

# **THEOLOGICAL ANTHROPOLOGY**



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## Chapter 1

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# Christian Anthropology

By anthropology it means simply a logos about anthropos, a theory or philosophy about mankind or human nature. I don't mean the empirical science of anthropology. Everyone, absolutely everyone, needs a philosophical anthropology, especially everyone in the medical profession. But not everyone needs to be a scientific anthropologist, or to have an anthropologist, as everyone does need to have a physician. Everyone needs a physician, but not everyone needs a physicist.

On the other hand, everyone needs not to have a philosopher, but to be a philosopher, though not everyone needs to be a professional philosopher. I think Socrates, the archetype and model for all philosophers, would say that a professional philosopher is a contradiction in terms, because philosopher means literally a lover of wisdom, so professional philosopher means a professional lover, and we all know what that means. Socrates would call people like me intellectual prostitutes. I sell not my body but my mind for money. And today the Catholic Medical Association is my pimp.

You can avoid being a professional philosopher, but you can't avoid being a philosopher, a lover of wisdom. To love wisdom is simply to be human, just as to love beauty and goodness is simply to be human. The hunger for wisdom is an innate and universal hunger. No-one wants to be a fool. We have innate hungers not only in our bodies, but also in our souls. We have not only physical hungers for food and drink and sleep and sex, but also spiritual hungers for spiritual foods, such as duty and truth and goodness and joy and wisdom and friendship.

One of our spiritual hungers is for truth. Truth comes in at least two different kinds: scientific facts and philosophical wisdom. We get the first kind from sense experience and quantitative calculation. We get the second kind from understanding. The scientific method refines and amplifies our senses by inventing instruments like microscopes and cameras, and refines our quantitative reasoning by instruments like computers. But none of this can give us wisdom and understanding.

The author of Job understood this point over twenty-five centuries ago, when he put these words into the mouth of Job:

“Surely there is a mine for silver and a place for gold which they refine. Iron is taken out of the earth, and copper is smelted from the ore. Men put an end to darkness and search out to the farthest limit the ore, in gloom and deep darkness... Man puts his hand to the flinty rock, and overturns mountains by the roots. He cuts out channels in the rocks and his eye sees every precious thing... He dams up streams, so they do not trickle, and things that are hidden he brings forth to light. But where shall wisdom be found, and where is the place of understanding? Man does not know the way to it, and it is not found in the land of the living. The deep says, ‘It is not in me,’ and the sea says ‘It is not with me.’ It cannot be bought for gold, and silver cannot be weighed as its price... It is hidden from the eyes of all the living, and concealed from the birds of the air... God alone understands the way to it, and He knows its place... He established it, and searched it out. And He said to man, ‘Behold, the fear of the Lord, that is wisdom, and to depart from evil, that is understanding.’” Job 28:1 ff.

The difference between science and philosophy, between knowledge and wisdom, is not a difference in degree but in kind. No refinement or amplification of factual knowledge will bring us one step closer to wisdom and understanding, just as no refinement of

special effects will give a movie a profound theme, an engaging plot, or believable characters.

By the way, I think that's the typical difference between the old and new movies and books and philosophical systems and works of art. That's why in all these fields the crude and primitive often seems more profound than the modern and sophisticated. There are a number of distinctions between knowledge and wisdom, science and philosophy. For instance, science is content with immediate proximate explanations and causes, while philosophy seeks ultimate explanations and causes. But I think the most important difference is that wisdom always has a values dimension. Science is, or tries to be, values neutral. Its demand is that of Sergeant Joe Friday on the old *Dragnet* TV series: Just the facts, ma'am.

For instance, science tells you whether you can clone or abort or clone or heal an organism, and how to do it, if you can, but it doesn't tell you whether you should do it, whether it's good. Many contemporary philosophers believe that philosophy can't tell you that, either. They are the moral sceptics, or moral relativists, or moral subjectivists. But philosophy at least raises such questions, tries to give you the answers, where science doesn't. In that way, philosophy is like religion. Philosophy and religion have different methods: reason versus faith. But they ask many of the same questions. Science has not only a different method, but different questions. One of the questions both philosophy and religion ask is the question of philosophical anthropology. What is man? Know thyself, as Socrates famously said, echoing the Delphic oracle.

Another aside here. At the risk of offending many people in any typical modern audience, I shall use standard English rather than politically correct feminist English, and I shall interpret the word man inclusively, as referring equally to males and females, as all books did until the 1960s and 70s, when the linguistic puritans decreed that the word man meant only males, and excluded females, so that when all the authors of all the great books said Man is mortal, or Man is wicked, they really meant to exclude females, since they were of course male chauvinists like everyone else in that horrible oppressive system called western civilization, until the recent sudden enlightenment that went along with the recent glorious sexual revolution. Now, I really don't enjoy offending people especially female people, since I regard them with awe and love and wonder. But honesty compels me to demur

from jumping through the new linguistic hoops, because I cannot help suspecting that to tell Shakespeare and Milton and the translators of the King James Bible what they really meant to say seems to me just a wee bit arrogant. When the psalmist prayed “What is man, that thou art mindful of him?” I cannot bring myself to believe that he was thinking of the awesomeness only of males. Or that he should be censured for not having said instead, “What are males, females, the transgendered, the hermaphroditic, and any other possible or actual arrangement of sexual identity and orientation, that thou art mindful of him, her, them or it?” I don’t think we have enough time or enough paper today to write like that, so doing that is not responsibly modern or up-to-date, for if we do it, we will require an ecological disaster in decimating all of our forests to make all the paper, and we will not have enough time left in our days to serve our slavemasters, our email screens.

The four most important questions philosophy asks are the following: First, what is real? That is the question of metaphysics. Metaphysics goes beyond physics not by focusing on the spiritual instead of the physical, but by asking the most universal questions, questions that pertain to everything real. Second, what are we who ask such questions? That is the question of philosophical anthropology. Third, what should we be and do? That is the question of ethics. Fourth, how do we know such things? How do we know anything? That is the question of epistemology, or theory of knowing.

The questions of ethics are obviously the most interesting, and the most important, and the most necessary, and the most unavoidable. But your ethics is always dependent on your anthropology, and on your metaphysics. For you can’t know what is good for man until you know what man is. And metaphysics always comes in, because what man is depends on what is.

For instance, if souls, spirits, gods, and heavens are all unreal, then you will have a very different ethics, and a very different anthropology than you will have if you believe that they are real. You will have a materialistic one. And if you believe that matter and bodies are unreal, as some philosophies and religions do, then again you will have a very different ethics and a very different anthropology. If spirit is only a myth, then the only real goods are material goods, and virtue is only the habit of giving material things and pleasures to others. If matter is only a dream, then you physicians are only playing with dreams when

you heal bodies. If souls are illusions, man is only an animal with an attitude. If bodies are illusions, man is only a god with a disguise. It is simply impossible to agree on ethics, on how to act, on what is good and what is not, if you disagree about metaphysics or anthropology. And since ethics is unavoidable, so is anthropology. But my topic is not why we need a philosophical anthropology, but why we need a Christian anthropology.

Christianity is not a man-made rational philosophy. It is the God-made revealed religion. Christianity does not contradict reason; nothing true does. But its central claims are not provable by reason alone. That God is a trinity, that God loves us, that God sent his son to die to save us from sin, that Christ is both fully God and fully man, that we will rise from death because He did. To believe these things is to be a Christian, and to disbelieve them is to be a non-Christian. They are the articles of faith. Why are some people Christians? The only honest reason to be a Christian is that you believe these things are true.

Two other reasons often given for being a Christian are to be good and to be happy. Being good and being happy are indeed two very important things. They are both ends rather than means. No one ever wants to be happy only as a means to something else, like getting rich. No one says, "What good is happiness? It can't buy money." And - well, maybe some people do - and no-one ever should be good only as a means to something else, like getting rich or getting elected. No comment there. So happiness and goodness are both ends rather than means.

But truth is also an end, and an absolute. And I think truth even has to trump goodness and happiness, if necessary. And I don't think that's my private opinion, or some controversial philosophical theory. I think that is what you all believe and practice. And I think I can prove it. Is there anyone here who still literally believes in Santa Claus? No. But do you remember how good you were and how happy you were when you were three years old, especially in December, because you did believe that? See how honest you are? You can't sacrifice truth either for goodness or happiness. The only honest reason why anyone should ever believe anything is that it's true. Other motives can count too - that it makes you good and that it makes you happy are valid selling points; but truth has to come first as the foundation for absolutely everything else.

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The fundamental reason we need a Christian anthropology, then, is that a Christian anthropology is true. Not, first of all, because it is a means to some other end, however important that other end may be, such as being wise, and being able to intelligently discriminate between good and evil medical practices. Yes, if we are Christians we will be wiser, because we will know extremely important truths and values that we would not know otherwise, so that we will be able to act more wisely and morally in medicine and in life generally. But truth has to come first; we need to know the truth just to know the truth. Truth is first of all an end, before it can be a means to any other ends. So I will try to list a few things that a Christian anthropology teaches us. Things that we probably would not know, or not fully know, or not certainly know, or not fully appreciate, or not fully understand, without Christianity. All these things also make us and our lives more happy and more good. But the first reason for believing them is that they're true. If they're not true, we shouldn't believe them, even if they make us happy or good.

One thing that a Christian anthropology teaches us is a corollary of my point about the absolute value of truth: we must respect the honest motives of our non-Christian friends when they disagree with us about what is truly good. If, for instance, there is no God, no heaven, and no soul, and if there is no absolute moral law, and if earthly pleasure is the highest end, then suicide and euthanasia appear as quite logical options. Whose life is it, anyway? If it's not God's, it's mine. If God is not my god, I am my own god. As a Southern Baptist preacher once said, "I can summarize the whole Bible in four words. God's trying to get across just two things to us: Number 1 - I'm God. Number 2 - You're not." We keep forgetting that second part, don't we?

Or, alternatively, if matter is a dream, as many Hindus and Buddhists believe, then it logically follows that medical services are optional and dispensable. And compassion and charity to the suffering and dying are not absolute moral obligations. It's quite logical to believe that a dying derelict is working out his karma, the karma of his dream life, and that therefore we shouldn't interfere. Now it may well be true that the motives of the non-Christian are dishonest motives. He may only be trying to weasel out of uncomfortably difficult moral obligations. But that may not be true. He may simply be being honest, like Dr. Rieux in Albert Camus's *The Plague*, who cannot bring himself to

believe in God, even though he knows that the meaning of life is to be a saint, and you can't be a saint without God.

I'm not saying that we should not try to persuade unbelievers to act otherwise. Nor am I saying that the only way to do that is first convert them to Christianity. Often, we can appeal to reason, common sense, or the shards and relics of Christianity that they still have rattling around in their heads without their knowing that they came from Christianity in the first place. Notions like the intrinsic dignity of all men, or inherent and inalienable rights. Many unbelievers will admit such rights. And this admission can logically lead them to God as the necessary foundation of these rights. Just as belief in God logically lead to formulating these rights, historically. Both of those two kinds of argument are possible because you can reason back from the effect to the cause or forward from the cause to the effect. But it makes an enormous difference. If there are such inherent rights, they cannot be abrogated by other people, or by the state, because they were not given by other people, or by the state. If all men have inherent dignity and are to be treated as ends rather than means, then it is reasonable to argue that the only adequate metaphysical basis for this dignity is the existence of God, and the fact that he gave us this dignity by creating us in his image, as persons, as subjects, rather than mere objects. As things that can say I and freely choose.

But people don't have to follow that argument all the way up to God in order to know that we do have inherent rights. Just as they don't have to believe in the Creator in order to know a lot about the creation. For God has left in man's conscience a much more clear and powerful witness about his will than the witness that he has left in man's mind about his nature. The different religions of the world have radically different ideas of God, or the nature of ultimate reality, but they all teach a remarkably similar and remarkably high morality. And even atheists and agnostics often believe this high morality without believing in its metaphysical basis. Religion gives you a much stronger reason, a much stronger foundation, for those moral beliefs. And among religions, Christianity gives the strongest foundation of all.

I will now offer you a short list of some of the central truths about man that are indispensable for a Christian anthropology. They are indispensable because they make a radical difference. They have a radical impact on our lives, and our practice, and our choices, especially

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medical practice and choices. I divide the list into four groups, of four points each.

The first group is four truths that even intelligent, honest atheists and agnostics can know, and often do know, if they're wise enough. The second is four truths that all the great religions of the world teach. The third is four distinctively Christian revelations, and the fourth is four distinctively Catholic ones. When I say distinctively Catholic, I don't deny that many non-Catholics also often agree with the Church about these things, like contraception, for instance.

By the way, I find that my Protestant students at the King's College in New York are much more Catholic on that issue and on many others than my supposedly Catholic students at Boston College. Boston College stands for Barely Catholic (B.C.). We used to be Catholic; now we're Jesuit. Some of my best friends are Jesuits - never mind. Also many Jews, Muslims and even some Hindus, Buddhists, Confucians or Taoists believe some of the things I will call distinctively Christian, such as the loving benevolence of God, and the need for divine grace. Not all of them, but some of them. And many atheists believe some generically religious truths, like the need for humility before a cosmic mystery that engulfs us and transcends us.

So I give you sixteen theses in anthropology, in order of increasing specificity. Four each from philosophical wisdom, from generic religion, from Christianity, and from Catholicism.

I include all four levels because Catholic means two things, both something specific - the faith of the Roman Catholic Church, and something generic, for the word Catholic means literally 'universal'. The pieces of generic universal human wisdom included by Catholicism are just as important as the specific uniquely Catholic points. For grace includes nature and perfects it, rather than setting it aside or offering an alternative to it. In each of these four groups I give you four points because of the four great philosophical questions: metaphysics, anthropology, ethics and epistemology.

### **Four Truths that All Can Know**

First, the four truths about man from the philosophical wisdom that all can know, regardless of religious beliefs or lack of them. The first and perhaps foundational truth of all is the metaphysical truth about humility. Reality is such that man must be humble before it. Man

should be like a child before anything-truth or meaning or value or design or mystery or intelligence-that transcends him, even if this is not God, and even if this is such a mystery that it can never be known. Even some so-called humanists can sense that man is not the supreme reality, and that we are taller when we bow. Even atheists who refuse to adore can be wise enough to have awe and wonder.

Imagine a teenager or young adult who has been raised in a religious environment but who has never personally internalized it, never experienced the basic humility and awe and wonder that is the psychological basis for all religion. This is quite common, for familiarity can breed contempt, and that's true especially of religion, if it doesn't take deeper root. Such a person often experiences religious awe and humility for the first time only after he has repudiated religion and become an atheist or an agnostic. He learns, for instance, about the incredible mysteries of the cosmos. Or he is shattered and shuddered by a haunting piece of music, or by a beautiful woman's face. He has his first religious experience as an atheist. Sometimes that is a necessary beginning for his deeper return to God. God planned it. The prodigal son has to leave home in order to appreciate home.

The second truth is the epistemological truth about honesty and open-mindedness. This flows from the first point, the metaphysical point about humility before reality. We do not know everything. Even if there is no God, we are not God. Our beliefs about anything, therefore, should be revisable in light of future facts, future light, future knowledge. Socrates' lesson number one is to know that we do not really know most of what we think we really know. In other words, there are two kinds of people in the world, fools who think they're wise, and the wise who know they that they're fools. The moral equivalent is Jesus' lesson number two: there are two kinds of people in the world, sinners who think they're saints and saints who know that they're sinners. Without lesson one, we might think that we know it all already, and we won't bother very much with lesson two. Or else we'll limit lesson two to corollaries that we can deduce from our own lesson one, which is not Socratic humility and open-mindedness, but only whatever prejudices we have and refuse to examine.

This point about open-mindedness can threaten a believer's faith whenever that faith is fragile and shakeable. But I think only a faith that has been shaken and has endured can be a faith that is unshakeable.

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And open-mindedness more often changes unbelievers to believers than it changes believers to unbelievers. It changes atheists to agnostics, and makes them open to future revisions, including religious ones.

I think if everyone in the world, believers and unbelievers alike, became much more open-minded seekers of truth, everyone would eventually become a believer. For we have been assured by the very highest authority that all seekers find, eventually. But those who do not seek do not find. Finding does not just happen by accident, anymore than eating does. As mouths need to be opened to be fed, so do minds. Minds cannot be force-fed; there is no intravenous wisdom. As the Koran says, there can be no compulsion in matters of religion.

A corollary of this epistemological point could be called the truth about truth. That truth is an absolute, even if there is no God, no absolute being. And even if there is no other absolute moral law except the law of absolute honesty before truth, man is made for truth. Without this there can be no integrity, no human wholeness. The rest of the things in the universe do not need to have that kind of integrity. Stones have integrity and hold together by merely physical forces, by the integrity of electromagnetism. Plants and animals hold together by their organic unity, by the living, active co-operation of all their organic parts to the single end of growth and health; by the integrity of their DNA. But man becomes one, becomes himself, attains integrity, only by the free fundamental choice to stand in the light of truth, by a fundamental honesty and will to truth, which is the foundation for all communication that is not manipulation. In that word communication we find the word common and the word unity. Man lives in community only by communication, a communication in truth, a common respect for truth.

By the way, in light of this point, I honestly believe that the single most destructive, dehumanizing and dangerous philosophy in the entire history of the world, the only philosophy I cannot see the slightest glimmer of value in, is deconstructionism, which is the denial of truth, and the reduction of all communication to power. Even the Nazis had a sense of truth. Some of them actually believed their strange ideology, unlike the post-war communists. That's why the Nazis had to be defeated by war, while communism simply imploded by itself. And the Nazis even had some sense of honor, even how horribly perverted. But deconstructionism has none of this. Deconstructionism is nothing

more than a very sophisticated and scholarly sneer. Deconstructionism's hero is Nietzsche, a Nietzsche I think they make in their own image. And Nietzsche was the first philosopher to explicitly call into question the will to truth. He wrote, "Here is the most dangerous question: Why truth. Why not, rather, untruth?" This is not a mere mistake; this is deliberate. This is demonic. The Nazis may have been mass murderers, but the deconstructionists are mass sneerers. Murderers may do more harm to their victims, but I think sneerers do more harm to their own souls. The heart of a murderer is nearer to repentance than the heart of a sneerer. A murderer enters the stadium and plays the game of good and evil, though he plays on the evil side. A sneerer refuses even to enter the stadium or play the game. He just stands outside and sneers at both sides.

Third comes the anthropological truth about the intrinsic value of every man. Man is not junk, not trivial. Not absurd, not waste matter. Every thing and every enterprise in human life, including medical enterprises, must serve man, rather than man serving things or enterprises. We eat to live, not live to eat. Even atheists can believe Kant's categorical imperative: Never merely use anyone as a means; always respect everyone as an end. And this can be the basis for a worldwide humanism that is genuine and profound, even though not explicitly religious.

Fourth is the ethical truth about love. Love - the love that is not a mere passing emotion, but a resolved choice of the will, the will to the good of the other, good will, altruism - this kind of love is the highest value in human life. Because only love makes man fully human. Love is not only good ethics; it is good anthropology and good metaphysics, too. It is the way to become more human and more real, as well as more good. A lover augments not only his doing, but his being. Even though love sometimes entails sacrifice, that always pays, deep down in the long run. On your deathbed, you will not regret loving too much. And you will always regret loving too little. He who loses his life for love finds it, even in this life. Even if there is no next life, no resurrection, and no God.

#### **Four Truths that All Religions Teach**

Next come four truths about man from religion, that is, generic, global religious wisdom. First, there's the metaphysical truth about human destiny, or the summum bonum, the greatest good: That the

best answer we can know to the best question we can ask, the question of the ultimate meaning of human life, is the answer common to all the great religions of the world: that the meaning of life is something like God; that our destiny and our fulfillment and our happiness consists in something beyond this world, beyond the secular, beyond the visible and the temporal, even beyond the knowable and the graspable, something that is in fact beyond language to define.

Second is the anthropological truth about human nature: Just as objective morality is much more than it appears to be, so is subjective reality; so are we. We are capable of and destined for something like union with God, mystical experience, nirvana, satori, kensho, moksha, mukhti; an unending, unimaginable, inconceivable infinite ecstasy, something that eye has not seen, ear has not heard, nor has it entered into the heart of man. If this is not quite the common teaching of all the world's religions, it is certainly the common teaching of all the mystics of all the world's religions.

Third is the ethical truth about morality: that the necessary way, the only way to this end, is moral. That morality is an absolute necessity. That you can't be happy unless you are good, even in this life. And you can't be happy in an otherworldly or godlike or heavenly way unless you are good in an otherworldly or godlike or heavenly way. You can be more real than you think, and more good than you think. But these two things are intrinsically connected. A corollary would be an even deeper truth about love. All of the religions of the world rise to a morality that is beyond pragmatic survival, beyond rational justice and equality, even beyond mercy and forgiveness and compassion. They all rise to a morality in which the self must be decentered, in which we must get off the throne of our own lives. They tell us not merely that we must perform acts of generosity, but that we must die to ourselves, die to all selfishness and egotism, however respectable and proper and admired it may be. That we must be born again, radically changed. Christianity alone incarnates this love in God becoming man, and suffering and dying for love of us. But all the religions of the world have at least a precious glimpse of this high and holy ideal.

Fourth is the epistemological truth about the secret of wisdom: The secret of wisdom is gratitude. No one can be wise without it. Why? Because everything is a gift. Existence itself is a gift. That is why Islam - not the institutional religion, but the heart of the religion, namely, surrender, submission - propounds the heart of all true religion;

we must surrender to the gift in order to receive it. We are not just children who need to mature, or students who need to learn, or patients who need to be healed, though we are all that, too; we are rebels who need to surrender. It is pride, greed, egotism, lust, the demand to control and to win, that makes us stupid.

#### **Four Distinctively Christian Revelations**

Next come four truths about man from specifically Christian wisdom. First is the metaphysical truth about man's origin as created in God's image. Jesus revealed a radical new name for God: Father. And he told us to call God our father, too. Like father, like son; that's what's meant by the image of God. And our origin determines our nature and our destiny. And our worth, and how we should be treated. In hospitals as well as in homes. Christianity answers the three most crucial questions about us: our origin, our nature, and our destiny. Or, to quote the title of a famous painting, where have we come from, what are we, where are we going. The first determines the other two. If we came only from dust, or random chance, or apes, then we are only dust, or random dust, or apes. And our destiny is only that of dust, or chance, or apes. And of course, then, it is only right and natural to treat people that way, because it's right to treat them as what they are.

What are people? Because we and Christ have a common father, we are his brothers, and each other's brothers. Because the origin of our being is the fatherhood of God, therefore all people are our family and Christ's family. More than that, they are Christ. They are organs in the body of Christ. Christ astonishingly tells us, "Whatever you do to one of the least of these my brethren, you do to me." And he precedes this point with the rabbinical formula "Verily, verily I say unto you," meaning, "You must take this in the strongest, most literal possible way. Do not water it down, nuance it, allegorize it, or patronizingly think it is an exaggeration to impress impressionable peasants without PhDs."

Second is the anthropological truth about man's nature as fallen and redeemed. According to Christianity, we are both much worse and much better than we think we are. Christian novelists like Dostoyevsky and Dickens, Tolstoy and Tolkien typically stretch our minds amazingly both up and down, to enter heavens and hells. Merely optimistic and merely pessimistic anthropologies are both left in the

dust by this paradox. They are equally simplistic, and any anthropology that dully denies both of these extremes is doubly simplistic. If this is true, we should expect people to shock us, both by their vices and by their virtues. Evil men can have amazingly hidden resources of goodness, and good men amazing hidden resources of evil. In great sufferings, man is capable of incredible heroism, and also of abject despair. Great sinners can become great saints, and great saints can commit great sins. The man Christ chose as his first pope and nicknamed the Rock, the apostle Peter, denied his Lord at His trial. And persecuter Saul became the apostle Paul, the greatest evangelist.

Third is the ethical truth about man's ultimate end, and destiny, and supreme good. It is to become not just a good man, but a son of God, something so glorious that if we saw it now we would fall down and worship it. John Paul the Great used to repeat his two favorite quotations from Vatican II, "Jesus Christ is the meaning of man," and "Jesus Christ alone reveals man to himself." The first means that Christ reveals what we must become, our ultimate end and destiny: we must become Christ. We must become not just imitators of Christ, but incorporated into Christ, organs in his body. He told us, "You must be perfect even as my Father in heaven is perfect." That's why purgatory exists. God will not rest until we have attained the high destiny of perfect holiness. That's what he's designed us for. Like a good human father, God is easy to please, but very hard to satisfy. And that Christ reveals man to himself means that because Christ is perfect man as well as perfect God, he alone shows us ourselves perfectly, as well as shows us God perfectly.

In other words, in Christ nothing is held back; there's nothing more. And God and ourselves are the only two persons that we absolutely need to know, because they're the only two persons that we're never ever able to escape for a single second, either in time or eternity. All persons are eternal, destined for eternity, either for eternal holiness or eternal horror. As C. S. Lewis memorably put it, "There are no ordinary people; you have never met a mere mortal." Nations, arts, cultures, civilizations - these are mortal, and their life is to ours as the life of a gnat. But it is immortals that we work with, play with, marry, snub or exploit. Immortal horrors or everlasting splendors. And all day long we are helping each other to one or the other of these two destinies.

Why do we treat persons differently than we treat animals? Well, unless we are either vegetarians or cannibals, we eat animals and not persons. But why? Because persons are destined for eternity, not just death. You see, a difference in destiny means a difference in value. Imagine two horses. They're identical twins. One is a gift to the king, and will pull the king's chariot during his coronation or his wedding. The other is destined for the glue factory, or the sausage factory. We treat things differently that have different destinies. When we suffer and when we enjoy, when we get sick and when we get well, when we are born and when we die, we're always moving. We're on a road, and every step on the road gets its meaning from the road's end. It's true we are to live in the present, but it's also true that we must live in the future. That's what hope means: believing in the future, not just in the present.

For even when the road takes dark turns, it is a road to heaven or hell. And if that is not true, then our faith is the biggest lie ever told. It's like a woman going through pregnancy and labor pains without there being a baby. Death is the biggie, as Woody Allen calls it. The big enemy, whether in bodies, or souls, or cultures, and Jesus turned death inside out, made death glorious and triumphant, for through its portals we enter into the presence of the living God. Death is the consequence of sin, and the last enemy. But it's also the door to heaven. So Christians hate death much more, and they fear it much less, than anyone else does. They hate it more and fight it more because Christ did. And they fear it less because Christ conquered it. Without both of these transformations, we do not yet have the Christian attitude towards death. Christianity changes everything, because everything is either life or death, and Christianity changes both life and death.

There is also an epistemological truth about the secret of wisdom in Christianity. The secret of wisdom is love. Because love is the nature of God, of ultimate reality, love goes all the way up. And the reason is that God is a Trinity, not just one person who loves, but complete love itself: the lover, the beloved, and the loving. Now this is a point in epistemology because love is not only good ethics, but also the secret of wisdom. The reason why God understands you perfectly, the reason why he is omniscient, is that he loves you perfectly. That's true for God as well as for us. The eye of the heart, the eye of love, is the profoundest, wisest eye of all. As Pascal says, the heart has its reasons which the reason does not know. The heart is not just feeling;

it's seeing. There's an eye in it. And the reason that's true for us is that it's true for the God in whose

image we are made. Just as only the human being who loves you really understands you, so with God. He understands you only because he loves you. It follows that we can understand him only by loving him. That's what Jesus said when the Pharisees asked him how they could understand his teaching, and he replied, "If your will were to do the will of my Father, you would understand my teaching." The heart, the will, the spiritual organ that loves, is the source of understanding. That's why simple saints like Mother Teresa are profound and brilliant, and scholarly theologians can be such idiots.

#### **Four Uniquely Catholic Teachings**

Finally, four truths about man from specifically Catholic wisdom. Christianity is the world's most material religion, the most embodied, because of its central dogma that God not only created all matter and declared it good, and not only made us, his children, to be material creatures, but he even incarnated himself in it. And because the ascension was not the undoing of the incarnation, God has a human nature, body and soul, forever. With regard to matter, Catholic Christianity is to Christianity what Christianity is to religion in general. So the following four points are specifically Catholic, typically Catholic, because they emphasize the holiness of matter. But all four of them are not exclusively Catholic, for I find that many Protestants also believe them, in various degrees. And sometimes more deeply than many Catholics do.

The first is the metaphysical truth about the Church as the body of Christ. From this truth every other distinctively Catholic dogma follows, in the sense that Catholics believe all the distinctively Catholic and non-Protestant things that they do believe, not because they've figured each one out by itself, but because the Church teaches it. And the Church is Christ's body. He said to his apostles, "He who hears you hears me." And in saying so to the apostles, he said so implicitly to their successors, the bishops whom they ordained. They are still among us. And I call this a metaphysical truth, a truth about being, because it says that God, the supreme being, ultimate reality, is here with us now in his ecclesial body, the visible Catholic Church. When we say that the Church is Christ's body, the word is not a metaphor, like the body politic. It is a real body, and its members are organs of this body, not members of a political party. The Church is visible because Christ is visible.

In fact, the Church is Christ as your body is you. You do not have your body; you are your body. Christ does not have the Church; Christ is the Church. Your body is not your corporation, or your prison house, or your instrument, or your house, or your slave, or your machine; it is you. The Church is not Christ's corporation, or prison, or instrument, or house, or slave, or machine; it is him. He is not its CEO, or prison warden, or machine operator, or property tenant, or slavemaster, or machinist; he is her head, and she is his body. She is his bride, and he is her husband, and the essential formula for marriage is that the two become one flesh, one body, one person, one embodied person. That truth is not refuted by the sins and scandals of the Church's members. In fact, that's what makes those sins and scandals so horribly sinful and scandalous. Saint Paul wrote to the Corinthians that when they have sex with prostitutes, they make Jesus Christ have sex with prostitutes. It's that shocking and that literal. Read it. It's in the book. Even when the Church looks like a slum, Christ is not its absentee landlord. What you, as physicians and nurses, are is extensions of God's love to the world, restoring life out of love of life.

In other words, it's God who raises you up, just as he raises up missionaries and preachers and priests and popes. You don't just imitate his work, you do his work, just as they do. And when you heal, you don't just heal bodies, you heal persons, embodied persons. Bodies are not hotel rooms for souls. When I slap your face, or kiss your face, I slap you, or kiss you. Healing your body is healing you. Fixing your house is not fixing you. But fixing your foot is fixing you.

The second distinctively Catholic truth is the epistemological truth about how we can know God. Since God is a person, in fact, three persons, rather than a concept, we know him by contact, not by concept, by what the Germans call *kennen*, not *wissen*. Or by what the French call *connaître*, not *savoir*, a knowing that is a touching, and this means the sacraments. For that is how God touches us. That is where he touches our very life, literally and physically. We know God by concepts, too; that's what the creeds do. They correct our false concepts. But the sacraments correct something deeper: our lived isolation. The Church teaches that Christ established seven sacraments and that they all work objectively; the formula is "*ex opere operato*" ("from the operation of the operator"), which means not impersonal magic, a kind of spiritual technology, but by God's objectively real personal presence and power in them. Just as I am in my slap or in

my kiss, God is in his sacraments. There are also many sacramentals, like icons and holy water, and above all the Bible, which can also mediate his real presence physically. Though they do not work *ex opere operato* because they are not a permanent, personal divine presence always, and because they work through the subjective faith that they elicit in the heart of the believer and the user, rather than through themselves. But they, too, also mediate God's real presence.

And we find sacramentals everywhere. Unlike sacraments, sacramentals have no clear borders. Anything material, like a Christmas present given out of love, can become a sacramental.

A human touch can mediate not just your love but Christ's love. And it can do that even when it is indirect, when the touch is mediated by complex technology, because there's a human touch at its source. If you touch another person with your prosthetic limb, or your scalpel, or your forceps, it is you who do the touching, not just the limb or the instrument. Our technology is like our own prosthetic limbs. You use a scalpel as a sharpened fingernail, or a forceps as an extended pair of fingers. All this resembles, in various degrees, the Eucharist, the archetypal sacrament, the most perfect sacrament. The most complete and perfect presence of Christ in this life is not an out-of-the-body experience, but an in-the-body experience. The most complete and intimate way you can know God, actually touch God, is not in any mystical experience, but in receiving the Eucharist. Even if you don't feel it, every time you receive holy communion you do something angels would envy if they were capable of the sin of envy, something that exceeds the greatest mystical experience of the greatest mystics of all time in its objective perfection and intimacy, though not in subjective feeling. God doesn't give you a mystical high when you receive the Eucharist, because he doesn't want you to get a spiritual sweet tooth, and fall in love with the feeling rather than with him. It's training.

One very practical consequence of this doctrine of the Eucharist concerns death, and the approach of death and the fear of death. When you receive the last rites, the viaticum, and die in the presence of Christ in the Eucharist, and in the presence of Christ in the Church, that is, your family and friends who are also Christ's family and friends, you die with Christ, on his cross with him, and then you see that the cross, like the man on it, is incredibly different than what it looks like. It is a rocketship to heaven. Just as you'd rather be in love in Detroit

than divorced in Hawaii, you'd rather be on the hell of the cross with him than in heaven without him. Apologies to Michiganders. The very essence of heaven is the presence of Christ. He makes the worst thing into the best thing. So that the word we use for the day that saw the most evil, most horrible thing that ever happened in history is Good Friday.

Third comes the central anthropological truth in Catholicism, the truth about the body, and bodily life as holy. Tertullian said, "The flesh is the hinge of salvation." If Christ had not physically shed his blood, we could not be saved. If the woman with the life-long hemorrhage had touched the garment not of Christ but of one of Christ's apostles in the press of the crowd, she would not have been healed. Christ came to us in the body, and continues to come to us through others' bodies. He was conceived and born and lived and died and resurrected and will return in the body, and he now saves us through bodies. Therefore, healing bodies is also healing souls. It's not like repairing cars, but repairing drivers. It is healing something eternal, something that will be raised and recognizable. As Doubting Thomas saw His wounds, I think you will see in heaven the scars from the healing operations you performed on your patients in this life, and I think those scars will be made not of blood but of gold, like badges of honor.

Finally, my fourth distinctively Catholic truth is the ethical truth about the deeper meaning of sex. The sexual revolution is today the single most important revolution in our time, for it concerns not only certain areas of life, like politics or war, but the origin of life itself. Sex is the one area where almost all the conflicts and controversies rage. The area where the culture of death and the culture of life conflict the most. What kind of a difference does a Christian anthropology make to your understanding of human sexuality and the sexual revolution? Well, I'd say the same kind of difference it makes to be awake or asleep. But that's going to take more time than I have left in this talk, because I've gone on for almost an hour, so I think I should leave time for questions, which is essential, because talks exist in order to stimulate questions. Talks are for questions, not questions are for talks. So I want to stop my own monologue now, and dialogue about this first talk now. I'll finish it and give a brief version of my second talk afterwards.

## Chapter 2

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# **Anthropology -According to the Catechism of the Church**

“God created man in his own image, in the image of God he created him, male and female he created them.”(Gen 1:27) Man occupies a unique place in creation: (I) he is “in the image of God”; (II) in his own nature he unites the spiritual and material worlds; (III) he is created “male and female”; (IV) God established him in his friendship.

### **1. “In The Image of God”**

Of all visible creatures only man is “able to know and love his creator” He is “the only creature on earth that God has willed for its own sake”, and he alone is called to share, by knowledge and love, in God’s own life. It was for this end that he was created, and this is the fundamental reason for his dignity:

What made you establish man in so great a dignity? Certainly the incalculable love by which you have looked on your creature in yourself! You are taken with love for her; for by love indeed you created her,

by love you have given her a being capable of tasting your eternal Good.

Being in the image of God the human individual possesses the dignity of a person, who is not just something, but someone. He is capable of self-knowledge, of self-possession and of freely giving himself and entering into communion with other persons. and he is called by grace to a covenant with his Creator, to offer him a response of faith and love that no other creature can give in his stead.

God created everything for man, but man in turn was created to serve and love God and to offer all creation back to him: What is it that is about to be created, that enjoys such honour? It is man that great and wonderful living creature, more precious in the eyes of God than all other creatures! For him the heavens and the earth, the sea and all the rest of creation exist. God attached so much importance to his salvation that he did not spare his own Son for the sake of man. Nor does he ever cease to work, trying every possible means, until he has raised man up to himself and made him sit at his right hand.

“In reality it is only in the mystery of the Word made flesh that the mystery of man truly becomes clear.”

St. Paul tells us that the human race takes its origin from two men: Adam and Christ... the first man, Adam, he says, became a living soul, the last Adam a life-giving spirit. the first Adam was made by the last Adam, from whom he also received his soul, to give him life... the second Adam stamped his image on the first Adam when he created him. That is why he took on himself the role and the name of the first Adam, in order that he might not lose what he had made in his own image. the first Adam, the last Adam: the first had a beginning, the last knows no end. the last Adam is indeed the first; as he himself says: “I am the first and the last.”

Because of its common origin the human race forms a unity, for “from one ancestor (God) made all nations to inhabit the whole earth”:

O wondrous vision, which makes us contemplate the human race in the unity of its origin in God... in the unity of its nature, composed equally in all men of a material body and a spiritual soul; in the unity of its immediate end and its mission in the world; in the unity of its dwelling, the earth, whose benefits all men, by right of nature, may use to sustain

and develop life; in the unity of its supernatural end: God himself, to whom all ought to tend; in the unity of the means for attaining this end;... in the unity of the redemption wrought by Christ for all.

“This law of human solidarity and charity”, without excluding the rich variety of persons, cultures and peoples, assures us that all men are truly brethren.

## **2. “Body and Soul But Truly One”**

The human person, created in the image of God, is a being at once corporeal and spiritual. the biblical account expresses this reality in symbolic language when it affirms that “then the LORD God formed man of dust from the ground, and breathed into his nostrils the breath of life; and man became a living being.” Man, whole and entire, is therefore willed by God.

In Sacred Scripture the term “soul” often refers to human life or the entire human person. But “soul” also refers to the innermost aspect of man, that which is of greatest value in him, that by which he is most especially in God’s image: “soul” signifies the spiritual principle in man.

The human body shares in the dignity of “the image of God”: it is a human body precisely because it is animated by a spiritual soul, and it is the whole human person that is intended to become, in the body of Christ, a temple of the Spirit:

Man, though made of body and soul, is a unity. Through his very bodily condition he sums up in himself the elements of the material world. Through him they are thus brought to their highest perfection and can raise their voice in praise freely given to the Creator. For this reason man may not despise his bodily life. Rather he is obliged to regard his body as good and to hold it in honour since God has created it and will raise it up on the last day.

The unity of soul and body is so profound that one has to consider the soul to be the “form” of the body: i.e., it is because of its spiritual soul that the body made of matter becomes a living, human body; spirit and matter, in man, are not two natures united, but rather their union forms a single nature.

The Church teaches that every spiritual soul is created immediately by God - it is not “produced” by the parents - and also that it is immortal:

it does not perish when it separates from the body at death, and it will be reunited with the body at the final Resurrection.

Sometimes the soul is distinguished from the spirit: St. Paul for instance prays that God may sanctify his people “wholly”, with “spirit and soul and body” kept sound and blameless at the Lord’s coming. The Church teaches that this distinction does not introduce a duality into the soul “Spirit” signifies that from creation man is ordered to a supernatural end and that his soul can gratuitously be raised beyond all it deserves to communion with God.

The spiritual tradition of the Church also emphasizes the heart, in the biblical sense of the depths of one’s being, where the person decides for or against God.

### **3. “Male and Female he Created Them”**

#### ***Equality and difference willed by God***

Man and woman have been created, which is to say, willed by God: on the one hand, in perfect equality as human persons; on the other, in their respective beings as man and woman. “Being man” or “being woman” is a reality which is good and willed by God: man and woman possess an inalienable dignity which comes to them immediately from God their Creator. Man and woman are both with one and the same dignity “in the image of God”. In their “being-man” and “being-woman”, they reflect the Creator’s wisdom and goodness.

In no way is God in man’s image. He is neither man nor woman. God is pure spirit in which there is no place for the difference between the sexes. But the respective “perfections” of man and woman reflect something of the infinite perfection of God: those of a mother and those of a father and husband.

#### **“Each for the Other” - “A Unity in Two”**

God created man and woman together and willed each for the other. the Word of God gives us to understand this through various features of the sacred text. “It is not good that the man should be alone. I will make him a helper fit for him.” None of the animals can be man’s partner. The woman God “fashions” from the man’s rib and brings to him elicits on the man’s part a cry of wonder, an exclamation of love and communion: “This at last is bone of my bones and flesh of

my flesh.” Man discovers woman as another “I”, sharing the same humanity.

Man and woman were made “for each other” - not that God left them half-made and incomplete: he created them to be a communion of persons, in which each can be “helpmate” to the other, for they are equal as persons (“bone of my bones...”) and complementary as masculine and feminine. In marriage God unites them in such a way that, by forming “one flesh”, they can transmit human life: “Be fruitful and multiply, and fill the earth.” By transmitting human life to their descendants, man and woman as spouses and parents co-operate in a unique way in the Creator’s work.

In God’s plan man and woman have the vocation of “subduing” the earth as stewards of God. This sovereignty is not to be an arbitrary and destructive domination. God calls man and woman, made in the image of the Creator “who loves everything that exists”, to share in his providence toward other creatures; hence their responsibility for the world God has entrusted to them.

#### **4. Man in Paradise**

The first man was not only created good, but was also established in friendship with his Creator and in harmony with himself and with the creation around him, in a state that would be surpassed only by the glory of the new creation in Christ.

The Church, interpreting the symbolism of biblical language in an authentic way, in the light of the New Testament and Tradition, teaches that our first parents, Adam and Eve, were constituted in an original “state of holiness and justice”. This grace of original holiness was “to share in... divine life”.

By the radiance of this grace all dimensions of man’s life were confirmed. As long as he remained in the divine intimacy, man would not have to suffer or die. The inner harmony of the human person, the harmony between man and woman, and finally the harmony between the first couple and all creation, comprised the state called “original justice”.

The “mastery” over the world that God offered man from the beginning was realized above all within man himself: mastery of self. the first man was unimpaired and ordered in his whole being because he was free from the triple concupiscence that subjugates him to the

pleasures of the senses, covetousness for earthly goods, and self-assertion, contrary to the dictates of reason.

The sign of man's familiarity with God is that God places him in the garden. There he lives "to till it and keep it". Work is not yet a burden, but rather the collaboration of man and woman with God in perfecting the visible creation.

This entire harmony of original justice, foreseen for man in God's plan, will be lost by the sin of our first parents.

### **In Brief**

*"Father,... you formed man in your own likeness and set him over the whole world to serve you, his creator, and to rule over all creatures" (Roman Missal, EP IV, 118).*

*Man is predestined to reproduce the image of God's Son made man, the "image of the invisible God" (Ò! Col 1:15), so that Christ shall be the first-born of a multitude of brothers and sisters (cf Ò! Eph 1:3-6; Ò!Rom 8:29).*

*"Man, though made of body and soul, is a unity" (GS 14 # 1). the doctrine of the faith affirms that the spiritual and immortal soul is created immediately by God.*

*"God did not create man a solitary being. From the beginning, "male and female he created them" (Ò! Gen 1:27). This partnership of man and woman constitutes the first form of communion between persons" (GS 12 # 4).*

*Revelation makes known to us the state of original holiness and justice of man and woman before sin: from their friendship with God flowed the happiness of their existence in paradise.*

218 Ò! .

219 GS 12 # 3.

220 GS 24 # 3.

221 St. Catherine of Siena, Dialogue IV, 13 "On Divine Providence": LH,

Sunday, week 19, OR.

222 Cf. GS 12 # 1; 24 # 3; 39 # 1.

223 St. John Chrysostom, In Gen. sermo 2, 1: PG 54, 587D-588A.

224 GS 22 # 1.

## Chapter 3

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### Concept of Man: Hebrew Versus Greek

Until we can reconstruct with some confidence the emergence of Gnosticism, it is highly speculative to speak of the influence of Gnostic ideas on the emerging Christian faith. There is, however, a body of Greek literature that contains a view of man and the world very close to that of developed Gnosticism, namely, those Greek philosophical and religious writings that reflect the influence of Platonic dualism. These are writings that are well known and datable; and it is profitable to compare their view of man and the world with the biblical view in both the Old and New Testaments. Such a comparison leads to two conclusions: that the Greek view<sup>1</sup> of man and the world is different in kind from the biblical view; and that the unity and diversity of the several important strands of New Testament thought can be illustrated in terms of this contrast. The basic problem is that of dualism. However, dualism means different things in the Greek view and in the biblical view.

## The Greek View

The view found in Plato and in later thinkers, influenced by him, is essentially the same cosmological dualism as is found in later Gnosticism. Like Gnosticism, Platonism is a dualism of two worlds, one the visible world and the other an invisible “spiritual” world. As in Gnosticism, man stands between these two worlds, related to both. Like Gnosticism, Platonism sees the origin of man’s truest self (his soul) in the invisible world, whence his soul has fallen into the visible world of matter. Like Gnosticism, it sees the physical body as a hindrance, a burden, sometimes even as the tomb of the soul. Like Gnosticism, it conceives of salvation as the freeing of the soul from its entanglement in the physical world that it may wing its way back to the heavenly world. Two further elements found in Gnosticism do not appear in the Platonic philosophers: that matter is ipso facto the source of evil, and that redemption is accomplished by a heavenly redeemer who descends to earth to deliver the fallen souls and lead them back to heaven.

The biblical dualism is utterly different from this Greek view. It is religious and ethical, not cosmological. The world is God’s world; man is God’s creature, although rebellious, sinful and fallen. Salvation is achieved not by a flight from the world but by God’s coming to man in his earthly, historical experience. Salvation never means flight from the world to God; it means, in effect, God’s descent from heaven to bring man in historical experience into fellowship with himself. Therefore the consummation of salvation is eschatological. It does not mean the gathering of the souls of the righteous in heaven, but the gathering of a redeemed people on a redeemed earth in perfected fellowship with God. The theologies of the Synoptic Gospels, of John, and of Paul are to be understood in terms of this Hebrew dualism, and each of them stands in sharp contrast to the Greek dualism. The unifying element in New Testament theology is the fact of the divine visitation of men in the person and mission of Jesus Christ; diversity exists in the progressive unfolding of the meaning of this divine visitation and in the various ways the one revelatory, redeeming event is capable of being interpreted.

Since radical differences between Greek and Hebrew ways of thinking have recently been challenged,<sup>2</sup> we must now develop our thesis and document it in detail. The foundations of the Greek view

## Theological Anthropology

go back to the theology of the Orphic sect, which came to light in Greece in the sixth century B.C., and spread throughout the Greek world and into southern Italy, profoundly influencing Plato and later Greek thought. This theology is embodied in the ancient myth of Zagreus (Dionysus), begotten by Zeus of Demeter. Zagreus fell under the power of the Titans, wicked enemies of Zeus. In his effort to escape them, Zagreus changed himself into a bull; but the Titans captured him, tore him to pieces, and devoured him. However, Zeus blasted the Titans by a flash of lightning, and from their ashes arose the human race. Mankind thus possesses two elements: a divine element from Zagreus and a wicked element from the Titans. This mythology expresses the Orphic theology of the dualism of body and soul. Man must free himself from the Titanic elements and, purified, return to the gods, a fragment of whom is living in him. Expressed in other words, "man's duty is to free himself from the chains of the body in which the soul lies fast bound like the prisoner in his cell."<sup>3</sup> This freedom is not easily achieved. Usually the soul at death flutters free in the air, only to enter into a new body. It may pass through a series of deaths and reincarnations. Finally, by the sacred rites of the cult and by a life of ascetic purity, man may escape the wheel of birth and become divine.<sup>4</sup>

The main elements of this Orphic dualism appear in Plato's concept of man and the world. His cosmic dualism is paralleled by his anthropological dualism. The soul of man in his earthly existence is composite, consisting of the reasoning part or mind (*nous*), the spirited or courageous part (*thumos*), and the appetitive part (*epithumia*). These three parts of the soul are located respectively in the head, the chest, and the midriff.<sup>5</sup> The highest part, mind, being divine and immortal, pre-existed before the creation of the body<sup>6</sup> and was made out of the same material as the soul of the universe by the Creator (*Demiurge*) himself.<sup>7</sup> The creation of the body and the two lower parts of the soul were entrusted to the young gods,<sup>8</sup> apparently to relieve the *Demiurge* of direct responsibility for evil. The lower parts of the soul, like the body, are mortal. Human experience is a struggle between the higher and lower parts of the soul. While Plato in this way locates moral evil in the soul, it is in that part of the soul that was created with the body and, like the body, is mortal. Most of the time, Plato speaks of the soul as simple in essence, and as the enemy of the body with its appetites and passions. "The soul is most like the divine

and immortal and intellectual and indissoluble and unchanging, and the body, on the contrary, most like the human and mortal and multiform and unintellectual and dissoluble and ever-changing.”<sup>9</sup> The soul partakes of the nature of the divine, which Plato understands to consist of such qualities as beauty, wisdom, and goodness,<sup>10</sup> which have objective existence in the realm of the invisible and incorporeal. The soul, then, belongs to the noumenal world and descends from this higher world into the phenomenal world of bodily existence whence it strives to regain its proper place in the higher world.

Plato likens this struggle to a charioteer driving two winged horses, one noble and the other ignoble. The noble horse wishes to mount up to the sky, to the realm of the divine eternal realities; it represents the divine immortal part of the soul whose proper realm is the region above the heaven of “the colourless, formless, and intangible truly existing essence [*ousia ontos ousa*] with which all true knowledge is concerned.”<sup>11</sup> The ignoble horse - the lower part of the soul - drags downward toward the earth, and, if it is not disciplined, corrupts the soul with impurities. “There the utmost toil and struggle await the soul.”<sup>12</sup>

The body is thus the enemy of the soul, for it is a mass of evil,<sup>13</sup> and serves as a prison for the soul.<sup>14</sup> The body hinders the soul from the acquisition of knowledge.<sup>15</sup> Plato stops short of thoroughgoing dualism of mind/matter,<sup>16</sup> in which matter is *ipso facto* evil as in later Gnosticism. “But Plato constantly... conjures up a sense of that inert, negative, imperfect kind of being which is opposed to mind or soul, to purpose or good, and which as such is a source of evil, or is indeed evil itself.”<sup>17</sup> There is some kind of necessity (*ananke*) in matter which makes it intractable to goodness, reason, and mind.

In a real sense of the word, salvation for Plato is by knowledge. “Wherefore we should seek to escape hence [from this world] to that other world as speedily as we may; and the way of escape is by becoming like to God so far as we can; and the becoming like is becoming just and holy by taking thought” [*meta phroneseos*].<sup>18</sup> Man’s highest exercise is the cultivation of the mind and the control of the body; this is the object of the wise man, the philosopher. The mind can apprehend truth; but the bodily senses can hinder the soul from the acquisition of knowledge. Therefore the mind must have as little to do as possible with the body.<sup>19</sup> The philosopher despises all but the necessary bodily needs that he may devote himself to the

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soul.<sup>20</sup> The philosopher who succeeds in controlling the body and cultivating the mind will think thoughts that are immortal and divine. He lays hold on truth and partakes of immortality so far as that is possible. Those who attain this beatific<sup>21</sup> vision are loath to descend to human affairs, but their souls are ever hastening into the upper world in which they desire to dwell<sup>24</sup> because this escape from the earth is to become like God.<sup>26</sup> “When the soul inquires alone by itself, it departs into the realm of the pure, the everlasting, the immortal and the changeless, and being akin to these, it dwells always with them whenever it is by itself and is not hindered... And this state of the soul is called wisdom.”<sup>27</sup>

Upon death, the souls of such wise men and philosophers, having been purified from the body, depart to the realm of the noble, pure, invisible, and immortal, to the realm of the good and wise god, where in happiness and freedom from all human ills they will live in truth through all time with the gods.<sup>28</sup> The souls that were not purified but which loved the body with its appetites and were thus interpenetrated with the corporeal<sup>29</sup> must undergo a series of reincarnations, each suitable to the character of the individual’s earthly existence.<sup>30</sup>

The influence and prevalence of the Platonic dualism may be realized by the fact that it is found in widely different quarters in New Testament times. We refer here only to two: the Greek Plutarch and the Jew Philo.

Plutarch provides us with a vivid picture of the state of Greek religion in educated circles in the late first century. He was thoroughly nurtured in Greek thought, culture, and religion, and his chief aim was to harmonize traditional Greek religion with Greek philosophy, represented primarily by Plato,<sup>31</sup> and to avoid the twin evils of atheism and superstition. We cannot give here a comprehensive treatment of Plutarch’s thought,<sup>32</sup> but we shall only illustrate by his work the persistence of Platonic dualism in the Hellenistic world. The heart of Plutarch’s philosophical thought is the same cosmological and anthropological dualism found in Plato, tied together with Hellenistic cosmology.

In his dialogue *The Face of the Moon* we find an eschatological myth about human destiny.<sup>33</sup> Man consists of body and soul, but the soul is itself complex, consisting of soul and mind.<sup>34</sup> Only mind is

immortal, although the soul survives the death of the body. After this death, man's mind-soul must spend time in a sort of Hades, which occupies the space between the earth and the moon. Here man must die a second death, when the soul is gently and slowly purged so that man is finally reduced to his one immortal part - mind alone. This purifying process consists in purging away the pollutions that were contracted from the body.

This process of purification is neither uniform nor uniformly successful. Some souls succeed in purging away all of the evil influences of the body, that is, in making the irrational element in the soul completely subordinate to reason. Other souls are so laden with evils from bodily existence that the purification is incomplete and they fall back again to earth to be reborn in different bodies. Those who achieve purification and gain a firm foothold on the moon are converted into daemons - a race of disembodied souls who serve as intermediaries between God and men.<sup>35</sup>

Here we have the same elements we have found in Plato's dualism: two worlds, the phenomenal or material, and the conceptual;<sup>36</sup> a complex soul with the mind as its highest and most divine faculty;<sup>37</sup> the body as a source of evil and pollution to the mind;<sup>38</sup> this world as an alien place from which the soul must escape to find its true destiny;<sup>39</sup> salvation consisting of purification from the pollution incurred in bodily life and the freeing of the mind from bodily and worldly evil.<sup>40</sup> The disembodied souls that have become daemons are not yet perfected; they can fall back and be reborn on earth. Final destiny is to be released from the cycle of birth<sup>41</sup> and to attain a permanent place in the heavenly realm.

Plutarch no more regards matter as evil *ipso facto* than did Plato.<sup>42</sup> The material world is, nevertheless, the sphere of evil and is evil in its functioning.<sup>43</sup> The evil nature of the world is further reflected in his idea of God and God's relationship to the world. God is described in philosophical language<sup>44</sup> and also in terms of mind and reason.<sup>45</sup> He cannot come into direct contact with the evil world or be the author of anything evil.<sup>46</sup> Philo often speaks of the body as the enemy of the soul. While he does not recognize matter *ipso facto* as evil,<sup>47</sup> the body is a foul prison-house of the soul,<sup>48</sup> like a sackcloth robe,<sup>49</sup> a tomb

(sema),<sup>50</sup> a grave (trumbos).<sup>51</sup>

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Some souls “sink beneath the stream” of bodily materiality, so that the vision of the heavenly is lost. But those who pursue wisdom and philosophy, namely, God, those who discipline the body and cultivate the mind, “soar upwards” to behold the wonders of the heavenly realm. Philo describes this experience of “salvation” in the language of the Greek mysteries as though it involved ecstatic vision.

For when the mind soars aloft and is being initiated in the mysteries of the Lord, it judges the body to be wicked and hostile. ... The philosopher, being enamored of the noble thing that lives in himself, cares for the soul, and pays no regard to that which is really a corpse, the body, concerned only that the best part of him, his soul, may not be hurt by an evil thing, a very corpse, tied to it. ... When, then, O soul, wilt thou in fullest measure realize thyself to be a corpse-bearer? Will it not be when thou art perfected and accounted worthy of prizes and crowns? For then shalt thou be no lover of the body, but a lover of God. ... For when the mind has carried off the rewards of victory, it condemns the corpse-body to death.<sup>52</sup>...

The rational part of the soul, which was pre-existent, is incorruptible and immortal,<sup>53</sup> and at death “removes its habitation from the mortal body and returns as if to the mother-city, from which it originally moved its habitation to this place.”<sup>54</sup> This native home of the soul to which it returns after death is the heavens, where it rejoins the angels, who are pure souls who have never entered into bodies.<sup>55</sup> There is no trace of the idea of the resurrection of the body in Philo. The destiny of men is not a redeemed society living on a transformed earth; it is the flight of the soul from earth to heaven. In this basic thinking about man and his destiny, Philo is quite Greek and Platonic.

### **The Old Testament View**

The Old Testament view of God, man, and the world is very different from Greek dualism. Fundamental to Hebrew thought is the belief that God is the creator, that the world is God’s creation and is therefore in itself good. The Greek idea that the material world is the sphere of evil and a burden or a hindrance to the soul is alien to the Old Testament.

When God created the world, he saw that it was good (Gen. 1:31). The world was created for God’s glory (Ps. 19:1); the ultimate goal

and destiny of creation is to glorify and praise its creator (Ps. 98:7-9). The Hebrews had no concept of nature; to them the world was the scene of God's constant activity. Thunder was the voice of God (Ps. 29:3, 5); pestilence is the heavy hand of the Lord (I Sam. 5:6); human life is the breath of God inbreathed in man's face (Gen. 2:7; Ps. 104:29).

To be sure, the world is not all it ought to be. Something has gone wrong. But the evil is not found in materiality, but in human sin. In creation, God displayed his goodness by making man the chief of all his creatures and by subjecting the created world to man's care (Gen. 1:28), entrusting to him dominion over all other creatures. When man in proud self-assertion refused to accept the role of creature hood, when he succumbed to the temptation to "be like God" (Gen. 3:5) and fell into sin, God placed the curse of death upon man and the burden of decay and evil upon the entire world, so that man might be continually reminded of the fundamental fact that sin disrupts the enjoyment of God's gifts, even in the physical realm. Life and happiness are God's gifts; pain, toil and death are the toll of sin.

The Old Testament never views the earth as an alien place nor as an indifferent theater on which man lives out his temporal life while seeking a heavenly destiny. Man and the world together belong to the order of creation; and in a real sense of the word, the world participates in man's fate. The world is affected by man's sin. Although the world was designed to reflect the divine glory and still does so, it is a tainted glory because of sin. This intimate relationship is sometimes expressed poetically. Because of human wickedness, the land mourns, and all who dwell in it languish, also the beasts of the field and the birds of the air and, even the fish of the sea are taken away" (Hos. 4:3).

Behind this concept of man and the world is the God's theology that both man and the world are God's creation, and that man's true life consists in complete obedience to and dependence upon God. This can and be illustrated by the Old Testament concept of life. There is no antithesis between physical and spiritual life, between the outer and the inner dimensions in man, between the lower and higher realms. Life is viewed in its wholeness as the full enjoyment of all of God's gifts. Some Christian theologies would consider this crassly materialistic; but a profound theology underlies it. Life, which can be enjoyed only from the perspective of obedience to God and love for him (Deut. 30:6), means physical prosperity, productivity (Deut. 30:9),

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a long life (Ps. 34:12; 91:16), bodily health and well-being (Prov. 4:22; 9:23; 22:4), physical security (Deut. 8:1); in brief, the enjoyment of all of God's gifts (Ps. 103:1-5). However, the enjoyment of these good things by themselves cannot be called life, for life means the enjoyment of God's gifts in fellowship with God. It is God alone who is the source of all good things, including life itself (Ps. 36:9). Those who forsake the Lord will be put to shame, for they have abandoned the fountain of life (Jer. 17:13). While health and bodily well-being are included in life, man does not live by bread alone; and the enjoyment of God's gifts apart from obedience to the word of God is not life (Deut. 8:3). Life, therefore, can be simply defined as the enjoyment of God's gifts in fellowship with the God who gives them. God alone has the way of life; it is only in his presence that there is fullness of joy and everlasting pleasures (Ps. 16:11).

Behind this understanding of life is a profound theology. Man shares with nature the fact of creaturehood. But man stands apart from all other creatures in that he was created in the image of God. For this reason, he enjoys a relationship to God different from that of all other creatures. However, this does not mean that men will ever transcend creaturehood. Indeed, the very root of sin is unwillingness to acknowledge the reality and implications of creaturehood. The fact that man is a physical creature in the world is neither the cause nor the measure of his sinfulness and thus a state from which he must be delivered. Sin does not result from the body's burdening down the soul or clouding the mind; it results from rebellion of the will, the self. The acceptance of man's creaturehood, the confession of complete and utter dependence upon the Creator God, is essential to man's true existence. Man truly knows himself, recognizes his true self, only when he realizes that he is God's creature. Then he accepts the humble role of one whose very life is contingent upon God's faithfulness and whose chief joy is to serve and worship his Creator. The root of sin is found not in succumbing to the physical side of his being, but in the intent to lift himself out of his creaturehood, to exalt himself above God, to refuse to give God the worship, praise, and obedience that are his due.

For this perspective salvation does not mean deliverance from creaturehood, for it is an essential and permanent element to man's essential being. For this reason the Old Testament never pictures

ultimate redemption as a flight from the world or escape from earthly, bodily existence. Salvation does not consist of freeing the soul from its engagement in the material world. On the contrary, ultimate redemption will involve the redemption of the whole man and of the world to which man belongs. This is the theology behind the doctrine of bodily resurrection, which only begins to emerge in the Old Testament<sup>56</sup> but which is clearly developed in Judaism and the New Testament.

The same basic theology is seen everywhere in the prophets in their hope of the redemption of the world. While the prophets in only a few places speak of resurrection (e.g., Isa. 25:8; Ezek. 37; Dan. 12:2), they constantly look forward to the consummation of God's redemptive purpose on a transformed earth. The nature of this transformation is diversely described. Sometimes the new world is depicted simply in terms of material abundance. The land will become so fruitful that there will be no lapse between the seasons. The grape harvest will be so prolific that the hills will be inundated in rivers of wine. War and devastation will be replaced by peace and security (Amos 9:13-15). On other occasions the transformation will be more radical. Isaiah describes it as new heavens and a new earth (65:17; 66:22), where premature death will be banished, peace and security enjoyed, and the curse of violence lifted from nature. "The wolf and the lamb shall feed together, the lion shall eat straw like an ox. They shall not hurt or destroy in all my holy mountain, says the Lord" (Isa. 65:25).<sup>57</sup>

The world is to be redeemed from its bondage to evil not by any process of gradual evolution nor through any powers resident in the world, but by a mighty act of God - a divine visitation. Some scholars have held that two different kinds of eschatology are to be found in Judaism: an authentic prophetic Hebrew hope that looks for an earthly kingdom arising out of history, and a dualistic hope that resulted from despair of history as the scene of God's Kingdom and in its place looked for a transcendental order to be inaugurated by an irruption into history of the heavenly order. We believe this critical theory to be unsupported by our sources, and we have argued at length that the prophetic hope never looks for the establishment of God's Kingdom to result from forces imminent within history but only by a divine visitation - an irruption from outside into history.<sup>58</sup> Even in the oldest

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conceptions, God's kingship could be absolutely established only at the cost of a great change that would make an end of the present state of things and witness the establishment of something new. "There is no eschatology without rupture."<sup>59</sup> In the careful words of H. H. Rowley, the Day of the Lord was conceived "as the time of the divine inbreaking into history in spectacular fashion. While God was believed to be always active of the plane of history, using nature and men to fulfill his ends, the Day of the Lord was thought of as a day of more direct and clearly manifest action."<sup>60</sup>

While the prophets looked forward to a final visitation of God to redeem both God's people and the physical world, they were not pessimistic about the nature of historical existence before the coming of the Day of the Lord. One of the wholesome emphases of modern biblical theology is the acting of God in history. G. Ernest Wright has promoted the view that biblical theology is the recital of the redeeming and judicial acts of God in history;<sup>61</sup> and perhaps the greatest contemporary work on Old Testament theology - that of Gerhard von Rad - is a theology of the kerygma: the proclamation of the mighty deeds of God in history. James Barr has provided a healthy emendation of the view by insisting that in the thought of the Old Testament revelation does not occur in events alone but also in words.<sup>62</sup> von Rad recognizes that the acts and the words belong together. "History becomes word, and word becomes history."<sup>63</sup> Several years ago, the present author expounded a similar view. God does reveal himself in events; but the events do not speak for themselves. Their inner meaning must be set forth in words. Thus revelation occurs in an event-word complex, the prophetic interpreting word being an integral part of the event.<sup>64</sup>

Back of this concept of revelation is a profound theology of God: a living, personal God who is known to man because he chooses to reveal himself by visiting man in history. The God of the Old Testament is always "the God who comes."<sup>65</sup> "Let the floods clap their hands; let the hills sing for joy together - before the Lord, for he comes to rule the earth" (Ps. 98:8). "The Lord came from Sinai, and dawned from Sinai upon us; he shone forth from Mount Paran, he came from the ten thousands of holy ones, with flaming fire at his right hand" (Deut. 33:2). "For behold, the Lord is coming forth out of his place, and will come down and tread upon the high places of the earth. And

the mountains will melt under him and the valleys will be cleft like wax before the fire, like waters poured down a steep place” (Mic. 1:3-4). He came to Israel in Egypt to make them his people; he came to them again and again in their history; he will come again in a final eschatological visitation in the future to judge wickedness and to establish his Kingdom.<sup>66</sup>

For our present purpose, the important thing to note is the difference between the Hebrew and the Greek views of reality. For the Greek, the world, nature, human history - in sum, the sphere of the visible - formed the realm of flux and change, of becoming, of the transient. Reality belonged to the realm of the invisible, the good, the unchanging, which could be apprehended only by the mind of the soul transcending the visible. Thus salvation was found in the flight of the soul from the world to the invisible world of God.

For the Hebrew, reality was found in God who makes himself known in the ebb and flow of both nature and historical events by his acts and by his words. God comes to men in their earthly experience. Thus the final redemption is not flight from this world to another world; it may be described as the descent of the other world - God's world - resulting in a transformation of this world.

The contrast between the Greek and Hebrew views of God and the world is reinforced further by the Old Testament anthropology. Hebrew man is not like the Greek man - a union of soul and body and thus related to two worlds. He is flesh animated by God's breath (ruach), who is thus constituted a living soul (nephesh) (Gen. 2:7; 7:22). Nephesh (soul) is not a part of man; it is man himself viewed as a living creature. Nephesh is life, both of men (Ex. 21:23; Ps. 33:19) and of animals (Prov. 12:10). If nephesh is man as a living creature, it can be used for man himself and indicate man as a person,<sup>67</sup> and also become a synonym for “I,” “myself.”<sup>68</sup> By an easy extension, nephesh is man seen in terms of his appetites and desires (Eccl. 6:2, 7) or in terms of his emotions or thoughts (Hos. 4:8; Ps. 35:25; Gen. 34:8; Ps. 139:14; Prov. 19:2).

If nephesh is man's life, it can be said to depart at death (Gen. 35:18; I Kings 17:21) or return if a person revives (I Kings 17:22). If the nephesh stands for man himself, it can be said that his nephesh departs to the underworld or sheol at death (Pss. 16:10; 30:3;

94:7). However, the Old Testament does not conceive of disembodied souls existing in the underworld after departing from the body, as do Homer and other early Greek writers.<sup>69</sup> The Old Testament does not see souls in sheol, but shades (rephaim), which are a sort of pale replica of man as a living creature.<sup>70</sup> These shades are not altogether different from Homer's souls in Hades, and both represent a common conviction of natural theology, namely, that death is not the end of human existence, but that life in its fullness must be bodily life.

However, in following the course of their development, the Greek and the Hebrew thought sharply diverge. The Greeks, as we have seen, came to believe that there was something divine about the soul and that it must find release from bodily existence to take its flight to the stars. Hebrew thought developed very differently. There began to emerge, even in the Old Testament, the conviction that if men enjoy fellowship with God in life, this fellowship could not be broken by death. "For thou dost not give me [lit., my soul] up to sheol, or let thy godly one see the pit. Thou dost show me the path of life; in thy presence there is fullness of joy, in thy right hand are pleasures forevermore" (Ps. 16:10-11). "But God will ransom my soul from the power of sheol, for he will receive me" (Ps. 49:15). "Thou dost guide me with thy counsel, and afterward thou wilt receive me to glory" (Ps. 73:24). While such sayings hardly provide us with material for a doctrine of the intermediate state, they do express the undying conviction of the "imperishable blessedness of the man who lives in God."<sup>71</sup> They cannot conceive of this fellowship being broken, even by death. As Martin-Achard says, "Without actually being aware of it, the Hasidim are battering the gates of the kingdom of the dead; without reaching the positive assertion of the immortality or resurrection of the believer... they are preparing the way for future generations to proclaim that death is impotent against those who are living in communion with the living God."<sup>72</sup> Later Judaism developed the idea of an intermediate state and sometimes identified the dead as souls, or conceived of the soul as existing after death.<sup>73</sup> However, unless there is Greek influence, as in the Wisdom of Solomon (8:19), the continuing existence of the soul in sheol is not due to some intrinsic quality of immortality which it shares with God but to the conviction that since God is the living God and master of both life and death, there must be a blessed destiny for individuals as well as for the

nation. Almost always in Judaism, the individual hope finds its realization in bodily resurrection. In only a few places do we find the idea of a blessed immortality of the soul in heaven.<sup>74</sup>

We may now summarize our findings as to the difference between the basic Greek and Hebrew dualism. Greek dualism is that of two worlds, the visible and the invisible, the phenomenal and the noumenal, becoming and being, appearance and reality. Man belongs to both worlds by virtue of the fact that he is both body and soul or mind. "God" can be known only by the control of the bodily appetites, that the mind may be free from material pollutions to contemplate the divine realities. Finally, the soul must escape from the wheel of bodily existence to return to the divine world where it really belongs.

The Hebrew view is not a dualism of two worlds, but a religious dualism of God versus man. Man is God's creature; creation is the realm of God's constant activity; and God makes himself known and speaks to men in the ebb and flow of history. Man is not a bipartite creature of the divine and human, of soul and body; in his total being he is God's creature and remains a part of creation. Therefore the redemption of man and the redemption of creation belong together. Salvation consists of fellowship with God in the midst of earthly existence and will finally mean the redemption of the whole man together with his environment. At the heart of the Old Testament view is God - a living personal being - who visits man in earthly existence to establish fellowship with himself and who will finally visit man to establish his perfect rule and redemption in the world.

In sum, the Greek view is that "God" can be known only by the flight of the soul from the world and history; the Hebrew view is that God can be known because he invades history to meet men in historical experience.

George Eldon Ladd: This is an article an extract from Dr. Ladd's book, *The Pattern of New Testament Truth*, which is an outstanding introduction to the New Testament. Dr. Ladd is Professor of New Testament Exegesis and Theology at Fuller Theological Seminary.

## Footnotes

- <sup>1</sup> We are deliberately using the expression, the “Greek view,” in spite of Prof. Barr’s protest against it (*Old and New in Interpretation* [1966], p.39) because the Platonic dualism is roughly similar to Gnostic dualism, and the contemporary debate centers around the influence of this dualism on the New Testament. It is obvious, as Barr points out, that the Platonic view is not the only Greek view. Indeed, Guthrie says that Stoicism might be called the representative philosophy of the Hellenistic and Graeco-Roman ages (*A History of Greek Philosophy* [1962], 1,17). However, Stoic pantheistic materialism with its all-permeating divine fire is philosophically the opposite of dualism and plays no role in the current debate on syncretism. We shall show that the Platonic view was of wide currency in New Testament times; and in view of its later influence on Christian theology, we feel justified in calling it the Greek view.
- <sup>2</sup> See James Barr, “Athens or Jerusalem? - The Question of Distinctiveness,” in *Old and New in Interpretation* (1966).pp.34-64.
- <sup>3</sup> E.Rohde, *Psyche* (1925), p.342.
- <sup>4</sup> For Orphic doctrine, see Rohde, *op. cit.*, pp.335-361; E. O. James in *Judaism and Christianity*, ed. W. O. E. Oesterley (1937), I, 43-46; W. K. C. Guthrie, *Orpheus and the Greek Religion* (1952).
- <sup>5</sup> *Timaeus* 69D-70A; *Republic* 439-441.
- <sup>6</sup> See Plato’s argument for pre-existence based on memory, *Phaedo* 72E.
- <sup>7</sup> For Plato’s idea of God, see W. E. Greene, *Moirra* (1948), pp. 286f., 291.
- <sup>8</sup> *Timaeus* 41c.
- <sup>9</sup> *Phaedo* 80B.
- <sup>10</sup> *Phaedrus* 246E.
- <sup>11</sup> *Phaedrus* 247c.
- <sup>12</sup> *Ibid.*. 247B.
- <sup>13</sup> *Phaedo* 66B.
- <sup>14</sup> *Ibid.*. 82E: 62B; *Republic* 517B; *Cratylus* 400C. Plato considers the Pythagorean concept soma-sema (see also *Gorgias* 493A), and while he does not accept sema (tomb) as an explanation for soma (body), he does liken the body to a prison.
- <sup>15</sup> *Phaedo* 66.
- <sup>16</sup> In precision, we ought not speak of a “spiritual” world, for Plato does not use the word *pneuma* of the noumenal world; it is the world of forms or ideas that are beheld by the mind, the highest part of the soul.
- <sup>17</sup> Greene, *Moirra*, p.302.
- <sup>18</sup> *Theatetus* 176A (Greene’s trans.); See *Moirra*, p.302.
- <sup>19</sup> *Phaedo* 65B.
- <sup>20</sup> *Ibid.*. 64D, 82c, 114E.
- <sup>21</sup> *Timaeus* 90c.
- <sup>25</sup> *Republic* 517D.
- <sup>26</sup> *Theatetus* 1 76B.
- <sup>27</sup> *Phaedo* 79D. See also *Phaedrus* 247.
- <sup>28</sup> *Ibid.* 800-81 A.

- <sup>29</sup> Ibid. 81B.
- <sup>30</sup> Phaedrus 249. For further notes on the fate of impure souls, see Rohde, *Psyche*, pp. 481ff.
- <sup>31</sup> M. Nusson, *Geschichte der griechischen Religion* (1961). II, 402f.
- <sup>32</sup> There is a serious lack of up-to-date works on Plutarch in English. See John Oakesmith, *The Religion of Plutarch* (1902); T. R. Glover, *The Conflict of Religions in the Roman Empire* (1909), pp.75-112.
- <sup>33</sup> *Face of the Moon*, 940F-945D. All references to Plutarch are to the fifteen volumes of the Loeb edition, which is very serviceable because of the continuous numbering employed throughout the volumes.
- <sup>34</sup> Elsewhere Plutarch reflects Plato's idea of the preexistence of the soul and an epistemology of knowledge of life in this former existence. See *Consolation to His Wife*, 611 E. "Its most generous fault [viz. of old age] is to render the soul stale in its memories of the other world and make it cling tenaciously to this one."
- <sup>35</sup> This same mythology is found with more elaborate detail in *Divine Vengeance* 560F-567E, and *The Sign of Socrates* 590A-594A.
- <sup>36</sup> *Isis and Osiris* 373F. Osiris lives "far removed from the earth, uncontaminated and unpolluted and pure from all matter that is subject to destruction and death." while the souls of men are "compassed about by bodies and emotions," they can have only a dim vision of the heavenly world. "But when these souls are set free and migrate into the realm of the invisible and the unseen, the dispassionate and the pure. then this god becomes their leader."
- <sup>37</sup> See *Isis and Osiris* 353A; 371A. Intelligence is the eye of the soul. *Divine Vengeance* 563E.
- <sup>38</sup> *E at Delphi* 432A.
- <sup>39</sup> In *Consolation to His Wife* 611 E, Plutarch says that the soul is imperishable. It is like a captive bird that can become so tamed by this life and bodily existence that upon escaping the body at death, it alights again and re-enters the body, and does not leave off or cease from becoming entangled in the passions and fortunes of this world through repeated births. In *Divine Vengeance* 590, the soul is released from the body and finds great relief in being set free from the confines of bodily existence.
- <sup>40</sup> *Obsolescence of Oracles* 415B-c; *E at Delphi* 432c. Disembodied souls that succeed in rising above the bodily passions rise to heaven, "shaking oft a sort of dimness and darkness as one might shake oft mud" (*Divine Vengeance* 591F).
- <sup>41</sup> *Divine Vengeance* 590c.
- <sup>42</sup> The evil element is "formlessness and disarrangement" (*Obsolescence of Oracles* 428F); evil is "innate, in large amount, in the body and elsewhere in the soul of the universe" (*Isis and Osiris* 371A). Elsewhere, the material world is not evil but "orphaned, incomplete, and good for nothing, unless there be an animating soul to make use of it" (*E at Delphi* 390E). Plutarch does attribute to Plato the view that matter is evil (*Obsolescence of Oracles* 414F).
- <sup>43</sup> "Nature must have in herself the source and origin of evil. just as she contains the source and origin of good" (*Isis and Osiris* 3690).
- <sup>44</sup> "What, then, really is Being? It is that which is eternal, without beginning and without end, to which no length of time brings change" (*E at Delphi* 392E-393C). God is free from emotion and activity (*Obsolescence of Oracles* 420E).

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- 45 "God gives to men... of sense and intelligence [nous kai phronesis]... only a share, inasmuch as these are his especial possessions and his sphere of activity. For the Deity is blessed... through knowledge and intelligence" (Isis and Osiris 351D).
- 46 Isis and Osiris 369B.
- 47 "It almost seems that Philo regards matter as evil." R. McL. Wilson, *The Gnostic Problem* (1958), p.45.
- 48 *De Migr. Abr.* 8
- 49 *Quis rer. div. heres* 54
- 50 *LA. I*, 108; *Spec. Leg. IV*, 188.
- 51 *Quod Deus sit Imm.* 148.
- 52 *LA. III*, 71-74.
- 53 *Athanatos, Immut.* 10, 46; *aphthartos, Prob.* 7, 46; *Congr.* 97; *Spec. I*, 81.
- 54 *Quaes. in Gen.* III, 11.
- 55 H. A. Wolfson, *op. cit.*, I, 359-404.
- 56 See R. Martin-Achard, *From Death to Life* (1960), pp. 206ff.
- 57 For a detailed discussion of the problems involved in this hope, see the present author's *Jesus and the Kingdom* (1964), chap. II.
- 58 *Ibid.*
- 59 E. Jacob, *Theology of the Old Testament* (1958), p.318.
- 60 H. Rowley, *The Growth of the Old Testament* (1950), p.139.
- 61 Wright, *God Who Acts* (1952).
- 62 James Barr, "Revelation through History in the Old Testament," *Interpretation*, XVII (1963), 193-205; "Concepts of History and Revelation," in *Old and New in Interpretation* (1966), pp.65-102.
- 63 G. von Rad, *Old Testament Theology* (1965), II, p.358.
- 64 See G.E. Ladd, "The Saving Acts of God," *Basic Christian Doctrines*, ed. C. F. H. Henry (1962), pp.7-13. See also "How is the Bible the Word of God?" in *The New Testament and Criticism* (1967), pp.19-33.
- 65 Cf. Georges Pidoux, *Le Dieu qui vient* (1947).
- 66 For a development of this theme, see *Jesus and the Kingdom*, pp.42-48.
- 67 See *Gen.* 14:21; *Ex.* 16:16; *Num.* 5:6; *Ezek.* 33:6 (RSV, "any one"); *Deut.* 24:7 (RSV, "one"); *Gen.* 46:18 (sixteen "persons"). See *Rev.* 18:13 for this use.
- 68 *Ps.* 34:2; *Gen.* 27:35, lit., "that my soul may bless you"; *Jer.* 3:11, "herself" equals "her soul."
- 69 *Iliad. I. 3*; *Odyssey XI.* 205. See E. D. Burton, *Spirit, Soul and Flesh* (1918), pp. 26ff.
- 70 See *Job* 26:5; *Ps.* 88:10; *Prov.* 9:18; *Isa.* 14:9; 26:19.
- 71 R. Martin-Achard, *From Death to Life* (1960), p.165.
- 72 *Ibid.*, p.181.
- 73 *Josephus War ii.* 156; *Enoch* 9:3,10; *Wis.* 15:8,14; *iv Macc.* 18:24.
- 74 See *Enoch* 91:16; 103:4; 104:2; *Jub.* 23:31; *IV Macc.* 18:23; *Wis. Sol.* 3:4.

## Chapter 4

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### Islamic View on Man

The way man views himself is one of the strongest influences in his *Tarbiyah* (upbringing). For this reason, Islam emphasized the importance of having man know himself very well; a knowledge that is based on the divine source from the creator, The Most High, The One who knows who He created and He is The kind and The aware.

Ever since man existed on this earth, he has been trying to know himself and in all cases in which he does not follow the divine revelations, he gets misguided and confused between two extremes; sometimes he thinks that he is the greatest in this universe and so he gets filled with selfishness, oppressiveness and arrogance that would drive him to disbelieve in Allah and to be oppressive and corruptive. The *Qur'an* has recorded for us a model of such people in the people of "Ad." The *Qur'an* tells us by the tongue of these people in *surat Fussilat*, (Verse 15), what can be translated as, "And they said who is stronger than us ?!". Also, by the tongue of Pharaoh when he spoke to his people and said in *surat Al-Qasas*, (Verse 38), what also can be translated as, "I have not known of a god other than me."

In the other extreme, man thought that he was the most belittled, the weakest, and the most worthless being in this universe, so he bows his head with submission before a tree, a stone, an animal, or before the sun, the moon, the stars or a fire and other beings that he thinks and believes that they possess some kind of power and ability to harm him or benefit him. The *Qur'an*, again, has recorded for us many examples of such people throughout the history of humanity.

Because of this confusion that man has about himself, Islam gave a very precise, and clear perspective about man. Islam clarified to man his reality, his origin and the different stages of creation that he goes through. Also, Islam clarified to man his good attributes and his receptiveness to good and evil, and his purpose in this life and the relationships between him and the rest of creatures around him.

### **1. The reality of man, The origin of his creation and the stages of his creation:**

Islam has clarified that the reality of man emanates from two origins: The far origin, that is his first creation from mud when Allah (S.W.T.) made him and breathed into him life, and the close origin, that is his creation in the womb of his mother. Allah (S.W.T.) says in *surat As-Sajdah*, (Verses 7-9), about the origin of man, what can be translated as, "He is the one who excelled in everything He created, and He started creating man from clay and then made man's progeny from a worthless fluid, then He made him and breathed into him from his soul, and made for you the hearing, the visions, and the hearts, and little thanks you gives."

Now, we see how the *Qur'an* turns the attention of man to the worthlessness of that fluid from which he was created in his mother's womb, "from worthless fluid." It paints this picture to man to eradicate his oppressive potential and remove his arrogance and make him humble in his life. Then, Allah (S.W.T.) clarified to him His divine care inside the darkness of the womb when he was a minute lump *Nutfah* (sperm). Allah (S.W.T.) says in *surat Al-Mu'minoon*, (Verse 12-14), about the origin of man, what can be translated as, "And indeed We created man out of an extract of clay (water and earth), therefore We made him a small lump (*Nutfah*), Sperm in a secure place, then turned the (*Nutfah*), Sperm into a leach, then turned the leach into (*Mudghah*), lump, then turned the (*Mudghah*), lump, into bones, then covered the bones with flesh and then We made another creation

out of him, Most elated is Allah, the best of all creators.” Allah (S.W.T.) painted this picture for man to move his emotions to thank Allah for His care, His gratitude, His creativeness, and to submit to Allah (S.W.T.).

## **2. Man is an honored creature:**

Islam clarified for man that he does not deserve worthlessness and humiliation, so that he becomes equal to other creatures like the animals and others. Allah (S.W.T.) says in *surat Al-Isra'*, (Verse 70), what can be translated as, "We have honored the children of Adam and carried them on earth and in the sea and provided to them the good sustenance. And we made them better than many of what we created." Then Allah (S.W.T.) clarified that He (S.W.T.) made the whole universe in the service of man. He says in *surat Lu-Qman*, (Verse 20), what can be translated as, "Do you not see that Allah made available for you what is in the skies and on earth and flooded you with many blessings known and unknown."

All this is to incite man to control what is around him from other creatures, without having to humiliate himself to anything and without fear. This way, pride and honor are built within man, and his feeling of being grateful to Allah (S.W.T.), The great is created.

## **3. Man has the faculty of being able to distinguish and choose between good and evil:**

From the privileges that Allah (S.W.T.) gifted man with is that He made him able to distinguish between good and evil, so Allah (S.W.T.) inspired the human soul its corruption and its righteousness. Allah (S.W.T.) made man possess the ability to choose freely between these two ways, and clarified to him that his goal in this life is to raise himself well and elevate himself toward virtue. Allah (S.W.T.) says in *surat Ash-Shams*, (Verse 7-10), what can be translated as, "And by *Nafs*, (soul), and Him Who perfected him in proportion; Then He inspired him corruption and its righteousness; Indeed he succeed who chooses to purify his ownself; and indeed he fails who corrupts his ownself."

## **4. Man has the potential to learn and acquire knowledge:**

From the privileges that Allah (S.W.T.) gifted man with, is the ability of man to learn and acquire knowledge, and providing him with the tools of knowledge. Allah (S.W.T.) says in *surat Al-Alaq*, (Verse

3-5), what can be translated as, "Read and your Lord is The most generous, The one who taught with the pen, He taught man what he did not know." In another verse, Allah (S.W.T) says in *surat An-Nahal*, (Verse 78), what can be translated as, "And made for you the hearing and the visions and the hearts so that you may be thankful." Allah (S.W.T) scorned those who do not benefit from all these privileges. Allah (S.W.T.) says in *surat Al-Araf*, (Verse 179), what can be translated as, "They have hearts with which they do not understand, they have eyes with which they do not see, and they have ears with which they do not hear; those are like animals and even worse, those are the absent-minded or the heedless."

### **5. Man is responsible and accountable and he will get the results of his deeds:**

As a result of what Allah (S.W.T.) blessed man with and distinguished him from the rest of His creation. He entrusted man with the establishment of His *deen* on earth that is done by implementing His divine laws and purifying submission to Him alone. Allah (S.W.T.) says in *surat Al-Baqarah*, (Verse 30), what can be translated as, "And your Lord says to the angels that I am creating a *Khalifah* on earth." Then Allah (S.W.T.) taught Adam all the names to show the angels how privileged man is in the sight of Allah, then Allah (S.W.T.) commanded the angels to prostrate to Adam out of respect. Allah (S.W.T.) says in *surat Az-Zalzalah*, (Verses 7-8), what can be translated as, "And whosoever does an atom worth of weight as good, he will see that, and whosoever does an atom worth of weight evil, he will see it." Also Allah (S.W.T.) made man responsible for everything he was gifted with. He has to use properly what he has been blessed with; the many blessings which are countless. Allah (S.W.T.) also says in *surat Al-Isra'*, (Verse 36), what can be translated as, "And do not follow that of which you have no knowledge, Verily! The hearing, the vision and the heart; and each of those man will be questioned about them (by Allah)." The prophet Muhammad (S.A.W.) said in an authentic *hadith* reported by Imam At-Tirmithi, "*The servant of Allah will be asked about four things on the Day of Judgment: about his life and what he did with it? And about his knowledge and what he did with it? And about his money where he got it from and where he spent it? And about his body how he used it.*"

### Hindu Concept of Man

Biologically, man is an animal with the species name *homo sapiens*, whose fore-brain or neo-cerebrum is more developed than that of other animals. Consequently man is less governed by his instincts than other animals, who, due to preponderance of the lower brain or paleo-cerebrum are primarily driven by instincts. According to the medical materialists, man is a physiologically driven machine made of complex biochemical molecules. These basic concepts of man have been accepted by almost all the non-theological philosophers of the West, each of whom has added his own adjective to the animal-man. Greek philosophers considered man a rational animal. Aristotle has defined man as a political animal, and the American philosopher Benjamin Franklin calls him *homo-faber*, or tool-making animal. Man has produced tools as extension of his own body, as it were, and has increased his productivity manifold. He has harnessed energy, like steam energy, electricity, atomic energy, etc. He has produced devices that replace thought itself (automation, cybernetics). E.Cassier has emphasized that man is a symbol making animal and

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the most important symbol invented by him is the word through which he can communicate with others.

Of the Western thinkers, special mention must be made of Sigmund Freud and Karl Marx. Freud's outstanding contribution is his discovery of the unconscious. But by laying too great a stress on sex as the most important driving force, he has reduced man into a sexual animal, the homo-sexuals, with far reaching psycho-social consequences which are too evident in the contemporary society to be mentioned. The whole aim of his system of psychotherapy is to help man attain sexual maturity. Marx believes that man is driven primarily by a desire for economic gains: he is a homo-economicus. However, in *Das Capital*, he has defined man as a social animal. According to him, if man fails to relate himself actively with others and with nature, he loses himself, becomes alienated; his drives lose human qualities and assume animal qualities. He becomes sick, fragmented, crippled human being.

According to Marx man is driven by two sets of drives: fixed or constant and relative. Sex and hunger fall under the first category, while relative drives like hate, avarice etc. owe their origin to certain types of social organizations.

### **The Hindu Concept of Man**

This concept, to some extent, resembles the Hindu concept of man: 'Eating, sleeping, fear and sex are common to man as well as animals. In human beings dharma (i.e. restraint by moral rules) is extra and special. Without dharma men are no better than beasts.' According to Shankaracharya, this dharma is of two types: pravritti-lakshana and nivritti-lakshana. When one, observing the moral codes of conduct applicable to one's station in life and society performs actions for enjoyment (kama) and acquisition of wealth (artha), one is said to be following pravritti dharma. A time comes, however, when one gets disgusted with sense-enjoyments and acquisition of wealth and aspires for final emancipation (moksha). The one embraces what is called nivritti dharma, characterized by renunciation of all worldly desires and selfish actions, and resorting to spiritual practice to attain liberation. Man rises from animal to human level by accepting pravritti dharma i.e. by observing social injunctions. He ascends to godhood and becomes divine by embracing the nivritti dharma.

This Hindu concept of liberation, in turn, is based upon another concept of an ever pure, ever free, ever perfect, ever conscious spiritual entity in man called Atman (soul). According to Swami Vivekananda this Atman is the Real Man as against the body-mind complex which is only the apparent man. The relation between the real and apparent men has been beautifully described through an allegory in the Katha Upanishad:

Know the soul to be the master of the chariot and the body the chariot. Consider the intellect the charioteer, and the mind the reins. The senses, they say, are the horses, and their roads are the sense objects. The wise call Him the enjoyer when He is united with the body, senses and mind.

### *Real and apparent man*

The Hindus have further elaborated this concept by stating that the real man or Atman is conscious, ever free, blissful and immortal. The apparent man consists of five sheaths which cover the soul or atman. These are (1) the physical body or the physical sheath, (2) the vital sheath or the sheath life-force, (3) the mental sheath, (4) the ego sheath, and (5) the Blissful sheath. According to another concept, the real man or the conscious soul or Atman has three bodies: (1) the gross physical body, (2) the subtle mental body and (3) the causal body which is made up of pure ignorance. At the time of death, the physical body dies, but the subtle mental body and the causal body remain and together with the conscious soul or real man, transmigrate to another physical body to be born again.

When we are awake, the gross physical body is active. In sleep, when we are dreaming, the physical body is inactive, but the mental body is active. But when we go into deep sleep and do not even see dreams, at that time even the mental body is not active and only the causal body in the form of ignorance remains covering the pure soul or Atman.

### **Western and Hindu Concepts Compared**

From the above resume it would be evident that the Hindu concepts of the nature of man, his destiny and his drives are far more comprehensive and vastly superior to the western ones. For western thinkers man is either an animal or a machine. Hindus on the other

hand believe that he is essentially divine. Secondly, whereas western savants have postulated only three ultimate goals for man, viz. sensual enjoyment (kama), acquisition of earthly riches (artha), and fulfilment of social obligations (dharma), the Indian philosophers have postulated a fourth and final goal: liberation (moksha), the state of fullest manifestation of innate divinity and perfection. Thirdly, whereas Freud thinks that man must satisfy his passions to remain whole and healthy, Marx states that man cannot truly be a man unless he actively relates with others. Swami Vivekananda, however, says that 'man is man so long as he is struggling to rise above nature', both internal and external. Finally, western philosophers say that man's evolution is governed by drives and instincts. But the Hindu sages say that man's innate perfection is constantly trying to manifest itself and every effort on our part simply acts as a remover of barriers to its manifestation.

### *Implications of the concept of divinity of man*

Swami Vivekananda laid the greatest stress, in his message, on the divinity of man because he knew men are divine, and since truth liberates, the only way to be free was to perceive the truth of one's divinity. Secondly, we tend to think and act according to our concept of ourselves. This has profound practical, psychological and social implications. The concepts of man as a sexual, economic, tool-making or social animal may be useful to individual or society to a certain extent, but they are restrictive. If we consider ourselves sexual animals as Freud wants us to believe, sexual shall we become. If we believe we are economically driven machines, we shall run after money. If we think we are social animals, we shall become slaves of society. But if we consider ourselves ever free, blissful divinities, we shall enjoy freedom and bliss.

Swami Vivekananda used to illustrate this truth with the help of the story of a lion cub which was reared along with a herd of sheep from the very day of its birth. As it grew, it learnt to bleat and eat grass. Then this flock of sheep was attacked by another lion. He was surprised to find a full grown lion running away in fear. He caught hold of this younger lion, dragged it to the forest and told it that it was a lion and acting like a sheep did not befit it. To convince it, the older lion showed its reflection in the lake. The young lion was convinced that it was a lion and not a sheep and in a moment gave up its fear.

Once two young sons of a devotee were playing. One was Vivek and another, Shirish. They, for the sake of fun, added 'ananda' to their names, and became Vivekananda and Shirishananda, and, as their play demanded, started acting according to their new names. Vivek folded his arms and stood erect like Swami Vivekananda with a grave face. Shirish did the same. But then, for some reason, Shirish started weeping. Vivek was surprised, and asked his mother, 'Can Shirishananda weep?' That's it! Weeping does not befit Shirish as long as he is 'ananda', a dignified monk. If children can temporarily change their behaviour in play according to their assumed identity, can we not change our identity and behaviour permanently?

Normally, we consider ourselves as physical body or a body-mind complex. It is extremely difficult to consider oneself as a conscious soul free from body and mind, and free from the five coverings or three bodies. All the Hindu scriptures are meant to teach this concept of immortal, pure, blissful, eternal soul as man's real nature. This is the central theme of the whole Hindu philosophy and religion, which is taught in various ways through reason, mythology and stories.

### **What do Hindus Mean by Divinity?**

When it is said that according to Hinduism, man, in his essential nature, is divine, it causes confusion in many minds. Because by divine we generally mean God, and there are various views about God. Not only that, there are a large number of people- secularists, materialists, communists, even Buddhists and Jains- who do not believe in God. So unless it is clarified what we mean by divine, and what is the concept of divine in the scriptures of the Hindus, the Vedas, the confusion would persist.

Let us begin with certain primitive concepts of God. Our ancient aboriginal ancestors worshipped a God. Their God was generally a tribal God, a God which protected their tribe and helped the tribesmen to defeat the other tribes, who too had their God. This tribal God was very similar to the tribesmen, but was much more powerful. It is said by Swami Vivekananda that if a buffalo were to think of God, it will think of it as a big buffalo.

One concept of God found in the Vedas is that He is the ruler of certain elements of Nature. God Indra was the controller of clouds

and rain. Varuna controlled the ocean. Vayu was the wind- god and Agni was the fire-god.

Now, if we analyse the above mentioned two concepts, we shall find an interesting common factor. In both the tribal god as well as the god as controller of natural element, there is less limitation than an ordinary human being. The tribal man cannot defeat hostile tribes, but the tribal God can. Man has no control over nature, but Indra, Varuna and Vayu have. Thus God is he, who can control the external nature, be it man, animals or elements. Hence Swami Vivekananda has said, "Each soul is potentially divine. The goal is to manifest the divinity within by controlling nature, external and internal."

In the course of human evolution, human beings have gradually learnt to control nature with the help of science. Man has conquered the ocean by making a ship and a submarine. He has conquered space by making an aeroplane. He can produce fire and extinguish it at will. He can protect himself against rain. The whole history of mankind is an attempt to conquer nature and become God himself. Sociologically it will be noticed that those peoples or races or nations who have greater security and prosperity are less prone to worship a God outside. They are less religious as compared to the poor nations, poor peoples, because poor people have not been able to manifest the divinity defeating the enemies in the form of nature and hostile men and animals.

### **Conquest of Internal Nature**

But as civilization progressed, the humankind searched within and found that there is also an internal nature-the mind. Mind has its desires, ambitions and weaknesses. Man can become greedy, angry, and in the fit of anger and greed, he can do evil deeds which might cause suffering to himself and others. It was realized that to conquer our mind is far more difficult than the conquest of external foes. So, man started finding a way to conquer the internal nature. The religious way is essentially the method of the conquest of the internal nature or the mind. A person who fully conquers his passions, desires, likes and dislikes, aversions and attachment, even his love for life and fear of death, such a man in India is called Mahavir, the great conqueror. Such a person is worshipped as God because he or she has manifest the divinity within fully.

The Hindus have evolved a number of methods to conquer the mind and thus manifest the divine nature. One such method is yoga. A perfected yogi develops tremendous powers. According to the books on Yoga, a Yogi can fly in air, can become small as an ant or become big as a mountain. He can disappear from sight. He can even create new planets and govern them. He can read the thoughts of others, see things far away and can listen to very distant sounds. If a Yogi gets perfectly established in truth, whatever he would speak will come to pass. If he practices non-injury to perfection, a stage comes when people lose their hostility in his presence. A lamb and a lion will sit fearlessly in the presence of such a Yogi. There are a number of such results possible by the practice of Yoga. Thus we find that Divine or Divinity of man also means the conquest of Internal nature or mind. Hindus believe that all minds are interconnected. In fact the yogis believe that there is one ocean of mind throughout and our individual minds are like whirlpools at localized places. So they say that if one can control one's own mind, one will be able to control all minds.

A third higher concept of divinity is also found in Hinduism. Although, as described above, by the practice of yoga one can get these superhuman powers, the highest yogic attainment is freedom from the bondage of nature. In spite of attaining the powers described above, a yogi may still be egoistic and selfish. He may use them to harm others. If he misuses them, he loses them and again becomes an ordinary human being. So the highest manifestation of divinity is the total freedom from the internal nature (mind) and external nature.

### **Relation between God and Soul**

According to the Vedas, the scriptures of the Hindus, the highest Divinity or God is called Brahman. This is actually another name for God. Brahman is said to be present everywhere, pure, conscious, immortal bliss and knowledge absolute. It is said that the human soul is also of the same nature. According to one school of Hindu philosophy, man and Brahman in their real nature are one. According to another school of Vedanta, individual soul is a part of Brahman, like a limb in a body or a branch of a tree. According to the third school, individual soul is separate from Brahman but related to it, and of same nature. We do not need to go into these philosophical details. The main point is that the soul of man is pure, immortal, conscious, full of

bliss and knowledge. These characteristics are covered due to mental impurities like attachment and aversion, fear, hatred, anger, lust, etc. As one removes these, one gets more and more joy, more and more knowledge.

### **Divinity in All**

When the Hindus say that man is divine, this means that all men and women are divine. When by following the discipline of yoga, one starts realizing that one is divine and not mortal, he also, to that extent, starts seeing that others are also divine and he starts behaving with others similarly.

There was a saint named Pavahari Baba in India a hundred years ago. One day a thief entered into his cottage. As he was tying the bundle of the stolen goods, the saint woke up. Leaving the stolen articles behind, the thief ran. The saint also followed him with the bundle of articles. After a long chase, the saint caught the thief, and with folded hands addressed the thief as God and gave the bundle to him. The result was that the thief was transformed, gave up stealing and became himself a saint. Since the saint saw the divine within himself, he actually saw the same in the thief. His experience of this divinity was so strong that he behaved also in the same manner. This conviction forced the thief also to think that he too was God. Pavahari Baba used to see God in snake, cat, rat, dog, in every creature. Only such saints of spiritual realization can prove by their actions the truth of the Divine nature of man. But they also prove that every one can realize one's true divine nature.

## Chapter 6

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# Philosophical Approaches in Anthropology

The Philosophy of Anthropology refers to the central philosophical perspectives which underpin, or have underpinned, the dominant schools in anthropological thinking. It is distinct from Philosophical Anthropology which attempts to define and understand what it means to be human.

This chapter provides an overview of the most salient anthropological schools, the philosophies which underpin them and the philosophical debates surrounding these schools within anthropology. It specifically operates within these limits because the broader discussions surrounding the Philosophy of Science and the Philosophy of Social Science have been dealt with at length elsewhere in this encyclopedia. Moreover, the specific philosophical perspectives have also been discussed in great depth in other contributions, so they will be elucidated to the extent that this is useful to comprehending their relationship with anthropology. In examining the Philosophy of Anthropology, it is necessary to draw some, even if cautious borders,

between anthropology and other disciplines. Accordingly, in drawing upon anthropological discussions, we will define, as anthropologists, scholars who identify as such and who publish in anthropological journals and the like. In addition, early anthropologists will be selected by virtue of their interest in peasant culture and non-Western, non-capitalist and stateless forms of human organization.

The article specifically aims to summarize the philosophies underpinning anthropology, focusing on the way in which anthropology has drawn upon them. The philosophies themselves have been dealt with in depth elsewhere in this encyclopedia. It has been suggested by philosophers of social science that anthropology tends to reflect, at any one time, the dominant intellectual philosophy because, unlike in the physical sciences, it is influenced by qualitative methods and so can more easily become influenced by ideology (for example Kuznar 1997 or Andreski 1974). This article begins by examining what is commonly termed ‘physical anthropology.’ This is the science-oriented form of anthropology which came to prominence in the nineteenth century. As part of this section, the article also examines early positivist social anthropology, the historical relationship between anthropology and eugenics, and the philosophy underpinning this.

### **1. Positivist Anthropology**

#### ***a. Physical Anthropology***

Anthropology itself began to develop as a separate discipline in the mid-nineteenth century, as Charles Darwin’s (1809-1882) Theory of Evolution by Natural Selection (Darwin 1859) became widely accepted among scientists. Early anthropologists attempted to apply evolutionary theory within the human species, focusing on physical differences between different human sub-species or racial groups (see Eriksen 2001) and the perceived intellectual differences that followed.

The philosophical assumptions of these anthropologists were, to a great extent, the same assumptions which have been argued to underpin science itself. This is the positivism, rooted in Empiricism, which argued that knowledge could only be reached through the empirical method and statements were meaningful only if they could be empirically justified, though it should be noted that Darwin should not necessarily be termed a positivist. Science needed to be solely

empirical, systematic and exploratory, logical, theoretical (and thus focused on answering questions). It needed to attempt to make predictions which are open to testing and falsification and it needed to be epistemologically optimistic (assuming that the world can be understood). Equally, positivism argues that truth-statements are value-neutral, something disputed by the postmodern school. Philosophers of Science, such as Karl Popper (1902-1994) (for example Popper 1963), have also stressed that science must be self-critical, prepared to abandon long-held models as new information arises, and thus characterized by falsification rather than verification though this point was also earlier suggested by Herbert Spencer (1820-1903) (for example Spencer 1873). Nevertheless, the philosophy of early physical anthropologists included a belief in empiricism, the fundamentals of logic and epistemological optimism. This philosophy has been criticized by anthropologists such as Risjord (2007) who has argued that it is not self-aware - because values, he claims, are always involved in science- and non-neutral scholarship can be useful in science because it forces scientists to better contemplate their ideas.

### ***b. Race and Eugenics in Nineteenth Century Anthropology***

During the mid-nineteenth and early twentieth centuries, anthropologists began to systematically examine the issue of racial differences, something which became even more researched after the acceptance of evolutionary theory (see Darwin 1871). That said, it should be noted that Darwin himself did not specifically advocate eugenics or theories of progress. However, even prior to Darwin's presentation of evolution (Darwin 1859), scholars were already attempting to understand 'races' and the evolution of societies from 'primitive' to complex (for example Tylor 1865).

Early anthropologists such as Englishman John Beddoe (1826-1911) (Beddoe 1862) or Frenchman Arthur de Gobineau (1816-1882) (Gobineau 1915) developed and systematized racial taxonomies which divided, for example, between 'black,' 'yellow' and 'white.' For these anthropologists, societies were reflections of their racial inheritance; a viewpoint termed biological determinism. The concept of 'race' has been criticized, within anthropology, variously, as being simplistic and as not being a predictive (and thus not a scientific) category (for example Montagu 1945) and there was already some criticism of the scope of its predictive validity in the mid-nineteenth century (for

example Pike 1869). The concept has also been criticized on ethical grounds, because racial analysis is seen to promote racial violence and discrimination and uphold a certain hierarchy, and some have suggested its rejection because of its connotations with such regimes as National Socialism or Apartheid, meaning that it is not a neutral category (for example Wilson 2002, 229).

Those anthropologists who continue to employ the category have argued that 'race' is predictive in terms of life history, only involves the same inherent problems as any cautiously essentialist taxonomy and that moral arguments are irrelevant to the scientific usefulness of a category of apprehension (for example Pearson 1991) but, to a great extent, current anthropologists reject racial categorization. The American Anthropological Association's (1998) 'Statement on Race' began by asserting that: "'Race" thus evolved as a worldview, a body of prejudgments that distorts our ideas about human differences and group behavior. Racial beliefs constitute myths about the diversity in the human species and about the abilities and behavior of people homogenized into "racial" categories.' In addition, a 1985 survey by the American Anthropological Association found that only a third of cultural anthropologists (but 59 percent of physical anthropologists) regarded 'race' as a meaningful category (Lynn 2006, 15). Accordingly, there is general agreement amongst anthropologists that the idea, promoted by anthropologists such as Beddoe, that there is a racial hierarchy, with the white race as superior to others, involves importing the old 'Great Chain of Being' (see Lovejoy 1936) into scientific analysis and should be rejected as unscientific, as should 'race' itself. In terms of philosophy, some aspects of nineteenth century racial anthropology might be seen to reflect the theories of progress that developed in the nineteenth century, such as those of G. W. F. Hegel (1770-1831) (see below). In addition, though we will argue that Herderian nationalism is more influential in Eastern Europe, we should not regard it as having no influence at all in British anthropology. Native peasant culture, the staple of the Eastern European, Romantic nationalism-influenced school (as we will see), was studied in nineteenth century Britain, especially in Scotland and Wales, though it was specifically classified as 'folklore' and as outside anthropology (see Rogan 2012). However, as we will discuss, the influence is stronger in Eastern Europe.

The interest in race in anthropology developed alongside a broader interest in heredity and eugenics. Influenced by positivism, scholars such as Herbert Spencer (1873) applied evolutionary theory as a means of understanding differences between different societies. Spencer was also seemingly influenced, on some level, by theories of progress of the kind advocated by Hegel and even found in Christian theology. For him, evolution logically led to eugenics. Spencer argued that evolution involved a progression through stages of ever increasing complexity – from lower forms to higher forms - to an end-point at which humanity was highly advanced and was in a state of equilibrium with nature. For this perfected humanity to be reached, humans needed to engage in self-improvement through selective breeding.

American anthropologist Madison Grant (1865-1937) (Grant 1916), for example, reflected a significant anthropological view in 1916 when he argued that humans, and therefore human societies, were essentially reflections of their biological inheritance and that environmental differences had almost no impact on societal differences. Grant, as with other influential anthropologists of the time, advocated a program of eugenics in order to improve the human stock. According to this program, efforts would be made to encourage breeding among the supposedly superior races and social classes and to discourage it amongst the inferior races and classes (see also Galton 1909). This form of anthropology has been criticized for having a motivation other than the pursuit of truth, which has been argued to be the only appropriate motivation for any scientist. It has also been criticized for basing its arguments on disputed system of categories - race - and for uncritically holding certain assumptions about what is good for humanity (for example Kuznar 1997, 101-109). It should be emphasized that though eugenics was widely accepted among anthropologists in the nineteenth century, there were also those who criticized it and its assumptions (for example Boas 1907. See Stocking 1991 for a detailed discussion). Proponents have countered that a scientist's motivations are irrelevant as long as his or her research is scientific, that race should not be a controversial category from a philosophical perspective and that it is for the good of science itself that the more scientifically-minded are encouraged to breed (for example Cattell 1972). As noted, some scholars stress the utility of ideologically-based scholarship.

A further criticism of eugenics is that it fails to recognize the supposed inherent worth of all individual humans (for example Pichot

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2009). Advocates of eugenics, such as Grant (1916), dismiss this as a 'sentimental' dogma which fails to accept that humans are animals, as acceptance of evolutionary theory, it is argued, obliges people to accept, and which would lead to the decline of civilization and science itself. We will note possible problems with this perspective in our discussion of ethics. Also, it might be useful to mention that the form of anthropology that is sympathetic to eugenics is today centered around an academic journal called *The Mankind Quarterly*, which critics regard as 'racist' (for example Tucker 2002, 2) and even academically biased (for example Ehrenfels 1962). Although ostensibly an anthropology journal, it also publishes psychological research. A prominent example of such an anthropologist is Roger Pearson (b. 1927), the journal's current editor. But such a perspective is highly marginal in current anthropology.

### **c. Early Evolutionary Social Anthropology**

Also from the middle of the nineteenth century, there developed a school in Western European and North American anthropology which focused less on race and eugenics and more on answering questions relating to human institutions, and how they evolved, such as 'How did religion develop?' or 'How did marriage develop?' This school was known as 'cultural evolutionism.' Members of this school, such as Sir James Frazer (1854-1941) (Frazer 1922), were influenced by the positivist view that science was the best model for answering questions about social life. They also shared with other evolutionists an acceptance of a modal human nature which reflected evolution to a specific environment. However, some, such as E. B. Tylor (1832-1917) (Tylor 1871), argued that human nature was the same everywhere, moving away from the focus on human intellectual differences according to race. The early evolutionists believed that as surviving 'primitive' social organizations, within European Empires for example, were examples of the 'primitive Man,' the nature of humanity, and the origins of its institutions, could be best understood through analysis of these various social groups and their relationship with more 'civilized' societies (see Gellner 1995, Ch. 2).

As with the biological naturalists, scholars such as Frazer and Tylor collected specimens on these groups - in the form of missionary descriptions of 'tribal life' or descriptions of 'tribal life' by Westernized tribal members - and compared them to accounts of more advanced

cultures in order to answer discrete questions. Using this method of accruing sources, now termed 'armchair anthropology' by its critics, the early evolutionists attempted to answer discrete questions about the origins and evolution of societal institutions. As early sociologist Emile Durkheim (1858-1917) (Durkheim 1965) summarized it, such scholars aimed to discover 'social facts.' For example, Frazer concluded, based on sources, that societies evolved from being dominated by a belief in Magic, to a belief in Spirits and then a belief in gods and ultimately one God. For Tylor, religion began with 'animism' and evolved into more complex forms but tribal animism was the essence of religion and it had developed in order to aid human survival.

This school of anthropology has been criticized because of its perceived inclination towards reductionism (such as defining 'religion' purely as 'survival'), its speculative nature and its failure to appreciate the problems inherent in relying on sources, such as 'gate keepers' who will present their group in the light in which they want it to be seen. Defenders have countered that without attempting to understand the evolution of societies, social anthropology has no scientific aim and can turn into a political project or simply description of perceived oddities (for example Hallpike 1986, 13). Moreover, the kind of stage theories advocated by Tylor have been criticized for conflating evolution with historicist theories of progress, by arguing that societies always pass through certain phases of belief and the Western civilization is the pinnacle of development, a belief known as unilinealism. This latter point has been criticized as ethnocentric (for example Eriksen 2001) and reflects some of the thinking of Herbert Spencer, who was influential in early British anthropology.

## **2. Naturalist Anthropology**

### ***a. The Eastern European School***

Whereas Western European and North American anthropology were oriented towards studying the peoples within the Empires run by the Western powers and was influenced by Darwinian science, Eastern European anthropology developed among nascent Eastern European nations. This form of anthropology was strongly influenced by Herderian nationalism and ultimately by Hegelian political philosophy and the Romantic Movement of eighteenth century philosopher Jean-Jacques Rousseau (1712-1778). Eastern European

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anthropologists believed, following the Romantic Movement, that industrial or bourgeois society was corrupt and sterile. The truly noble life was found in the simplicity and naturalness of communities close to nature. The most natural form of community was a nation of people, bonded together by shared history, blood and customs, and the most authentic form of such a nation's lifestyle was to be found amongst its peasants. Accordingly, Eastern European anthropology elevated peasant life as the most natural form of life, a form of life that should, on some level, be strived towards in developing the new 'nation' (see Gellner 1995).

Eastern European anthropologists, many of them motivated by Romantic nationalism, focused on studying their own nations' peasant culture and folklore in order to preserve it and because the nation was regarded as unique and studying its most authentic manifestation was therefore seen as a good in itself. As such, Eastern European anthropologists engaged in fieldwork amongst the peasants, observing and documenting their lives. There is a degree to which the kind of anthropology - or 'ethnology' - remains more popular in Eastern than in Western Europe (see, for example, Ciubrinskas 2007 or SarkanyND) at the time of writing.

Siikala (2006) observes that Finnish anthropology is now moving towards the Western model of fieldwork abroad but as recently as the 1970s was still predominantly the study of folklore and peasant culture. Baranski (2009) notes that in Poland, Polish anthropologists who wish to study international topics still tend to go to the international centers while those who remain in Poland tend to focus on Polish folk culture, though the situation is slowly changing. Lithuanian anthropologist Vytis Ciubrinskas (2007) notes that throughout Eastern Europe, there is very little separate 'anthropology,' with the focus being 'national ethnology' and 'folklore studies,' almost always published in the vernacular. But, again, he observes that the kind of anthropology popular in Western Europe is making inroads into Eastern Europe. In Russia, national ethnology and peasant culture also tends to be predominant (for example Baiburin 2005). Indeed, even beyond Eastern Europe, it was noted in the year 2000 that 'the emphasis of Indian social anthropologists remains largely on Indian tribes and peasants. But the irony is that barring the detailed tribal monographs prepared by the British colonial officers and others before

Independence, we do not have any recent good ethnographies of a comparable type' (Srivastava 2000). By contrast, Japanese social anthropology has traditionally been in the Western model, studying cultures more 'primitive' than its own (such as Chinese communities), at least in the nineteenth century. Only later did it start to focus more on Japanese folk culture and it is now moving back towards a Western model (see Sedgwick 2006, 67).

The Eastern school has been criticized for uncritically placing a set of dogmas - specifically nationalism - above the pursuit of truth, accepting a form of historicism with regard to the unfolding of the nation's history and drawing a sharp, essentialist line around the nationalist period of history (for example Popper 1957). Its anthropological method has been criticized because, it is suggested, Eastern European anthropologists suffer from home blindness. By virtue of having been raised in the culture which they are studying, they cannot see it objectively and penetrate to its ontological presuppositions (for example Kapferer 2001).

#### ***b. The Ethnographic School***

The Ethnographic school, which has since come to characterize social and cultural anthropology, was developed by Polish anthropologist Bronislaw Malinowski (1884-1942) (for example Malinowski 1922). Originally trained in Poland, Malinowski's anthropological philosophy brought together key aspects of the Eastern and Western schools. He argued that, as with the Western European school, anthropologists should study foreign societies. This avoided home blindness and allowed them to better perceive these societies objectively. However, as with the Eastern European School, he argued that anthropologists should observe these societies in person, something termed 'participant observation' or 'ethnography.' This method, he argued, solved many of the problems inherent in armchair anthropology.

It is this method which anthropologists generally summarize as 'naturalism' in contrast to the 'positivism,' usually followed alongside a quantitative method, of evolutionary anthropologists. Naturalist anthropologists argue that their method is 'scientific' in the sense that it is based on empirical observation but they argue that some kinds of information cannot be obtained in laboratory conditions or through questionnaires, both of which lend themselves to quantitative, strictly scientific analysis. Human culturally-influenced actions differ from

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the subjects of physical science because they involve meaning within a system and meaning can only be discerned after long-term immersion in the culture in question. Naturalists therefore argue that a useful way to find out information about and understand a people - such as a tribe - is to live with them, observe their lives, gain their trust and eventually live, and even think, as they do. This latter aim, specifically highlighted by Malinowski, has been termed the empathetic perspective and is considered, by many naturalist anthropologists, to be a crucial sign of research that is anthropological. In addition to these ideas, the naturalist perspective draws upon aspects of the Romantic Movement in that it stresses, and elevates, the importance of 'gaining empathy' and respecting the group it is studying, some naturalists argue that there are 'ways of knowing' other than science (for example Rees 2010) and that respect for the group can be more important than gaining new knowledge. They also argue that human societies are so complex that they cannot simply be reduced to biological explanations.

In many ways, the successor to Malinowski as the most influential cultural anthropologist was the American Clifford Geertz (1926-2006). Where Malinowski emphasized 'participant observation' - and thus, to a greater degree, an outsider perspective - it was Geertz who argued that the successful anthropologist reaches a point where he sees things from the perspective of the native. The anthropologist should bring alive the native point of view, which Roth (1989) notes 'privileges' the native, thus challenging a hierarchical relationship between the observed and the observer. He thus strongly rejected a distinction which Malinowski is merely critical of: the distinction between a 'primitive' and 'civilized' culture. In many respects, this distinction was also criticised by the Structuralists - whose central figure, Claude Levi-Strauss (1908-2009), was an earlier generation than Geertz - as they argued that all human minds involved similar binary structures (see below).

However, there was a degree to which both Malinowski and Geertz did not divorce 'culture' from 'biology.' Malinowski (1922) argued that anthropological interpretations should ultimately be reducible to human instincts while Geertz (1973, 46-48) argued that culture can be reduced to biology and that culture also influences biology, though he felt that the main aim of the ethnographer was to interpret. Accordingly, it is not for the anthropologist to comment on the culture

in terms of its success or the validity of its beliefs. The anthropologist's purpose is merely to record and interpret.

The majority of those who practice this form of anthropology are interpretivists. They argue that the aim of anthropology is to understand the norms, values, symbols and processes of a society and, in particular, their 'meaning' - how they fit together. This lends itself to the more subjective methods of participant observation. Applying a positivist methodology to studying social groups is regarded as dangerous because scientific understanding is argued to lead to better controlling the world and, in this case, controlling people. Interpretivist anthropology has been criticized, variously, as being indebted to imperialism (see below) and as too subjective and unscientific, because, unless there is a common set of analytical standards (such as an acceptance of the scientific method, at least to some extent), there is no reason to accept one subjective interpretation over another. This criticism has, in particular, been leveled against naturalists who accept cultural relativism (see below).

Also, many naturalist anthropologists emphasize the separateness of 'culture' from 'biology,' arguing that culture cannot simply be traced back to biology but rather is, to a great extent, independent of it; a separate category. For example, Risjord (2000) argues that anthropology 'will never reach the social reality at which it aims' precisely because 'culture' cannot simply be reduced to a series of scientific explanations. But it has been argued that if the findings of naturalist anthropology are not ultimately consilient with science then they are not useful to people outside of naturalist anthropology and that naturalist anthropology draws too stark a line between apes and humans when it claims that human societies are too complex to be reduced to biology or that culture is not closely reflective of biology (Wilson 1998, Ch. 1). In this regard, Bidney (1953, 65) argues that, 'Theories of culture must explain the origins of culture and its intrinsic relations to the psychobiological nature of man' as to fail to do so simply leaves the origin of culture as a 'mystery or an accident of time.'

### ***c. Ethics and Participant Observation Fieldwork***

From the 1970s, the various leading anthropological associations began to develop codes of ethics. This was, at least in part, inspired by the perceived collaboration of anthropologists with the US-led counterinsurgency groups in South American states. For example, in

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the 1960s, Project Camelot commissioned anthropologists to look into the causes of insurgency and revolution in South American States, with a view to confronting these perceived problems. It was also inspired by the way that increasing numbers of anthropologists were employed outside of universities, in the private sector (see Sluka 2007).

The leading anthropological bodies - such as the Royal Anthropological Institute - hold to a system of research ethics which anthropologists, conducting fieldwork, are expected, though not obliged, to adhere to. For example, the most recent American Anthropological Association Code of Ethics (1998) emphasizes that certain ethical obligations can supersede the goal of seeking new knowledge. Anthropologists, for example, may not publish research which may harm the 'safety,' 'privacy' or 'dignity' of those whom they study, they must explain their fieldwork to their subjects and emphasise that attempts at anonymity may sometimes fail, they should find ways of reciprocating to those whom they study and they should preserve opportunities for future fieldworkers.

Though the American Anthropological Association does not make their philosophy explicit, much of the philosophy appears to be underpinned by the golden rule. One should treat others as one would wish to be treated oneself. In this regard, one would not wish to be exploited, misled or have one's safety or privacy comprised. For some scientists, the problem with such a philosophy is that, from their perspective, humans should be an objective object of study like any other. The assertion that the 'dignity' of the individual should be preserved may be seen to reflect a humanist belief in the inherent worth of each human being. Humanism has been accused of being sentimental and of failing to appreciate the substantial differences between human beings intellectually, with some anthropologists even questioning the usefulness of the broad category 'human' (for example Grant 1916). It has also been accused of failing to appreciate that, from a scientific perspective, humans are a highly evolved form of ape and scholars who study them should attempt to think, as Wilson (1975, 575) argues, as if they are alien zoologists. Equally, it has been asked why primary ethical responsibility should be to those studied. Why should it not be to the public or the funding body? (see Sluka 2007) In this regard, it might be suggested that the code reflects the lauding of members of (often non-Western) cultures which might

ultimately be traced back to the Romantic Movement. Their rights are more important than those of the funders, the public or of other anthropologists.

Equally, the code has been criticized in terms of power dynamics, with critics arguing that the anthropologist is usually in a dominant position over those being studied which renders questionable the whole idea of 'informed consent' (Bourgois 2007). Indeed, it has been argued that the most recent American Anthropological Association Code of Ethics (1998) is a movement to the right, in political terms, because it accepts, explicitly, that responsibility should also be to the public and to funding bodies and is less censorious than previous codes with regard to covert research (Pels 1999). This seems to be a movement towards a situation where a commitment to the group being studied is less important than the pursuit of truth, though the commitment to the subject of study is still clear.

Likewise, the most recent set of ethical guidelines from the Association of Anthropologists of the UK and the Commonwealth implicitly accepts that there is a difference of opinion among anthropologists regarding whom they are obliged to. It asserts, 'Most anthropologists would maintain that their paramount obligation is to their research participants...' This document specifically warrants against giving subjects 'self-knowledge which they did not seek or want.' This may be seen to reflect a belief in a form of cultural relativism. Permitting people to preserve their way of thinking is more important than their knowing what a scientist would regard as the truth. Their way of thinking - a part of their culture - should be respected, because it is theirs, even if it is inaccurate. This could conceivably prevent anthropologists from publishing dissections of particular cultures if they might be read by members of that culture (see Dutton 2009, Ch. 2). Thus, philosophically, the debate in fieldwork ethics ranges from a form of consequentialism to, in the form of humanism, a deontological form of ethics. However, it should be emphasized that the standard fieldwork ethics noted are very widely accepted amongst anthropologists, particularly with regard to informed consent. Thus, the idea of experimenting on unwilling or unknowing humans is strongly rejected, which might be interpreted to imply some belief in human separateness.

## Chapter 7

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# Anthropology since World War I

As already discussed, Western European anthropology, around the time of World War I, was influenced by eugenics and biological determinism. But as early as the 1880s, this was beginning to be questioned by German-American anthropologist Franz Boas (1858-1942) (for example Boas 1907), based at Columbia University in New York. He was critical of biological determinism and argued for the importance of environmental influence on individual personality and thus modal national personality in a way of thinking called ‘historical particularism.’

### **Cultural Determinism and Cultural Relativism**

Boas emphasized the importance of environment and history in shaping different cultures, arguing that all humans were biologically relatively similar and rejecting distinctions of ‘primitive’ and civilized.’ Boas also presented critiques of the work of early evolutionists, such as Tylor, demonstrating that not all societies passed through the phases he suggested or did not do so in the order he suggested. Boas used these findings to stress

the importance of understanding societies individually in terms of their history and culture (for example Freeman 1983).

Boas sent his student Margaret Mead (1901-1978) to American Samoa to study the people there with the aim of proving that they were a 'negative instance' in terms of violence and teenage angst. If this could be proven, it would undermine biological determinism and demonstrate that people were in fact culturally determined and that biology had very little influence on personality, something argued by John Locke (1632-1704) and his concept of the *tabula rasa*. This would in turn mean that Western people's supposed teenage angst could be changed through changing the culture. After six months in American Samoa, Mead returned to the USA and published, in 1928, her influential book *Coming of Age in Samoa: A Psychological Study of Primitive Youth for Western Civilization* (Mead 1928). It portrayed Samoa as a society of sexual liberty in which there were none of the problems associated with puberty that were associated with Western civilization. Accordingly, Mead argued that she had found a negative instance and that humans were overwhelming culturally determined. At around the same time Ruth Benedict (1887-1948), also a student of Boas's, published her research in which she argued that individuals simply reflected the 'culture' in which they were raised (Benedict 1934).

The cultural determinism advocated by Boas, Benedict and especially Mead became very popular and developed into school which has been termed 'Multiculturalism' (Gottfried 2004). This school can be compared to Romantic nationalism in the sense that it regards all cultures as unique developments which should be preserved and thus advocates a form of 'cultural relativism' in which cultures cannot be judged by the standards of other cultures and can only be comprehended in their own terms. However, it should be noted that 'cultural relativism' is sometimes used to refer to the way in which the parts of a whole form a kind of separate organism, though this is usually referred to as 'Functionalism.' In addition, Harris (see Headland, Pike, and Harris 1990) distinguishes between 'emic' (insider) and 'etic' (outsider) understanding of a social group, arguing that both perspectives seem to make sense from the different viewpoints. This might also be understood as cultural relativism and perhaps raises the question of whether the two worlds can so easily

be separated. Cultural relativism also argues, as with Romantic Nationalism, that so-called developed cultures can learn a great deal from that which they might regard as 'primitive' cultures. Moreover, humans are regarded as, in essence, products of culture and as extremely similar in terms of biology.

Cultural Relativism led to so-called 'cultural anthropologists' focusing on the symbols within a culture rather than comparing the different structures and functions of different social groups, as occurred in 'social anthropology' (see below). As comparison was frowned upon, as each culture was regarded as unique, anthropology in the tradition of Mead tended to focus on descriptions of a group's way of life. Thick description is a trait of ethnography more broadly but it is especially salient amongst anthropologists who believe that cultures can only be understood in their own terms. Such a philosophy has been criticized for turning anthropology into little more than academic-sounding travel writing because it renders it highly personal and lacking in comparative analysis (see Sandall 2001, Ch. 1).

Cultural relativism has also been criticized as philosophically impractical and, ultimately, epistemologically pessimistic (Scruton 2000), because it means that nothing can be compared to anything else or even assessed through the medium of a foreign language's categories. In implicitly defending cultural relativism, anthropologists have cautioned against assuming that some cultures are more 'rational' than others. Hollis (1967), for example, argues that anthropology demonstrates that superficially irrational actions may become 'rational' once the ethnographer understands the 'culture.' Risjord (2000) makes a similar point. This implies that the cultures are separate worlds, 'rational' in themselves. Others have suggested that entering the field assuming that the Western, 'rational' way of thinking is correct can lead to biased fieldwork interpretation (for example Rees 2010).

Critics have argued that certain forms of behaviour can be regarded as undesirable in all cultures, yet are only prevalent in some. It has also been argued that Multiculturalism is a form of Neo-Marxism on the grounds that it assumes imperialism and Western civilization to be inherently problematic but also because it lauds the materially unsuccessful. Whereas Marxism extols the values and lifestyle of the worker, and critiques that of the wealthy, Multiculturalism promotes

“materially unsuccessful” cultures and critiques more materially successful, Western cultures (for example Ellis 2004 or Gottfried 2004).

Cultural determinism has been criticized both from within and from outside anthropology. From within anthropology, New Zealand anthropologist Derek Freeman (1916-2001), having been heavily influenced by Margaret Mead, conducted his own fieldwork in Samoa around twenty years after she did and then in subsequent fieldwork visits. As he stayed there far longer than Mead, Freeman was accepted to a greater extent and given an honorary chiefly title. This allowed him considerable access to Samoan life. Eventually, in 1983 (after Mead’s death) he published his refutation: *Margaret Mead and Samoa: The Making and Unmaking of an Anthropological Myth* (Freeman 1983). In it, he argued that Mead was completely mistaken. Samoa was sexually puritanical, violent and teenagers experienced just as much angst as they did everywhere else. In addition, he highlighted serious faults with her fieldwork: her sample was very small, she chose to live at the American naval base rather than with a Samoan family, she did not speak Samoan well, she focused mainly on teenage girls and Freeman even tracked one down who, as an elderly lady, admitted she and her friends had deliberately lied to Mead about their sex lives for their own amusement (Freeman 1999). It should be emphasized that Freeman’s critique of Mead related to her failure to conduct participant observation fieldwork properly (in line with Malinowski’s recommendations). In that Freeman rejects distinctions of primitive and advanced, and stresses the importance of culture in understanding human differences, it is also in the tradition of Boas. However, it should be noted that Freeman’s (1983) critique of Mead has also been criticized as being unnecessarily cutting, prosecuting a case against Mead to the point of bias against her and ignoring points which Mead got right (Schankman 2009, 17).

There remains an ongoing debate about the extent to which culture reflects biology or is on a biological leash. However, a growing body of research in genetics is indicating that human personality is heavily influenced by genetic factors (for example Alarcon, Foulks, and Vakkur 1998 or Wilson 1998), though some research also indicates that environment, especially while a fetus, can alter the expression of genes (see Nettle 2007). This has become part of the critique of cultural determinism from evolutionary anthropologists.

## **Functionalism and Structuralism**

Between the 1930s and 1970s, various forms of functionalism were influential in British social anthropology. These schools accepted, to varying degrees, the cultural determinist belief that 'culture' was a separate sphere from biology and operated according to its own rules but they also argued that social institutions could be compared in order to better discern the rules of such institutions. They attempted to discern and describe how cultures operated and how the different parts of a culture functioned within the whole. Perceiving societies as organisms has been traced back to Herbert Spencer. Indeed, there is a degree to which Durkheim (1965) attempted to understand, for example, the function of religion in society. But functionalism seemingly reflected aspects of positivism: the search for, in this case, social facts (cross-culturally true), based on empirical evidence.

E.E. Evans-Pritchard (1902-1973) was a leading British functionalist from the 1930s onwards. Rejecting grand theories of religion, he argued that a tribe's religion could only make sense in terms of function within society and therefore a detailed understanding of the tribe's history and context was necessary. British functionalism, in this respect, was influenced by the linguistic theories of Swiss thinker Ferdinand de Saussure (1857-1913), who suggested that signs only made sense within a system of signs. He also engaged in lengthy fieldwork. This school developed into 'structural functionalism.' A. R. Radcliffe-Brown (1881-1955) is often argued to be a structural functionalist, though he denied this. Radcliffe-Brown rejected Malinowski's functionalism – which argued that social practices were grounded in human instincts. Instead, he was influenced by the process philosophy of Alfred North Whitehead (1861-1947). Radcliffe-Brown claimed that the units of anthropology were processes of human life and interaction. They are in constant flux and so anthropology must explain social stability. He argued that practices, in order to survive, must adapt to other practices, something called 'co-adaptation' (Radcliffe-Brown 1957). It might be argued that this leads us asking where any of the practices came from in the first place.

However, a leading member of the structural functionalist school was Scottish anthropologist Victor Turner (1920-1983). Structural functionalists attempted to understand society as a structure with inter-

related parts. In attempting to understand Rites of Passage, Turner argued that everyday structured society could be contrasted with the Rite of Passage (Turner 1969). This was a liminal (transitional) phase which involved *communitas* (a relative breakdown of structure). Another prominent anthropologist in this field was Mary Douglas (1921-2007). She examined the contrast between the 'sacred' and 'profane' in terms of categories of 'purity' and 'impurity' (Douglas 1966). She also suggested a model - the Grid/Group Model - through which the structures of different cultures could be categorized (Douglas 1970). Philosophically, this school accepted many of the assumptions of naturalism but it held to aspects of positivism in that it aimed to answer discrete questions, using the ethnographic method. It has been criticized, as we will see below, by postmodern anthropologists and also for its failure to attempt consilience with science.

Turner, Douglas and other anthropologists in this school, followed Malinowski by using categories drawn from the study of 'tribal' cultures – such as Rites of Passage, Shaman and Totem - to better comprehend advanced societies such as that of Britain. For example, Turner was highly influential in pursuing the Anthropology of Religion in which he used tribal categories as a means of comprehending aspects of the Catholic Church, such as modern-day pilgrimage (Turner and Turner 1978). This research also involved using the participant observation method. Critics, such as Romanian anthropologist Mircea Eliade (1907-1986) (for example Eliade 2004), have insisted that categories such as 'shaman' only make sense within their specific cultural context. Other critics have argued that such scholarship attempts to reduce all societies to the level of the local community despite there being many important differences and fails to take into account considerable differences in societal complexity (for example Sandall 2001, Ch. 1). Nevertheless, there is a growing movement within anthropology towards examining various aspects of human life through the so-called tribal prism and, more broadly, through the cultural one. Mary Douglas, for example, has looked at business life anthropologically while others have focused on politics, medicine or education. This has been termed 'traditional empiricism' by critics in contemporary anthropology (for example Davies 2010).

In France, in particular, the most prominent school, during this period, was known as Structuralism. Unlike British Functionalism,

structuralism was influenced by Hegelian idealism. Most associated with Claude Levi-Strauss, structuralism argued that all cultures follow the Hegelian dialectic. The human mind has a universal structure and a kind of *a priori* category system of opposites, a point which Hollis argues can be used as a starting point for any comparative cultural analysis. Cultures can be broken up into components - such as 'Mythology' or 'Ritual' - which evolve according to the dialectical process, leading to cultural differences. As such, the deep structures, or grammar, of each culture can be traced back to a shared starting point (and in a sense, the shared human mind) just as one can with a language. But each culture has a grammar and this allows them to be compared and permits insights to be made about them (see, for example, Levi-Strauss 1978). It might be suggested that the same criticisms that have been leveled against the Hegelian dialectic might be leveled against structuralism, such as it being based around a dogma. It has also been argued that category systems vary considerably between cultures (see Diamond 1974). Even supporters of Levi-Strauss have conceded that his works are opaque and verbose (for example Leach 1974).

### **Post-Modern or Contemporary Anthropology**

The 'postmodern' thinking of scholars such as Jacques Derrida (1930-2004) and Michel Foucault (1926-1984) began to become influential in anthropology in the 1970s and have been termed anthropology's 'Crisis of Representation.' During this crisis, which many anthropologists regard as ongoing, every aspect of 'traditional empirical anthropology' came to be questioned.

Hymes (1974) criticized anthropologists for imposing 'Western categories' - such as Western measurement - on those they study, arguing that this is a form of domination and was immoral, insisting that truth statements were always subjective and carried cultural values. Talal Asad (1971) criticized field-work based anthropology for ultimately being indebted to colonialism and suggested that anthropology has essentially been a project to enforce colonialism. Geertzian anthropology was criticized because it involved representing a culture, something which inherently involved imposing Western categories upon it through producing texts. Marcus argued that anthropology was ultimately composed of 'texts' - ethnographies -

which can be deconstructed to reveal power dynamics, normally the dominant-culture anthropologist making sense of the oppressed object of study through means of his or her subjective cultural categories and presenting it to his or her culture (for example Marcus and Cushman 1982). By extension, as all texts - including scientific texts - could be deconstructed, they argued, that they can make no objective assertions. Roth (1989) specifically criticizes seeing anthropology as 'texts' arguing that it does not undermine the empirical validity of the observations involved or help to find the power structures.

Various anthropologists, such as Roy Wagner (b. 1938) (Wagner 1981), argued that anthropologists were simply products of Western culture and they could only ever hope to understand another culture through their own. There was no objective truth beyond culture, simply different cultures with some, scientific ones, happening to be dominant for various historical reasons. Thus, this school strongly advocated cultural relativism. Critics have countered that, after Malinowski, anthropologists, with their participant observation breaking down the color bar, were in fact an irritation to colonial authorities (for example Kuper 1973) and have criticized cultural relativism, as discussed.

This situation led to what has been called the 'reflexive turn' in cultural anthropology. As Western anthropologists were products of their culture, just as those whom they studied were, and as the anthropologist was himself fallible, there developed an increasing movement towards 'auto-ethnography' in which the anthropologist analyzed their own emotions and feelings towards their fieldwork. The essential argument for anthropologists engaging in detailed analysis of their own emotions, sometimes known as the reflexive turn, is anthropologist Charlotte Davies' (1999, 6) argument that the 'purpose of research is to mediate between different constructions of reality, and doing research means increasing understanding of these varying constructs, among which is included the anthropologist's own constructions' (see Curran 2010, 109). But implicit in Davies' argument is that there is no such thing as objective reality and objective truth; there are simply different constructions of reality, as Wagner (1981) also argues. It has also been argued that autoethnography is 'emancipatory' because it turns anthropology into a dialogue rather than a traditional hierarchical analysis (Heaton-Shreshta 2010, 49). Auto-ethnography has been criticized as self-indulgent and based on

problematic assumptions such as cultural relativism and the belief that morality is the most important dimension to scholarship (for example Gellner 1992). In addition, the same criticisms that have been leveled against postmodernism more broadly have been leveled against postmodern anthropology, including criticism of a sometimes verbose and emotive style and the belief that it is epistemologically pessimistic and therefore leads to a Void (for example Scruton 2000). However, cautious defenders insist on the importance of being at least 'psychologically aware' (for example Emmett 1976) before conducting fieldwork, a point also argued by Popper (1963) with regard to conducting any scientific research. And Berger (2010) argues that auto-ethnography can be useful to the extent that it elucidates how a 'social fact' was uncovered by the anthropologist.

One of the significant results of the 'Crisis of Representation' has been a cooling towards the concept of 'culture' (and indeed 'culture shock') which was previously central to 'cultural anthropology' (see Oberg 1960 or Dutton 2012). 'Culture' has been criticized as old-fashioned, boring, problematic because it possesses a history (Rees 2010), associated with racism because it has come to replace 'race' in far right politics (Wilson 2002, 229), problematic because it imposes (imperialistically) a Western category on other cultures, vague and difficult to perfectly define (Rees 2010), helping to maintain a hierarchy of cultures (Abu Lughod 1991) and increasingly questioned by globalization and the breakdown of discrete cultures (for example Eriksen 2002 or Rees 2010). Defenders of culture have countered that many of these criticisms can be leveled against any category of apprehension and that the term is not synonymous with 'nation' so can be employed even if nations become less relevant (for example Fox and King 2002). Equally, 'culture shock,' formerly used to describe a rite of passage amongst anthropologists engaging in fieldwork, has been criticized because of its association with culture and also as old-fashioned (Crapanzano 2010).

In addition, a number of further movements have been provoked by the postmodern movement in anthropology. One of these is 'Sensory Ethnography' (for example Pink 2009). It has been argued that traditionally anthropology privileges the Western emphasis on sight and the word and that ethnographies, in order to avoid this kind of cultural imposition, need to look at other senses such as smell, taste

and touch. Another movement, specifically in the Anthropology of Religion, has argued that anthropologists should not go into the field as agnostics but should accept the possibility that the religious perspective of the group which they are studying may actually be correct and even work on the assumption that it is and engage in analysis accordingly (a point discussed in Engelke 2002).

During the same period, schools within anthropology developed based around a number of other fashionable philosophical ideologies. Feminist anthropology, like postmodern anthropology, began to come to prominence in the early 1970s. Philosophers such as Sandra Harding (1991) argued that anthropology had been dominated by men and this had led to anthropological interpretations being androcentric and a failure to appreciate the importance of women in social organizations. It has also led to androcentric metaphors in anthropological writing and focusing on research questions that mainly concern men. Strathern (1988) uses what she calls a Marxist-Feminist approach. She employs the categories of Melanesia in order to understand Melanesian gender relations to produce an 'endogenous' analysis of the situation. In doing so, she argues that actions in Melanesia are gender-neutral and the asymmetry between males and females is 'action-specific.' Thus, Melanesian women are not in any permanent state of social inferiority to men. In other words, if there is a sexual hierarchy it is *de facto* rather than *de jure*.

Critics have countered that prominent feminist interpretations have simply turned out to be empirically inaccurate. For example, feminist anthropologists, such as Weiner (1992) as well as philosopher Susan Dahlberg (1981), argued that foraging societies prized females and were peaceful and sexually egalitarian. It has been countered that this is a projection of feminist ideals which does not match with the facts (Kuznar 1997, Ch. 3). It has been argued that it does not follow that just because anthropology is male-dominated it is thus biased (Kuznar 1997, Ch. 3). However, feminist anthropologist Alison Wylie (see Risjord 1997) has argued that 'politically motivated critiques' including feminist ones, can improve science. Feminist critique, she argues, demonstrates the influence of 'androcentric values' on theory which forces scientists to hone their theories.

Another school, composed of some anthropologists from less developed countries or their descendants, have proffered a similar

critique, shifting the feminist view that anthropology is androcentric by arguing that it is Euro-centric. It has been argued that anthropology is dominated by Europeans, and specifically Western Europeans and those of Western European descent, and therefore reflects European thinking and bias. For example, anthropologists from developing countries, such as Greenlandic Karla Jessen-Williamson, have argued that anthropology would benefit from the more holistic, intuitive thinking of non-Western cultures and that this should be integrated into anthropology (for example Jessen-Williamson 2006). American anthropologist Lee Baker (1991) describes himself as ‘Afro-Centric’ and argues that anthropology must be critiqued due to being based on a ‘Western’ and ‘positivistic’ tradition which is thus biased in favour of Europe. Afrocentric anthropology aims to shift this to an African (or African American) perspective. He argues that metaphors in anthropology, for example, are Euro-centric and justify the suppression of Africans. Thus, Afrocentric anthropologists wish to construct an ‘epistemology’ the foundations of which are African. The criticisms leveled against cultural relativism have been leveled with regard to such perspectives (see Levin 2005).

### **Philosophical Dividing Lines**

#### ***a. Contemporary Evolutionary Anthropology***

The positivist, empirical philosophy already discussed broadly underpins current evolutionary anthropology and there is an extent to which it, therefore, crosses over with biology. This is inline with the *Consilience* model, advocated by Harvard biologist Edward Wilson (b. 1929) (Wilson 1998), who has argued that the social sciences must attempt to be scientific, in order to share in the success of science, and, therefore, must be reducible to the science which underpins them. Contemporary evolutionary anthropologists, therefore, follow the scientific method, and often a quantitative methodology, to answer discrete questions and attempt to orient anthropological research within biology and the latest discoveries in this field. Also some scholars, such as Derek Freeman (1983), have defended a more qualitative methodology but, nevertheless, argued that their findings need to be ultimately underpinned by scientific research.

For example, anthropologist Pascal Boyer (2001) has attempted to understand the origins of ‘religion’ by drawing upon the latest

research in genetics and in particular research into the functioning of the human mind. He has examined this alongside evidence from participant observation in an attempt to 'explain' religion. This subsection of evolutionary anthropology has been termed 'Neuro-anthropology' and attempts to better understand 'culture' through the latest discoveries in brain science. There are many other schools which apply different aspects of evolutionary theory – such as behavioral ecology, evolutionary genetics, paleontology and evolutionary psychology – to understanding cultural differences and different aspects of culture or subsections of culture such as 'religion.' Some scholars, such as Richard Dawkins (b. 1941) (Dawkins 1976), have attempted to render the study of culture more systematic by introducing the concept of cultural units – memes – and attempting to chart how and why certain memes are more successful than others, in light of research into the nature of the human brain.

Critics, in naturalist anthropology, have suggested that evolutionary anthropologists are insufficiently critical and go into the field thinking they already know the answers (for example Davies 2010). They have also argued that evolutionary anthropologists fail to appreciate that there are ways of knowing other than science. Some critics have also argued that evolutionary anthropology, with its acceptance of personality differences based on genetics, may lead to the maintenance of class and race hierarchies and to racism and discrimination (see Segerstråle 2000).

### ***b. Anthropology: A Philosophical Split?***

It has been argued both by scholars and journalists that anthropology, more so than other social scientific disciplines, is rent by a fundamental philosophical divide, though some anthropologists have disputed this and suggested that qualitative research can help to answer scientific research questions as long as naturalistic anthropologists accept the significance of biology.

The divide is trenchantly summarized by Lawson and McCauley (1993) who divide between 'interpretivists' and 'scientists,' or, as noted above, 'positivists' and 'naturalists.' For the scientists, the views of the 'cultural anthropologists' (as they call themselves) are too speculative, especially because pure ethnographic research is subjective, and are meaningless where they cannot be reduced to

science. For the interpretivists, the ‘evolutionary anthropologists’ are too ‘reductionistic’ and ‘mechanistic,’ they do not appreciate the benefits of subjective approach (such as garnering information that could not otherwise be garnered), and they ignore questions of ‘meaning,’ as they suffer from ‘physics envy.’

Some anthropologists, such as Risjord (2000, 8), have criticized this divide arguing that two perspectives can be united and that only through ‘explanatory coherence’ (combining objective analysis of a group with the face-value beliefs of the group members) can a fully coherent explanation be reached. Otherwise, anthropology will ‘never reach the social reality at which it aims.’ But this seems to raise the question of what it means to ‘reach the social reality.’

In terms of physical action, the split has already been happening, as discussed in Segal and Yanagisako (2005, Ch. 1). They note that some American anthropological departments demand that their lecturers are committed to holist ‘four field anthropology’ (archaeology, cultural, biological and linguistic) precisely because of this ongoing split and in particular the divergence between biological and cultural anthropology. They observe that already by the end of the 1980s most biological anthropologists had left the American Anthropological Association. Though they argue that ‘holism’ was less necessary in Europe – because of the way that US anthropology, in focusing on Native Americans, ‘bundled’ the four - Fearn (2008) notes that there is a growing divide in British anthropology departments as well along the same dividing lines of positivism and naturalism.

Evolutionary anthropologists and, in particular, postmodern anthropologists do seem to follow philosophies with essentially different presuppositions. In November 2010, this divide became particularly contentious when the American Anthropological Association voted to remove the word ‘science’ from its Mission Statement (Berrett 2010).

### **Philosophers on Man**

- ❖ Socrates: Most men (ie. human beings) have either “wind eggs” (false pregnancies) or “monstrosities” (bad ideas) as ideas or concepts in their minds, rather than “robust brain children” (good ideas or good concepts) that should be nurtured and brought to fruition. But Socrates could help you abort your bad concepts or send you to someone else who could help your mind become

“pregnant” if you would only answer his questions as honestly as possible.

- ❖ Plato: Thought most men (ie. human beings) would be better men with a better law giver (if only a philosopher would become King or by some dispensation of Providence a King would become a “true philosopher”) and better laws in a perfect State or “Polity”.
- ❖ Thales: He thought that philosophers could become rich if they wanted to - but they didn’t want to become rich. He actually proved his point by talking to a natural philosopher about what kind of olive harvest they’d have the following year. The guy said “Huge”! So Thales bought up the rights to all the olive presses, in the winter, and leased them out when the predicted huge harvest came in, thereby making a killing because everyone had to rent their olive presses from him at a profit to him. Then he gave a big party with his profits to show that he really didn’t care about making money. His views of “man” were similar to everybody else’s views of the time.
- ❖ Anaximander: Man evolved from other/earlier animals who were not men.
- ❖ Aristotle: Man is a political animal and only a social animal who has a sense of justice vs. injustice can be a political animal. That said, most men (ie. anthropoid animals) prefer the same sort of lives as other animals - the lives of eating, drinking and sexual reproduction.
- ❖ St. Augustine: There are 2 types of men. (1) Those who dwell in the City of Man and enjoy it, being unable to imagine any other kind of city. (2) Those who want to dwell in the City of God and enjoy that kind of metaphorical “city” eternally.
- ❖ Aquinas: Much like Aristotle. Man is a political animal. But his true happiness is to dwell with his maker in eternity. And if you can’t figure it out, logically, you can take the advice of Holy Mother Church.
- ❖ Machiavelli:- It is better to be a Prince’s adviser and friend, rather than a Prince’s enemy or a simple “nobody”. Maybe. Maybe not.
- ❖ Hobbes:- Man is a “smarter animal” than other animals. Men only differ in “degree” of intelligence from other animals - they don’t differ in kind of intelligence. [The “Socratics” disagree. Sensation

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and Knowledge differ in KIND rather than in degree.] He has the best kind of life in a “Leviathan” with a just monarch as his ruler.

- ❖ Kierkegaard: Bet on eternal life, more than on card/dice games. If you bet wrong on “eternity” and there is such a thing, your bad bet will be an eternally bad debt.
- ❖ Karl Marx: If only there becomes a true dictatorship of the proletariat man will finally live in “Eutopia” (good place) instead of “Utopia” (no place). So far, not so good. The Soviet Union seems a failed experiment.
- ❖ Nietzsche: We’re still waiting for his “Super Man” or “Over Man”. Maybe the mistake has been that we have yet to obtain an “Over Woman” - despite the coming and going of Margaret Thatcher in England and Mrs. Regan and Mrs. Clinton in America.

# Various Theories on the Origin of the Universe

As you would expect from several thousands of years of questioning and thinking, there are thousands of variations on the questions of the purpose, nature and substance of the Universe. Different cultures at different periods in time of human existence have had their own way of explaining an understanding of the Universe. We discuss a number of these in greater detail further into this book. But for all the alternative answers that still exist to the present day, three principle theories fundamentally underline the beliefs of the majority of modern human thought:-, That God (or Gods) created the Universe and was present before the universe was created, That the Universe created itself, That the Universe has always existed.

### **Theory (1) That God(Or Gods) Created The Universe**

The theory that a single “God”, “Gods” or force created the Universe forms the basis of the philosophies of the largest religions currently in the world, Christianity,

Islam, Judaism and even Buddhism. Each of these major religions base their philosophies on the essential belief that God(s) existed before the Universe was created and that God was the architect and creator of the Universe. The theory is popularly described in the “Book of Genesis” in The Bible which describes the Universe being created around human kind and taking approximately six days to complete. If we accept this theory as being possible, discarding the story book account of the actual “how” it was done, then the next question is why? for what purpose did God create the universe? In the Judaic/Christian tradition, the answer of “purpose” of the Universe is in the context of the Universe being created for man. That man is at the centre of the Universe, that all other living things serve to sustain man, with God ruling in judgment over man. Let us probe the implications and therefore the first of the potential flaws in this “model” -man as the “head lifeform” over all other life forms in the Universe. Statistically, it is impossible to suggest that there are no other life bearing planets in the Universe. For the moment we will not even attempt to argue the precise number, or even offer an “optimistic” number of life bearing planets in the Universe, we know there are literally a billion billion billion stars in the Universe. (For an explanation of why science establishes such a large number). Let us say for the moment that there are only ten million life bearing planets around older stars and some around younger stars. Next, let us look at the statistical probability of human beings being the most advanced life forms of all those life forms on a relatively few (ten million) planets. It is not only improbable, it is statistically impossible to say that human beings would definitely be the highest order life form in the Universe. Not only would this be highly improbable, it shows a complete contradiction in the Judaic/Christian notion of God having a sense of evolutionary hierarchy- man being the most advanced = the closest to God = everything else serving man. To be fair, the Judaic/Christian model would probably have incorporated more if written today, than over 2,000 years ago. Yet it remains a model to which a significant number of humanity still subscribe. Let us therefore look at simply asking the question “why?” again and see what the Judaic/Christian model says. We are told in the Judaic/Christian philosophy on creation that “God created the Universe for man, because God created man in his own image.” Again, let us ignore the inconsistencies of God being male instead female, or having no sex at all, let us simply ask the

question “why?” again. Curiously, this is where the most popular theory of God creating the Universe breaks down. The Theory returns in on itself to create a circular argument on the creation of the Universe. - why? because man is Gods image -why? so man could exist -why? because God so loved man-why? because man is God’s image?-why etc. While some ancient Gnostic and Eastern texts indicate that there may be more practical influences at work than spiritual super-beings, the popularized Christian theory of Genesis never allows us to understand the actual reasoning “behind” the act of creation:- if there was a need? If it was just a whim of a higher power who at any moment could “pull” the rug from under creation and end existence at any moment (hence the development /belief of the concept of a “judgment day” in Judaic/Christian religions). Without discounting the possibility that the sacred and ancient religious texts of Egypt, the Sumerians, Jews and Sth American cultures may in fact contain important understandings of the history of humankind, we are constrained at this point by the interpretation and translations of these texts which talk of the universe and God or Gods. Unfortunately these texts as they are currently interpreted do not provide us an objective workable model on the underlying reasons for the creation of the Universe, as these models continue to contain fundamental circular flaws and missing answers

## **Theory (2) That The Universe Created Itself**

The second most popular theory of creation is that the universe created itself. That at some point, billions of years ago the Universe (being matter) decided to exist and then did. This theory is more commonly described by the process of the creation of the Universe via the “Big Bang” theory, rather than the question of who or what created the Universe. Contrary to popular belief, the Big Bang theory is not the first theory to consider the possibility that the universe created itself. One of the earliest Ancient Egyptian beliefs on history of creation of the world, over six thousand years old, affirms the belief that the God Neb-er-tcher is the universe and contains within its being all duality- manifest and unmanifest, masculine and feminine, physical and mental. The belief states that its was through the God interacting with itself (described as the act of masturbation and fertilization via its mouth of words and ideas) that the universe sprouted forth. The Maori’s of New Zealand and the Pacific have a similar theory of the

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universe creating itself from an idea in motion, in their most sacred of chants:

*First Period (thought) From the conception the increase, From the increase the thought, From the thought the remembrance, From the remembrance the consciousness, From the consciousness the desire*

*Second Period (night) The world became fruitful; It dwelt with the feeble glimmering; It brought forth night; The great night, the long night, The lowest night, the loftiest night, The thick night to be felt, The night to be touched The night not to be seen, The night of death.*

*Third Period (light) From the nothing the begetting, From the nothing the increase, From the nothing the abundance, The power of increasing The living breath It dwelt with the empty space, And produced the atmosphere which is above us...*

Meanwhile, the Big Bang theory gives us the origin of the Universe as: “Attributes the make up of the stars, of galaxies and planets of originally coming from that defining moment when the Universe came into existence.” This theory has developed mainly as the result of scientists using telescopes and increasingly sophisticated measuring devices to probe into the far reaches of known space and discovering earlier and earlier structures in terms of age. The theory supposes that if we were to look backwards towards the original point of the Big Bang we would see younger and younger structures, while if we looked the other way we would see older and older structures. Interestingly, this theory has been described as Godless, in that it supposedly does not include the hand of a “higher” creator at work to create the Universe. But in fact the theory gives the role of the creator to the Universe itself, therefore making the Universe its own creator (its own God) and therefore being both a higher power and the result of its own creation. Surprisingly, the translation of this to the concept that all matter is therefore part of God and therefore God, has not been actively explored by the majority of Big Bang Theorists. Up until the Hubble Space Telescope started to work properly in late 1993, Big Bang theorists had gathered impressive experimental and statistical evidence to support the theory. However, since late 1993, the theory has struck a number of anomalies, with the advent of the

refocused Hubble space telescope that has identifying structures in the far reaches of the “younger” universe that appear to be older than the estimated date of when the universe was created. When the question is asked of the theory why did the universe create itself? Sometimes there is no answer and sometimes an answer is inserted such as “because it could.” There is no explanation in the theory as to why something should suddenly appear from nothing and spontaneously decide to create itself. In respect to the supporters and believers of the Big Bang Theory (model), it may serve their needs adequately at other levels, such as describing how matter disperses throughout the Universe, the different shapes of stars and therefore galaxies. Our point is that in crucial areas of understanding “before the act of creation, the purpose of creation”, the Big Bang model does not provide effective answers.

### **Theory (3) That The Universe Has Always Existed**

The third most popular theory of how the Universe was created (not what or who created the Universe) is the theory that the universe has always existed and that there is no definitive answer of when the universe was created, or even why the Universe was created. This theory is most popular amongst atheists (people who believe there is no God) and parts of the science community. One argument used by the supporters of this model is that at the very smallest workings and the very largest structures of matter, time is meaningless, therefore “technically” it is correct to say that the Universe has existed for all time, therefore always existed. Another argument of believers of this theory is one of pragmatism- “what is the point of trying to find out who or what created what? It exists doesn’t it?” Certainly the point of pragmatism is a strong argument. Yet our purpose for any model on creation is to understand who? why? what purpose? We have very real and immediate needs to understand, to overcome the uncertainty and confusion that is wasting so many lives.

## Chapter 9

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# Big Bang Theory and Its Alternatives

The most popular theory of our universe's origin centers on a cosmic cataclysm unmatched in all of history-the big bang. This theory was born of the observation that other galaxies are moving away from our own at great speed, in all directions, as if they had all been propelled by an ancient explosive force.

Before the big bang, scientists believe, the entire vastness of the observable universe, including all of its matter and radiation, was compressed into a hot, dense mass just a few millimeters across. This nearly incomprehensible state is theorized to have existed for just a fraction of the first second of time.

Big bang proponents suggest that some 10 billion to 20 billion years ago, a massive blast allowed all the universe's known matter and energy-even space and time themselves-to spring from some ancient and unknown type of energy.

The theory maintains that, in the instant-a trillion-trillionth of a second-after the big bang, the universe

expanded with incomprehensible speed from its pebble-size origin to astronomical scope. Expansion has apparently continued, but much more slowly, over the ensuing billions of years.

Scientists can't be sure exactly how the universe evolved after the big bang. Many believe that as time passed and matter cooled, more diverse kinds of atoms began to form, and they eventually condensed into the stars and galaxies of our present universe.

### **Origins of the Theory**

A Belgian priest named Georges Lemaître first suggested the big bang theory in the 1920s when he theorized that the universe began from a single primordial atom. The idea subsequently received major boosts by Edwin Hubble's observations that galaxies are speeding away from us in all directions, and from the discovery of cosmic microwave radiation by Arno Penzias and Robert Wilson.

The glow of cosmic microwave background radiation, which is found throughout the universe, is thought to be a tangible remnant of leftover light from the big bang. The radiation is akin to that used to transmit TV signals via antennas. But it is the oldest radiation known and may hold many secrets about the universe's earliest moments.

The big bang theory leaves several major questions unanswered. One is the original cause of the big bang itself. Several answers have been proposed to address this fundamental question, but none has been proven-and even adequately testing them has proven to be a formidable challenge.

### **The first second, and the birth of light**

In the first second after the universe began, the surrounding temperature was about 10 billion degrees Fahrenheit (5.5 billion Celsius), according to NASA. The cosmos contained a vast array of fundamental particles such as neutrons, electrons and protons. These decayed or combined as the universe got cooler.

This early soup would have been impossible to look at, because light could not carry inside of it. "The free electrons would have caused light (photons) to scatter the way sunlight scatters from the water droplets in clouds," NASA stated. Over time, however, the free electrons met up with nuclei and created neutral atoms. This allowed light to shine through about 380,000 years after the Big Bang.

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This early light - sometimes called the “afterglow” of the Big Bang - is more properly known as the cosmic microwave background (CMB). It was first predicted by Ralph Alpher and other scientists in 1948, but was found only by accident almost 20 years later. [Images: Peering Back to the Big Bang & Early Universe]

Arno Penzias and Robert Wilson, both of Bell Telephone Laboratories in Murray Hill, New Jersey, were building a radio receiver in 1965 and picking up higher-than-expected temperatures, according to NASA. At first, they thought the anomaly was due to pigeons and their dung, but even after cleaning up the mess and killing pigeons that tried to roost inside the antenna, the anomaly persisted.

Simultaneously, a Princeton University team (led by Robert Dicke) was trying to find evidence of the CMB, and realized that Penzias and Wilson had stumbled upon it. The teams each published papers in the *Astrophysical Journal* in 1965.

### **Determining the age of the universe**

The cosmic microwave background has been observed on many missions. One of the most famous space-faring missions was NASA’s Cosmic Background Explorer (COBE) satellite, which mapped the sky in the 1990s.

Several other missions have followed in COBE’s footsteps, such as the BOOMERanG experiment (Balloon Observations of Millimetric Extragalactic Radiation and Geophysics), NASA’s Wilkinson Microwave Anisotropy Probe (WMAP) and the European Space Agency’s Planck satellite.

Planck’s observations, released in 2013, mapped the background in unprecedented detail and revealed that the universe was older than previously thought: 13.82 billion years old, rather than 13.7 billion years old.

The maps give rise to new mysteries, however, such as why the Southern Hemisphere appears slightly redder (warmer) than the Northern Hemisphere. The Big Bang Theory says that the CMB would be mostly the same, no matter where you look.

Examining the CMB also gives astronomers clues as to the composition of the universe. Researchers think most of the cosmos is

made up of matter and energy that cannot be “sensed” with conventional instruments, leading to the names dark matter and dark energy. Only 5 percent of the universe is made up of matter such as planets, stars and galaxies.

### **Gravitational waves controversy**

While astronomers could see the universe’s beginnings, they’ve also been seeking out proof of its rapid inflation. Theory says that in the first second after the universe was born, our cosmos ballooned faster than the speed of light. That, by the way, does not violate Albert Einstein’s speed limit since he said that light is the maximum anything can travel within the universe. That did not apply to the inflation of the universe itself. In 2014, astronomers said they had found evidence in the CMB concerning “B-modes,” a sort of polarization generated as the universe got bigger and created gravitational waves. The team spotted evidence of this using an Antarctic telescope called “Background Imaging of Cosmic Extragalactic Polarization”, or BICEP2. “We’re very confident that the signal that we’re seeing is real, and it’s on the sky,” lead researcher John Kovac, of the Harvard-Smithsonian Center for Astrophysics, told Space.com in March 2014.

But by June, the same team said that their findings could have been altered by galactic dust getting in the way of their field of view.

“The basic takeaway has not changed; we have high confidence in our results,” Kovac said in a press conference reported by the New York Times. “New information from Planck makes it look like pre-Planckian predictions of dust were too low,” he added. The results from Planck were put online in pre-published form in September. By January 2015, researchers from both teams working together “confirmed that the Bicep signal was mostly, if not all, stardust,” the New York Times said in another article. Faster inflation, multiverses and charting the start

The universe is not only expanding, but getting faster as it inflates. This means that with time, nobody will be able to spot other galaxies from Earth, or any other vantage point within our galaxy.

“We will see distant galaxies moving away from us, but their speed is increasing with time,” Harvard University astronomer Avi Loeb said in a March 2014 Space.com article.

“So, if you wait long enough, eventually, a distant galaxy will reach the speed of light. What that means is that even light won’t be able to bridge the gap that’s being opened between that galaxy and us. There’s no way for extraterrestrials on that galaxy to communicate with us, to send any signals that will reach us, once their galaxy is moving faster than light relative to us.”

Some physicists also suggest that the universe we experience is just one of many. In the “multiverse” model, different universes would coexist with each other like bubbles lying side by side. The theory suggests that in that first big push of inflation, different parts of space-time grew at different rates. This could have carved off different sections - different universes - with potentially different laws of physics.

“It’s hard to build models of inflation that don’t lead to a multiverse,” Alan Guth, a theoretical physicist at the Massachusetts Institute of Technology, said during a news conference in March 2014 concerning the gravitational waves discovery. (Guth is not affiliated with that study.)

“It’s not impossible, so I think there’s still certainly research that needs to be done. But most models of inflation do lead to a multiverse, and evidence for inflation will be pushing us in the direction of taking [the idea of a] multiverse seriously.”

While we can understand how the universe we see came to be, it’s possible that the Big Bang was not the first inflationary period the universe experienced. Some scientists believe we live in a cosmos that goes through regular cycles of inflation and deflation, and that we just happen to be living in one of these phases.

### **Stephen Hawking: Origin of the Universe** (*A Lecture by Hawking*)

According to the Boshongo people of central Africa, in the beginning, there was only darkness, water, and the great god Bumba. One day Bumba, in pain from a stomach ache, vomited up the sun. The sun dried up some of the water, leaving land. Still in pain, Bumba vomited up the moon, the stars, and then some animals. The leopard, the crocodile, the turtle, and finally, man.

This creation myth, like many others, tries to answer the questions we all ask. Why are we here? Where did we come from? The answer

generally given was that humans were of comparatively recent origin, because it must have been obvious, even at early times, that the human race was improving in knowledge and technology. So it can't have been around that long, or it would have progressed even more. For example, according to Bishop Usher, the Book of Genesis placed the creation of the world at 9 in the morning on October the 27th, 4,004 BC. On the other hand, the physical surroundings, like mountains and rivers, change very little in a human lifetime. They were therefore thought to be a constant background, and either to have existed forever as an empty landscape, or to have been created at the same time as the humans. Not everyone, however, was happy with the idea that the universe had a beginning.

For example, Aristotle, the most famous of the Greek philosophers, believed the universe had existed forever. Something eternal is more perfect than something created. He suggested the reason we see progress was that floods, or other natural disasters, had repeatedly set civilization back to the beginning. The motivation for believing in an eternal universe was the desire to avoid invoking divine intervention to create the universe and set it going. Conversely, those who believed the universe had a beginning, used it as an argument for the existence of God as the first cause, or prime mover, of the universe.

If one believed that the universe had a beginning, the obvious question was what happened before the beginning? What was God doing before He made the world? Was He preparing Hell for people who asked such questions? The problem of whether or not the universe had a beginning was a great concern to the German philosopher, Immanuel Kant. He felt there were logical contradictions, or antimonies, either way. If the universe had a beginning, why did it wait an infinite time before it began? He called that the thesis. On the other hand, if the universe had existed for ever, why did it take an infinite time to reach the present stage? He called that the antithesis. Both the thesis and the antithesis depended on Kant's assumption, along with almost everyone else, that time was Absolute. That is to say, it went from the infinite past to the infinite future, independently of any universe that might or might not exist in this background. This is still the picture in the mind of many scientists today.

However in 1915, Einstein introduced his revolutionary General Theory of Relativity. In this, space and time were no longer Absolute, no longer a fixed background to events. Instead, they were dynamical quantities that were shaped by the matter and energy in the universe. They were defined only within the universe, so it made no sense to talk of a time before the universe began. It would be like asking for a point south of the South Pole. It is not defined. If the universe was essentially unchanging in time, as was generally assumed before the 1920s, there would be no reason that time should not be defined arbitrarily far back. Any so-called beginning of the universe would be artificial, in the sense that one could extend the history back to earlier times. Thus it might be that the universe was created last year, but with all the memories and physical evidence, to look like it was much older. This raises deep philosophical questions about the meaning of existence. I shall deal with these by adopting what is called, the positivist approach. In this, the idea is that we interpret the input from our senses in terms of a model we make of the world. One can not ask whether the model represents reality, only whether it works. A model is a good model if first it interprets a wide range of observations, in terms of a simple and elegant model. And second, if the model makes definite predictions that can be tested and possibly falsified by observation.

In terms of the positivist approach, one can compare two models of the universe. One in which the universe was created last year and one in which the universe existed much longer. The Model in which the universe existed for longer than a year can explain things like identical twins that have a common cause more than a year ago. On the other hand, the model in which the universe was created last year cannot explain such events. So the first model is better. One can not ask whether the universe really existed before a year ago or just appeared to. In the positivist approach, they are the same. In an unchanging universe, there would be no natural starting point. The situation changed radically however, when Edwin Hubble began to make observations with the hundred inch telescope on Mount Wilson, in the 1920s.

Hubble found that stars are not uniformly distributed throughout space, but are gathered together in vast collections called galaxies. By measuring the light from galaxies, Hubble could determine their

velocities. He was expecting that as many galaxies would be moving towards us as were moving away. This is what one would have in a universe that was unchanging with time. But to his surprise, Hubble found that nearly all the galaxies were moving away from us. Moreover, the further galaxies were from us, the faster they were moving away. The universe was not unchanging with time as everyone had thought previously. It was expanding. The distance between distant galaxies was increasing with time.

The expansion of the universe was one of the most important intellectual discoveries of the 20th century, or of any century. It transformed the debate about whether the universe had a beginning. If galaxies are moving apart now, they must have been closer together in the past. If their speed had been constant, they would all have been on top of one another about 15 billion years ago. Was this the beginning of the universe? Many scientists were still unhappy with the universe having a beginning because it seemed to imply that physics broke down. One would have to invoke an outside agency, which for convenience, one can call God, to determine how the universe began. They therefore advanced theories in which the universe was expanding at the present time, but didn't have a beginning. One was the Steady State theory, proposed by Bondi, Gold, and Hoyle in 1948.

In the Steady State theory, as galaxies moved apart, the idea was that new galaxies would form from matter that was supposed to be continually being created throughout space. The universe would have existed for ever and would have looked the same at all times. This last property had the great virtue, from a positivist point of view, of being a definite prediction that could be tested by observation. The Cambridge radio astronomy group, under Martin Ryle, did a survey of weak radio sources in the early 1960s. These were distributed fairly uniformly across the sky, indicating that most of the sources lay outside our galaxy. The weaker sources would be further away, on average. The Steady State theory predicted the shape of the graph of the number of sources against source strength. But the observations showed more faint sources than predicted, indicating that the density sources were higher in the past. This was contrary to the basic assumption of the Steady State theory, that everything was constant in time. For this, and other reasons, the Steady State theory was abandoned.

Another attempt to avoid the universe having a beginning was the suggestion that there was a previous contracting phase, but because of rotation and local irregularities, the matter would not all fall to the same point. Instead, different parts of the matter would miss each other, and the universe would expand again with the density remaining finite. Two Russians, Lifshitz and Khalatnikov, actually claimed to have proved, that a general contraction without exact symmetry would always lead to a bounce with the density remaining finite. This result was very convenient for Marxist Leninist dialectical materialism, because it avoided awkward questions about the creation of the universe. It therefore became an article of faith for Soviet scientists.

When Lifshitz and Khalatnikov published their claim, I was a 21 year old research student looking for something to complete my PhD thesis. I didn't believe their so-called proof, and set out with Roger Penrose to develop new mathematical techniques to study the question. We showed that the universe couldn't bounce. If Einstein's General Theory of Relativity is correct, there will be a singularity, a point of infinite density and spacetime curvature, where time has a beginning. Observational evidence to confirm the idea that the universe had a very dense beginning came in October 1965, a few months after my first singularity result, with the discovery of a faint background of microwaves throughout space. These microwaves are the same as those in your microwave oven, but very much less powerful. They would heat your pizza only to minus 271 point 3 degrees centigrade, not much good for defrosting the pizza, let alone cooking it. You can actually observe these microwaves yourself. Set your television to an empty channel. A few percent of the snow you see on the screen will be caused by this background of microwaves. The only reasonable interpretation of the background is that it is radiation left over from an early very hot and dense state. As the universe expanded, the radiation would have cooled until it is just the faint remnant we observe today.

Although the singularity theorems of Penrose and myself, predicted that the universe had a beginning, they didn't say how it had begun. The equations of General Relativity would break down at the singularity. Thus Einstein's theory cannot predict how the universe will begin, but only how it will evolve once it has begun. There are two attitudes one can take to the results of Penrose and myself. One is to that God chose how the universe began for reasons we could not

understand. This was the view of Pope John Paul. At a conference on cosmology in the Vatican, the Pope told the delegates that it was OK to study the universe after it began, but they should not inquire into the beginning itself, because that was the moment of creation, and the work of God. I was glad he didn't realize I had presented a paper at the conference suggesting how the universe began. I didn't fancy the thought of being handed over to the Inquisition, like Galileo.

The other interpretation of our results, which is favored by most scientists, is that it indicates that the General Theory of Relativity breaks down in the very strong gravitational fields in the early universe. It has to be replaced by a more complete theory. One would expect this anyway, because General Relativity does not take account of the small scale structure of matter, which is governed by quantum theory. This does not matter normally, because the scale of the universe is enormous compared to the microscopic scales of quantum theory. But when the universe is the Planck size, a billion trillion trillionth of a centimeter, the two scales are the same, and quantum theory has to be taken into account.

In order to understand the Origin of the universe, we need to combine the General Theory of Relativity with quantum theory. The best way of doing so seems to be to use Feynman's idea of a sum over histories. Richard Feynman was a colorful character, who played the bongo drums in a strip joint in Pasadena, and was a brilliant physicist at the California Institute of Technology. He proposed that a system got from a state A, to a state B, by every possible path or history. Each path or history has a certain amplitude or intensity, and the probability of the system going from A- to B, is given by adding up the amplitudes for each path. There will be a history in which the moon is made of blue cheese, but the amplitude is low, which is bad news for mice.

The probability for a state of the universe at the present time is given by adding up the amplitudes for all the histories that end with that state. But how did the histories start? This is the Origin question in another guise. Does it require a Creator to decree how the universe began? Or is the initial state of the universe, determined by a law of science? In fact, this question would arise even if the histories of the universe went back to the infinite past. But it is more immediate if the universe began only 15 billion years ago. The problem of what happens

at the beginning of time is a bit like the question of what happened at the edge of the world, when people thought the world was flat. Is the world a flat plate with the sea pouring over the edge? I have tested this experimentally. I have been round the world, and I have not fallen off. As we all know, the problem of what happens at the edge of the world was solved when people realized that the world was not a flat plate, but a curved surface. Time however, seemed to be different. It appeared to be separate from space, and to be like a model railway track. If it had a beginning, there would have to be someone to set the trains going. Einstein's General Theory of Relativity unified time and space as spacetime, but time was still different from space and was like a corridor, which either had a beginning and end, or went on forever. However, when one combines General Relativity with Quantum Theory, Jim Hartle and I realized that time can behave like another direction in space under extreme conditions. This means one can get rid of the problem of time having a beginning, in a similar way in which we got rid of the edge of the world. Suppose the beginning of the universe was like the South Pole of the earth, with degrees of latitude playing the role of time. The universe would start as a point at the South Pole. As one moves north, the circles of constant latitude, representing the size of the universe, would expand. To ask what happened before the beginning of the universe would become a meaningless question, because there is nothing south of the South Pole.

Time, as measured in degrees of latitude, would have a beginning at the South Pole, but the South Pole is much like any other point, at least so I have been told. I have been to Antarctica, but not to the South Pole. The same laws of Nature hold at the South Pole as in other places. This would remove the age-old objection to the universe having a beginning; that it would be a place where the normal laws broke down. The beginning of the universe would be governed by the laws of science. The picture Jim Hartle and I developed of the spontaneous quantum creation of the universe would be a bit like the formation of bubbles of steam in boiling water.

The idea is that the most probable histories of the universe would be like the surfaces of the bubbles. Many small bubbles would appear, and then disappear again. These would correspond to mini universes that would expand but would collapse again while still of microscopic size. They are possible alternative universes but they are not of much

interest since they do not last long enough to develop galaxies and stars, let alone intelligent life. A few of the little bubbles, however, grow to a certain size at which they are safe from recollapse. They will continue to expand at an ever increasing rate, and will form the bubbles we see. They will correspond to universes that would start off expanding at an ever increasing rate. This is called inflation, like the way prices go up every year.

The world record for inflation was in Germany after the First World War. Prices rose by a factor of ten million in a period of 18 months. But that was nothing compared to inflation in the early universe. The universe expanded by a factor of million trillion trillion in a tiny fraction of a second. Unlike inflation in prices, inflation in the early universe was a very good thing. It produced a very large and uniform universe, just as we observe. However, it would not be completely uniform. In the sum over histories, histories that are very slightly irregular will have almost as high probabilities as the completely uniform and regular history. The theory therefore predicts that the early universe is likely to be slightly non-uniform. These irregularities would produce small variations in the intensity of the microwave background from different directions. The microwave background has been observed by the Map satellite, and was found to have exactly the kind of variations predicted. So we know we are on the right lines.

The irregularities in the early universe will mean that some regions will have slightly higher density than others. The gravitational attraction of the extra density will slow the expansion of the region, and can eventually cause the region to collapse to form galaxies and stars. So look well at the map of the microwave sky. It is the blue print for all the structure in the universe. We are the product of quantum fluctuations in the very early universe. God really does play dice.

We have made tremendous progress in cosmology in the last hundred years. The General Theory of Relativity and the discovery of the expansion of the universe shattered the old picture of an ever existing and ever lasting universe. Instead, general relativity predicted that the universe, and time itself, would begin in the big bang. It also predicted that time would come to an end in black holes. The discovery of the cosmic microwave background and observations of black holes support these conclusions. This is a profound change in our picture of

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the universe and of reality itself. Although the General Theory of Relativity predicted that the universe must have come from a period of high curvature in the past, it could not predict how the universe would emerge from the big bang. Thus general relativity on its own cannot answer the central question in cosmology: Why is the universe the way it is? However, if general relativity is combined with quantum theory, it may be possible to predict how the universe would start. It would initially expand at an ever increasing rate.

During this so called inflationary period, the marriage of the two theories predicted that small fluctuations would develop and lead to the formation of galaxies, stars, and all the other structure in the universe. This is confirmed by observations of small non uniformities in the cosmic microwave background, with exactly the predicted properties. So it seems we are on our way to understanding the origin of the universe, though much more work will be needed. A new window on the very early universe will be opened when we can detect gravitational waves by accurately measuring the distances between space craft. Gravitational waves propagate freely to us from earliest times, unimpeded by any intervening material. By contrast, light is scattered many times by free electrons. The scattering goes on until the electrons freeze out, after 300,000 years.

Despite having had some great successes, not everything is solved. We do not yet have a good theoretical understanding of the observations that the expansion of the universe is accelerating again, after a long period of slowing down. Without such an understanding, we cannot be sure of the future of the universe. Will it continue to expand forever? Is inflation a law of Nature? Or will the universe eventually collapse again? New observational results and theoretical advances are coming in rapidly. Cosmology is a very exciting and active subject. We are getting close to answering the age old questions. Why are we here? Where did we come from?

## Chapter 10

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### Origin of Life

The origin of life is a scientific problem which is not yet solved. There are plenty of ideas, but few clear facts. It is generally agreed that all life today evolved by common descent from a single primitive lifeform. We do not know how this early form came about, but scientists think it was a natural process which took place perhaps 3,900 million years ago. This is in accord with a philosophy called naturalism: only natural causes are admitted. We do not know whether metabolism or genetics comes earlier. The main hypothesis which supports genetics first is RNA world hypothesis, and the one which supports metabolism first is Protein world hypothesis. Another big problem is how cells develop. All existing forms of life are built out of cells.

The Nobel Prize in Chemistry winner Melvin Calvin wrote a book on the subject, and so did Alexander Oparin. What links most of the early work on the origin of life was the idea that before biological evolution began there must have been a process of chemical evolution. Another question which has been discussed by J.D.

Bernal and others is the origin of the cell membrane. By concentrating the chemicals in one place, the cell membrane performs a vital function.

### Fossil Record

A scientific study from 2002 shows that geological formations of stromatolites 3.45 billion years old contain fossilized cyanobacteria. It is now widely agreed that stromatolites are oldest known lifeform on Earth which has left a record of its existence. Therefore, if life originated on Earth, this happened sometime between 4.4 billion years ago, when water vapor first liquefied, and 3.5 billion years ago. Earliest evidence of life comes from the Isua supercrustal belt in Western Greenland and from similar formations in the nearby Akilia Islands. This is because a high level of the lighter isotope of carbon is found there. Living things uptake lighter isotopes because this takes less energy. Carbon entering into rock formations has a concentration of elemental  $\delta^{13}\text{C}$  of about  $-5.5$  of  $^{12}\text{C}$ , biomass has a  $\delta^{13}\text{C}$  of between  $-20$  and  $-30$ . These isotopic fingerprints are preserved in the rocks. With this evidence, Mojzsis suggested that life existed on the planet already by 3.85 billion years ago. A few scientists think life might have been carried from planet to planet by the transport of spores. This idea, now known as *panspermia*, was first put forward by Arrhenius.

### History of Studies into the Origin of Life

- ❖ **Spontaneous Generation:** Until the early 19th century many people believed in the regular spontaneous generation of life from non-living matter. This was called spontaneous generation, and was disproved by Louis Pasteur. He showed that without spores no bacteria or viruses grew on sterile material.
- ❖ **Darwin:** In a letter to Joseph Dalton Hooker on 11 February 1871, Charles Darwin proposed a *natural process* for the origin of life. He suggested that the original spark of life may have begun in a “warm little pond, with all sorts of ammonia and phosphoric salts, lights, heat, electricity, etc. A protein compound was then chemically formed ready to undergo still more complex changes”. He went on to explain that “at the present day such matter would be instantly devoured or absorbed, which would not have been the case before living creatures were formed”.
- ❖ **Haldane and Oparin:** No real progress was made until 1924 when Alexander Oparin reasoned that atmospheric oxygen

prevented the synthesis of the organic molecules. Organic molecules are the necessary building blocks for the evolution of life. In his *The Origin of Life*, Oparin argued that a “primeval soup” of organic molecules could be created in an oxygen-less atmosphere through the action of sunlight. These would combine in ever-more complex fashions until they formed droplets. These droplets would “grow” by fusion with other droplets, and “reproduce” through fission into daughter droplets, and so have a primitive metabolism in which those factors which promote “cell integrity” survive, those that do not become extinct. Many modern theories of the origin of life still take Oparin’s ideas as a starting point.

- ❖ Around the same time J.B.S. Haldane also suggested that the Earth’s pre-biotic oceans, which were very different from what oceans are now, would have formed a “hot dilute soup”. In this soup, organic compounds, the building blocks of life, could have formed. This idea was called *biopoiesis*, the process of living matter evolving from self-replicating but nonliving molecules.

### Early Conditions on Earth

There is almost no geological record from before 3.8 billion years ago. The environment that existed in the Hadean era was hostile to life, but how much so is not known. There was a time, between 3.8 and 4.1 billion years ago, which is known as the Late Heavy Bombardment. It is so named because many lunar craters are thought to have formed then. The situation on other planets, such as Earth, Venus, Mercury and Mars must have been similar. These impacts would likely sterilize the Earth (kill all life), if it existed at that time.

Several people have suggested that the chemicals in the cell give clues as to what the early seas must have been like. In 1926, Macallum noted that the inorganic composition of the cell cytosol dramatically differs from that of modern sea water: “the cell... has endowments transmitted from a past almost as remote as the origin of life on earth”. For example: “All cells contain much more potassium, phosphate, and transition metals than modern ... oceans, lakes, or rivers”. “Under the anoxic, CO<sub>2</sub>-dominated primordial atmosphere, the chemistry of inland basins at geothermal fields would [be like the chemistry inside] modern cells”.

### Temperature

If life evolved in the deep ocean, near a hydrothermal vent, it could have originated as early as 4 to 4.2 billion years ago. If, on the other

hand, life originated at the surface of the planet, a common opinion is it could only have done so between 3.5 and 4 billion years ago. Lazcano and Miller (1994) suggest that the pace of molecular evolution was dictated by the rate of recirculating water through mid-ocean submarine vents. Complete recirculation takes 10 million years, so any organic compounds produced by then would be altered or destroyed by temperatures exceeding 300 °C. They estimate that the development of a 100 kilobase genome of a DNA/protein primitive heterotroph into a 7000 gene filamentous cyano-bacterium would have required only 7 million years.

### **History of Earth's Atmosphere**

Originally, the Earth's atmosphere had almost no free oxygen. It gradually changed to what it is today, over a very long time (see Great Oxygenation Event). The process began with cyanobacteria. They were the first organisms to make free oxygen by photosynthesis. Most organisms today need oxygen for their metabolism; only a few can use other sources for respiration. So it is expected that the first proto-organisms were chemoautotrophs, and did not use aerobic respiration. They were anaerobic.

### **Current Models**

There is no “standard model” on how life started. Most accepted models are built on molecular biology and cell biology:

1. Because there are the right conditions, some basic small molecules are created. These are called monomers of life. Amino acids are one type of these molecules. This was proved by the Miller–Urey experiment by Stanley L. Miller and Harold C. Urey in 1953, and we now know these basic building blocks are common throughout space. Early Earth would have had them all.

2. Phospholipids, which can form lipid bilayers, a main component of the cell membrane.

3. Nucleotides which might join up into random RNA molecules. This might have resulted in self-replicating ribozymes (RNA world hypothesis).

4. Competition for substrates would select mini-proteins into enzymes. The ribosome is critical to protein synthesis in present-day cells, but we have no idea as to how it evolved.

5. Early on, ribonucleic acids would have been catalysts, but later nucleic acids are specialised for genomic use.

The origin of the basic biomolecules, while not settled, is less controversial than the significance and order of steps 2 and 3. The basic chemicals from which life is thought to have formed are:

- Methane (CH<sub>4</sub>),
- Ammonia (NH<sub>3</sub>),
- Water (H<sub>2</sub>O),
- Hydrogen sulfide (H<sub>2</sub>S),
- Carbon dioxide (CO<sub>2</sub>) or carbon monoxide (CO), and
- Phosphate (PO<sub>4</sub><sup>3-</sup>).

Molecular oxygen (O<sub>2</sub>) and ozone (O<sub>3</sub>) were either rare or absent.

### Three Stages

Stage 1: The origin of biological monomers

Stage 2: The origin of biological polymers

Stage 3: The evolution from molecules to cells

Bernal suggested that evolution may have commenced early, some time between Stage 1 and 2.

### Origin of Organic Molecules

There are three sources of organic molecules on the early Earth:

1. organic synthesis by energy sources (such as ultraviolet light or electrical discharges).
2. delivery by extraterrestrial objects such as carbonaceous meteorites (chondrites);
3. organic synthesis driven by impact shocks.

Estimates of these sources suggest that the heavy bombardment before 3.5 billion years ago made available quantities of organics comparable to those produced by other energy sources.

- ❖ Miller's experiment and the primordial soup: In 1953 a graduate student, Stanley Miller, and his professor, Harold Urey, performed an experiment that showed how organic molecules could have formed on early Earth from inorganic precursors. The now-famous Miller–Urey experiment used a highly reduced mixture of gases - methane, ammonia and hydrogen - to form basic organic monomers, such as amino acids. We do know now that

for more than the first half of the Earth's history its atmosphere had almost no oxygen.

- ❖ **Fox's Experiments:** *In the 1950s and 1960s, Sidney W. Fox studied the spontaneous formation of peptide structures under conditions that might have existed early in Earth's history. He demonstrated that amino acids could by itself form small peptides. These amino acids and small peptides could be encouraged to form closed spherical membranes, called microspheres.*
- ❖ **Special Conditions:** Some scientists have suggested special conditions which could make cell synthesis easier.

**Clay World:** A clay model for the origin of life was suggested by A. Graham Cairns-Smith. Clay theory suggests complex organic molecules arose gradually on a pre-existing non-organic platform, namely, silicate crystals in solution:

**Deep-Hot Biosphere Model:** In the 1970s, Thomas Gold proposed the theory that life first developed not on the surface of the Earth, but several kilometers below the surface. The discovery in the late 1990s of nanobes (filamental structures that are smaller than bacteria, but that may contain DNA in deep rocks) might support Gold's theory.

It is now reasonably well established that microbial life is plentiful at shallow depths in the Earth (up to five kilometers below the surface) in the form of extremophile archaea, rather than the better-known eubacteria (which live in more accessible conditions).

Gold asserted that a trickle of food from a deep, unreachable, source is needed for survival because life arising in a puddle of organic material is likely to consume all of its food and become extinct. Gold's theory was that the flow of food is due to out-gassing of primordial methane from the Earth's mantle.

**Self-Organization and Replication:** Self-organization and self-replication are the hallmark of living systems. Non-living molecules sometimes show those features under proper conditions. For example, Martin and Russel showed that cell membranes separating contents from the environment and self-organization of self-contained redox reactions are the most conserved attributes of living things. They argue that inorganic matter like that would be life's most likely last common ancestor.

## Theories

- ❖ **RNA World Hypothesis:** In this hypothesis, RNA is said to work both as an enzyme and as a container of genes. Later, DNA took over its genetic role. The RNA world hypothesis proposes that life based on ribonucleic acid (RNA) pre-dates the current world of life based on deoxyribonucleic acid (DNA), RNA and proteins. RNA is able both to store genetic information, like DNA, and to catalyze chemical reactions, like an enzyme. It may have supported pre-cellular life and been a major step towards cellular life. There are some pieces of evidence which support this idea:
  - There are some RNAs which work as enzymes.
  - Some viruses use RNA for heredity.
  - Many of the most fundamental parts of the cell require RNA.
- ❖ **Metabolism and Proteins:** This idea suggests that proteins worked as enzymes first, producing metabolism. After that DNA and RNA began to work as containers of genes. This idea also has some evidences which supports this.
  - Protein as enzyme is essential for today's lives.
  - Some amino acids are formed from more basic chemicals in the Miller-Urey experiment. Some deny this idea because Proteins cannot copy themselves.
- ❖ **Lipids:** In this scheme membranes made of lipid bilayers occur early on. Once organic chemicals are enclosed, more complex biochemistry is then possible.
- ❖ **Panspermia:** This is the idea suggested by Arrhenius, and developed by Fred Hoyle, that life developed elsewhere in the universe and arrived on Earth in the form of spores. This is not a theory of how life began, but a theory of how it might have spread. It may have spread, for example, by meteorites. Some propose that that early Mars was a better place to start life than was the early Earth. The molecules which combined to form genetic material are more complex than the "primordial soup" of organic (carbon-based) chemicals that existed on Earth four billion years ago. If RNA was the first genetic material, then minerals containing boron and molybdenum could assist its formation. These minerals were much more common on Mars than on Earth.

## Chapter 11

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# Creationism and Evolutionism

One of the most important questions for every educated Catholic of today is: What is to be thought of the theory of evolution? Is it to be rejected as unfounded and inimical to Christianity, or is it to be accepted as an established theory altogether compatible with the principles of a Christian conception of the universe?

We must carefully distinguish between the different meanings of the words *theory of evolution* in order to give a clear and correct answer to this question. We must distinguish (1) between the theory of evolution as a scientific hypothesis and as a philosophical speculation; (2) between the theory of evolution as based on theistic principles and as based on a materialistic and atheistic foundation; (3) between the theory of evolution and Darwinism; (4) between the theory of evolution as applied to the vegetable and animal kingdoms and as applied to man.

### Scientific Hypothesis vs. Philosophical Speculation

As a scientific hypothesis, the theory of evolution seeks to determine the historical succession of the

various species of plants and of animals on our earth, and, with the aid of palaeontology and other sciences, such as comparative morphology, embryology, and bionomy, to show how in the course of the different geological epochs they gradually evolve from their beginnings by purely natural causes of specific development. The theory of evolution, then, as a scientific hypothesis, does not consider the present species of plants and of animals as forms directly created by God, but as the final result of an evolution from other species existing in former geological periods. Hence it is called “the theory of evolution”, or “the theory of descent”, since it implies the descent of the present from extinct species. This theory is opposed to the theory of constancy, which assumes the immutability of organic species. The scientific theory of evolution, therefore, does not concern itself with the origin of life. It merely inquires into the genetic relations of systematic species, genera, and families, and endeavours to arrange them according to natural series of descent (genetic trees).

How far is the theory of evolution based on observed facts? It is understood to be still only an hypothesis. The formation of new species is directly observed in but a few cases, and only with reference to such forms as are closely related to each other; for instance, the systematic species of the plant-genus *Oenothera*, and of the beetle-genus *Dimorpha*. It is, however, not difficult to furnish an indirect proof of great probability for the genetic relation of many systematic species to each other and to fossil forms, as in the genetic development of the horse (*Equidae*), of ammonites, and of many insects, especially of those that dwell as “guests” with ants and termites, and have adapted themselves in many ways to their hosts. Upon comparing the scientific proofs for the probability of the theory of evolution, we find that they grow the more numerous and weighty, the smaller the circle of forms under consideration, but become weaker and weaker, if we include a greater number of forms, such as are comprised in a class or in a sub-kingdom. There is, in fact, no evidence whatever for the common genetic descent of all plants and animals from a single primitive organism. Hence the greater number of botanists and zoologists regard a polygenetic (polyphyletic) evolution as much more acceptable than a monogenetic (monophyletic). At present, however, it is impossible to decide how many independent genetic series must

be assumed in the animal and vegetable kingdoms. This is the gist of the theory of evolution as a scientific hypothesis. It is in perfect agreement with the Christian conception of the universe; for Scripture does not tell us in what form the present species of plants and of animals were originally created by God. As early as 1877 Knabenbauer stated "that there is no objection, so far as faith is concerned, to assuming the descent of all plant and animal species from a few types" (*Stimmen aus Maria Laach*, XIII, p. 72).

Passing now to the theory of evolution as a philosophical speculation, the history of the plant and animal kingdoms upon our globe is but a small part of the history of the entire earth. Similarly, the geological development of our earth constitutes but a small part of the history of the solar system and of the universe. The theory of evolution as a philosophical conception considers the entire history of the cosmos as an harmonious development, brought about by natural laws. This conception is in agreement with the Christian view of the universe. God is the Creator of heaven and earth. If God produced the universe by a single creative act of His will, then its natural development by laws implanted in it by the Creator is to the greater glory of His Divine power and wisdom. St. Thomas says: "The potency of a cause is the greater, the more remote the effects to which it extends." (*Summa c. Gent.*, III, c. lxxvi); and Francisco Suárez: "God does not interfere directly with the natural order, where secondary causes suffice to produce the intended effect" (*De opere sex dierum*, II, c. x, n. 13). In the light of this principle of the Christian interpretation of nature, the history of the animal and vegetable kingdoms on our planet is, as it were, a versicle in a volume of a million pages in which the natural development of the cosmos is described, and upon whose title-page is written: "In the beginning God created heaven and earth."

### **Theistic vs. Atheistic Theories of Evolution**

The theory of evolution just stated rests on a theistic foundation. In contradistinction to this is another theory resting on a materialistic and atheistic basis, the first principle of which is the denial of a personal Creator. This atheistic theory of evolution is ineffectual to account for the first beginning of the cosmos or for the law of its evolution, since it acknowledges neither creator nor lawgiver.

Natural science, moreover, has proved that spontaneous generation- i.e. the independent genesis of a living being from non-living matter- contradicts the facts of observation. For this reason the theistic theory of evolution postulates an intervention on the part of the Creator in the production of the first organisms. When and how the first seeds of life were implanted in matter, we, indeed, do not know. The Christian theory of evolution also demands a creative act for the origin of the human soul, since the soul cannot have its origin in matter. The atheistic theory of evolution, on the contrary, rejects the assumption of a soul separate from matter, and thereby sinks into blank materialism.

### **The Theory of Evolution vs. Darwinism**

Darwinism and the theory of evolution are by no means equivalent conceptions. The theory of evolution was propounded before Charles Darwin's time, by Lamarck (1809) and Geoffroy de Saint-Hilaire. Darwin, in 1859, gave it a new form by endeavouring to explain the origin of species by means of natural selection. According to this theory the breeding of new species depends on the survival of the fittest in the struggle for existence. The Darwinian theory of selection is Darwinism- adhering to the narrower, and accurate, sense of the word. As a theory, it is scientifically inadequate, since it does not account for the origin of attributes fitted to the purpose, which must be referred back to the interior, original causes of evolution. Haeckel, with other materialists, has enlarged this selection theory of Darwin's into a philosophical world-idea, by attempting to account for the whole evolution of the cosmos by means of the chance survival of the fittest. This theory is Darwinism in the secondary, and wider, sense of the word. It is that atheistical form of the theory of evolution which was shown above- under (2)- to be untenable. The third signification of the term *Darwinism* arose from the application of the theory of selection to man, which is likewise impossible of acceptance. In the fourth place, *Darwinism* frequently stands, in popular usage, for the theory of evolution in general. This use of the word rests on an evident confusion of ideas, and must therefore be set aside.

### **Human Evolution vs. Plant and Animal Evolution**

To what extent is the theory of evolution applicable to man? That God should have made use of natural, evolutionary, original causes in

the production of man's body, is *per se* not improbable, and was propounded by St. Augustine. The actual proofs of the descent of man's body from animals is, however, inadequate, especially in respect to paleontology. And the human soul could not have been derived through natural evolution from that of the brute, since it is of a spiritual nature; for which reason we must refer its origin to a creative act on the part of God.

### **Evolution: A Catholic Perspective**

Since 1859, when Charles Darwin first published his *Origin of Species*, the scientific question of evolution has aroused intense and often bitter controversy. Time and again over the years, a supposed conflict between "science" and "religion" has raged in the public forums—in courtrooms, classrooms, and the press. This past decade has witnessed a new and even more heated debate concerning text books and school curricula.

Television has not ignored the dramatic possibilities of these confrontations. On newscasts and talk shows, partisans from both sides have had their say on camera. On the one hand, fundamentalist Protestants have insisted on an absolutely literal interpretation of Genesis: a "special creation" of each separate species in only seven days, beginning a few thousand years ago. Opposing them, some scientists-turned-celebrities have proclaimed with equal fervor the supreme triumph of chance: matter blindly developing from molecules to man, with no intervention by a Deity, and no need for One to explain anything. Thus the controversy has been reduced, in public perception, to a disquieting choice— "superstition" vs. "atheism."

What is a Catholic to make of this? To anyone who knows even a little theology and science, the choice presented here is clearly false. In this, as in so many other heated controversies, the first casualty is truth. The Catholic faith is dedicated to truth, indeed to Truth Himself. And science, open-mindedly and fairly exercised, is committed to the pursuit of truthful knowledge. A Catholic should suspect, therefore, even before studying the question closely, that faith and scientific knowledge must complement, not contradict, each other.

This suspicion is confirmed by fact. The more one studies what the Catholic Church teaches and what science knows for certain, the more clearly he sees that Catholic faith and scientific knowledge are

wholly compatible. The conflicts being aired today are really a pseudo-controversy. Dogmatic fundamentalists do not reflect Catholic tradition, and dogmatic evolutionists do not fairly represent science.

In the following pages, we want to examine briefly what the Church has clearly taught and what science has clearly learned about evolution, especially in recent years. By an honest pursuit of the truth, we can

avoid entanglement in pointless disputes, like the Sadducees whom Our Lord upbraided so long ago—those who “knew neither the scriptures nor the power of God” (Mt. 22,29).

### **What does “Evolution” Mean?**

Any intelligent understanding of a complex problem requires, at the outset, a definition of terms. In fact, much of the present confusion stems from a vague association of several meanings with the term “evolution.” Properly speaking, the word should embrace a biological concept founded on careful scientific study from several interrelated disciplines. But by extension the term has also been used in other senses - historical, sociological, and philosophical. We will concern ourselves here with the two principal definitions that impinge upon religious faith: the biological and philosophical.

For a properly scientific definition of the term, we may cite a formula established by fifty internationally known scientists at the Darwin Centennial Celebration, held in 1959: “Evolution is definable in general terms as a one-way irreversible process in time, which in its course generates novelty, diversity, and higher levels of organization.”

In the field of biology (where revolutionary studies have been most extensive and productive), the term more specifically means: “a process whereby organisms change with the passage of time so that descendants differ from their ancestors.”

Note that these definitions deal with a process, a succession of observable events measured over time. Science deals essentially and necessarily with material phenomena, those which can be measured. It tries to deduce reasonable explanations for the cause-and-effect relationships between events. Because it limits itself to material facts, its generalizations are necessarily mechanical. A biologist concerns himself with how events occur. For him, the question why lies outside the proper limits of his discipline.

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This is important because, in the properly scientific sense, “evolution” as a *how* question poses no problem for Catholic belief. For decades now, scientists have established a chronology of how life forms succeeded one another over eons of time. It is beyond reasonable doubt that some sort of process has taken place. (As we shall see later, the mechanics of this succession have yet to be fully understood.) Whatever science determines on this *how* level is compatible with a Catholic principle: that God ordinarily carries out His creative acts in natural ways.

No problems with Christian belief generally arise when “evolution” is loosely used in a broad philosophical sense. This meaning is substantially different from the scientific one above. It may be defined as follows: “an ideological frame of mind which sees the entire universe in terms of matter-in-development and which consciously denies the existence of spiritual or supernatural reality; all phenomena—scientific, historical, economic, and social—are explainable in exclusively material terms.”

This understanding of “evolution” is not scientific, though it derives much prestige from association with the sciences. It is not founded on experimental knowledge or rational deduction. It is rather a preconceived set of attitudes and values, a prejudice that is not merely unscientific, but irrational. For it is altogether credulous to hold that complex organs like the eye are not indicative of an ordering intelligence, but are instead the result of blind chance which of course cannot know or plan the end (seeing) to which the eye’s single parts combine and evolve. In fact, it is a latter-day form of philosophical materialism which has been with us since the time of the Greeks.

In as much as it is really an outlook on life, it is a kind of religion. Properly speaking, therefore, this set of beliefs should not be called “evolution” but rather “evolutionism”. To subscribe to creation (which is not the same as “creationism”), that is, the contingent world’s ultimate dependence on a necessary, creative being, is not, on the contrary, an act of religion at all. It is a matter of philosophy, of drawing sure conclusions from incontrovertible premises.

Like the other religion-substitute “isms” of our time, evolutionism has adherents from all walks of life. Some physicists, astronomers, and geneticists believe in it. But so do many journalists, economists,

teachers, and historians-and cab-drivers and businessmen and poets. The atheism of a biochemist is really no more significant than that of a file clerk, but it can have more sway on public opinion.

A Catholic can, as we shall see, give qualified assent to evolution in the scientific sense but not to evolutionism. The fact is that many scientists engaged in evolutionary studies are themselves devout Catholics. These people see no contradiction between what the Church teaches and what science, as science, has learned. Let us examine why this is so.

### **Catholic Teachings**

It comes as a surprise to many Catholics to learn how little the church teaches in this area-how few tenets are established as true beyond doubt, and therefore how much latitude is left to Catholics for their personal judgment. The Church has not been concerned with evolutionary questions as such, but rather with their possible implications for Catholic belief.

The Church has maintained that the first three chapters of Genesis contain historical truth. Their inspired author used a popular literary form of his day to explain certain historical facts of Creation. These were named specifically by the Pontifical Biblical Commission, with the approval of Pope Pius X in 1909. The official document states that the literal historical meaning of the first three chapters of Genesis could not be doubted in regard to: "the creation of all things by God at the beginning of time; the special creation of man; the formation of the first woman from the first man; the unity of the human race; the original happiness of our first parents in the state of justice, integrity, and immortality; the command given by God to man to test his obedience; the transgression of the divine command at the instigation of the devil under the form of a serpent; the degradation of our first parents from that primeval state of innocence; and the promise of a future redeemer."

Note that the Church says nothing definite about how, in specific detail, God created the world and its various forms of life, or how long any of this took. The only "special creation" mentioned is that of man, who is unique in having a spiritual immortal soul. In the Church's eyes, Genesis deals with historical fact, not scientific process-with the what of creation, not the how .

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In 1950, Pope Pius XII addressed the question of man's origins more specifically in his encyclical *humani Generis*. With a few terse paragraphs, he set forth the Church's position, which we may summarize as follows:

1. The question of the origin of man's body from pre-existing and living matter is a legitimate matter of inquiry for natural science. Catholics are free to form their own opinions, but they should do so cautiously; they should not confuse fact with conjecture, and they should respect the Church's right to define matters touching on Revelation.

2. Catholics must believe, however, that the human soul was created immediately by God. Since the soul is a spiritual substance it is not brought into being through transformation of matter, but directly by God, whence the special uniqueness of each person.

3. All men have descended from an individual, Adam, who has transmitted original sin to all mankind. Catholics may not, therefore, believe in "polygenism," the scientific hypothesis that mankind descended from a group of original humans. So, from the Catholic point of view, the scientific questions of evolution are largely left open to debate. Evolutionary hypotheses which attempt to explain the development of living things may be accepted except where they conflict with these few explicit truths.

This position clearly contrasts with that of many fundamentalist Protestant sects. Lacking belief in the Church's teaching authority, fundamentalists have usually insisted on treating Genesis as a scientifically accurate, as well as historically true, account. Unfortunately, this stance has often appeared in the media as definitive Christian doctrine. Its details have contrasted so sharply with established scientific knowledge that "Christian belief" has been held in ridicule.

To give one example: In the 17th century, an Anglican clergyman, Bishop James Ussher, calculated from Biblical genealogies that God created the world on an October morning in 4004 B.C. Many undamentalists today would hold this as an article of faith. For virtually all scientists, the figure is absurd. From the Catholic point of view, Bishop Ussher spoke only for himself, not for the Church; his feat was one of arithmetic, not theology.

Of course, Catholics may share many of these fundamentalist beliefs as their personal opinions. The point is they are not required to. With the exception of the few matters mentioned above, Catholics may hold whatever scientific positions seem reasonable and intellectually convincing.

This leads to the next consideration. Just how much does science know with certainty? What are the strengths and limitations of science in helping us find the truth?

### **Scientific Certitude**

Popular accounts of science-in textbooks, magazines, and television features-are often misleading about the certitude of scientific knowledge. Writers who explain science to the general public must simplify a host of complex matters to make them understandable and interesting. But this task frequently leads to oversimplification. Non-scientists are led to believe that science is essentially a stable body of factual knowledge. In reality, however, it is a dynamic process, constantly engaged in self-correction and even radical revision. Interpretation, guesswork, and imagination play a larger role in scientific study than most people are aware.

Consequently, knowledge derived from this inquiry has several distinct but overlapping levels of certitude. Some scientific matters are known to be factually true; that is, they are beyond doubt. Others are reasonable conjectures, generally accepted as true by specialists in the field. Still others are untested hypotheses awaiting verification through further work.

Let us take one case in point: *Australopithecus* was an ape-like creature who lived more than a million years ago in Africa. It is fact that his brain size averaged about 500 cc. and that his leg-bone had some humanlike features. It is, however, a conjecture that he walked upright much of the time; this is a reasonable guess but not so certain as the aforementioned facts. But it is only an hypothesis that his body gave rise to that of man. These distinct degrees of probable certitude are often blurred in many popular science articles.

The evolutionary sciences are especially susceptible to difficulty in establishing certitude. Unlike physics or chemistry, which are verifiable through controlled laboratory experimentation, the evolutionary disciplines are essentially historical. All the forms of

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paleontology (including paleoanthropology, the study of ancient man) seek to determine what happened to living things over the course of time. When researchers advance hypotheses to explain fossil phenomena, they are giving reasonable interpretations which are verifiable only through subsequent research. Later findings may confirm these explanations, or perhaps render them less plausible, or even prove them wrong - that is, very highly unlikely. Thus what is generally accepted by specialists today may be outmoded only a few years from now. The field is highly dynamic.

Evolutionary research over the past century, and especially in recent years, has taken many such twists and turns, often leading in unexpected directions. This unsettled condition stands to reason. The relative scarcity of fossil evidence, the high reliance on imaginative interpretation, the inherent problem of verification - all combine to make this "detective" work subject to ongoing uncertainty. Unfortunately, text books seldom convey the cautious and provisional nature of evolutionary thinking at any given time. Science knows less for certain about evolutionary phenomena than is generally supposed.

The history of science offers many examples of this self-corrective process. It is worth our while to examine a few of these, even briefly, to see the dynamic at work. (And, parenthetically, it is interesting to see how many outmoded scientific beliefs still survive in popular thinking.)

The cave-man myth : Fossil evidence does not speak for itself; it must be interpreted, and this task requires imagination. Scientists at the turn of the century took greater liberties in describing ancient man than their counterparts today would. Their image of paleolithic man has entered popular imagination: a hairy, hunched-over, stupid, and ferocious creature, speaking in grunts and living by violence. Countless illustrations have shown him this way, and still do today in some popular media.

Today's specialists would disavow this image because it does not fit the facts. From fossil evidence alone, one cannot say anything about ancient man's hairiness or intelligence or speech or facial expression or supposed ill-manners. These details were supplied through imagination. The "survival of the fittest" motif called for ape-like characteristics in early man, and these were dutifully provided. The bones themselves said nothing.

One set of bones was significant, however. In 1911, the famous French anatomist, Marcellin Boule, carefully studied a recently discovered Neanderthal skeleton. This specimen was important for it was the first nearly complete skeleton of an ancient man. Using it, science could understand the details of a typical Neanderthal's body structure.

Boule's reconstruction of Neanderthal showed a hunched-over, misshapen creature with bent legs and face thrust forward, not unlike the stance of a gorilla. This depiction was highly influential for decades thereafter; it was reproduced in textbooks, drawings, and museum displays around the world. But later discoveries of Neanderthal finds cast doubt on Boule's work. Then in 1957, a team of anatomists re-examined Boule's original skeleton and found a serious source of error: the Neanderthal man had suffered from a case of severe arthritis. His stance was indeed hunched-over, but it was not genetic in origin and was not typical. Today, we believe that ancient people walked and stood erect almost exactly as we do.

The image of ferocity was also without factual support. Over the years, in fact, many archaeological sites have shown evidence of cooperation and even compassion among primitive people. Numerous fossils came from carefully prepared graves, some as old as 100,000 years. In several instances, the deceased had been old and crippled (like Boule's specimen) and had received care for years before being laid to rest. In one grave, a youth had been buried carefully on his side, with one arm tucked under his head, as if he were sleeping; in one hand, he held a beautifully carved quartz knife. In another grave, archaeologists found the body of an elderly Neanderthal who had had his forearm amputated years before in his youth. (Surgery 60,000 years ago!) He had been cared for all his life. And in yet another Neanderthal site, researchers found evidence that the deceased had been buried with flowers.

Care for cripples and burial with flowers give a dimension of humanness to ancient man that earlier scientists would have found astonishing. Species classification : Several decades ago, scientists habitually

classified almost every new hominid (man-like) find into a separate species. These fossil creatures were thus named "Peking ape-man",

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“Java ape-man”, “Neanderthal man,” and so forth. Drawings of the day used to show an upward development: some primitive ape leading to the ape-man, who in turn led to Neanderthal, who then led to Cro-Magnon (identical to “modern” man in nearly every respect).

Within the last 25 years, these have all been reclassified. All the “ape-man” types (from 100,000 to 500,000 years ago and more) now belong to one species, *Homo erectus*, the “upright man.” Neanderthal, we now believe, was a racial type of modern man, *Homo sapiens*. But this distinction needs some clarification. In what sense were these two forms of man different? Were they really separate and distinct species?

The true test for species difference is genetic isolability - that is, whether mating of two individuals will produce sterile offspring or not. But obviously we have no way to determine this among creatures long dead.

It is important to realize that, when scientists classify ancient fossils into distinct species, they do so exclusively on the basis of anatomical structure. If a given specimen has bone configurations within the known range of a given species, then it is called by that species' name. If, however, some significant features lie outside that range, then it probably belongs to a different species and is thus classified differently. *Homo erectus* had several anatomical features which differ from those of modern man. He had, for example, a prominent brow ridge over his eyes, a smaller stature, and a smaller average brain size.

The key point here is that both were forms of man, the genus *Homo*, with all that this implies. The anatomical variation was possibly, even probably, the only significant difference. We know that *erectus*, even from remotest antiquity, made several types of tools and used fire. Both of these activities show intelligent manipulation of nature. In other words, he, like the *sapiens* form, could think.

**Brain size :** At one time, scientists believed that relative brain size correlated closely with intelligence. The viewpoint has been modified considerably because of subsequent research data.

Modern man's brain averages 1250 cc., but with wide variation. It typically falls between the extremes of 1000 cc. and 2000 cc. *Homo erectus*, being small in stature, varied between 775 cc. and 1200 cc.

All of these figures are much larger than those for apes and ape-like creatures: 450 cc. on the average.

But the wide variation in modern man seems unrelated to thinking powers. In at least one instance, a man with 900 cc. brain size exhibited normal intelligence. Consequently, we cannot with certainty predicate a lower level of intelligence to early man merely on the basis of his brain size.

Tool-making : as far back as man's fossil record indicates (currently about two million years), we find evidence of tool-making. Several decades ago, scientists correlated tool-making skill with native intelligence. A primitive tool indicated a primitive mind; a more complex form, showed a relatively stronger intelligence. This value judgment no longer holds sway among specialists.

Today it is generally held that mastery of technique is distinct from native intelligence. Tool-fashioning is a skill acquired through learning and practice. Moreover, today's anthropologists have a much higher regard for the considerable skill which ancient man wielded in fashioning his implements.

One remarkable detail is the great variety of these ancient tools. For scores of thousands of years, paleolithic man fashioned dozens of different tools - axes, scrapers, awls, burins, saws, knives, and many other types of implement. These were formed with extraordinary consistency, and even artistry, through hundreds of generations. Many were expertly fashioned in quartz and semi-precious stone.

Such variety in this paleolithic tool-chest implies that early man used tools extensively on other materials (wood, leather, bone) which have, of course, perished without a trace. Tools imply intelligence, not only because they are deliberately fashioned (an intelligent act itself), but because they are intended for some purpose further in the future. Such purposeful planning is a clear sign of rationality. So scientists believe today.

How much could early man have accomplished with these primitive stone tools? To find out, a team of anthropologists recently hired an expert Scandinavian woodsman and supplied him with a set of genuine paleolithic tools. The craftsman hafted stone axe-heads onto wooden shafts and experimented with various cutting techniques. Shortly

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afterward, he succeeded in felling large trees, splitting logs and making them into planks. Within three months, the expert constructed a complete one-story frame house.

Clearly, skill lies in the minds and hands. Little can be predicted from crudity of the tools.

Current theoretical developments : Over the past ten years, several major developments in research have left the theoretical picture highly unsettled. These are too complex to explain in detail here, but they are worth noting in brief.

From the mid-1920's until the early 1970's, scientists generally believed that man evolved gradually from a small ape-like creature called *Australopithecus*. As we mentioned earlier, this animal lived more than a million years ago and its fossils showed some human-like characteristics. It may have walked upright, at least some of the time, and its teeth approximated those of man. Moreover, researchers often found stone tools scattered among its fossils.

The theory during these decades held that some form of *Australopithecus*, enjoying relatively free use of its hands, developed tool-making, and this skill gave rise to an ever-larger brain through the forces of natural selection. Countless drawings in magazines and textbooks showed the furry *Australopithecus* standing next to *Homo erectus*, his distant evolutionary offspring.

But in the early 1970's researchers were astonished to discover forms of *Homo erectus* from almost two million years ago, complete with tools. In other words, man had lived alongside and even before some forms of *Australopithecus*. Most likely, it was he who had fashioned the tools found among the ape-man fossils. This discovery threw into question, to say the least, the evolutionary relation between the two forms of life.

As of this writing, the problem is still being debated. Around this time, several prominent paleontologists went on record to question the prevailing theory of gradualism, the well-known Darwinian position of evolution through natural selection. (High school and college textbooks taught this as virtual dogma up until recently.) These researchers claimed that, contrary to Darwin's predictions, the fossil record does not show gradual transitions between species. On the

contrary, they maintained, the evidence shows extreme stability of form. Species seem to appear suddenly on earth, remain virtually unchanged for millions of years, and then disappear just as abruptly.

What could account for this phenomenon? Current theory holds, among other positions, that major genetic alterations resulted in relatively sudden appearances of new species. This genetic leap is called “macroevolution.”

Meanwhile, within species at any given time, the forces of natural selection were at work effecting minor alterations of structure - like reshaping of finches’ beaks, noted by Darwin. This process is called “micro-evolution.” How genetic and environmental forces have interacted to produce new species is, at this point, an open question.

Our purpose here has been to demonstrate the dynamic nature of scientific inquiry. Even these few brief sketches show how evolutionary thinking has undergone an evolution of its own and still does. Science has many uncertainties and very few dogmas. This uncertain quality accounts, in large measure, for the fascination scientists find in their work.

Catholics have nothing to fear from science’s honest inquiries, honestly explained. On the contrary, every new discovery is a source of wonder and a reason for giving praise to God. Of the Creator, we can say with St. Paul, “... from the foundations of the world, men have caught sight of His invisible nature, His eternal power and His divinity, as they are known through His creatures” (Rom 1,20).

# Monogenism, Polygenism and Original Sin

Monogenism takes the position that the whole human race is descended from a single couple or a single individual. At least until the mid-nineteenth century, monogenism was also regarded as entailing the immediate creation of the first man or couple by a special divine act. Given the preponderant evidence for biological evolution, monogenism is no longer understood in this way. But if the first biological couple may have arisen through an evolutionary process, it remains Church teaching that the SOUL of each and every human being is created directly by God (Pope John Paul II 1997).

The position contrary to monogenism is known as polygenism, of which there are two types. According to the first (called monophyletic polygenism), since evolution always proceeds within an interbreeding group, humanity would have first appeared among a number of individuals, whose progeny gradually spread world-wide through emigration. Thus, one would speak of a first community rather than a first couple or man. The second type (called

polyphyletic polygenism) hypothesizes that the human species arose through separate evolutionary lines in a number of different places at different times, with the different lines converging to form our present population. Scientists have not reached consensus on which of the two versions of polygenism-the monophyletic or polyphyletic-is more likely to be true (Harpending 1994).

Monogenism was presumed by the Council of TRENT in its teaching on ORIGINAL SIN (DS 1511–1514). The most explicit statement on monogenism came in 1950 in Pope Pius XII's encyclical letter HUMANI GENERIS. Referring to Rom. 5.12 and the teaching of Trent, Pius maintained that “Christ's faithful cannot embrace” either form of polygenism, since “it is in no way apparent how such an opinion can be reconciled” with the scriptural and magisterial teaching on original sin, namely, that this sin was “actually committed by an individual Adam” and “through generation is passed on to all and is in everyone as his own” (DS 3897).

In view of Pope Pius's statement, many theologians (including K. RAHNER in 1954) argued that monogenism is so closely implied by the teaching on original sin that it must be considered a certain, if not infallible, tenet of faith. But the conclusions drawn by science, which flatly contradict monogenism, were found increasingly persuasive by theologians, including Rahner, who reversed his initial support of the position in 1967. The present situation amounts to a quandary for theologians. On the one hand, even though it has not been formally addressed by the magisterium since *Humani generis*, monogenism continues to be accepted as a basic premise in Church teaching, as is shown by the relevant sections of the *The Catechism of the Catholic Church* (nn. 374 - 379, 390, 399- 407). On the other hand, to deny the polygenistic origin of the human species places the theologian in clear opposition with science, and conjures up the image of an obscurantist faith combating the truth of reason. And yet it may very well prove to be that science, in its forthright drive for empirical knowledge, has only forced theology to deeper reflection on its own central claim that Christ lies at the heart of all (Col. 1.16).

It is evident that the magisterium has insisted on monogenism for the sake of defending the teaching on original sin, according to which, as Trent declared, all of humanity belongs to a single order which was intrinsically “changed for the worse,” physically and spiritually, by

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virtue of a human decision made at this order's beginning (DS 1511-1513). Hence, the judgment by Pius XII in *Humani generis* that the faithful are not free to accept polygenism, since it appears quite impossible to speak of any human act having the kind of effect that Trent assigned to the first sin if the human order emerged gradually and in plural fashion from an antecedent nonhuman order. If science is right about the mechanisms that gave rise to the biological species *Homo sapiens*, and the tradition is right about the nature of the human order, it would seem that theologians must continue to reflect on the data in search of other ways of defending the issue. One alternative is to consider the possibility that the roots of this order transcend, even precede, its present empirical condition. In his work entitled *A Theological Anthropology* (1963), the Swiss theologian Hans Urs von BALTHASAR entertained just this possibility. It may be necessary, he wrote, to say that the primal decision that shaped human freedom lies "above the whole temporal unfolding of the material cosmogonic process. In particular, does it exist above the biological development of man, which would thus be subject already and at its very heart to the law of generation and death and consequently to 'vanity'" (90). If Balthasar is right, then future theological inquiry must be prepared to regard the question of monogenism or the constitution of the human order, like the question of the first sin, as referring to a state of affairs that both is fundamental to and underlies the present sequence of biological phenomena that is described by science.

### Original Sin

Original sin may be taken to mean: (1) the sin that Adam committed; (2) a consequence of this first sin, the hereditary stain with which we are born on account of our origin or descent from Adam. From the earliest times the latter sense of the word was more common, as may be seen by St. Augustine's statement: "the deliberate sin of the first man is the cause of original sin" (*De nupt. et concup.*, II, xxvi, 43). It is the hereditary stain that is dealt with here. As to the sin of Adam we have not to examine the circumstances in which it was committed nor make the exegesis of the third chapter of Genesis.

### Principal Adversaries

Theodorus of Mopsuestia opened this controversy by denying that the sin of Adam was the origin of death. (See the "Excerpta Theodori",

by Marius Mercator; cf. Smith, "A Dictionary of Christian Biography", IV, 942.) Celestius, a friend of Pelagius, was the first in the West to hold these propositions, borrowed from Theodorus: "Adam was to die in every hypothesis, whether he sinned or did not sin. His sin injured himself only and not the human race" (Mercator, "Liber Subnotationem", preface). This, the first position held by the Pelagians, was also the first point condemned at Carthage (Denzinger, "Enchiridion", no. 101-old no. 65). Against this fundamental error Catholics cited especially Romans 5:12, where Adam is shown as transmitting death with sin.

After some time the Pelagians admitted the transmission of death - this being more easily understood as we see that parents transmit to their children hereditary diseases - but they still violently attacked the transmission of sin (St. Augustine, "Contra duas epist. Pelag.", IV, iv, 6). And when St. Paul speaks of the transmission of sin they understood by this the transmission of death. This was their second position, condemned by the Council of Orange [Denz., n. 175 (145)], and again later on with the first by the Council of Trent [Sess. V, can. ii; Denz., n. 789 (671)]. To take the word sin to mean death was an evident falsification of the text, so the Pelagians soon abandoned the interpretation and admitted that Adam caused sin in us. They did not, however, understand by sin the hereditary stain contracted at our birth, but the sin that adults commit in imitation of Adam. This was their third position, to which is opposed the definition of Trent that sin is transmitted to all by generation (*propagatione*), not by imitation [Denz., n. 790 (672)]. Moreover, in the following canon are cited the words of the Council of Carthage, in which there is question of a sin contracted by generation and effaced by generation [Denz., n. 102 (66)].

The leaders of the Reformation admitted the dogma of original sin, but at present there are many Protestants imbued with Socinian doctrines whose theory is a revival of Pelagianism.

### **Original Sin in Scripture**

The classical text is Romans 5:12 sqq. In the preceding part the apostle treats of justification by Jesus Christ, and to put in evidence the fact of His being the one Saviour, he contrasts with this Divine Head of mankind the human head who caused its ruin. The question

of original sin, therefore, comes in only incidentally. St. Paul supposes the idea that the faithful have of it from his oral instructions, and he speaks of it to make them understand the work of Redemption. This explains the brevity of the development and the obscurity of some verses.

**We Shall Now Show What, in the Text, is Opposed to the Three Pelagian Positions:**

(1) The sin of Adam has injured the human race at least in the sense that it has introduced death - "Wherefore as by one man sin entered into this world and by sin death; and so death passed upon all men". Here there is question of physical death. First, the literal meaning of the word ought to be presumed unless there be some reason to the contrary. Second, there is an allusion in this verse to a passage in the Book of Wisdom in which, as may be seen from the context, there is question of physical death. Wisdom 2:24: "But by the envy of the devil death came into the world". Cf. Genesis 2:17; 3:3, 19; and another parallel passage in St. Paul himself, 1 Corinthians 15:21: "For by a man came death and by a man the resurrection of the dead". Here there can be question only of physical death, since it is opposed to corporal resurrection, which is the subject of the whole chapter.

(2) Adam by his fault transmitted to us not only death but also sin, "for as by the disobedience of one man many [i.e., all men] were made sinners" (Romans 5:19). How then could the Pelagians, and at a later period Zwingli, say that St. Paul speaks only of the transmission of physical death? If according to them we must read *death* where the Apostle wrote *sin*, we should also read that the disobedience of Adam has made us *mortal* where the Apostle writes that it has made us *sinners*. But the word *sinner* has never meant *mortal*, nor has sin ever meant *death*. Also in verse 12, which corresponds to verse 19, we see that by one man two things have been brought on all men, sin and death, the one being the consequence of the other and therefore not identical with it.

(3) Since Adam transmits death to his children by way of generation when he begets them mortal, it is by generation also that he transmits to them sin, for the Apostle presents these two effects as produced at the same time and by the same causality. The explanation of

the Pelagians differs from that of St. Paul. According to them the child who receives mortality at his birth receives sin from Adam only at a later period when he knows the sin of the first man and is inclined to imitate it. The causality of Adam as regards mortality would, therefore, be completely different from his causality as regards sin. Moreover, this supposed influence of the bad example of Adam is almost chimerical; even the faithful when they sin do not sin on account of Adam's bad example, *a fortiori* infidels who are completely ignorant of the history of the first man. And yet all men are, by the influence of Adam, sinners and condemned (Romans 5:18, 19). The influence of Adam cannot, therefore, be the influence of his bad example which we imitate (Augustine, "Contra Julian.", VI, xxiv, 75).

On this account, several recent Protestants have thus modified the Pelagian explanation: "Even without being aware of it all men imitate Adam inasmuch as they merit death as the punishment of their own sins just as Adam merited it as the punishment for his sin." This is going farther and farther from the text of St. Paul. Adam would be no more than the term of a comparison, he would no longer have any influence or causality as regards original sin or death. Moreover, the Apostle did not affirm that all men, in imitation of Adam, are mortal on account of their actual sins; since children who die before coming to the use of reason have never committed such sins; but he expressly affirms the contrary in the fourteenth verse: "But death reigned", not only over those who imitated Adam, but "even over them also who have not sinned after the similitude of the transgression of Adam." Adam's sin, therefore, is the sole cause of death for the entire human race. Moreover, we can discern no natural connexion between any sin and death. In order that a determined sin entail death there is need of a positive law, but before the Law of Moses there was no positive law of God appointing death as a punishment except the law given to Adam (Genesis 2:17). It is, therefore, his disobedience only that could have merited and brought it into the world (Romans 5:13, 14).

These Protestant writers lay much stress on the last words of the twelfth verse. We know that several of the Latin Fathers understood the words "in whom all have sinned", to mean, all have sinned in Adam. This interpretation would be an extra proof of the thesis of original sin, but it is not necessary. Modern exegesis, as well

as the Greek Fathers, prefer to translate “and so death passed upon all men *because* all have sinned”. We accept this second translation which shows us death as an effect of sin. But of what sin? “The personal sins of each one”, answer our adversaries, “this is the natural sense of the words ‘all have sinned.’” It would be the natural sense if the context was not absolutely opposed to it. The words “all have sinned” of the twelfth verse, which are obscure on account of their brevity, are thus developed in the nineteenth verse: “for as by the disobedience of one man many were made sinners.” There is no question here of personal sins, differing in species and number, committed by each one during his life, but of one first sin which was enough to transmit equally to all men a state of sin and the title of sinners. Similarly in the twelfth verse the words “all have sinned” must mean, “all have participated in the sin of Adam”, “all have contracted its stain”. This interpretation too removes the seeming contradiction between the twelfth verse, “all have sinned”, and the fourteenth, “who have not sinned”, for in the former there is question of original sin, in the latter of personal sin. Those who say that in both cases there is question of personal sin are unable to reconcile these two verses.

### Original Sin in Tradition

On account of a superficial resemblance between the doctrine of original sin and the Manichaean theory of our nature being evil, the Pelagians accused the Catholics and St. Augustine of Manichaeism. For the accusation and its answer see “*Contra duas epist. Pelag.*”, I, II, 4; V, 10; III, IX, 25; IV, III. In our own times this charge has been reiterated by several critics and historians of dogma who have been influenced by the fact that before his conversion St. Augustine was a Manichaean. They do not identify Manichaeism with the doctrine of original sin, but they say that St. Augustine, with the remains of his former Manichaean prejudices, created the doctrine of original sin unknown before his time.

It is not true that the doctrine of original sin does not appear in the works of the pre-Augustinian Fathers. On the contrary, their testimony is found in special works on the subject. Nor can it be said, as Harnack maintains, that St. Augustine himself acknowledges the absence of this doctrine in the writings of the Fathers. St. Augustine invokes the

testimony of eleven Fathers, Greek as well as Latin (Contra Jul., II, x, 33). Baseless also is the assertion that before St. Augustine this doctrine was unknown to the Jews and to the Christians; as we have already shown, it was taught by St. Paul. It is found in the fourth Book of Esdras, a work written by a Jew in the first century after Christ and widely read by the Christians. This book represents Adam as the author of the fall of the human race (vii, 48), as having transmitted to all his posterity the permanent infirmity, the malignity, the bad seed of sin (iii, 21, 22; iv, 30). Protestants themselves admit the doctrine of original sin in this book and others of the same period (see Sanday, "The International Critical Commentary: Romans", 134, 137; Hastings, "A Dictionary of the Bible", I, 841). It is therefore impossible to make St. Augustine, who is of a much later date, the inventor of original sin.

That this doctrine existed in Christian tradition before St. Augustine's time is shown by the practice of the Church in the baptism of children. The Pelagians held that baptism was given to children, not to remit their sin, but to make them better, to give them supernatural life, to make them adoptive sons of God, and heirs to the Kingdom of Heaven (see St. Augustine, *Of Sin and Merit* I.18). The Catholics answered by citing the Nicene Creed, "Confiteor unum baptismam in remissionem peccatorum". They reproached the Pelagians with introducing two baptisms, one for adults to remit sins, the other for children with no such purpose. Catholics argued, too, from the ceremonies of baptism, which suppose the child to be under the power of evil, i.e., exorcisms, abjuration of Satan made by the sponsor in the name of the child [Augustine, loc. cit., xxxiv, 63; Denz., n. 140 (96)].

### **Original Sin in Face of the Objections from Reason**

We do not pretend to prove the existence of original sin by arguments from reason only. St. Thomas makes use of a philosophical proof which proves the existence rather of some kind of decadence than of sin, and he considers his proof as probable only, *satis probabiliter probari potest* (Contra Gent., IV, lii). Many Protestants and Jansenists and some Catholics hold the doctrine of original sin to be necessary in philosophy, and the only means of solving the problem of the existence of evil. This is exaggerated and

impossible to prove. It suffices to show that human reason has no serious objection against this doctrine which is founded on Revelation. The objections of Rationalists usually spring from a false concept of our dogma. They attack either the transmission of a sin or the idea of an injury inflicted on his race by the first man, of a decadence of the human race. Here we shall answer only the second category of objections, the others will be considered under a later head (VII).

(1) The law of progress is opposed to the hypothesis of a decadence. Yes, if the progress was necessarily continuous, but history proves the contrary. The line representing progress has its ups and downs, there are periods of decadence and of retrogression, and such was the period, Revelation tells us, that followed the first sin. The human race, however, began to rise again little by little, for neither intelligence nor free will had been destroyed by original sin and, consequently, there still remained the possibility of material progress, whilst in the spiritual order God did not abandon man, to whom He had promised redemption. This theory of decadence has no connexion with our Revelation. The Bible, on the contrary, shows us even spiritual progress in the people it treats of: the vocation of Abraham, the law of Moses, the mission of the Prophets, the coming of the Messias, a revelation which becomes clearer and clearer, ending in the Gospel, its diffusion amongst all nations, its fruits of holiness, and the progress of the Church.

(2) It is unjust, says another objection, that from the sin of one man should result the decadence of the whole human race. This would have weight if we took this decadence in the same sense that Luther took it, i.e. human reason incapable of understanding even moral truths, free will destroyed, the very substance of man changed into evil.

But according to Catholic theology man has not lost his natural faculties: by the sin of Adam he has been deprived only of the Divine gifts to which his nature had no strict right, the complete mastery of his passions, exemption from death, sanctifying grace, the vision of God in the next life. The Creator, whose gifts were not due to the human race, had the right to bestow them on such conditions as He wished and to make their conservation depend on the fidelity of the head of the family. A prince can confer a hereditary dignity on

condition that the recipient remains loyal, and that, in case of his rebelling, this dignity shall be taken from him and, in consequence, from his descendants. It is not, however, intelligible that the prince, on account of a fault committed by a father, should order the hands and feet of all the descendants of the guilty man to be cut off immediately after their birth. This comparison represents the doctrine of Luther which we in no way defend. The doctrine of the Church supposes no sensible or afflictive punishment in the next world for children who die with nothing but original sin on their souls, but only the privation of the sight of God [Denz., n. 1526 (1389)].

### **Nature of Original Sin**

This is a difficult point and many systems have been invented to explain it: it will suffice to give the theological explanation now commonly received. Original sin is the privation of sanctifying grace in consequence of the sin of Adam. This solution, which is that of St. Thomas, goes back to St. Anselm and even to the traditions of the early Church, as we see by the declaration of the Second Council of Orange (A.D. 529): one man has transmitted to the whole human race not only the death of the body, which is the punishment of sin, but even sin itself, *which is the death of the soul* [Denz., n. 175 (145)]. As death is the privation of the principle of life, the death of the soul is the privation of sanctifying grace which according to all theologians is the principle of supernatural life. Therefore, if original sin is “the death of the soul”, it is the privation of sanctifying grace.

The Council of Trent, although it did not make this solution obligatory by a definition, regarded it with favour and authorized its use (cf. Pallavicini, “Istoria del Concilio di Trento”, vii-ix). Original sin is described not only as the death of the soul (Sess. V, can. ii), but as a “privation of justice that each child contracts at its conception” (Sess. VI, cap. iii). But the Council calls “justice” what we call sanctifying grace (Sess. VI), and as each child should have had personally his own justice so now after the fall he suffers his own privation of justice.

We may add an argument based on the principle of St. Augustine already cited, “the deliberate sin of the first man is the cause of original sin”. This principle is developed by St. Anselm: “the sin of Adam was one thing but the sin of children at their birth is

quite another, the former was the cause, the latter is the effect" (*De conceptu virginali*, xxvi). In a child original sin is distinct from the fault of Adam, it is one of its effects. But which of these effects is it? We shall examine the several effects of Adam's fault and reject those which cannot be original sin:

(1) Death and Suffering.- These are purely physical evils and cannot be called sin. Moreover St. Paul, and after him the councils, regarded death and original sin as two distinct things transmitted by Adam.

(2) Concupiscence.- This rebellion of the lower appetite transmitted to us by Adam is an occasion of sin and in that sense comes nearer to moral evil. However, the occasion of a fault is not necessarily a fault, and whilst original sin is effaced by baptism concupiscence still remains in the person baptized; therefore original sin and concupiscence cannot be one and the same thing, as was held by the early Protestants (see Council of Trent, Sess. V, can. v).

(3) The absence of sanctifying grace in the new-born child is also an effect of the first sin, for Adam, having received holiness and justice from God, lost it not only for himself but also for us (*loc. cit.*, can. ii). If he has lost it for us we were to have received it from him at our birth with the other prerogatives of our race. Therefore the absence of sanctifying grace in a child is a real privation, it is the want of something that should have been in him according to the Divine plan. If this favour is not merely something physical but is something in the moral order, if it is holiness, its privation may be called a sin. But sanctifying grace is holiness and is so called by the Council of Trent, because holiness consists in union with God, and grace unites us intimately with God. Moral goodness consists in this, that our action is according to the moral law, but grace is a deification, as the Fathers say, a perfect conformity with God who is the first rule of all morality. (See GRACE.) Sanctifying grace therefore enters into the moral order, not as an act that passes but as a permanent tendency which exists even when the subject who possesses it does not act; it is a turning towards God, *conversio ad Deum*. Consequently the privation of this grace, even without any other act, would be a stain, a moral deformity, a turning away from God, *aversio a Deo*, and this character is not found in any other effect of the fault of Adam. This privation, therefore, is the hereditary stain.

## How voluntary

“There can be no sin that is not voluntary, the learned and the ignorant admit this evident truth”, writes St. Augustine (*De vera relig.*, xiv, 27). The Church has condemned the opposite solution given by Baius [prop. xlvii, in *Denz.*, n. 1046 (926)]. Original sin is not an act but, as already explained, a state, a permanent privation, and this can be voluntary indirectly - just as a drunken man is deprived of his reason and incapable of using his liberty, yet it is by his free fault that he is in this state and hence his drunkenness, his privation of reason is voluntary and can be imputed to him.

But how can original sin be even indirectly voluntary for a child that has never used its personal free will? Certain Protestants hold that a child on coming to the use of reason will consent to its original sin; but in reality no one ever thought of giving this consent. Besides, even before the use of reason, sin is already in the soul, according to the data of Tradition regarding the baptism of children and the sin contracted by generation. Some theosophists and spiritists admit the pre-existence of souls that have sinned in a former life which they now forget; but apart from the absurdity of this metempsychosis, it contradicts the doctrine of original sin, it substitutes a number of particular sins for the one sin of a common father transmitting sin and death to all (cf. *Romans 5:12 sqq.*). The whole Christian religion, says St. Augustine, may be summed up in the intervention of two men, the one to ruin us, the other to save us (*Of Sin and Merit* I.24). The right solution is to be sought in the free will of Adam in his sin, and this free will was ours: “we were all in Adam”, says St. Ambrose, cited by St. Augustine (*Opus imperf.*, IV, civ). St. Basil attributes to us the act of the first man: “Because we did not fast (when Adam ate the forbidden fruit) we have been turned out of the garden of Paradise” (*Hom. i de jejun.*, iv). Earlier still is the testimony of St. Irenæus; “In the person of the first Adam we offend God, disobeying His precept” (*Haeres.*, V, xvi, 3).

St. Thomas thus explains this moral unity of our will with the will of Adam.

“An individual can be considered either as an individual or as part of a whole, a member of a society... Considered in the second way an act can be his although he has not done it himself, nor has it been

done by his free will but by the rest of the society or by its head, the nation being considered as doing what the prince does. For a society is considered as a single man of whom the individuals are the different members (St. Paul, 1 Corinthians 12). Thus the multitude of men who receive their human nature from Adam is to be considered as a single community or rather as a single body... If the man, whose privation of original justice is due to Adam, is considered as a private person, this privation is not his 'fault', for a fault is essentially voluntary. If, however, we consider him as a member of the family of Adam, as if all men were only one man, then his privation partakes of the nature of sin on account of its voluntary origin, which is the actual sin of Adam" (De Malo, iv, 1).

It is this law of solidarity, admitted by common sentiment, which attributes to children a part of the shame resulting from the father's crime. It is not a personal crime, objected the Pelagians. "No", answered St. Augustine, "but it is paternal crime" (Op. imperf., I, cxlviii). Being a distinct person I am not strictly responsible for the crime of another; the act is not mine. Yet, as a member of the human family, I am supposed to have acted with its head who represented it with regard to the conservation or the loss of grace. I am, therefore, responsible for my privation of grace, taking responsibility in the largest sense of the word. This, however, is enough to make the state of privation of grace in a certain degree voluntary, and, therefore, "without absurdity it may be said to be voluntary" (St. Augustine, "Retract.", I, xiii).

Thus the principal difficulties of non-believers against the transmission of sin are answered.

"Free will is essentially incommunicable." Physically, yes; morally, no; the will of the father being considered as that of his children.

"It is unjust to make us responsible for an act committed before our birth." Strictly responsible, yes; responsible in a wide sense of the word, no; the crime of a father brands his yet unborn children with shame, and entails upon them a share of his own responsibility.

"Your dogma makes us strictly responsible for the fault of Adam." That is a misconception of our doctrine. Our dogma does not attribute to the children of Adam any properly so-called responsibility for the act of their father, nor do we say that original sin is voluntary in the strict sense of the word. It is true that, considered as "a moral

deformity”, “a separation from God”, as “the death of the soul”, original sin is a real sin which deprives the soul of sanctifying grace. It has the same claim to be a sin as has habitual sin, which is the state in which an adult is placed by a grave and personal fault, the “stain” which St. Thomas defines as “the privation of grace” (I-II:109:7; III:87:2, ad 3), and it is from this point of view that baptism, putting an end to the privation of grace, “takes away all that is really and properly sin”, for concupiscence which remains “is not really and properly sin”, although its transmission was equally voluntary (Council of Trent, Sess. V, can. v.). Considered precisely as voluntary, original sin is only the shadow of sin properly so-called. According to St. Thomas (In II Sent., dist. xxv, Q. i, a. 2, ad 2um), it is not called sin in the same sense, but only in an analogous sense.

Several theologians of the seventeenth and eighteenth centuries, neglecting the importance of the privation of grace in the explanation of original sin, and explaining it only by the participation we are supposed to have in the act of Adam, exaggerate this participation. They exaggerate the idea of voluntary in original sin, thinking that it is the only way to explain how it is a sin properly so-called. Their opinion, differing from that of St. Thomas, gave rise to uncalled-for and insoluble difficulties. At present it is altogether abandoned.

### **Polygenism and Original Sin**

Suppose that we begin with a population of primates who have all achieved a certain level of brain capacity. Is God obliged to bestow a soul as soon as a brain with sufficient capacity has evolved, or may He wait? Suppose He waits for this mutation to spread through the population, and then one day bestows souls on the creatures, adult and children alike. This might be called the “Genesis 1” scenario, a plural creation of humans. With a numerous population, moral humans can breed without resorting to incest. Now if one member - “Adam” - sins, other members of the population are not directly tainted.

Even if the Fall has cosmic consequences, including death for all the unfallen humans, Original Sin is something explicitly inherited, not transmitted horizontally within a generation. If those remaining in a state of original justice do not ostracise Adam, but permit him to marry (or if he rapes) then his spiritual inheritance can spread through the population. It could eventually become present in the whole population,

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especially if the consequent concupiscence confers some evolutionary advantage, or predisposes to rape, or if “perfect” members are forced to choose to mate with an offspring of Adam to avoid incest. In this way, the whole population becomes infected by Original Sin. Could the sons of God and Nephilim of Genesis 6:1-4 be the members of the population not yet tainted by Original Sin in this scenario? This case, however, is not compatible with Catholic doctrine.

Pius XII insists that there can be no human beings after Adam’s fall other than those tainted by his inheritance. Allowing one member to fall and spread his spiritual inheritance through the population over several generations is not acceptable. Nor is positing that all the members of this original population fell, for Pius also insists on an individual, not collective, Adam.

### **Adamic Monogenism**

Imagine that, for the first time in primate history, a particular random mutation takes place (if it is random, since God’s providence underlies all creation). This produces a primatembryo which has the capacity to grow into a being with rational thought - an event which God has been waiting for from all eternity. God immediately bestows on this embryo - Adam - an immortal soul. Adam grows up among a population of primates who are, at a certain level, using tools and communicating socially. He learns from them to communicate, to interact socially, and to be a member of this community. But as he matures, he also becomes aware of a God who loves him, and allows him to have spiritual experiences. No other primate has these, because no other primate has a God-breathed spirit. Perhaps through a direct revelation, or perhaps through an innate “natural law”, Adam comes to know that some actions are against God’s will.

Nevertheless, one day he chooses to break God’s law, and so irrevocably ruptures his perfect relationship with God. His spiritual state changes from Original Holiness to Original Sin. In due course, Adam begets children. Of necessity he must interbreed with a primate who is biologically very similar to him, but ontologically profoundly different. Some of their offspring inherit Adam’s genes for higher brain capacity, and God is able to breathe into them, also, 11 Catechism of the Catholic Church, 1954-1960 Gareth Leyshon, 2003, 2011. immortal souls. Along with their genetic inheritance, they receive a

spiritual inheritance of Original Sin. Perhaps other offspring do not have this capacity. Does God give them souls, because they are Adam's heirs? If so, they too inherit Original Sin. Or does God withhold souls because they do not have the brain capacity? In this case, it makes no sense to speak of Original Sin. But the crucial consequence is that no primate can inherit Adam's mutation for advanced brain function without also receiving the spiritual heritage of Original Sin. And no primate who lacks Adam's genetic heritage has been given a soul - so these primates are not human beings.

Now, increased powers of thought may well bring an evolutionary advantage (and they obviously did, or we wouldn't be here now) - so Adam's mutation gradually spreads through the population. Eventually, a generation arrives where all members of this group of primates have inherited it: the whole group now consists of human beings with immortal souls, and the heritage of Original Sin. There is only one caveat: Adam's heritage must spread through the entire population before the same mutation happens randomly to the offspring of a pair of primates who have no Adamic ancestry. If this were to happen, and God was obliged to grant a soul, the offspring would not be tainted by Original Sin. We seem to have satisfied Pius XII's prescription. All human beings - ensouled, rational primates - trace their ancestry to Adam. All inherit his Original Sin. Although, during the transition phase, there have been primates in the population without Original Sin, these have not inherited the capacity for rational thought: they are not humans - or, to use the dated language of *Humani Generis*, "true men". There is one problem in this scenario. Adam is forced to mate with a non-human primate. Does this constitute bestiality? Further, his offspring in early generations must choose between similar bestiality, or incest. Yet this, too, is not insuperable. Why is bestiality wrong? The traditional approach invokes "Natural Law", which declares that sexual relations between a human and an animal are wrong because they are unnatural; and a sign of that unnaturality is that they do not produce offspring. In this case, however, it is the most natural thing in the world for Adam to be attracted to, and mate with, a primate who is almost identical to him; and we can expect fruit of such a union.

John Paul II stresses, after all, the material continuity which evolution requires between humans and their immediate forerunners. An alternative approach to sexual morality is found in the personalistic

philosophy expounded by the Polish Pope in his pre-pontifical tome *Love and Responsibility*, which builds a philosophical system predicated on the existence of a human person as its highest good. In Adam's case, the only way he can produce another human person is to pass on his genes by mating with someone receptive to them, a female primate similar to himself in all ways but the crucial *capax dei*. Adam therefore preserves his dignity by mating with a beast in order to beget human children whereas any present-day human who mated with a beast in preference to the myriad human partners available would defile human dignity. Further, the population of forerunner primates who would constitute dignified partners have died out over the generations after Adam, so the question of legitimate bestiality cannot arise in the modern world. And having established the precedent, we could equally argue that the early generations of Adam's children, given the opportunity, would have found it more dignified to mate with beasts than to commit incest.

It seems, then, that the Church's denial of polygenism is not the scientific stumbling block it would appear to be, *prima facie*. No-one is obliged to believe in an original couple from whom we all, exclusively, descend. We are obliged to believe that all humans share a common ancestor - but this is a finding which science itself has produced twice over, and is hardly more radical than saying that all humans share the genetic code for humans! Theology requires a more clear-cut origin for *Homo sapiens* than the fuzzy species boundaries generally acknowledged in evolution. It may be significant that some scientists propose a distinct speciation event for modern humans, and even more so that it concerns the Y chromosome promoting increased language capacity. We should be cautious, however, since Pope John Paul II has warned against trying to identify scientifically the identity of the first ensouled human. Beyond the purview of science, we further claim that our earliest common ancestor was the original sinner, and his fault taints the spiritual status of all his offspring; that is a matter for faith alone.