afterlife is anything like what standard Christianity describes, then there are some serious moral problems associated with it.

As I understand it, God punishes those souls who knew about Christ but who failed to believe in him. Eternal damnation is, first, unjust in that it is a punishment that is radically disproportionate to the seriousness of the "crime". Secondly, it is simply horrifying. *Nothing* justifies torturing someone, much less torturing them *for eternity*. A God that could actually carry through with such a plan, fails to pass moral scrutiny. The God that would do such a thing strikes me as being petty, impetuous, and morally suspect. This understanding of the Christian story is so horrible and implausible that it must be rejected on both moral and rational grounds. If Christianity is correct and true, then surely this conception of Christianity MUST be false.[[217]](#footnote-218)

Now let's return to the second point mentioned above. In addition to claiming that humans can survive the death of their biological bodies and exist for eternity in the afterlife, Christianity also claims that it is participation in God's plan that gives your life meaning and purpose.

These two claims are conceptually distinct in the sense that either one could be true without the other. This leads to four distinct possibilities: (1) There is an afterlife and your life has a meaning and a purpose; (2) There is an afterlife but your life has no meaning or purpose; (3) There is no afterlife and your life has no meaning or purpose; and (4) There no afterlife and your life does have a meaning and a purpose.

Christianity is committed to (1) and Humanism to (4). (3) is consistent with Nihilism and I am not aware of any Western thinker who defends (2). Since we are primarily concerned with comparing Humanism and Christianity, I will focus on (1) and (4). Initially and on the surface, they appear to disagree about the afterlife and to agree that life has a meaning and a purpose. But this initial appearance is misleading.

As I understand it, Christians make all of their contributions to God's plan in THIS life. And given the Christian presumption that "it is participation in God's plan that gives your life meaning and purpose", it follows that one's life could have meaning and purpose even if there were no afterlife. Thus, commitment to the afterlife is not necessary to a Christian's sense of meaning and a purpose. This means that disagreement over the question of the afterlife is not the essential point of disagreement between Humanism and Christianity. I suggest that the crucial difference between these two perspectives depends on a different understanding of the claim that one's life has a meaning and a purpose.

In order to be clear, let me take a moment to analyze the phrase "one's life has a meaning and a purpose". When we state that an action or event has a meaning, we are saying either that it "makes sense" or additionally that it has value. If you cannot comprehend an act or an event, you are not in a position to assert that it is "meaningful". Thus, in the broad sense of the term, you can say that something has "meaning" only when the action or event "makes sense" to you, and this occurs only when the act or event fits into a world view or conceptual schema that you understand. Thus, for example, you might say, 'His chaining himself to that tree became a meaningful act, once I understood that he was an active environmentalist, but until then, it was just incomprehensible'.

The use of the term in this context, however, involves something more than just comprehensibility. In this instance, saying that something has meaning implies the judgement that it valuable. Consider, for example, the sentence, 'I understand why he did it, but it was meaningless because it was valueless'. In this narrower sense, you can say that something has meaning when it fits as either an intrinsic or instrumental value into an axiological schema that you accept or at least understand.

We would say that an action is meaningful in the narrow sense when we: (1) have a level of understanding of the context of the action to say that it "makes sense", i.e., is instrumentally rational, and (2) have an appreciation of an axiological schema that allows us to judge that it is something that is--all things considered--valuable or worth being done.[[218]](#footnote-219) If either of these features is absent, we might be inclined to say that the action is meaningless.

This analysis has, to this point, focused on actions or events. But this is a bit misleading, because our present purposes require us to make judgements about meaning that apply to a person's life taken as a whole. The effort is to judge whether the entire set of actions and events that make up a person's life, along with all of their consequences, is meaningful in the narrow sense described above.

The assessment of the meaning of one's life is typically conjoined with a claim about its "purpose". For example, one might hear the question, "What is the meaning *and purpose* of your life?" An act has a purpose just in case there is a goal or an end that the act serves to bring about. In the absence of such an end, an act is without purpose. Similarly, if there is an aim or goal for your life taken as a whole, it can be said to have a purpose. If there is no such ultimate goal, then it could be said that your life lacks a purpose. The aim or goal referred to here is the same as the values referred to in the axiology discussed above. Thus, the phrase 'meaning and purpose' can be seen to be slightly redundant. Following common usage, I will continue to use the longer phrase.

The claim that your life has meaning and purpose can be taken in two distinct ways. First, an *objective* assessment of the meaningfulness of your life requires (1) that there be a true and objective conceptual and axiological schema, (2) that you understand that schema, and (3) that you live a life that achieves the ends set forth in that value schema. Thus, for example, in order for a Christian to say that his or her life *objectively* has a meaning and a purpose, implies: (1) that there actually is a God, (2) that He has a plan, (3) that you have a part in that plan, (4) that your life can have a meaning and a purpose only in connection with God's plan, (5) that you have and understand the conceptual schema that one needs in order to judge that the actions and events of your life fit appropriately into God's plan, (6) that you have and understand the axiology that you need in order to judge that your contribution to God's plan (as well as the plan itself) are, all things considered, valuable and worth doing.

Taken as a whole, these requirements are quit stringent and they pose several substantial problems. To begin with, it is not at all clear that there is any single true conceptual or axiological schema. And even if there were, it is not clear that we could validate it as such or even understand it. Finally, since we are talking about judgements of entire lives including all of its consequences, it would seem that one could begin to make such a judgement only when one had gained a significant historical perspective on that life. Given the stringency of the requirements and these substantial problems, it is implausible for anyone to claim that all of these conditions are met. Thus, it does not make sense for anyone to say that it is *objectively* true that their life has a meaning and a purpose.

On the other hand, a more qualified, limited, and subjective claim is much less difficult to justify and it does not face such daunting problems. In the limited sense, the claim that your life has a meaning and a purpose is simply the claim that you "believe" that *your* conceptual and axiological schema supports the judgement that your life make sense and that it advances a valuable end. This "belief" is not knowledge and it is not objective and it need not be based entirely on fact. It could be something like a "gut feeling". It could be a "sense" or a gestalt that your personal conceptual and axiological schemas connect to a meaning and purpose to your life. When they say that their life has a meaning and a purpose, most Christians probably realize (at least subconsciously) that they are not making an objective claim. Rather they are expressing a "sense" that they have. It is important to recognize that one can have this "sense" independently of the factual truth of the matter.

The points made in the past few paragraphs are vividly reflected in the episode *Rightful Heir (TNG)*. This episode begins with Worf experiencing a crisis of faith. He is unable to function effectively. Captain Picard allows him to go on leave of absence to a planet called Boreth. He chooses Boreth because that is the place where Klingon sacred texts say that Kahless, the source of Klingon spiritual beliefs, is supposed to return one day. When a person claiming to be Kahless does appear, Worf invites him on the Enterprise. At a officer's conference, Worf suggests:

Worf:There is another possibility. He could be the real Kahless. He could have returned as he promised.

Data:The appearance of Kahless in the lava caves is consistent with the stories found in Klingon sacred texts.

Cmd. Riker:Worf, no offense, but I have trouble believing that the man I escorted from deck eight is supernatural.

Worf:I did not say he is. I merely think that we should not completely reject the possibility.

After the meeting, Data asks,

Data:Lieutenant, may I ask you a question? In the absence of empirical data, how will you determine whether or not this is the real Kahless?

Worf:It is not an empirical matter. It is a matter of faith.

Data:Faith. Then you do believe that Kahless may have supernatural attributes. As an android, I am unable to accept that which cannot be proven through rational means.

Later in the episode, Worf has learned that the Kahless that is on board the Enterprise is only a clone of the original Kahless. In reference to a group of Klingons, Data points out to Worf that,

Data:They still believe.

Worf:Then they are fools.

Data:Does that mean that you no longer believe this is the real Kahless?

Worf:Yes.

Data:I am curious. Do you still think the real Kahless will return someday or has this experience merely deepened the spiritual crisis that originally sent you to Boreth?

Worf:I do not know.

Data:I understand your dilemma. I once had what could be considered a crisis of the spirit.

Worf:You?

Data:Yes. The Starfleet officers who first activated me on Omicron Theta told me that I was an android. Nothing more than a sophisticated machine with human form. However, I realized that if I were simply a machine, I could never be anything else. I could never grow beyond my programming. I found that difficult to accept. So I *chose* to believe that I was a person. That I had the potential to be more than a collection of circuits and sub-processors. It is a belief which I still hold.

Worf:How did you come to your decision?

Data:I made a leap of faith.

Worf then makes a statement that is crucial to our current point. Faith does not depend on factual truth. This Kahless may not be genuine, but that does not mean that he cannot serve a spiritual function.

Worf:I said he is not Kahless. But in the minds of our people, he can be just as powerful as Kahless. Even now, two members of your own crew are sitting on our holodeck waiting for him to return.

Gowron:I do not care what they think.

Worf:But they are not alone. Like many of our people they need something to believe in, just like I did. Something larger than themselves, something to give their lives meaning. They need Kahless.

Gowron:But when they find out the truth

Worf:It does not matter, Gowron. Despite the facts, they will still believe. They will make a leap of faith.

This message is reinforced in the last scene of the episode.

Worf:I went to Boreth to find my faith. For a while, I thought that I had. But my heart is empty again. I do not know what to believe.

Kahless:You doubt the real Kahless will return one day. You doubt whether he is still waiting for you in Sto-Vo-Kor. Kahless left us--all of us--a powerful legacy. A way of thinking and acting that makes us Klingons. If his words hold wisdom and his philosophy is honorable, what does it matter whether he returns? Perhaps the words are more important than the man.

The second coming of a dead spiritual leader is clearly intended to lead us to thinking about parallels between Worf's spiritual crisis and that which might be had by anyone who is feeling skeptical about the Christian story.

Worf recognizes that the truth of the story is not essential to its playing an important role in people's lives. Similarly, if we accept that what is really needed is only a SENSE of meaning in our lives, it follows that the Christian story can be seen as valuable. Many people are quite content living in accordance with an ideology that might be, for all they know, completely false. The psychological payoff is evidently worth the price.

The crux of the dispute between the Humanist perspective and the Christian perspective depends on the fact that each side accepts radically different background conceptual and axiological schemas. When Christian's say that their life has a meaning and a purpose, they are implicitly referring to or thinking about God's plan. On the other hand, when the Humanist says this, he or she is NOT thinking about or implicitly referring to God's plan. They are referring to something else.

The Humanist and the Christian will agree that one's sense of meaning and purpose must be found in relation to something larger that one's self. The individual life and its experiences are too narrow and limited to be the ultimate ground of value. Both perspectives will acknowledge that there are intermediate values. But discussions of these matters quickly focus on "ultimate" values. An "ultimate value" is one that is grounded in the largest schema available. For the Christian, ultimate values will be grounded in God's plan--the largest schema available to them. The largest schema available to the Humanist does not spill over into the afterlife nor does it go beyond the confines of the natural world.[[219]](#footnote-220)

There are many different things that might serve as the largest available schema for a Humanist. For example, ultimate value might be grounded in nature, in the advancement of human knowledge, in history, in the advancement of culture, or in the increase of human autonomy. One might see *HUMANITY as a project* that generation upon generation have contributed to. Its creation, development, betterment, perpetuation, and enrichment might be an aim that one can see one's self as participating in.

The episode *Brothers (TNG)* gives us some insight into how the Humanist perspective on ultimate values might be developed. In that episode, Data asks Dr. Soong,

Data:May I ask you a question, Sir?

Dr. Soong:Certainly. Anything you like.

Data:Why did you create me?

Dr. Soong:Why does a painter paint? Why does a boxer box? Do you know what Michelangelo used to say? That the sculptures he made were already there before he started, hidden in the marble. All he had to do was [psst] remove the unneeded bits. It wasn't quite that easy with you, Data. But the need to do it--*my* need to do it--was no different than Michelangelo's need. Now let me ask you a question. Why are humans so fascinated by old things?

Data:Old things?

Dr. Soong:Old buildings, churches, walls. Ancient things. Antique things. Tables, clocks, nick-knacks. Why? Why? Why?

Data:There are many possible explanations?

Dr. Soong:If you brought a Nuphian to Earth, he'd probably look around and say, "Tear that old village down. It's hanging in rags. Build me something [something] new, something efficient." But to a human, that old house, that ancient wall, that's a shrine. Something to be cherished. Again, I ask you, Why?

Data:Perhaps, for humans, old things represent a tie to the past.

Dr. Soong:Well what's so important about the past? People got sick. They needed money. Why tie yourself to that?

Data:Humans are mortal. They seem to need a sense of continuity.

Dr. Soong:Ah ha. Hum. Why?

Data:To give their lives meaning--a sense of purpose.

Dr. Soong:Oh, well. And, uh, this continuity--Does it only run one way, backwards to the past?

Data:I suppose it is a factor in the human desire to procreate.

Dr. Soong:Oh. So you believe that having children gives humans a sense of immortality, do you?

Data:It is a reasonable explanation to your query, Sir.

Dr. Soong:And to your's as well, Data.

The continuity that Data mentions is continuity with a heritage, a tradition, and a culture. This sort of continuity is precisely what provides one with the interpretative framework that one needs to make sense of one's social world. Participating in the common aim of one's culture is something that has value. It is clearly not as grand as participation in God's plan, but it has the advantage of being wholly in and of this world.

The Humanists ultimate value appeal is limited to this life and to the natural world. But, according to the Humanist, this smaller scope is an advantage of his account not a drawback. From his perspective, the notion that ultimate value is grounded in the afterlife or in some supernatural plan is misguided nonsense. In the more limited naturalistic manner, having children is one way of contributing to and sustaining one's culture. This, plus the other things that one might do in order to advance one's culture and its aims, are the sort of things that can, according to the Humanist, give meaning and purpose to one's life.

Christians might point out that the Christian schema is "larger than" the Humanist schema. Additionally they might point out that the Christian schema could incorporate the Humanist schema as a proper subset of its own perspective. A Christian might then suggest that since their perspective is larger, it is therefore better. The Humanist will acknowledge having a smaller schema, but he or she will fervently deny that this is an evaluative deficiency.

It is not clear how one can proceed at this point. Each side accepts their own conceptual and axiological schema and they each see the situation from that perspective. The Christian will claim that the Humanist is blind to the larger reality. And the Humanist will accuse the Christian of dreaming. Christians have said that Humanists are recalcitrant, willful, hubristic, and insolently close-minded to the glory and love of God. On the other hand, the Humanist might say that Christians are people whose fears and insecurities allow their imaginations to construct and dogmatically accept elaborate and implausible ideologies that run contrary to our best scientific understanding of the world so as to gain a false sense of security, love, and protection from a father figure who will make everything OK in the end. It is not clear that rational persuasion can move either person from their favored perspective.

I think that it is important to reiterate that the mere fact that the ultimate Humanist perspective is "smaller" than the ultimate Christian perspective does NOT mean that it is in any way inferior. If the Humanist is correct in suggesting that the Christian perspective is nothing more than a wish-projection that has no basis in reality, then it is clear that a smaller, more accurate, realistic, and naturalistic conception will be superior to such an alternative. Clearly we have grown up in a culture that encourages us to expect a larger answer. But a misunderstanding repeated and believed for generations is no less a mistake. The Humanist understands that the smaller schema is all that there is. Expectations aside, whatever values there are, are going to be grounded in this life and in this world.

I want to take a moment to raise some philosophical questions, from the Humanist perspective, about the claim that participation in God's plan gives meaning and purpose to the Christian's life. As I pointed out before, the Christian is not really in a position to know what God's plan is or to judge that it is good. Let's suppose for a moment that God's plan is fulfilled. So what!! Why is that important or valuable? Is it intrinsically good that human souls are separated into good believers and bad non-believers and that the good ones are in Heaven and the others are in Hell? It is radically implausible to suppose that such a result is an intrinsic good worthy of our attention and effort. Is such an end an instrumental good that serves some larger good that we don't understand? That seems implausible, but in any event, *we* are not in a position to say that it is worth achieving. Indeed, from every moral perspective that I know of, the eternal torture of human beings is an end result that is so morally repugnant that it must be rejected.

The episode *Shadowplay (DSN)*, provides an interesting situation that might suggest a counterexample to the point that I have been making. Odo and Dax are visiting a community and they discover that the villager's are holographic projections. When they turn the projector off to repair it, they discover that the villager named Reregan is a real person. He has lived for thirty years in a community of holographic projections. He tells them that he does not want them to fix the projector and that he wants to leave.

Reregan:I've watched the people marry, have children, grow old and sometimes I even forgot that they were holograms. But it's over. It's over. And I would appreciate it if you would take me back to Yadera Prime.

Odo:But . . . what about the villagers? What about your granddaughter?

Reregan:She's not real.

Odo:Technically, I suppose that you're right. Maybe by our definition Teah is not real. Her memories are stored in a computer; her body is made up of omicron particles. But who's to say that our definition of life is the only valid one. I'm sure if you asked her she'd say she was real. She thinks. She feels.

Reregan:She only seems to. It's all an illusion. . . an illusion I created.

Odo:Well you said that you created the village thirty years ago. Teah is only ten.

Reregan:I designed the program so the villagers could have children if the wanted to.

Dax:Then Teah's personality is a combination of her parents personalities. . .

Odo:Just like a real child. You had nothing to do with it.

Reregan: But she is still a hologram.

Odo:Maybe. But I saw the way that you held her hand when she was sad. I saw the way that you tried to comfort her when she was frightened.

Reregan:I didn't want her to get hurt.

Odo:If she is not real, what does it matter?

Reregan:It matters. It matters to me.

Odo:Why should it matter to you if a hologram cries?

Reregan:Because I love her.

Dax:And she loves you.

Odo:Don't you see. She's real to you. And she's real to me too. They're all real and you can't turn your back on them now.

On the one hand, I have suggested that in order to have a valuable and meaningful life, one's life should, for the most part, be lived in line with a conceptual schema that is as true to reality as possible. On the other hand, it has been suggested that one can live a meaningful life even if one's "sense" of meaning is grounded on a factually mistaken world view. And now here in *Shadowplay (DSN)* Odo is suggesting that Reregan's life and the community of holographic villagers is meaningful and valuable in spite of its radical unreality. The suggestion is that continuity and tradition yield value even though it is entirely unreal. I'm not sure whether Odo's view is tenable.

In line with the Humanist conception of ultimate value, the episode *Return to Tomorrow (TOS)* has a scene in which Captain Kirk suggests that increasing the extent of human knowledge is an ultimate value.

Spock:Once inside their mechanical bodies, engineer, they can leave this planet--travel back with us. With their knowledge, mankind can leap ahead ten thousand years.

Capt. Kirk:Bones, they'll show us medical advances--miracles you've never dreamed possible. Scotty, engineering advances--vessels this size with engines the size of walnuts.

Scotty:Ah, you're joking.

Spock:No. He's not.

Dr. McCoy:Now let's not kid ourselves that there's no potential danger in this.

Capt. Kirk:They used to say that if man could fly he'd have wings. But he did fly. He discovered he had to. Do you wish that the first Apollo mission hadn't reached the moon or that we hadn't gone on to Mars and then to the nearest star? That's like saying you wish that you still operated with scalpels and sewed up your patients with catgut like your great-great-great-great-grandfather used to. I'm in command. I could order this. But I'm not, because Dr. McCoy is right in pointing out the enormous danger potential in any contact with life and intelligence as fantastically advanced as this. But I must point out that the possibilities, the potential for knowledge and advancement is equally great. Risk. Risk is our business. That's what this starship is all about. That's why we're aboard her.

In the episode *The Neutral Zone (TNG)* the Enterprise recovers three twentieth century people who were frozen when they died. When found, they are awoken and cured of what killed them. At one point, Mr. Offenhouse confronts Captain Picard.

Capt. Picard:That's what all this is about. A lot has changed in the past three hundred years. People are no longer obsessed with the accumulation of things. We have eliminated hunger, want, the need for possessions. We've grown out of our infancy.

Mr. Offenhouse:You've got it all wrong. It has never been about possessions. It's about power.

Capt. Picard:Power to do what?

Mr. Offenhouse:To control your life--your destiny.

Capt. Picard:That kind of control is an illusion.

Mr. Offenhouse:Really? I'm here aren't I. I should be dead, but I'm not.

At the end of the episode, Captain Picard tells his visitors that they will be taken back to Earth.

Mr. Offenhouse:Then what will happen to us? There's no trace of my money. My office is gone. What will I do? How will I live?

Capt. Picard:This is the twenty-fourth century. Material needs no longer exist.

Mr. Offenhouse:Then what's the challenge?

Capt. Picard:The challenge, Mr. Offenhouse, is to improve yourself--to enrich yourself. Enjoy it.

Picard could easily have said that the goal of life in the twenty-fourth century is to discover and fulfil one's role in God's plan. But he does not. Rather, he suggests a fragment of a Humanist answer. Self enrichment is an end that Humanist value.

In addition to these few positive suggestions, let's not forget that Roddenberry maintains that there are clearly some things that are not compatible with living a meaningful life. The episodes *This Side of Paradise (TOS)* and *The Apple (TOS)* clearly indicate that Roddenberry believes that religious belief is contrary to human autonomy. And Roddenberry is convinced that living a self-directed autonomous life is a necessary condition for that life being a meaningful or a good life.

1. The interested reader will be assisted by the annotated bibliography that can be found at the end of the text. [↑](#footnote-ref-2)
2. "Every thinker puts some portion of an apparently stable world in peril." John Dewey [↑](#footnote-ref-3)
3. This is one of a number of ways to view philosophy. The "eternal question" view has recently been under attack. However, for the purposes of this project, such an approach is both more representative of the Western philosophic tradition and it is more conducive to a clear exposition. [↑](#footnote-ref-4)
4. Prologue to each episode of the original series. [↑](#footnote-ref-5)
5. Notice for example that our claim that, "There is a book on the table." is a different kind of claim than, for example, 2+2=4. The first requires that we look at the world and it is at least possible that we might make a mistake. On the other hand, 2+2=4 is the kind of knowledge that does not depend upon observation and most would claim that it is not possible to be wrong about this kind of claim. [↑](#footnote-ref-6)
6. This is a paraphrase of Russell's statement. [↑](#footnote-ref-7)
7. William Shakespeare *Macbeth* Act II, Scene 1. Note that the phrase "dagger of the mind" was used as a title for an episode in the original series. [↑](#footnote-ref-8)
8. There is no sense organ associated with Troi's empathic capacity and this is what distinguishes it from other sense perception. Furthermore, this is what makes it analogous to Democritus' reason. [↑](#footnote-ref-9)
9. Plato's *Theaetetus*. [↑](#footnote-ref-10)
10. Plato's *Theaetetus*. [↑](#footnote-ref-11)
11. This distinction is echoed in the episode *The Offspring (TNG)*. In this scene, Data's daughter, Lal. says, "You are wise father" and Data responds, "is's the difference between experience and judgment." Data's distinction resembles the distinction that Plato makes in his attack on the Pythagoreans. [↑](#footnote-ref-12)
12. Plato's *Theaetetus*. [↑](#footnote-ref-13)
13. Plato's *Theaetetus*. [↑](#footnote-ref-14)
14. From Plato's *Republic*. [↑](#footnote-ref-15)
15. From Plato's *Republic*. [↑](#footnote-ref-16)
16. What follows is copied from a public domain copy of a 1901 edition of Plato's *Republic*. [↑](#footnote-ref-17)
17. This is, of course, a reference to the fact that Socrates was put to death by the Athenians. [↑](#footnote-ref-18)
18. Plato's *Republic* book 5 (Public domain text) [↑](#footnote-ref-19)
19. Earlier in the series, in the episode *The Big Goodbye (TNG)* we are shown what happens when holodeck characters leave the holodeck. Cyrus Redblock and Felix Leech dissolve into nothing when they walk off of the holodeck. [↑](#footnote-ref-20)
20. This theme can also be seen in the episode *Future Imperfect (TNG)*. In this episode, Commander Riker wakes up in sick bay and is told that he has suffered a relapse of an illness that gives him total amnesia. He is also told that it is 16 years later than he remembers it being. Eventually he discovers that he is living in an elaborate illusion that has been constructed to fool him.

 Likewise, the gap between appearance and reality is vividly exhibited in the episode *Frame of Mind (TNG)*, in which Commander Riker looses his ability to discern reality from illusion and in *11001001 (TNG)* in which the line between reality and illusion is blurred when the holodeck is used to deceive Commander Riker.

 Finally, Geordi looses perspective on the distinction between reality and appearance in the episode *Booby Trap (TNG)* when he uses the holodeck to conjure up Dr. Leah Brahms. [↑](#footnote-ref-21)
21. Virtual reality is radically less sophisticated than holodecks. But in the respects that are relevant to this discussion, they are not all that different. [↑](#footnote-ref-22)
22. This possibility is explored in the episode *Hollow Pursuits (TNG)*. In this episode, Lieutenant Barclay has a series of holodeck fantasy programs to which he can retreat when "real" life gets too difficult for him. [↑](#footnote-ref-23)
23. This scenario generates a moral dilemma for the psychiatrist. On the one hand, if the psychiatrist cures the patient, the patient will die. On the other hand, if he refuses to cure the patient, he will remain insane but alive. But as a doctor, the psychiatrist has sworn not to harm his patient. Being mentally ill is usually an evil. But here it might be a preferable condition. [↑](#footnote-ref-24)
24. *Hamlet* Act I, Scene V. [↑](#footnote-ref-25)
25. 'A priori' is a technical term that is used in epistemology. A priori knowledge is knowledge that is not derived from or grounded in experience. Thus a priori knowledge contrasts with a posteriori knowledge (i.e., experiential knowledge). [↑](#footnote-ref-26)
26. Rene Descartes *Meditation I*. [↑](#footnote-ref-27)
27. In the episode *The Menagerie (TOS)*, the Telosians have a power similar to Descartes' evil genius. As Dr. Philip Boyce points out, there is nothing that we can be sure of when we are dealing with such powers. [↑](#footnote-ref-28)
28. Rene Descartes *Meditation I*. [↑](#footnote-ref-29)
29. The quotations from Descartes' *Discourse on Method* are taken from a public domain copy of his work. [↑](#footnote-ref-30)
30. In the episode, *Elementary, Dear Data (TNG)* professor Moriarty appeals to Descartes' statement that "I think, therefore I am." In an effort to substantiate his claim that he is a conscious being. [↑](#footnote-ref-31)
31. Something like Locke's idea of *tabula rasa* was presented in the episode *The Changeling (TOS)* where Nomad erases Uhura's mind. I must note in passing that her recovery for the following week's episode is quite remarkable. [↑](#footnote-ref-32)
32. Locke's "qualities" are what you and I would call "properties". [↑](#footnote-ref-33)
33. From John Locke's Essay Concerning Human Understanding. Quoted from Robert Solomon's Introducing Philosophy: A Text With Integrated Readings (San Diego: Harcourt Brace Jovanovich) 1989 pp. 145-6. [↑](#footnote-ref-34)
34. Which can be traced back to Aristotle. [↑](#footnote-ref-35)
35. Recall that in the episode *Specter of the Gun (TOS)*, Kirk, Spock, McCoy, and Chekov are forced into a reenactment of the gunfight at the OK corral. In their efforts to combat this situation, Spock and McCoy make a canister of knockout gas. But when it fails to work, Spock's logic quickly leads him to some astonishing conclusions. Using a form of reasoning known as *modus tollens*, i.e., an argument of the form:

(1)If A then B

(2)not B

(3)Therefore, not A

Spock reasons:

(1)If the laws of nature hold true in this place, then the tranquilizer must work.

(2)The tranquilizer does not work.

(3)Therefore, the laws of nature do not hold true in this place.

He then uses an inference known as *modus ponens*, i.e., an argument of the form:

(1)If A then B

 (2)A

(3)Therefore, B

(1)If the tranquilizer does not work here, then a radical alteration of our thought patterns must be in order.

(2)The tranquilizer does not work here.

(3)Therefore, a radical alteration of our thought patterns is in order.

Based on this last conclusion, Spock concludes, much as Berkeley did, that the physical objects in this world are not real, i.e., they are mind-dependent. This is the clue that Spock needs to develop a defensive strategy. He concludes that in this circumstance, the bullets are not physically real. Their ability to effect the crew is thus dependent on the crew's belief that they are real. Spock simply eliminates that belief and thereafter the bullets are ineffective. Spock uses a mind-meld to convince the other crew members that the Melkotian world is "without substance". The objects there are entirely mental. The Melkotian world exemplifies many aspects of Berkeley's epistemology. [↑](#footnote-ref-36)
36. The episode *Specter of the Gun (TOS)* also illustrates Hume's claims about causation. The failure of the bullets to kill suggests: (1) that we don't really experience causation, and (2) that it is possible for us to overcome our psychological tendency to equate constant conjunction with causation. [↑](#footnote-ref-37)
37. That is, as a result of Adam's fall from grace. [↑](#footnote-ref-38)
38. Bacon referred to these distorting influences as "idols of the mind" and he identified four of them. The first idol he called "the idol of the tribe". Bacon points out that by nature we have a tendency to see more regularity in the world than is actually present there. We are inclined to engage in hasty generalization. This leads us to place too much weight on confirming instances of a hypothesis and too little weight on disconfirming instances. The second he called "the idols of the cave". This one involves the kind of errors in reasoning that result from the fact that we tend to judge matters based on our particular education, background, experience, and taste. The third idol he called "the idol of the marketplace". This idol involves the distortions that are induced by relying on our imperfect language. His idea here is that the common concepts, the lowest meaning of words, hinders the development of concepts that foster the advancement of scientific knowledge. Finally, the fourth idol, the one he called "the idol of the theater", refers to the distortions that arise when people depend too much on previously accepted philosophies or ways of thinking. [↑](#footnote-ref-39)
39. The four main methods are: method of agreement, method of difference, joint method of agreement and difference, and the method of concomitant variation.

 The method of agreement says that whenever you have a set of different circumstances in which there is a single common element and the effect is the same, then we can inductively infer that the common element is a cause of the effect. For example, suppose that lots of people who ate at the dorm cafeteria is getting sick and that it is your task to decide what is causing the sickness. Suppose you interview all of the sick people and you discover that everyone who got sick ate the applesauce. You could conclude that the applesauce was the cause of the illness.

 The method of difference identifies a causal component by altering one factor in the circumstance and seeing whether that changes the effect. Suppose that on Tuesday your baby is doing fine eating peas. Then suppose that on Wednesday you introduce carrots into the child's diet and the child develops diarrhea. The difference between Tuesday and Wednesday is the carrots. This difference corresponds with a difference in the observed effect. Thus, you can conclude that the carrots caused the diarrhea.

 In some cases, you can combine both of the methods described above. That would be an example of the joint method.

 Finally the method of concomitant variation applies when you vary the concentration of an element and then you look for a corresponding change in the effect. For example, suppose that you used only one drop of fertilizer on plant "a", two drops on plant "b", and three on plant "c". Then suppose that "a" grew to be two inches high, "b" four, and "c" six inches high. You could conclude that the fertilizer caused the plant to grow higher.

 I think that when you think about it, you will find that these methods are patterns of reasoning that most of us use quite frequently. [↑](#footnote-ref-40)
40. Note how this episode's title echoes Bacon's notion that human knowledge can be distorted by many different factors. [↑](#footnote-ref-41)
41. Kirk's argument is a version of *modus tollens*.

(1)If someone is mentally inferior, then they cannot accept personal sacrifice or unite in a common cause.

(2)The Troglites have accepted personal sacrifice and united in a common cause.

(3)Therefore, they are not mentally inferior. [↑](#footnote-ref-42)
42. Spock's reasoning here is an instance of *modus ponens*. (1)If two groups of people are of the same species, then their physical and mental evolution must be similar.

(2)The Stratos dwellers and the Troglites are the same species.

(3)Therefore, their physical and mental evolution must be similar. [↑](#footnote-ref-43)
43. Here we see and example of Mill's method of difference.

(1)The Troglites were exposed to the environment of the caves and they exhibit mental retardation.

(2)The Stratos dwellers did not have exposure to the mines and they do not exhibit mental retardation.

(3)Therefore, exposure to the mines is a cause of the observed mental retardation. [↑](#footnote-ref-44)
44. The reasoning here is a form of the method of agreement.

(1)People have been exposed to Zenite thousands of times and in each case there has never been any negative effect.

(2)Therefore, it is very likely that Zenite does not cause negative effects.

On the other hand, this could be seen as a *modus tollens* argument:

(1)If Zenite were dangerous, then we would have observed negative effects by now.

(2)Zenite has been shipped all over the Galaxy and no negative effects have ever been reported.

(3)Therefore, Zenite is not dangerous. [↑](#footnote-ref-45)
45. Here we see an example of the method of difference.

(1)Zenite in its raw state correlates with bad effects.

(2)Zenite in its refined state correlates with no bad effects.

(3)Therefore, it is the rawness of the Zenite that is causing the problems. [↑](#footnote-ref-46)
46. Again an instance of *modus ponens*:

(1)If you out-wit a highly organized scientific culture for months, then you are not mentally inferior.

(2)Vanna and the other disruptors out-witted a highly organized scientific culture for months.

(3)Therefore, Vanna and the other disruptors are not mentally inferior. [↑](#footnote-ref-47)
47. An example of the method of difference:

(1)Troglites who live in the caves are constantly exposed to the raw Zenite and this correlates with mental retardation.

(2)Vanna and the other disruptors were removed from exposure to the raw Zenite and this correlates with an absence of mental retardation.

(3)Therefore, the absence of exposure to raw Zenite causes the absence of the mental retardation. [↑](#footnote-ref-48)
48. See for example the episodes *Hide and Q, Q Who, Deja Q, Qpid, and True Q*. Although there may be a purely physical explanation of Q's powers, we cannot at this point distinguish between his powers and the powers of a God. [↑](#footnote-ref-49)
49. This is, of course, the view of Locke. [↑](#footnote-ref-50)
50. William James later referred to this as the "bloomin' buzzin' confusion". [↑](#footnote-ref-51)
51. This point is quite similar to some claims that were made famous by Thomas Kuhn. Kuhn maintains that we think and see the world from within paradigms. He also says at one point that people who utilize different paradigms live in "different worlds". These notions are reflected in episodes like: *Where None Have Gone Before (TNG)*, *Remember Me (TNG)*, *Shore Leave (TOS)*, *Spectre of the Gun (TOS)*, and *Errand of Mercy (TOS)*. [↑](#footnote-ref-52)
52. The concept of time and the possibility of time travel and the resulting paradoxes is an interesting topic that *Star Trek* has occasionally dealt with. Episodes that are relevant to this topic include: *The City on the Edge of Forever (TOS)*, *Yesterday's Enterprise (TNG)*, *Time Squared (TNG)*, *Where No One Has Gone Before (TNG)*, *Remember Me (TNG)*. Reading relating to this topic could include: Augustine, Kant, McTaggart and many other contemporary writers. [↑](#footnote-ref-53)
53. This is just like the Tralfamadorians that Kurt Vonnegut describes on pages 26-27 of *Slaughter House Five*. [↑](#footnote-ref-54)
54. Synthetic a priori concepts. [↑](#footnote-ref-55)
55. As Hegel points out, it is not clear that this restriction can be followed and it is not clear that Kant himself adhered to this strict separation. [↑](#footnote-ref-56)
56. Benjamin Whorf "Science and Linguistics" in *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf* edited by John B. Carroll (Cambridge, Mass.: MIT Press, 1956) p. 212-3. [↑](#footnote-ref-57)
57. Benjamin Whorf "Science and Linguistics" in *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf* edited by John B. Carroll (Cambridge, Mass.: MIT Press, 1956) p. 216. [↑](#footnote-ref-58)
58. Benjamin Whorf "Science and Linguistics" in *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf* edited by John B. Carroll (Cambridge, Mass.: MIT Press, 1956) p. 216. [↑](#footnote-ref-59)
59. Benjamin Whorf "Science and Linguistics" in *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf* edited by John B. Carroll (Cambridge, Mass.: MIT Press, 1956) p. 218. [↑](#footnote-ref-60)
60. Willard V.O. Quine "Ontological Relativity" in *Ontological Relativity and Other Essays* (Cambridge, Mass.: MIT Press, 19??), p. 30. [↑](#footnote-ref-61)
61. "The rabbit fusion" can be thought of in the following way. There is only one RABBIT. It is an abstract form. Each individual rabbit is nothing more than a temporally contingent localized concentration of rabbitness. If I understand it correctly, this is something like the view that quantum physics has of electrons. [↑](#footnote-ref-62)
62. Ostension is a fancy term for pointing. [↑](#footnote-ref-63)
63. Willard V.O. Quine "Ontological Relativity" in *Ontological Relativity and Other Essays* (Cambridge, Mass.: MIT Press, 19??), p. 34. [↑](#footnote-ref-64)
64. You might think at this point about the difficulties we encounter as we try to communicate with dolphins or whales. [↑](#footnote-ref-65)
65. Willard V.O. Quine "Ontological Relativity" in *Ontological Relativity and Other Essays* (Cambridge, Mass.: MIT Press, 19??), p. 39. [↑](#footnote-ref-66)
66. Willard V.O. Quine "Ontological Relativity" in *Ontological Relativity and Other Essays* (Cambridge, Mass.: MIT Press, 19??), p. 39. [↑](#footnote-ref-67)
67. Consider for example, how would you point to a pane of glass or to the air? [↑](#footnote-ref-68)
68. By this I mean something like the Platonic Form greenness. [↑](#footnote-ref-69)
69. Quine goes on to argue for the thesis that theory is always underdetermined by empirical data. The idea here is that no matter how much empirical data you have, there will always in principle be more than one theory that can coherently explain that data. All of these matters are quite controversial and complex. I encourage the interested reader to follow up on this very interesting topic. [↑](#footnote-ref-70)
70. I am paraphrasing this dialogue. [↑](#footnote-ref-71)
71. Roddenberry acknowledged that the idea of the universal translator was merely a mechanism to keep costs down and to facilitate entertainment. The idea of subtitles for alien dialogue was thought to be unacceptable. Of course, this was to change later in the movies where the Klingon language is subtitled. [↑](#footnote-ref-72)
72. This, of course, sounds a lot like Kant's claims. It also resembles some of the claims that Noam Chomsky makes regarding deep grammar. It also resembles the claims of Whorf's natural logic theorists. [↑](#footnote-ref-73)
73. In the technical manual for the Next Generation, we are told the following about the universal translator:

 The Universal Translator is an extremely sophisticated computer program that is designed to first analyze the patterns of an unknown form of communication, then to derive a translation matrix to permit real time verbal or data exchanges. . . .

 The first step in deriving a translation matrix is to obtain as large a sample as possible of the unknown communication. Wherever possible, this sample should include examples of at least two native speakers conversing with each other. Extensive pattern analysis yields estimates on symbology, syntax, usage patterns, vocabulary, and cultural factors.

*Star Trek: The Next Generation Technical Manual* by Rick Sternbach and Michael Okuda (New York: Pocket Books, 1991) p. 101. [↑](#footnote-ref-74)
74. Here is a partial list of the allusions that the Tamarians use (and my guess at something close to a translation?).

Rai and Jiri at Lungha = Plan A

Kadir beneath Mo Moteh = what an idiot

The river Temarc in winter = freeze (shut up)

Shaka when the walls fell = failure

Mirab his sails unfurled = Let's get out of here

Darmok and Gelad at Tanagra = Communication or friendship as a result of shared struggle

Temba his arms wide = give

Uzani his army at Lashmir = a military plan equivalent to "don't shoot until you see the whites of their eyes.

Usane his army with fist open = decoy plan

Usane his army with fist closed = attack

Sukat his eyes uncovered = you understand

Kailash when it rises = close communication channels, or a necessary loss

Kiazi's children their faces wet = crying for no good reason

Tenagra on the ocean; Darmok on the ocean; Gelad on the ocean; Gelad at Tenagra; The beast at Tenagra; Darmok and Gelad on the ocean = comrades

Senda his face black his eyes red = I'm dying

Kelash at Belehear = sit; I'll be OK

Kira at Bashi = your turn

Picard and Dathon at El-Adrel

Temba at rest = you can keep it [↑](#footnote-ref-75)
75. Picard concludes that they talk in metaphors. The term 'metaphor' is suggestive of the narrative based language, but technically, I don't think that it is an accurate description of what is going on. It is more accurate to refer to the Tamarian language as being a mythoallusive language. [↑](#footnote-ref-76)
76. The story of Gilgamesh is one of the oldest epics in world literature. It is a Babylonian poem that was written in southern Mesopotamia about 2000 years B.C. Let me quote to you from the relevant portions of the poem.

[Gilgamesh was the king of Uruk and he oppressed his people. They prayed for deliverance and the gods sent Enkidu to fight the king. But Enkidu and Gilgamesh become close friends. When the Bull of Heaven threatened the city, they go out together to kill it.]

The Bull of Heaven descended

To the earth and killed at once

Three hundred men, and then attacked

King Gilgamesh.

Enkidu, to protect his friend,

Found strength. He lunged from side to side

Watching for his chance to seize the horns.

The bull frothed in its rage at this dance

And suddenly Enkidu seized its tail

And twisted it around, until the bull

Stood still, bewildered, out of breath,

And then Enkidu plunged his sword behind its horns

Into the nape of the bull's neck, and it fell dead.

The goddess stood on Uruk's walls, and cried aloud:

Grief to those who have insulted me

And killed the Bull of Heaven!

 . . . .

[Enkidu is mortally wounded while fighting the Bull]

 . . . .

Gilgamesh, though he was king,

Had never looked at death before.

Enkidu saw in him a helplessness

To understand or speak, as if this were

The thing the other had to learn

And he to teach. But visions from his sickness

Made him also helpless as a teacher.

. . . .

Gilgamesh knew his friend was close to death.

He tried to recollect aloud their life together

That had been so brief, so empty of gestures

They never felt they had to make. Tears filled his eyes

As he appeared to Ninsun, his mother, and to the Elders

Not to explain but to save his friend

Who once had run among the animals,

The wild horses of the range, the panther of the Steppe.

He had run and drunk with them

As if they were his brothers.

Just now he went with me into the forest of Humbaba

And killed the Bull of Heaven

Everything had life to me, he heard Enkidu murmur,

The sky, the storm, the earth, water, wandering,

The moon and its three children, salt, even my hand

Had life. It's gone. I have seen death

As a total stranger sees another person's world,

. . . .

He looked at Gilgamesh, and said:

You will be left alone, unable to understand

In a world where nothing lives anymore

as you thought it did.

. . . .

He drew closer to his friend's face.

My pain is that my eyes and ears

No longer see and hear the same

As yours do. Your eyes have changed.

You are crying. You never cried before.

It's not like you.

Why am I to die,

You to wander on alone?

Is that the way it is with friends?

Gilgamesh sat hushed as his friend's eyes stilled.

In his silence he reached out

To touch the friend whom he had lost. [↑](#footnote-ref-77)
77. raphael@indirect.com recommends Walter M. Meyers' book *Aliens and Linguistics* (Univ. of Georgia Press, 1980) for more information on xenolinguistics. [↑](#footnote-ref-78)
78. Lakoff and Johnson *Metaphors We Live By* (Chicago: The Univ. of Chicago Press, 1980) p. 4. [↑](#footnote-ref-79)
79. Lakoff and Johnson *Metaphors We Live By* (Chicago: The Univ. of Chicago Press, 1980) p. 4-5. [↑](#footnote-ref-80)
80. Many people think that the term 'mind' is synonymous with the terms 'spirit' or 'soul'. However, this is appropriate only within certain perspectives. The terms 'spirit' and 'soul' have religious connotations that are not necessarily present with the term 'mind'. [↑](#footnote-ref-81)
81. The episode *Powerplay (TNG)* also provides considerable support for the dualistic perspective. [↑](#footnote-ref-82)
82. Einstein's famous equation "E=Mc2" expresses the idea that energy and matter are interchangeable. It follows from this that energy is just another form of matter. Given this, it is incorrect to think of mental substance as a bundle of energy. [↑](#footnote-ref-83)
83. Outside of the episode this race was named the Koinonians. [↑](#footnote-ref-84)
84. The episode *Sarek (TNG)* also supports dualism. In this episode, the minds of Captain Picard and Sarek are mixed with one another. This blending is accomplished without any physical transference. I don't see any way that monism could account for this phenomena. On the other hand, it will be difficult for a dualist to account for it too. [↑](#footnote-ref-85)
85. There is a view that philosophers call parallelism which denies one or both of the causal connections that I am discussing. One version of parallelism is a view that philosophers call epiphenomenalism. Parallelism requires that one assume that there is a pre-established harmony between mental and physical events. However, pre-established harmony is so implausible that very few contemporary philosophers take parallelism seriously. [↑](#footnote-ref-86)
86. For the time being I am disregarding reports of conversations with the dead, out of body experiences, and other "phenomena" that imply direct experience with a human mind that is NOT associated with a body. [↑](#footnote-ref-87)
87. Descartes, Rene Discourse on Method and Other Writings Translated by F. E. Sutcliffe (Baltimore, MD.: Penguin Books) Discourse #4 p. 54. [↑](#footnote-ref-88)
88. Compare this discussion with some comments made by Wittgenstein.

Let us not forget this: when 'I raise my arm', my arm goes up. And the problem arises: what is left over if I subtract the fact that my arm goes up from the fact that I raise my arm? (section 621 *Philosophical Investigations*). [↑](#footnote-ref-89)
89. It is odd, that Spock's mind still speaks with Lenord Nimoy's voice on the radio to Kirk. [↑](#footnote-ref-90)
90. In the episode *Dax (DSN)*, we are told much more about the Trill and their hosts. It seems to me that much of what we are told here about this process lends support to the view of materialism. This is kind of the opposite side of the view found in the episode *Turnabout Intruder (TOS).* [↑](#footnote-ref-91)
91. It might be suggested that the transporter could have been designed to capture and transport a person's soul or non-material substance along with their material body. The problem with this is, how could the designer's ever know if they got this right or not? That is, how could they test the mechanism to see whether it could do this or not and if you think that only humans have a soul, then wouldn't they have to first test this aspect of the transporter on a human subject? Very risky business. [↑](#footnote-ref-92)
92. Imagine the scene when a convinced dualist was first asked to step into a transporter. They might well ask the technician, "Have you ever transported a person before?" "Well, No. We have transported lots of animals including some apes and there has never been any problem what so ever. Why are you so anxious?" "Well I'm just concerned that it will not send my soul with me to the other end!" "Well, there's only one way to find out--energize." Would the fact that we don't observe any difference count as verification that it CAN transport spiritual substances? [↑](#footnote-ref-93)
93. There are a number of examples in which human engrams are impressed or transferred into androids: Roger Korby in *What Are Little Girls Made Of? (TOS)*, the M-5 computer in *The Ultimate Computer (TOS)*, Rena in *Requiem for Methuselah (TOS)*. It is not exactly clear what to make of this. It seems to support materialism in that minds seem to require a material substratum for them to exist. [↑](#footnote-ref-94)
94. Here I am using the name Roddenberry to refer both to Gene Roddenberry and the collection of writers that worked on all of the relevant episodes. [↑](#footnote-ref-95)
95. This is why you should not smoke, why you should wear your seat belt, why you should not dive into unknown waters, etc., etc. [↑](#footnote-ref-96)
96. It is not clear whether Spock's "katra" is his soul or a dump of his memory set. Either way, if it did not preserve his memories, we would not accept that the revived-body-of-Spock was really Spock. [↑](#footnote-ref-97)
97. A.J. Ayer puts this point this way:

My observation of a body whose behavior resembled the behavior of my own body entitled me to think it probable that that body was related to a self which I could not observe, in the same way as my body was related to my own observable self. And in saying this, they would be attempting to answer not the psychological question, What causes me to believe in the existence of other people? but the logical question, What good reason have I for believing in the existence of other people? Language, Truth and Logic pp. 128-9. [↑](#footnote-ref-98)
98. Daniel Dennett Brainstorms: Philosophical Essays on Mind and Psychology (Montgomery, Vermont: Bradford Books) 1978. pp. 209-210. [↑](#footnote-ref-99)
99. Here again, Wittgenstein points out that,

"But doesn't what you say come to this: that there is no pain, for example, without *pain-behavior?"--It comes to this: only of a living human being and what resembles (behaves like) a living human being can one say: it has sensations; it sees; is blind; hears; is deaf; is conscious or unconscious.* (Philosophical Investigations section 281). [↑](#footnote-ref-100)
100. As Wittgenstein points out, "What would it be like if human beings showed no outward signs of pain (did not groan, grimace, etc,)? Then would it be impossible to teach a child to use the word 'tooth-ache'?" (Philosophical Investigations section 257). [↑](#footnote-ref-101)
101. Have you ever tried to comfort a depressed friend by saying, "Are you feeling sad?" only to have them say, "No. It's not sadness that I'm feeling. It's something else." [↑](#footnote-ref-102)
102. Once I had a child and I came to feel love for her, I realized that I had been misusing the term 'love' for most of my life. I had been using the term 'love' to refer to a level of emotions that pales in comparison to what I feel for my daughter. Have you ever asked someone or been asked by them, "Do you love me?" A word to the wise: It is not helpful at such times to recount the present considerations and doubts. [↑](#footnote-ref-103)
103. Although, I can't at this point help but wonder just exactly what is going on with an EKG. And what is not. [↑](#footnote-ref-104)
104. As Wittgenstein points out, "The common behavior of mankind is the system of reference by means of which we interpret an unknown language." (Philosophical Investigations section 206). [↑](#footnote-ref-105)
105. The movement is the kind of thing that Wittgenstein refers to by the term "natural expression". Consider the following passage:

Now what about the language which describes my inner experiences and which only I myself can understand? *How* do I use words to stand for my sensations?--As we ordinarily do? Then are my words for sensations tied up with my *natural expressions* of sensation? In that case my language is not a 'private' one. Someone else might understand it as well as I.--But suppose I didn't have any natural expression for the sensation, but only had the sensation? And now I simply *associate* names with sensations and use these names in descriptions.--(*Philosophical Investigations* section 256). [↑](#footnote-ref-106)
106. I want to publicly congratulate the writer, director, the actress or whoever it was that chose to integrate that movement into that scene. It was a quite impressive insight. [↑](#footnote-ref-107)
107. Many people will say that the moral community CAN include non-persons. This is seen for example in the fact that we have laws that punish cruelty to animals. However, the fact that the moral community can be extended in this way does not establish that it must be thus extended.

 Mary Anne Warren argues that the moral community included all and only persons. That is, every person is a member of the moral community and every non-person is not a member of the moral community.

 It is important to notice that "person" is not synonymous with "human." Human is a term that refers to beings that have a specific genetic makeup. As I am using the term, it is possible for non-humans to be a person and it is possible for some humans to be a non-person. [↑](#footnote-ref-108)
108. Mary Anne Warren "On the Moral and Legal Status of Abortion" *The Monist* Vol. 57, #1 (1973). [↑](#footnote-ref-109)
109. Warren argues that 1 and 2 taken together are most likely sufficient. She also argues that 1 and 2 are also likely to be necessary conditions. [↑](#footnote-ref-110)
110. My apologies to anyone who might just be finding out. [↑](#footnote-ref-111)
111. I don't know about you, but every so often I think I can feel the ebbs of current. :-) [↑](#footnote-ref-112)
112. It can be pointed out that if the garden of Eden story is literally true, then Adam and Eve are artificially constructed beings. God was able to give them a soul, so why can't S/He give a soul to our artificially created beings. [↑](#footnote-ref-113)
113. Webster's defines sentience as "capable of sensation and of at least rudimentary consciousness." [↑](#footnote-ref-114)
114. Notice how these three features compare with Warren's list: (1) consciousness, (2) reasoning, (3) self-motivated activity, (4) the capacity to communicate, and (5) the presence of self-concepts.

When Warren's list is applied to Data, it is clear that he has 2, 3, and 4. Furthermore, we are frequently told, and we have every reason to believe, that he has 1 and 5. Thus, according to Warren's criteria, there is good reason to think that Data is a person who has rights. [↑](#footnote-ref-115)
115. There are some difficulties involved in specifying exactly what we mean by the term "machine" in the question "Can machines think?" For example, Captain Picard makes a good point when he insists that ordinary humans are just a special kind of machine. Furthermore, what about a human clone. Wouldn't that count as an artificial being that could think? Such possibilities should serve as a warning to anyone who wants to make statements that are too loose. For the purposes of this discussion we will assume away such difficulties. [↑](#footnote-ref-116)
116. Rene Descartes *Discourse on Method* Chapter 5, first published in 1637. (public domain text.) [↑](#footnote-ref-117)
117. Please remember that when I use the name "Roddenberry" like I am here, I am explicitly referring to the collective set of writer, story editors, directors, and anyone else who had a hand in determining what we see in the collective scenes that have been broadcast. [↑](#footnote-ref-118)
118. By this I mean that it is possible for Data to achieve whatever is required for full mental and emotional capacity. [↑](#footnote-ref-119)
119. Keep in mind that as we investigate these questions, we are constantly engaging in a reflection on ourselves. Do you think? If so, how does that happen? Are you conscious? or self-conscious? How does that come about? What is consciousness really and how do you happen to have it? What other kinds of beings can also have it? What makes these alternatives either possible or impossible? [↑](#footnote-ref-120)
120. Why would we only grant that it has "real" intelligence if it resembled us (in some supposed crucial way)? Isn't this rather presumptuous of us. Stanislaw Lem explores this possibility in great detail in his novel Solaris. [↑](#footnote-ref-121)
121. This objection maintains that there are certain things that machines cannot do. Godel's theorem for example shows that any sufficiently powerful logical system will contain statements that can neither be proved nor disproved by that system. This is something that a human (Godel) could discover but that it is supposed that a computer could not discover. [↑](#footnote-ref-122)
122. This is essentially the objection that computers are digital while humans are analog. The idea is that thought must be analog. Turing points out that in theory the sample rate can be raised high enough to make the difference negligible. [↑](#footnote-ref-123)
123. Turing took the possibility seriously and it posed him some problems. If we had telepathy, that would change the reliability of the imitation game. Does the fact that Counselor Troi can feel the minds of humans but not of the Ferengi give her grounds for doubting that they actually have minds? [↑](#footnote-ref-124)
124. For more details, see Turing's paper. [↑](#footnote-ref-125)
125. Solipsism is the view that for all we know there is only one mind--our own. [↑](#footnote-ref-126)
126. Alvin Turing "Computing Machinery and Intelligence" *Mind* no. 236 (1950) pp. 4-30. Reprinted in numerous places. [↑](#footnote-ref-127)
127. This objection seems to rely on a view that philosophers call "determinism". Determinism is the view that the movement of physical objects are determined by the laws of physics. Computers do precisely what we program them to do and what their physical states allow and nothing more. Computers do not have "free will". One problem with this objection is that it is not at all clear that we are any different. If computers are determined, then so too are we. In spite of appearances, WE don't have free will. We too do just what we are set up to do and we could not have done anything else. [↑](#footnote-ref-128)
128. For an example of this, recall that the computer named Joshua in the movie *War Games* learned that tic-tac-toe was a pointless game. It was then able to apply that knowledge to a new situation and to conclude that thermonuclear war was also a pointless endeavor. The point here is that Joshua was able to learn this lesson from a vast number of distinct experiences. [↑](#footnote-ref-129)
129. William Lycan "Robots and Minds". [↑](#footnote-ref-130)
130. William Lycan "Robots and Minds". [↑](#footnote-ref-131)
131. William Lycan "Robots and Minds". [↑](#footnote-ref-132)
132. William Lycan "Robots and Minds". [↑](#footnote-ref-133)
133. A question one might keep in mind, how is it that you and I have a semantics? That is, what is it in virtue of which that we have a semantics? [↑](#footnote-ref-134)
134. John Searle "The Myth of the Computer". [↑](#footnote-ref-135)
135. John Searle "The Myth of the Computer" [emphasis added]. [↑](#footnote-ref-136)
136. John Searle "The Myth of the Computer". [↑](#footnote-ref-137)
137. John Searle "The Myth of the Computer". [↑](#footnote-ref-138)
138. See the previous chapter for a discussion of the episode *The Measure of a Man (TNG)*. [↑](#footnote-ref-139)
139. Data's decision to kill Kivas Fajo indicates that he can act outside of Asimov's three laws of robotics. Isaac Asimov's three laws of robotics are:

(1) a robot may not injure a human being, or, through inaction, allow a human being to come to harm.

(2) a robot must obey the orders given it by human beings except where such orders would conflict with the First Law.

(3) a robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.

Isaac Asimov *I, Robot* (New York: Fawcett Crest, 1950) p. 40. As far as I know, we are never told whether Data's programming incorporates Mr. Asimov's laws. However, it was Azimov who coined the phrase 'positronic brain'. And since that is what Data has, we can assume that the laws are in place. Thus, Data's decision to kill Fajo presents a real puzzle. [↑](#footnote-ref-140)
140. It is not exactly clear what evidence she has for this conclusion. If she were a behaviorist the evidence would be non-existent. [↑](#footnote-ref-141)
141. Data is here paraphrasing a Robert Browning's poem which contains the sentence: "Ah, but a man's reach should exceed his grasp, or what's a Heaven for?" [↑](#footnote-ref-142)
142. "Daddy wants me to be a doctor. I have the skills to make it. Society respects doctors. Therefore, I'll do it." I can imagine something no more complicated than this being the basis for a person's life choice. [↑](#footnote-ref-143)
143. A lover of technology. [↑](#footnote-ref-144)
144. This point is hinted at in *The Trouble With Tribbles (TOS)* where we see a reference to the advantages of a new type of grain seed--quadotriticale. [↑](#footnote-ref-145)
145. William Shakespeare *The Merchant of Venice* (Act II: Scene vii). [↑](#footnote-ref-146)
146. Gerry Mander makes a related claim when he points out that the producers and disiminators of technology typically introduce their creations in an upbeat and optimistic manner. They talk about their inventions idealistically and in connection with a utopian vision. For example, they will tell us how much pesticides or bovine growth hormone will increase yield. But they understate or completely ignore the possible costs of that very same development. [↑](#footnote-ref-147)
147. Mary Shelly *Frankenstein* (New York: Bantam Books, 1967) p. 38. [↑](#footnote-ref-148)
148. We are not specifically told but it does not take much imagination to see how this would have been accomplished. The food replicators operate by dematerializing a quantity of raw material and running it through a quantum geometry transformational matrix which modifies the material stream to conform to the digitally stored molecular pattern matrix of some particular food. (*Star Trek: The Next Generation Technical Manual* by Rick Sternbach and Michael Okuda (New York: Pocket Books, 1991) p. 90-91.) Given such a process, there is suddenly an unlimited supply of food. A similar process makes material objects and thus there are no labor intensive factories.

 Indeed, apart from a reference to "credits" in the episode *Trouble With Tribbles (TOS)*, there are very few mentions of money in the Star Trek universe. This has changed radically with the introduction of "gold pressed latinum" in *Star Trek: Deep Space Nine* but I think that this is something that Roddenberry clearly intended to avoid. By the way, with replicators, wouldn't there be serious problems with counterfeiting and why doesn't Quark just replicate gold pressed latinum while we are at it. [↑](#footnote-ref-149)
149. The relevant scene from this episode is quoted at length later in this chapter. [↑](#footnote-ref-150)
150. This point about Geordi is a central element in a powerful scene in the episode *Masterpiece Society (TNG)*. This same point can also be made in connection with the episode *Is There in Truth No Beauty? (TOS)* in which Dr. Miranda Jones' blindness is overcome through the use of technology. [↑](#footnote-ref-151)
151. [↑](#footnote-ref-152)
152. We first meet the Borg in the episode *Q Who (TNG)*. They return and kidnap Captain Picard in *The Best of Both Worlds Pt 1 and Pt 2 (TNG)*. The Federation projects its human qualities into the Borg when it meets Hugh in the episode *I, Borg (TNG)*. Finally, we see the Borg again in *Descent Pt 1 and Pt 2 (TNG)*. It is worth noting that when the Soviet Union collapsed, some critics asked, "Well what will Hollywood do for a villain now?" If you have been watching for this, you will have noticed that Arabs, Cubans, and Drug-lords have been bad guys recently. In *Star Trek* the solution was machines--the Borg. [↑](#footnote-ref-153)
153. This theme is hinted at in the original series episode *The Return of the Archons (TOS).* In this episode the computer Landru absorbs humans and thereafter they are merely an extension of the computer's will. [↑](#footnote-ref-154)
154. The World of Star Trek revised edition (New York: Bluejay Books, 1984) p. 157. [↑](#footnote-ref-155)
155. *The Pursuit of Loneliness: American Culture at the Breaking Point* by Philip Slater revised edition (Boston: Beacon Press) 1976. p. 2. [↑](#footnote-ref-156)
156. Specifically, consider this scene:

Capt. Picard:Chancellor, we are here only to help guide you into a new era. I can assure you we will not interfere with the natural development of your planet. That is, in fact, our prime directive.

Chan. Durken:I can infer from that directive that you do not intend to share all of this exceptional technology with us.

Capt. Picard:That is not the whole meaning, but it is part of it.

Chan. Durken:Is this your way of maintaining superiority?

Capt. Picard:Chancellor, to instantly transform a society with new technology would be harmful and it would be destructive.

Chan. Durken:You're right, of course.

.

.

.

Krola:Can you be so enraptured with space travel that you are blind to the threat they represent?

.

.

.

Krola:Chancellor, I mean no disrespect, but I have repeatedly warned you about your policies. Taking us too quickly where we have no business going in the first place. New philosophies. New economics. New technologies. There are still many people who value our traditional way of life and I for one am willing to die to defend it.

Mirasta:Open your eyes, Krola. We are part of a greater community. We can't ignore it. [↑](#footnote-ref-157)
157. The prohibition on genetic experimentation on humans was in place for quite a while and it still is in many respects. But this too is changing. For example Dr. Steven Rosenberg at the National Cancer Institute is using techniques of recombinant DNA research in order to synthesize "tumor infiltrating lymphocytes" which enhances the lymphocytes' capacity to kill the tumors. This new cancer treatment involves genetic manipulation of human cells. [↑](#footnote-ref-158)
158. *Star Trek: The Motion Picture* by Gene Roddenberry (New York: Pocket Books) p. 250. [↑](#footnote-ref-159)
159. A similar point is made in the episode *The Schizoid Man (TNG)* where Picard tells Ira Graves that it is immoral to usurp Data's autonomy. [↑](#footnote-ref-160)
160. Compare this stance with Martin Luther King Junior's statement that, "If a man hasn't discovered something that he will die for, he isn't fit to live." [↑](#footnote-ref-161)
161. There are similarities here to John Rawls' "original position" and his "veil of ignorance". [↑](#footnote-ref-162)
162. The situation that Picard is in is somewhat analogous to Rawls' original position or to Kant's kingdom of ends. Further thought along these lines would likely be rewarding. [↑](#footnote-ref-163)
163. For those who are interested, I am suggesting that the prime directive might be justified from a rule utilitarian point of view. I leave it to the reader to ponder further on this line of thought. [↑](#footnote-ref-164)
164. Compare this with President Reagan's public justification for the invasion of Grenada. [↑](#footnote-ref-165)
165. Notice that this fact is recognized with respect to Hugh in the episode *I, Borg (TNG)*. [↑](#footnote-ref-166)
166. Note that we see the same procedure repeated on Liko in the episode *Who Watches the Watchers? (TNG)*. There too, it is justified on the basis that it is being done to restore the situation to what it was prior to the interference.

 The problematic nature of this practice is acknowledged by Picard in the episode *I, Borg (TNG)* when he refused to erase Hugh's memory and thus his individuality and his autonomous self. Given this context, I want to take a moment to look at the last scene from the episode *Requiem for Methuselah (TOS)*. In this episode Kirk has fallen in love with Rayna and lost her. He returns to the Enterprise and falls asleep. Spock then goes over to Kirk, and while using the Vulcan mind-touching technique, he says, "Forget." This is extraordinary! On the one hand, Spock's uninvited voyeurism is a clear violation of Kirk's privacy. But to erase all memories of Rayna from Kirk's mind is nothing short of a mental rape. It is beyond belief that Spock would take it upon himself to "edit" Kirk's memories. It is a moral blunder of enormous magnitude. It could not have been motivated by compassion for Kirk's suffering, because Spock can't be motivated by emotions. The best explanation of this outrage is that this was one of the last few episodes to be produced in the original series, Roddenberry was not much involved at this point, and they were just being sloppy.

 There is a similar invasion of a person's mind in the episode *Inner Light (TNG)* where a probe from a dead planet takes over Picard's mind and forces him to experience the life of Kamin. In spite of the fact that subsequently Picard has pleasant feelings about this experience, it is nevertheless an invasion of his autonomy. Similarly, the invasion of Barclay's mind in *The Nth Degree (TNG)* is morally objectionable. [↑](#footnote-ref-167)
167. Roddenberry consistently portrays the view that humanity is evolving morally and that eventually we will develop into the kind of people that higher entities would like to interact with. However, in spite of this view, it still appears that 24th century people have not yet evolved to the point where homosexuality is fully accepted. I suspect that Roddenberry would have maintained that they would have evolved to this superior understanding by then. But he is also painfully aware that he must present these ideas to a late-20th century audience and they are not yet so tolerant. [↑](#footnote-ref-168)
168. Our sexual mores are also questioned in the episode *Up the Long Ladder (TNG)*. In this episode the Mariposians are required to accept sexual reproduction which they find repugnant. And the Bringloidi must accept both polygamy and polyandry. [↑](#footnote-ref-169)
169. It is worth remembering at this point that Mary Anne Warren's fourth criterion was the capacity to communicate. This feature is seen in the episode *Skin of Evil (TNG)*. In this episode, the members of the away team encounter the oil-slick (later named Armus). When it mirrors their movement, Data suspects that it is intelligent. But when it speaks, then there is no question about it. Similarly, when the nanites attack the ship in the episode *Evolution (TNG)*, they are only treated with respect after they begin to communicate with the crew. Finally, in the episode *Silicon Avatar (TNG)*, in spite of the death and destruction that crystalline entity has caused, it too is treated with respect once it shows that it can communicate with us. [↑](#footnote-ref-170)
170. A clear exception to this claim is found in the episode *Devil in the Dark (TOS)*. In this episode Kirk and Spock are tracking the horta in underground tunnels. When Kirk finds it, Spock yells over the communicator, "Kill it Captain!!". But Kirk, here being much more like Picard than himself, decides to take a chance on communication.

 I have always found this scene to be most incredible. Spock is clearly out of character with this line. And Kirk's open mindedness is also a bit surprising. [↑](#footnote-ref-171)
171. Plato *The Republic*, Book II (Public Domain Text) [↑](#footnote-ref-172)
172. This is a paraphrase of a saying by Dostoyevsky. [↑](#footnote-ref-173)
173. This is a paraphrase. [↑](#footnote-ref-174)
174. Compare this with Plato's comments in the *Euthyphro* 10a-e. [↑](#footnote-ref-175)
175. See in this regard the literature on the just war tradition. Over the years, *Star Trek* has had a lot to say on the topic of war. For example, in the episode *A Private Little War (TOS)* Roddenberry is explicitly making a comment about the Vietnam war. He also makes comments on war in at least the following list of episodes: *Errand of Mercy (TOS)*, *A Taste of Armageddon (TOS)*, *Arena (TOS)*, *Day of the Dove (TOS)*, *The Doomsday Machine (TOS)*, *The Arsenal of Freedom (TNG)*, *The Hunted (TNG)*, and *I, Borg (TNG)*. [↑](#footnote-ref-176)
176. It has been suggested that Roddenberry is a sexist because of the scanty outfits that women wear and because of the way that Kirk's love interests are portrayed. This charge does not stand up to scrutiny. Roddenberry's initial description of the original series had a female second in command of a military vessel. See for example, Number One, in the original pilot entitled *The Cage (TOS)*. Furthermore, Roddenberry specified that the crew should be 50% female. The "brains" at NBC required that Number One be replaced by Spock as the first officer and that the percentage of women be reduced to no more than 30%. [↑](#footnote-ref-177)
177. Similar implications apply to Kirk's decision to leave the Nexus with Captain Picard. If it is true that the Nexus has everything one could want, then it seems that whatever motivation there might be to leave will have to be found within the domain of reason and not within the domain of passion or desire. [↑](#footnote-ref-178)
178. This episode also raises some interesting questions relating to the legal and moral notion of privacy. A parallel situation is created by Geordi in *Booby Trap (TNG)* when he recreates the image of Dr. Leah Brahms. Later in the episode, *Galaxy's Child (TNG)* when she discovers this program, she is outraged. Is it immoral to appropriate someone's image and to play with it in your day dreams? If so, can you say exactly why this is so? [↑](#footnote-ref-179)
179. Robert Nozick *Anarchy, State, and Utopia* (Cambridge, Mass.: Harvard Univ. Press, 1976), p. 42-23. [↑](#footnote-ref-180)
180. Similarly, having sex with a prostitute might be condemned in part because it satisfies one's sexual urges without the associated intimacy being developed. The same might be said about casual sex. [↑](#footnote-ref-181)
181. Imagine, if you will, someone who is so unconcerned with acquiring sex that they completely disregard the features that might make them attractive to the opposite sex. [↑](#footnote-ref-182)
182. This story line is revisited in the episode *Galaxy's Child (TNG)*. In this episode, the biological Leah Brahms visits the Enterprise and discovers Geordi's program. She expresses outrage at this violation of her personal privacy. [↑](#footnote-ref-183)
183. Our culture sometimes seems to presume that mankind is a primary focal point of God's plan. It is suggested that humans are the apex of God's creation. Not only are we his children, but that we are his ONLY children. I suspect that relative to non-theists, Christians are much less likely to believe that there are intelligent life forms in the universe other than man. [↑](#footnote-ref-184)
184. Since a literal reading of the Garden of Eden story is not at all plausible, I will not include it as part of the present account. This leaves open many questions. For example: What is the meaning of the story when it is taken non-literally? What are we to make of the story of the Fall? [↑](#footnote-ref-185)
185. For further details, see the immensely complex history of the doctrine of the Trinity. [↑](#footnote-ref-186)
186. It could be suggested that the resurection was simply a "beaming up" of Christ's body and that Christ was simply an alien visitor. [↑](#footnote-ref-187)
187. "Gene Roddenberry: Writer, Producer, Philosopher, Humanist" by David Alexander. *The Humanist* March/April 1991. pp. 5-38. [↑](#footnote-ref-188)
188. *This Side of Paradise* 3/2/67. [↑](#footnote-ref-189)
189. The garden of Eden is also referred to in several other episodes, including: *The Way to Eden (TOS)*, *The Apple (TOS)* and *This Side of Paradise (TOS)*. [↑](#footnote-ref-190)
190. *This Side of Paradise* 3/2/67. [↑](#footnote-ref-191)
191. *The Apple (TOS)* 10/13/67. [↑](#footnote-ref-192)
192. *The Apple (TOS)* 10/13/67. [↑](#footnote-ref-193)
193. He seems to act in accordance with what might be called a "human dignity imperative". [↑](#footnote-ref-194)
194. This changed somewhat in October of 1991 with the showing of *Ensign Ro (TNG)*. This is the episode in which we first meet the people of Bajor. The space station in *Deep Space Nine* is in orbit above Bajor and as a result the Bajoran religion is a common element in *Deep Space Nine* plots. [↑](#footnote-ref-195)
195. The negative portrayal becomes somewhat more balanced in both *Deep Space Nine* and *Voyager*. [↑](#footnote-ref-196)
196. My former professor, Omar Anderson, points out that the title of this episode--Who mourns for Adonais?--does not fit the story. The title refers to the Greek god Adonais. But the episode deals with Apollo, a *different* Greek god. Professor Anderson suggests that the answer to the title question is the English poet Percy Bysshe Shelley (1792-1822). Shelley wrote *Adonais: An Elegy on the Death of John Keats*, comparing Keats to the god Adonais. It is significant to note that Shelley was later expelled from Oxford for publishing an atheistic tract, *The Necessity for Atheism* (1811). This leads Anderson to suggest that this episode contains a hidden atheistic message. [↑](#footnote-ref-197)
197. *Who Mourns for Adonais?* 9/22/67. [↑](#footnote-ref-198)
198. "How Sharper Than a Serpent's Tooth" in Star Trek Log Six by Alan Dean Foster (New York: Del Rey Book) 1976, p. 193. [↑](#footnote-ref-199)
199. It should be noted that there are branches, sects, or orders within Christianity against which this charge does not apply. [↑](#footnote-ref-200)
200. This eventually happened anyway, of course. [↑](#footnote-ref-201)
201. The reference is to George Orwell's novel 1984. [↑](#footnote-ref-202)
202. My thanks to Dr. Robert Anderson for most of this interpretation. [↑](#footnote-ref-203)
203. For a more detailed discussion of Plato's allegory, see the discussion in the chapter entitled Platonic Idealism. [↑](#footnote-ref-204)
204. Again, these allegorical connections were first drawn to my attention by Professor Anderson. Dr. Anderson also suggests that Roddenberry intend the character "Reger" to stand for Martin Luther, and the character "Marplon" to stand for Melancthon, Luther's friend and collaborator. Luther and Melancthon revolted against the rule of the Catholic Church; but they remained firm Christians, believers in Christ and the Gospels. [↑](#footnote-ref-205)
205. This point might be put more sharply by suggesting that Christians would accept that humans are the only creatures in the universe that are capable of having a soul. (With the exception of the devil and angles, etc.) The thinking might go something like this. If we are created in God's image and if this is required of any creature that is going to strive to earn eternal bliss, and if there are others, then we would be only one among many who are playing at God's game. They too would have been created in God's image. They would have souls too. God would love them equally to us. His loving them somehow would interfere with his ability to really love us. And since God really loves us, it follows that there can be no others. Christianity seems too jealous of God's love to admit the possibility of other souls like us. [↑](#footnote-ref-206)
206. Krola attempted to stage a scene in which it would appear that Commander Riker had killed him. Krola realized that news that an alien had killed a minister of the government would surely propel the reactionary movement into political leadership. His efforts were unsuccessful and Chancellor Durken is here referring to Krola's plan. [↑](#footnote-ref-207)
207. Although Q clearly lacks many of the qualities that we think of in a God, it is equally clear that he has some of them. He can move through space and time at will. He can manipulate matter--bring it into or out of existence at will. He can be anywhere he wants at any time that he wants, and that makes him the equivalent of being omni-present. He is also exceedingly knowledgeable and powerful. [↑](#footnote-ref-208)
208. Kevin Uxbridge is a character in *The Survivors (TNG)*. Kevin tells us that he is a Douwd. A Douwd is an immortal creature with immense mental and physical powers. He can create powerful illusions, manipulate matter and kill an entire species with just a thought. [↑](#footnote-ref-209)
209. Carl Sagan in his novel *Contact* has a character say, "As a philosopher in our part of the world once said, 'The artifacts of a sufficiently advanced extraterrestrial civilization would be indistinguishable from magic.'" (p. 191) I don't know which philosopher is being referred to. But Roddenberry uses this notion in quite a few episodes. [↑](#footnote-ref-210)
210. If one or more of the Iconians traveled to Earth, they could have been taken to be gods by primitive people. This would be consistent with the idea discussed above in connection with the episode *Who Mourns for Adonais? (TOS)*. [↑](#footnote-ref-211)
211. For those who want to pursue these matters further, I suggest that you look into the problem, What features must a story have in order for it to count as an explanation (for us)? [↑](#footnote-ref-212)
212. My former professor, Omar Anderson, points out that the title of this episode--Who mourns for Adonais?--does not fit the story. The title refers to the Greek god Adonais. But the episode deals with Apollo, a *different* Greek god. Professor Anderson suggests that the answer to the title question is the English poet Percy Bysshe Shelley (1792-1822). Shelley wrote *Adonais: An Elegy on the Death of John Keats*, comparing Keats to the god Adonais. It is significant to note that Shelley was later expelled from Oxford for publishing an atheistic tract, *The Necessity for Atheism* (1811). This leads Anderson to suggest that this episode contains a hidden atheistic message. [↑](#footnote-ref-213)
213. *Who Mourns for Adonais?* 9/22/67. [↑](#footnote-ref-214)
214. 'Thanatologist' means one who studies death. [↑](#footnote-ref-215)
215. I must admit that when I was a child, I too gained the impression that when I died, I would know everything and that all of my questions would be answered. This idea is clearly present in the our Christian culture, but it is far from clear that it is an official part of Christian doctrine.

 On reflection, it is a very strange idea. To begin with, it would takes an omniscient mind to know everything. I clearly do not have an omniscient mind. If subsequent to my death I acquire an omniscient mind, then there is a very strong case to be made for the claim that it is not *me* that has survived my death. After all, I am the guy with the quite limited mind. The idea that "all of my questions will be answered" is also somewhat implausible. It assumes: (1) that every possible question has a distinct, clear, and correct answer, (2) that I am capable of understanding the answer, and (3) that I am capable of recognizing and accepting the answer as adequate. There are problems with all three points. [↑](#footnote-ref-216)
216. God does not make an appearance in the nexus. [↑](#footnote-ref-217)
217. Contraposed this statement becomes, "If this aspect of the Christian story is true, then Christianity is false." [↑](#footnote-ref-218)
218. This issue becomes more complex when we are dealing with actions that have negative value. Thus, for example, one might say that Hitler led a terrible life. For example, acts of wanton cruelty are, in one sense, meaningless. However, there are at least two other senses in which it is not. It is not meaningless to the victim and it is also not likely not be meaningless to the perpetrator. This is probably just an equivocation over the relevant value or rationality framework of reference. The claim that it is meaningless is implicitly appealing to the framework of ideal goodness and rationality. The other statements are more perspectival. [↑](#footnote-ref-219)
219. Albert Camus discusses his view of the meaning of life by drawing our attention to the myth of Sisyphus. He says,

The gods had condemned Sisyphus to ceaselessly rolling a rock to the top of a mountain, whence the stone would fall back of its own weight. He had thought with some reason that there is no more dreadful punishment than futile and hopeless labor. . . . I leave Sisyphus at the foot of the mountain! One always finds one's burden again. But Sisyphus teaches the higher fidelity that negates the gods and raises rocks. He too concludes that all is well. This universe henceforth without a master seems to him neither sterile nor futile. Each atom of that stone, each mineral flake of that night-filled mountain, in itself forms a world. The struggle itself toward the heights is enough to fill a man's heart. One must imagine Sisyphus happy. [↑](#footnote-ref-220)