Environment or Genetics

by Dr. A.E. Wilder-Smith

Dr. A.E. Wilder-Smith explores the interplay between genetics and environment in shaping humanity, emphasizing a Christian perspective on science and creation.

Duration: 1:19:55
Scripture: Luke 8:4
Topics: "Fatalism"

Description

In this sermon, the preacher reads from Luke 8:4-15, where Jesus tells a parable about a sower who went out to sow his seed. The seed represents genes, and Jesus explains that the different outcomes of the seed falling on different types of soil symbolize how people respond to the word of God. Some people hear the word but don't understand it and Satan takes it away. Others receive it with joy but fall away when faced with difficulties. Some allow the cares and riches of the world to choke out the word. But those who hear and understand the word bear fruit abundantly. The preacher emphasizes the importance of understanding these principles and shares experiments to illustrate how they work.

Transcript

Now, ladies and gentlemen, the subject tonight is, is man genetically or environmentally controlled? And I would like to point out to you that at the start, the communists, the Marxists, believe that we are environmentally controlled. That's the basis of their theory of concentration camps. You see, if you change the environment, lock up all the pastors, the environment will make everybody atheist.

That's their idea. And the idea of a concentration camp is to take away any theistic influence. And if you put them in an atheistic, brutal environment, then everybody will become a communist.

If you can't, well, that's just too bad for the patient. The patient is then wiped out. The second view is that we're genetically controlled, and that's the basis of the fascist movement.

Hitler believed that it was the Aryan race which made his country the destined rulers of this world, the Aryan race. The Jews and all the others were missing links, and God would have wiped them out in the course of time, but God wasn't quick enough for Hitler, so he just tried to help God. He says so.

He just helped God by wiping them out genetically, put them in the gas oven. Now, I want to show you that a Christian's got to think if he's going to go through these awful times at the end, through which we are

going. You live here in a paradise, you know.

I know all the other things that aren't like a paradise here, but you need to be instructed on these things. Other countries are going the way that we don't want to go. Now, I'm going to read to you the Word of God for getting a line on how we must understand how we become, what we become.

And the Word I'm going to read to you is in Luke 8, 4 to 15. In Luke, the Gospel according to Luke, 4 to 15. Luke 8, 4 to 15.

When a great crowd came together, and people from town after town came to him, Jesus said in a parable, a sower went out to sow his seed. Now, seed is a packet of genes, okay? And here we have the first clue to why I've chosen this. A sower went out to sow his gene, sow his genes, sow his seeds.

And as he sowed, some seed fell on the path, and was trodden underfoot, and the birds of the air devoured it. And some fell on the rock, and as it grew up, it withered away, because it had no moisture. And some seed fell among thorns, and the thorns grew with it, and choked it.

And some fell into good soil, and grew and yielded a hundredfold. And as he said this, he called out, he who has ears to hear, let him hear. And his disciples asked him what this parable meant.

Jesus said, to you it has been given to know the secrets of the kingdom of God. This parable of the packets of genes, is a secret of the kingdom of God. Now, I'm going to teach you, I hope, God's help, a little bit of science.

But you'll know by it, the secrets of the kingdom of God. I wouldn't do it otherwise. I've taught pharmacology and genetics long enough, and I've done 40 years of it.

Now, if I weren't teaching you something beyond that, I wouldn't do it. So, I want you pay ever such close attention to all the details I give you, because it says, you know, in Romans chapter 1, that if we look at science, which is the study of nature, we see the nature and being of the living eternal God. And anybody who doesn't see it, anybody who doesn't see it, is without excuse.

Understand? Therefore, if you want to know more about God, you've got two chances. You can read about him in the Bible and become a theologian. Okay? Or the other one is to read about God in nature, in that you study science.

And anybody who doesn't see the eternal God and his nature in science, is without excuse, says the Apostle Paul in Romans 1. I wouldn't do it. I believe all science to be creation science myself. There's nothing else.

It's only that. Doers be given to know the secrets of the kingdom of God, but for others they are imparable, so that seeing they may not see. Many scientists see nature and don't see God.

That's what that passage means. Hearing they may not understand. Now the parable is this.

The seed, the packet of genes, the seed is the word of God. That puts a different light on it, doesn't it? The seed is the word of God. The ones along the path are those who have heard it, and then the devil comes and takes away the word from their hearts.

They may not be saved. The ones on the rock are those who, when they hear the word, receive it, the seed, with joy. But these have no root.

They believe for a while, and in time of temptation they fall away. But as for what fell among the thorns, they are those who hear. But as they go on their way, they are choked with the cares of this life, and the riches and pleasures of life.

Riches and pleasures choke the seed, and their fruit does not mature. And as for that in the good soil, they are those who, having heard the word, hold it fast in an honest and good heart, and bring forth fruit with patience. Lord Jesus, we ask thee to open our minds, open our understanding, as thou didst do to thine own disciples when thou wast amongst us as man.

Open the words of my mouth, and meditations of my heart, and our hearts, all of us, that we may always be acceptable to thee, our Lord and our Creator. Amen. Now, ladies and gentlemen, the first man that started to study genes on a sensible basis was, of course, Mendel the monk.

And he worked with his garden peas, and he showed that the heredity of garden peas, thank you, the heredity of garden peas was according to mathematics, and it wasn't chance. Now, Darwin didn't read his work, although Mendel's work was produced during Darwin's life. If Darwin had read it, you know, he was intelligent enough to know that the whole basis of his theory, in chance, was for the birds.

If he'd only read it, but he didn't read it. You know, lots of things we'd know if we read, and did as Paul said, continue in reading and in prayer, developing the mind. Darwin didn't, and suggested that theory, therefore, because he didn't read, that has devastated the intellectual world for over a hundred years, just because he didn't know.

Now, Mendel found out, you see, that it was done according to mathematics, and, you know, I've got my mother's eyes, can't help it. I've got my father's stature, can't help it. I have the fresh complexion when I'm almost dead, you know, I look healthy and well and blooming and all the rest of it.

My father did until he was 90, and I'm afraid I'm like it, happily. Mothers give their temperament, usually, to their sons, you know. It's mathematical.

My daughter has got my temperament, poor girl, and she's got my hands and arms, poor child, but she's got lots of lots of nice things from her mother too, all mathematically wrapped up in packets, and how glad I am that that's the case. Now, they forgot Mendel till after he was dead. I had a professor in Oxford whose name was E. B. Ford, and he was a tall man, and he had an even higher voice.

You could hear his voice from miles away. He had a huge pate with no hair on it, and his glory was Drosophila melanogaster. You know all about Drosophila melanogaster, don't you? The fruit fly.

And he worked on the fruit fly, and he did some very marvellous work while I was there. He worked out on the chromosomes, he worked out on those chromosomes, the bulges and the swellings, where the properties of the Drosophila melanogaster were located. He made maps of where the length of the wings was decided, where the colour of the hair was decided, whether the eyes would be red, and the animal an albino, or not.

He got those maps out done beautifully. The only thing about Ford was that he didn't know what those bulges were. He knew they were there, and he could map them, but he didn't know what was inside.

And the next two people who went at that, that particular problem, what was inside the genes, were Francis Crick and Watson in Cambridge in England, and they found out that everything was written down in those bulges in a code. The code was a language, and they broke the code so that you could read it. And they found out what all the other people before them, they didn't know, that it was a book, but a super book, the most micro book, the most miniaturised book that you can imagine.

And they broke the code for it. Now I want to talk to you just for one minute about what a code is, because some people don't know, and if you don't know you'll be lost before we go very far. I'm going to show you first of all what a code is, and then what's inside those bumps and swellings in the genes, and then we'll go on from there.

Now this is what a code is. If I have a concept in my mind, don't think that you speak in a language, but don't think that you think in a language, you speak in a language, but you don't think in a language, you think in a concept. And then, according whether you're American, German, Japanese, Chinese, you put that concept in which you think, you put it into a code, and that's your language.

Now if you have, say, the concept in your mind of peril, peril, p-e-r-i-l, danger. Now danger can be, of course, if I have appendicitis and I've got a lot of pain, and I don't do anything about it, then it may burst, and if a doctor doesn't do something quickly and carve me up, and seal it off, and wash me out, I shall die. That's a danger.

Now if a person does have a danger, he has the concept of code, that there's something wrong in him, a concept, then he calls out for help. Now the idea of calling out for help is rather a mouthful, you see, so we've called it, this concept, S.O.S. Now S.O.S. doesn't look like appendicitis. S.O.S. doesn't look like a car blowout, but S.O.S. does certainly convey to anybody that knows the idea that I'm in danger.

If you're driving along the road, the freeway, and you're, well you can't do it here, but you can in Europe, you can drive at 200 miles an hour along the freeway if you want to. It's rather awkward though, if a tire blows out at that speed. I had one blow out once, but not at that speed, but high enough, and the thing to do is to go to a telephone box labelled S.O.S. Now you use S.O.S. for a tire blowout, you use it for appendicitis, you use it for an abscess under your tooth, or for anything else that's peril.

Now what I want you to notice is this, ladies and gentlemen, please underline it in your thoughts in red ink. The code carries a concept, and the concept is peril, but the code is no natural law. It's entirely arbitrary.

Somebody thought that S.O.S., save our souls, would be a good thing. That's what it was originally, would be a good thing to hang a concept upon. But there's no natural law.

This is very important because we're going to talk about natural laws in the GED code. There's no natural law relating this reduction of entropy, or increase of order, such as S.O.S. represents. There's no natural law which couples the two together.

That's entirely arbitrary, and it's known as a language convention. And language conventions aren't built up on natural law. They're built up on arbitrariness of men who need to make codes.

Now the genetic code is no exception. The genetic code is a code which is not coupled to natural law. How you can derive it from natural law is a mystery to me, because every scientist wants everything to be coupled to natural law.

He wants it to be naturalist. He wants it to reside in matter, and yet he knows perfectly well that a code does not reside in natural law. How then can he say it does? Well, that's one of the mysteries of the workings of confusion in the human mind, and I point that out to you right at the start.

You'll need it two or three times before I've finished on the scientific part. Now S.O.S. I can communicate it to you by writing S.O.S. I hold it up on a bit of paper, and you say, oh, the man's got stomachache. Right? I've communicated to you very easy.

But you know, it's not very useful sometimes to take the letters of the alphabet to get a code over. It's sometimes more useful to code it again. And we code it again by writing dot, dot, dot, dash, dash, dash, dot, dot, dot.

S.O.S. equals dot, dot, dot, dash, dash, dash, dot, dot, dot. Now, if you're a ship's officer, you know how to do it. You get a flag, you get a flash lamp, or you speak it into the radio, you tap it out with a key.

Now, dot, dot, dot, dash, dash, dash, dot, dot, dot, doesn't look like appendicitis, nor does it look like a blowout on a car. It doesn't look like peril. But you see, it's perfectly arbitrary.

And language conventions, codes, even the language convention which we knew as a genetic code, is entirely the product of a language convention out of an intellectual apparatus. It has nothing to do with natural law. Now, that's very important to learn, and tomorrow evening I want to go into that further.

Now, I could, if I wanted to communicate to you that I've got stomachache, no worry, I haven't, I've eaten very well today, and the Americans are awfully kind to me, and I feel okay. Now, I could communicate it to you, listen to this, don't you miss it, if I don't get you to see a little bit of oxyhemoglobin into your minds, into your brains, by making you laugh, you'll never stand this, because this requires thinking about, and most people are lazy in respect of thought, and sometimes in other things as well. Now, if I want to communicate that to you, ladies and gentlemen, this is vital, absolutely vital.

When a vital thing is coming, I'll usually try, and try my hand at getting you to laugh, so that I've got just that bit of extra oxygen up there, so that it sits. Now, I can do it, I can communicate to you, are you listening? I can communicate to you, what's so much to do? I can communicate the concept of peril by pulling out one of my shoelaces, there they are, you see, the shoelaces, I pull one out, and I can tie in it, the shoelace, I've lost my screen, that's my trouble, you see, I can pull out the shoelace, and I can tie in it, one knot, one knot, one knot, knot, knot, knot, K N O T, all right, then I can tie in it, towards the bottom, two knots, double knot, double knot, so, knot, knot, knot, double knot, double knot, double knot, knot, knot, knot, now hold it up to you, and you see, knot, knot, knot, double knot, double knot, knot, knot, knot, what do you say? Oh, he's got appendicitis, you see, The man's in need, that is an SOS call, but you see how I've communicated it to you. Now you think of the advantages.

This is the Inca method of writing, you know. This is how the Incas wrote. They didn't have any paper, nor did they have pens, but they did have pampas grass, and they had ropes.

So they took long pieces of string, boot laces, you see, and they tied into them knots. And they did it, the knotting, just like we write letters on paper. And they could read it with their fingers when it was dark.

Just run your fingers down it, you see, and you've got knot, knot, knot, double knot, double knot, double knot, knot, knot, knot, aha, okay. Fair enough, you see, they didn't use the moss code, but that's how we would do it today. Now, they could not only do it with their fingers, they could do it with the light, with their

eyes.

You see, the fingers are feeling, and the eyes are also a feeling, but they're two different organs, two different senses. So they could look at it, and just by looking at it, they knew the contents, just like we read. But you think how nice it is to be able to read your writing, or feel it, just as you like.

Well, we have to feel it, for the blind people with Braille, you know. You've got to make a special form of writing, because our writing's not suited to that. But if you have it on a string, with knots, you can do it by both methods.

Wonderful method of doing it. Now, that's what the genetic code looks like. The genetic code runs on this basis, ladies and gentlemen.

This is absolutely vital. The genetic code doesn't use one shoelace, it uses two. And between the shoelaces are hung up the genetic letters.

And instead of having the two letters of the moss code, you have four. You see, in moss code, you have two letters, dots and dash, and then the interval. And with the dot and dash and the interval, you can write everything down, everything that our 26 letters of the alphabet can do.

And you see how much advantage that is? You could take a shoelace, and with just two letters and the interval, you could write up the Bible. It'd have to be a long shoelace, but you could do it. You could write up Goethe, Röslein, Röslein, Röslein, Roth, Röslein, Auf der Heide, you know, which you all learnt in German at school, didn't you? I hope.

Now, you could write it all up that way, you could write up Shakespeare. But the super method of writing books is simply marvelous, because you can pull the two shoelaces apart, and from the one ladder that you put the shoelace up one side, which goes into one cell, and the other ladder which goes into the other cell when you're dividing a cell, each side automatically, by complementarity, reproduces the total ladder of two shoelaces, and reproduces the total letters. So you've only got to pull the thing apart like a zip fastener, and the other side of the zip fastener, which is lacking in each cell, forms itself by complementarity.

It's an absolute genius of an idea, how to quickly rewrite the whole book. Now, when you were conceived, there were 23 chapters of the knot method on strings, which put the total information to make you in the cell. Now, we can read the chromosomes and the genes in a human zygote today, and we know that there are 46 chapters.

And if we were to write these chapters down in English, which we can do, they're chemical instructions. How to make alanine combine. How to make the enzymes which make you work.

How your digestion's got to function. How your liver's got to be built. How your kidney's got to be built.

How the concept of your eyes got to be built. All these concepts are in code form, we can read them. Now, in one zygote of a human, which you can't see, or scarcely can see with the naked eye, because it's as transparent as water, but you can see, if you stain it right, the 46 chromosomes.

And if you write them down in books, do you know how many volumes you'd need to write them down in English on paper? You'd need a thousand volumes, each of 500 pages, and the smallest print that any

printer knows. And then you'd scarcely get in all the instructions, which God has put there in a code form to make you. The shape of your nose.

The fact that you're not a crocodile, or a cabbage. The fact that you are a human being. And the remarkable thing is, it's all in one language, all in one code, throughout nature.

There are only minor variations. The information written up to make a blue-green alga, is about the same, in all essential details. The information required to synthesize an amoeba, and to synthesize a frog, and to synthesize a bee orchid, and to synthesize a crocodile, and to synthesize an ape, and to synthesize you.

It's all the same language. Now, you know, if you believe that this super-language, which is common to all nature, arose by chance, then you're forgetting that the basis of a language is the coupling, by arbitrary means, of a concept with a reduced entropy system, with a language. You see, it's entirely arbitrary, this method of doing things, to say that danger is equivalent to S-O-S.

There's no natural law behind it. And it's entirely arbitrary to say that danger is equivalent to dot-dot-dot, dash-dash-dash, dot-dot-dot, on a string. There's no natural law behind it.

And when you look at the... You know that an intellectual law is behind it, an arbitrary one. And when you look at the genetic code, you just can't find that. And it's a super-code that we can read and write down and use ourselves to make ourselves.

You can go into the lab now, open a notebook in English, and you can write it down in the genetic code. And you put it into an animal or a plant, and lo and behold, the animal or the plant will build itself from the concepts you had first of all written down in English, and which are now written down in the genetic code. It only takes eight or nine hours, you know, to duplicate the cells of your body.

And you think that's a thousand volumes, each 500 pages, in the smallest script, the smallest type that you can think of. You ask a secretary how long it would take to type out again a thousand books, each of 500 pages. I asked somebody that once in a university meeting, and there was a bright young lady in front, and I noticed she didn't pay any more attention to me after I asked her that, asked the whole congregation that.

There she was, working a computer, you see here. She came up with the answer at the end, and she said, two and a half years, sir, if I work 24 hours every day without stopping at all, you don't count the mistakes I make. Well now, this is done with no noise, no noise, just put a few potatoes in your mouth, and off it goes, by room temperature, it gears itself.

Now look, think what I've said to you. Think what I've said to you. I'm glad you're laughing, I don't need to make you then, so that you've got enough oxygen in your brain.

Now, if I say that to you, ladies and gentlemen, the natural consequence is, oh, oh, the man is a determinist. He's a fatalist. You see, I've said to you really, if you think it through very carefully, that the most important thing is to get the right instructions, so that you're the right sort of person, genetically speaking.

So I will say to this, I will say this to you, ladies and gentlemen, that the most important thing for a young man, or a young woman, to take care of, is in the choice of his parents. You see, if he gets the wrong, if he gets the wrong instructions from mum and dad, he's going to suffer for it. So I would ask you to be very

careful about that little problem of who your dad and mum are.

Now, and also, when you're thinking of marrying, consider it too. Both sides. Very, very important.

Because there are certain hereditary diseases, which ought not to be passed on, you know. Degenerative diseases, which are undermining the state of our race. Because medicine allows all sorts of things to happen, which normally wouldn't happen today, and which would wipe out those diseases.

Leave that. Do I believe in fatalism? Am I like the Muslim, our dear friends, who just simply say, God did it that way, and that's it. Am I determined genetically? Well, I am, to a certain extent.

You see, I've told you, my genes come from my father and my mother, and I can't help it. Well, I'm very glad, actually, but that's it. You see, the fact that I'm, have the genes, X, Y, I have, you see, prove it, fear does it, X, Y, that was given me a conception, and I can't do anything about it.

That I'm a man is just simply determined. God knew all about that, but it's determinism. You okay? The fact that my wife is XX, that was determined when she was conceived.

She can't do anything about it, neither can you. Now, so far, we are determined. So far that I have blue eyes, that's determined.

My mother and father didn't have the dominance for brown eyes, and that's it. I can't do anything about it. But I will ask you another question.

Although I can't do anything about XY, and my wife can't do anything about XX, and we don't want to do anything about it, actually, but no, can't argue about it. Do you think now, let me ask you a question. Do you think that because I'm XY, my wife is sitting there? What do you think? Do you think that my XY determined that I married my wife? What do you think? Well, if I were XX, I couldn't, could I? But if it's XY, I can.

But then, over and above that, inside those limits of XX and XY, we have freedom. But only inside those limits. You see, you can't do anything about the color of your skin.

But the color of your skin does not determine your wife. It may have a slight influence on it, but it doesn't determine it. So you see, you have two outside barriers within which you have freedom of choice.

There's determinism to a certain extent with your eyes, there's determinism to a certain extent within limits, but inside those limits you're free, and outside you're not. So you see, it's complicated to talk about these things, but it's very essential that we do consider them. Now let me give you three or four experiments to show you just how this works.

I'm going to go through them quickly. If anybody doesn't understand them, just please put up your thumb and finger, I'll see it, and try and get it straight. Experiment number one.

I take some purebred fish, little fish, name doesn't matter, but they're purebred. And the father fish fertilizes the eggs of the mother, and she lays a thousand eggs. Now all those eggs, each one of them is a zygote, which is practically an identical twin to the next one, because you see they're purebred, there's very little variation in them, and every fish looks like every other fish of this race.

Okay? Now I take 500 of those eggs, and I put them in seawater, and I let them hatch out. When the 500 hatch out, I have 500 hopping little fish that run around, and they have swim around, and they have two little eyes at the side of their head, like two little side lamps at the side of their head. Okay? That's what normally happens.

Now if I take the other 500, which are genetically practically identical with the first 500, and I put into the seawater just a little bit too much, just a trace too much of magnesium chloride. Now magnesium chloride is a constituent of seawater, so I'm putting in nothing new, I'm putting just a little bit too much. Not much, but just a little bit.

And I let them hatch out. And I get out from the seawater with the magnesium chloride in it, I get 500 little fishes swimming out of their eggs, and each of them has one huge cyclops eye in the middle of the forehead. Now, the genes are there to make two eyes.

The chemical instructions are there to make two eyes. But in the presence of an environment which is favorable for one eye, like the giants of old, you know, with one big headlamp looking at you instead of two, in the presence of the magnesium chloride, a trace too much, I get one eye. What's done it? The environment controls the expression of the instructions in your genes.

Your environment controls the expression and development of your genes. If your environment is unsuitable, you can have the best genes in the world. It won't help you much.

You've got to bring out what's in them by a suitable environment. Now, that's experiment number one. You can repeat it if you like, you can get the fish and do it.

Experiment number two is this. You all know, or let me see if you do know, see if I can see the expression on your face. You all know who Alites Obstetricans is.

Sorry, my apparatus is out. Does it work or does it not work? Oh, yes. Alites Obstetricans.

It's on... You just have to look and see which one it is. He's the midwife toad. Now, he's a very friendly little fellow and he lives on dry land and he's not fussy like other toads are.

The father's a very good fellow. He's a real good one. Because when the mother lays her eggs, he takes the slime of the eggs and wraps them like a string around his body and he functions as the uterus.

He functions as the womb. He hatches the eggs himself on dry land. Friendly little fellow.

And the eggs don't hatch to tadpoles. They hatch inside this slime to toads that can look after themselves. Now, listen.

Alites Obstetricans, the midwife toad, doesn't have like most toads during the breeding season the little black copulation pads which ordinary toads have on their thumbs. You see, the ordinary toad that lives in water or near water, the mother, when she's laying her eggs, is very slippery because of the water. And if the male can't hold her, he can't fertilize the eggs.

In the case of the midwife toad, the wife and the husband, they both live on dry land and the female is therefore dry when she's fertilized and the male can hold her without these black copulation pads which all other toads have on their thumbs. Now, there was a man called Paul Cameron who lived in Vienna and he believed that Darwinism was impossible because it was done by chance. And he thought that you could

put in the environment into the genes to give them new information after the principles of Lamarck.

Now, you know Lamarckism has been disproved. But that's what he thought. That was his idea.

And so he said, let's see. Let's see. We'll take the midwife toad and we'll breed them through many years on dry land in the lab where we've got no water.

He did that and of course no pads or anything developed. But then he took others and he made them breed in water so that the female was always wet and slippery when she was fertilized. And you know, after a number of generations the male toads at the time of mating all developed little black pads on their thumbs.

Wow. He published that and said, I've proved that Lamarck was right. If you put the environment there the environment will go into the genes and they'll get the genes for making toad pads which we don't usually have.

So they published that. And Bateson, who was a rabid evolutionist he didn't like Lamarckism at all. He hurried over from London to Vienna and he looked at them.

And he looked at them as a scientist looks at things with a critical eye. And he laid these preparations of midwife toads' legs in the mating period into water. And out came the Indian ink.

Now, some assistants had tried to help poor old camera and made the pads a bit more impressive by injecting very carefully a bit of Indian ink into each. The pads were there. But she was too enthusiastic, it was a she.

Nobody found out who did it. But you know, the poor man so lost his courage over being exposed like that that he went into the mountains and shot himself with his right hand through his left temple. Now it wasn't necessary to do that because he was right.

You see, what had happened was this. The environment of the water had brought out the latent genes in the midwife toad. He had the genes all along but his environment was not such that he needed them.

And he didn't develop them. Now, she says, like me, if I go into the garden I've got lily white hands now. I haven't been into my garden for six weeks.

When I go into my garden and dig with the spade and foot method you know, first of all I get blisters. Then I get corns on my hands, horny pads onto my hands here. Now that is merely the fact that the pressure on my hands activates my genes and I produce those things for self-protection.

If I don't work, everything goes back. But if I do work in the garden, they come out and I activate my genes. So you see, you could have lots of genes in your body and unless you have the environment acting on them they don't come out, they remain latent instead of being becoming patent.

That is the environment triggers the development of the information on your genes which you've got. Now I've got a third one which is very, very important indeed. It's this.

If you take wistar rats, they're white ones, you know, with red eyes and you get nice little fellows. If you get those rats purebred, you can breed them together, brother and sister. You get no abortions and no things like, no monstrosities out, they're purebred.

There's nothing in them to come out which is bad and so they breed true even brothers and sisters like the human race at the start did, you know. There's no difficulty about the wives of Cain and Abel. They were perfect, you see, so that nothing bad could come out and even the pharaohs lived that way, you know.

They always married their sisters to keep the royal genes within the family. Abraham married his half-sister the same way and the Jews are certainly not degenerate. They are certainly very intelligent people.

Half-brother, half-sister marriage. These rats, if you take a mother of a Wistar rat and you let her breed, say with her brother, and she produces a litter of 10. Now they're nice squirmy little things, you know, blind at the start and all they've got one interest for is, of course, the mother to get something out of her and you take five of them and you put them to the mother just after birth.

You take the other five and you put them in solitary cages where they're kept warm and they're fed from a pipette and then liquid and then later they get the solid stuff from an endless belt. You bring them up in solitary confinement. They never see anything of life at all, neither a human nor a rat.

Now if you let them go for a year like that then you do a rat IQ. You all know what an IQ is, don't you? I hope yours is 150 and OK, leave it at that. You do the IQ of these rats by a rat IQ method.

When you do that to the ones that have been in the family they're 25-30% higher than those who have been brought up alone in solitary confinement. And if you cut a section through the brain and you look at the connections in the brain, synapses and so on, you'll find that the rats that are brought up with the mother are 25-30% better developed than the brains of the rats that have been brought up alone. Now if you let those rats after a year that have been brought up alone go back to the mother they can't accommodate themselves.

They can't fit in. They're sexually impotent often. They can't bring up a family themselves.

If you do it with monkeys, if you take a monkey and bring it up alone you know it can't copulate. It has no idea of sex and no relationship to other people. You see what happens is this, that in the family the mice react with one another with the mother and the mother brings up the mice and the mice bring up the mother.

And the result is that the genes for building brain are triggered to build brain by being in the family. And the genes of the five that were brought up alone are all there, just as they were in the genes of the five in the family. But they're not triggered by the environment to develop.

Now the same is true of the human being. If you let the rat go on until puberty is passed after a year say and you put the rat back to the mother, the mother won't know what to do with the rat and the rat won't know what to do with the mother. And the result is all communications break down.

Now you're seeing that here. Now I'm not suggesting you're rat or anything like that or even mice, but the same principle is what you're seeing. Now I know all about overpopulation.

But you know this that is a fact that most of the genii which you've got, the real big men the really intelligent ones, there are exceptions to this. But a lot of them were brought up in big families. Because it's there you get the stimulation.

And the stimulation brings out the development of the genes that you've got, brings out your personality. And if you're brought up an only child or if you're brought up I'm not saying you are only children there are exceptions here. But I'm talking about generalities.

The idea that you can bring up a family with only mother or with only father is surely not stimulating what you need because a mother can develop in a child that which a father can't. And a father can develop in the genes of a child that which the mother can't. So God's ordinances of the family is being rapidly destroyed in our western society.

One of the most grave, the gravest signs you can see in America and in British and in European society is that the inventiveness the creativity is sinking rapidly. Your last president mentioned it. America was a nation of inventors.

Look, we've got to. But that's all going to go suddenly if children aren't put into a stimulating environment before puberty. There's only one way to do that.

That is in a family with many children where they react on another or in a good school with somebody who understands these things where they react with one another that the genes that are latent in them become patent and expressed. If you wait until after puberty, you know, you learn far less rapidly than you do before. Now my children have been exposed to lots of cultures.

We lived in Switzerland. We've lived in Norway. And we've lived in Turkey.

We've lived here. And we've lived pretty well all around, you know. My children just listen to Turkish on the street.

You know, if they want to say anything that's rather unsayable in English, they will use the Turkish word for it and the expression. They never learnt it. Now while we were in Illinois, we made it a rule to understand no English.

I wouldn't. The result was the children knew we wouldn't understand and they continued to speak with us in German. And also the same applied in Geneva in French.

And the same applied, although it was a bit early for them, in Norway. The result is those kids, before puberty, their computer is capable of listening to and seeing any language spoken and decoding it, breaking the code. Now if you wait till after puberty, you'll always speak with an accent.

And your grammar will go wrong. And your vocabulary will go wrong. Because we're only given the years before puberty to learn a language properly.

And you learn it by seeing it and hearing it spoken. And the rest is perfectly automatic. That computer, its function is developed by the environment.

And if you don't have the environment which can teach you these things, the whole thing crystallizes out here and becomes brittle, and you can't learn anything. Now you see, my children had that inestimable advantage of having three languages, besides the Latin that mother taught them, without having to learn it. And they could concentrate on the science.

And with sixteen and a half years, they entered medical school. Now, we didn't force them. You don't want to force a child to do anything.

But we have the natural ability to develop our genes, which are there, by the environment, before puberty. And everything is done too late, you know, in our society today. Wesley, when he went to Oxford, at twelve years old, could write English and French and Latin and Greek.

Think of it. No trouble. No difficulty.

No sitting down and grinding. If you let the environment, which God gave you, work on the genes which he gave you too. And the two fit together just like hand in glove, you know.

No work involved. But if you wait until you've got four kids and you're twenty-five, and you go out then as a missionary and have to learn the language, well, it's just too bad. You've got to work a long, long time, and it usually is so that you don't learn it perfectly.

There's an enormous, there's almost an infinite capacity to learn before puberty. And all the bad things that you do in the family, you know. And mum quarrels with dad, and dad quarrels with mum.

Those are the things that stick. And then you've got the breakup of the family. Unless dad has learned to forgive mum, and mum has learned to forgive dad, even in front of the children, the children don't learn the basis of the gospel, which is certainly reconciliation, because we're sinners.

If you don't do it, especially with young children, they'll never learn it later. The relationship of father and the relationship of mother is crystallized before puberty. Now, in Europe, there's the concerted effort, concerted effort to stop the idea of father and mother as orientation signs in the family.

The tax laws are so that it's better for a couple to live in concubinate rather than marry. And people aren't marrying. I was told that a couple could only go to Australia the other day if they went there in concubinate.

The law was such that you couldn't do it otherwise. Too difficult to get in. If she went over, the girl, simply to work and be with her beloved one, but not live with him, she couldn't get in.

But in concubinate she could. Think of that. Now that's the tax laws which are being made today to destroy this environment working on the genes and it will deform our civilization.

You've seen it here. Families without fathers can't grow up. You know, the disadvantaged persons will be much better the other way.

Now let me give you another experiment very, very quickly there because this is highly, highly important. If you take a human egg out of the side of a woman by laparotomy and you put this egg in a test tube Yes, thank you. You put this egg in a test tube and you fertilize it with the woman's husband.

You will get a human zygote with 46 chromosomes in it. Okay? Now if you let that egg grow in the test tube by putting in the necessary foods, that egg will multiply 2, 4, 8, 16, 32, 64 cells. But you know, it never produces a baby.

It produces an amorphous mass. It must have the egg, it must have the environment right before it produces a baby. If you put it into a uterus, a womb, you will get out of that egg, other circumstances being normal, a baby, a normal baby, because the environment is right.

Now, think of this. The eggs, the chromosomes have got to be okay. The environment around the chromosomes have got to be okay.

Let me give you this last one and then we'll come and dissect this for you. If you take the egg of a woman which has been fertilized with the sperm of her husband, put it in the uterus, you get a baby. Now if you take, say, a bone marrow cell and put it in a uterus, does it give a baby? It ought to, you know.

It's got 46 chromosomes. If you put the bone marrow cell in a test tube, it'll divide, but it'll only produce bone marrow cells. If you put it into a uterus, it'll do the same.

Why doesn't it give a baby? Now, let's try and look at this little picture I've got here. You see there you've got a zygote on my far side, and here you've got a bone marrow cell. Now you do this little experiment with me and it'll explain to you a lot of Holy Scripture.

Listen. You then dissect out the nucleus from the zygote, the little bit that I've got in the centre, the point, and you put it at the side there at the bottom. Could you put that up just a little bit? At the bottom there.

And then you take the bone marrow cell, thank you, you take the bone marrow cell and you dissect out the nucleus and put it at the side, you see, just like this. There we are, there we are on the other side. Now, you then take, you listen to me, this is quite vital, this is the experiment that's been done.

You take the bone marrow nucleus, which has got the 4-6 chromosomes in it, just as the same as the zygote has the 4-6 chromosomes in it, and then you put the nucleus of the bone marrow cell into the cytoplasm of the egg, which hasn't got a nucleus in it until you put the new nucleus in it. Then you swap the nuclei. Now, if you take that egg, which has the ordinary cytoplasm of an egg in it, but it has the nucleus of the bone marrow cell in it, and if you put that in a uterus, out comes your bouncing mouse.

It's been done in three cases in Geneva by Illmansey. So, you see, what you've done is this. You've changed the environment of the nucleus of the bone marrow cell into the environment of an egg, and the environment of an egg produces a baby, whereas the environment of a bone marrow cell won't.

Okay? Now, that's very important to notice, that that actually happens, it's been done, because it gives you a very good idea of what the heathen have laughed at for donkey's years now. Remember when Adam was formed? Do you think Adam was made from an ape or not? That is, did Adam come from a uterus or not? I don't think so myself. Adam was made in a perfectly scientific manner.

The action of spirit, logos, on matter, says Genesis, gave a living soul or psyche. That's just how we do it today. This is nothing that's not scientific to say that, because if we take matter, which is correct, and then we apply our biochemistry and our know-how to it, you can get out a virus.

Shortly we shall have our Escherichia coli, bacterium from our own stomach. And that is exactly, as the Scripture says, that matter plus know-how, or spirit, gives you a new organism. There's nothing to laugh at about that, you know, it's scientific method.

That is creation science. It happens. Now if you take, you make Adam that way, and then you take out of his rib a bone marrow cell, this has been done now, and you put the nucleus of a bone marrow cell, particularly if it's taken from an embryo, and you put it into cytoplasm, which stops the blocking of the genes that are there.

The genes in a bone marrow cell are blocked, as you might say, with scotch tape. Okay? It isn't scotch tape, of course. But if you could dissolve off that scotch tape, when the ribosomes came round to read the genes on the bone marrow cell, instead of only reading the bits of the genes that are free to make a bone

marrow cell, if all the genes were laid bare by a substance which dissolved the blocking of those cells, which make a differentiated cell, then you get a whole organism out.

So when the Holy Scripture says that Eve was made from Adam's side and didn't come from a uterus, as the theistic evolutionists say he did, and she did, then there's nothing wrong about that at all. It's perfectly scientific if it happened that way, because you don't have to make a new creation. The creation took place when the genes were made.

That's where the information was gotten from. Okay? All God would have to do would be to take the XY chromosome of Adam and remove the Y, or destroy it, and X would automatically divide itself, and you'd have out of a perfect Adam a perfect Eve without a new creation. There's nothing wrong in these things, you know.

There's no basis for laughing at what the Bible says. Today as the years pass by, I'm thankful because I discover ever more things which prove that the Bible is not invented. If you look at other religions, you'll find that where man was made from a red blood cell, he couldn't have been made from a red blood cell, as certain religions say, because the genes aren't there.

But from a marrow cell, he could. Okay? No difficulty. If you want to read these things, read them up in the natural sciences, know nothing of evolution.

Now I want to go quickly ahead now to this turning round which we read in the scriptures. I'm going to turn the situation right around, draw a little red line under what you've heard, and this will bring it to a head such as we want. A grain of corn, a grain of wheat, is a packet of genes and chromosomes with a little food in it.

It's a packet of instructions with food in it. Now if you throw the packet of instructions, the genes, onto a road, traffic comes along, squashes some, the birds come along, eat up some, you get the genes okay, but the environment wrong. The result is that you get no crop such as you should get from the information.

If some of the genes are thrown among thorns and thistles, the genes are okay, the information is okay, but the thorns and thistles, they choke choke the realization, the execution of the genes which are in the packet of genes in the food. If you throw some of the genes on good land, then of course you get the environment right and the genes right, 30%, 60% and a hundred-fold growth. Now that's the second step in the logic.

The packet of genes has got to be right, and your environment has got to be right to get food. Now this is the last step of logic. Jesus said, are you with me? Jesus said, the word, the seed is the word of God.

Now the packet of genes is the seed, the packet of instructions is the seed which has power in it to produce the new plant. Packet of chromosomes, packet of instructions. The Bible then is the wheat corn, the wheat seed.

There you have in the wheat seed all the instructions which are necessary to produce a wheat plant to produce a hundred-fold new wheat for next year. Now the soil, what about that? The soil, said Jesus, on which the sower sowed his seed, is your heart. Now I've been throwing out at odd times tonight, packets of information sometimes from the Bible.

To make them grow, you've got to have the packet of information first and then the heart has got to be the environment to make the seed germinate. Jesus said that the word of God is very often sewn onto the highway where the ground is hard. Now the highway is a place where there's a lot of traffic.

Do you know what we call it today? The lot of traffic? Well I don't mean trucks on the highway. What I mean is the traffic in your heart. You know we suffer from stimulus flooding.

The eyes are chocked full of television pictures. And the effort required in the brain to process all those television pictures is something that you can't say so much. It's almost infinite.

And we're suffering from too much traffic in our hearts. Too much newspaper reading, too little Bible reading. Too much television, too little time in our quiet chambers.

Communing with God. Having our quiet time. I'm not suggesting you become a monk.

I think that to be unnatural. And all respect to monks. Oh I wouldn't say anything about monks at all.

But I'm not suggesting, I'm not suggesting that your pastor becomes a monk. And I'm not suggesting that you become a monk. But what I am suggesting is this.

If you've got too much traffic all the time in your heart, your heart will become hard. And no place for the Bible to germinate. It's too hard.

And it really means that it's so trodden down by the permanent traffic over it that it can't sink in. We're suffering from stimulus flooding. We don't have the quiet time we ought to have.

Just to plough up the heart a bit. Listen, I'm going to test you out now, with one packet of information which has already been said to us tonight by your pastor. I'm going to test you out now, and you can test your own heart.

I'm giving you a packet of information yet. And it's this. He used it.

You sang it. God so loved the world that he gave his only begotten son, that whosoever believes on him should not perish, but should have eternal life. Now you think.

You think what that means. It means that God gave his only begotten son to die for me and for you. That means that God thought, and you analyze it, thought that you, to save you, was more worth than saving his own life.

God's life wasn't saved because he loved you more. And he gave his son and Jesus did it free will. Now you think.

I've had people come to me today. I had a case when I was up in Los Angeles this afternoon. There was a man, disappointed, rejected by everybody, smoking himself to death.

So I went over to him and asked him. And you know that was one piece of fruit. He'd been in many many churches.

One piece of fruit that he'd never realized. That God loved him more than God loved himself. Now you think of the infinite worth of Jesus' life.

And you're more infinitely worthy and worth the love of God's life himself. Now you think that the heart of a man is too hard to receive that. God himself telling you that.

And if you're not touched by that, then I don't know anything that'll touch you if that doesn't touch you. If that message doesn't reach you. The heart is so hard that you can say that to the average person and you say, that's religion.

Thank you. Now you think of a person getting that bit of information germinate in his heart. Why don't we, why don't we let that information, this book of genes, all the explanations and commands of God to make us into a new person, why don't we take those seriously? Well because our heart is hard.

Now you know, I'm a farmer's son. During the war, my father had a coronary. And all his workmen were away at the war.

So my mother telephoned up to me in Stockton-on-Tees where I was during the war, a long, long, long way away. And she said, look, it's October. We can't get the work on this huge farm done.

Fathers and the coronaries, you know. Couldn't you get a fortnight to you two weeks off and come and help? So I went to, we were in a, you know, in the war. You couldn't get time off.

I went and explained the situation. They sent me down. Just for that specific job of ploughing up that farm.

Now we had good Berkshire soil. And after the rains, it was like concrete. Now the last thing I'd have thought of doing was going out and sowing that farm.

Putting the information on it. Sowing the seed. Because the environment was wrong.

It was hard. So I went round and got all the tractors I could to our neighbours. And I got my brother.

He got some time off too. We sat on those John Deere Massey Harris tractors day and night for over two weeks. Ploughing, ploughing, ploughing that land that was as hard as concrete.

And then having got it soft, ploughed up, that which was underneath we put on top. That's the nature of ploughing, isn't it? Every farmer's son knows that. And that which was on top goes underneath.

It turns you upside down. And that's the first process in softening the land. And then we ran over the various drills and the various rolls and got in the seed and the fertiliser.

And we had a wonderful crop. Now if God sees that his word doesn't take root in you, and there's too much traffic in it, he sends his plough along. And he ploughs you up.

I've been ploughed up. I hope you have been. And I hope your pastor ploughs you up too.

You see, he's very faithful. I know this in planting the seed. And God is faithful in the troubles you get.

You see the troubles I've seen today. Both in the television, I saw one of the family troubles you get. You know a mother's heart's broken.

Well now if you think of just having a heart broken, of having it broken, it'll frustrate you. But if it's a means of making you in time attentive to eternal truths, for temporal trouble, you've gained eternal good. And that's a good bargain.

That's a good deal to do. So God will make you go through temporal trouble. You send the John Deere along, and the Massey Harris, and you'll go under.

But remember this, that the hand that guides that plough, the hand that guides it, is a hand that's wanting to make of you a new plant. If anybody is in Christ, he is a new creature. The old has passed away.

Behold, all things have become new. Now when God starts with illnesses, and with trouble with your kids, with trouble with unemployment, trouble with all these things you get, say you get unemployed, well now you get some relief, use it to plant in your heart thankfulness that God's given you at the time. I mean that.

To understand the genes and the chromosomes, the instructions to make a new man and a new woman out of you. That's what I'd like you to do as you go about your daily job today. Take one other thing that I'd like you to do.

Here's another gene, and with that gene I'll finish. We all, it says, with unveiled face, beholding the glory of the Lord in his word, are being changed daily into his likeness from one glory to another. This comes from the Lord who is the spirit.

Who is the spirit. And Jesus said, my word is spirit. And here you've got the whole package of God's information to sow in your heart to make a perfect new being of you.

And he does it by stages. Just as you do farming by stages, he starts at you with one particular job and goes on to another. The job is to insert the information, the genes of God's word into your heart after it's been prepared like an onion bed.

And then it'll grow. If anybody's in Christ, he is a new creature. Old things have passed away and old things have become new.

And that's a process which is progressive. Now what does a new plant need? A new plant needs, first of all, the right nourishment in the bed, as I pointed out. The second thing it needs is plenty of sun.

Do you know that song here? Do you sing it still? Son of my soul, thou saviour dear, it is not dark, it is not night if thou art near. The first thing you need is plenty of fellowship with God and his word and God's people. And there's nothing like sun for bringing up a new plant.

The grain of corn doesn't look like the new ground. But the grain of corn, when it's in and produced a new plant in the sun, is something entirely new. Something entirely new can be made of us.

But plenty of sun, plenty of fellowship with Jesus is the first thing. What's the next thing you need to make a plant grow? You know that. Plenty of rain.

Plenty of dark days. May I say it? I'm not a sadist, but may I say it? Plenty of sadness. Plenty of dark and shadowy days.

They're necessary, you know. When the rain comes down, we say, ooh, it's raining again. Think of what it does.

When you get into trouble, think of that. The third thing we need, and that's the end of it all, is plenty of breezes to bring in the carbon dioxide, you see, to make the plant grow. And you know the wind is the same word as ruach in Hebrew.

It means the wind of the spirit. Where the wind of the spirit bloweth, there the plants grow. And you want a church, as you've got here, where there's plenty of ruach, the wind of the spirit of God.

And the wind of the spirit of God will make all these plants thrive on the whole word. If a plant only takes part of its genes, it'll only produce a differentiated cell, and no whole plant. What you want is the whole word of God to make you a whole man of God.

But the heart's got to be right to support it. And that's the relation of genetics and environment. We'll pray together.

Thank thee, Lord Jesus, the study of the nature that thou didst make is the study of thyself. We thank thee that thou dost reveal thyself and thine eternal Godhead in thy works. We thank thee that we're fearfully and wonderfully made, and that makes our soul praise thee right well.

Help us in all our various needs, and help us to thank thee in the troubles which thou dost send to us, to make us fit to take thy word and receive it with joy, and bring forth fruit thirty and sixty and one hundredfold. Amen.