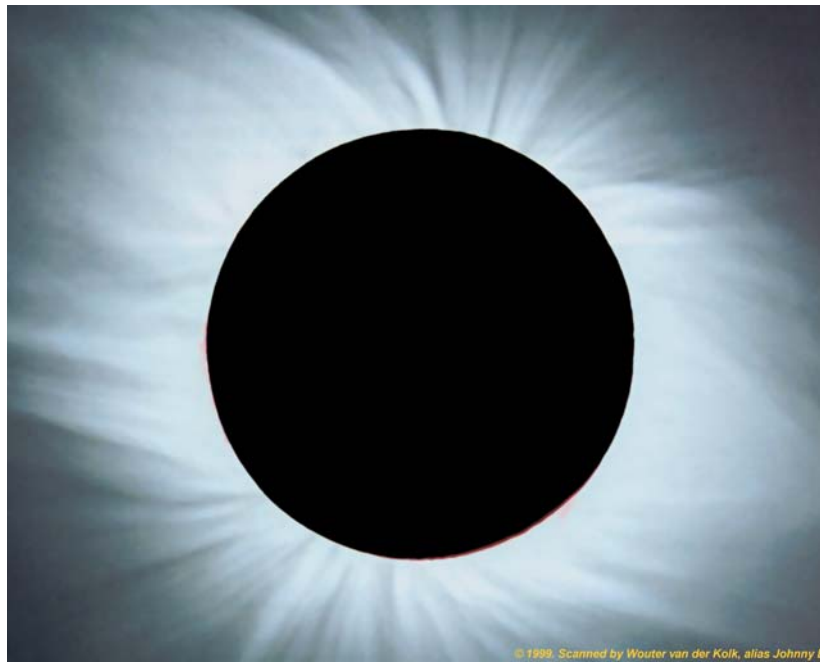


# Eclipse Experiences



A sermon reflecting on the eclipse of 11th August 1999 and on Psalm 19,  
preached at Aberdovey English Presbyterian Church on Sunday, 22nd August 1999.

by Sir John Houghton

## The eclipse

On the 11th August 1999, my wife and I were with friends on a hill top about 25 miles east of Plymouth hoping to see the total eclipse of the sun that occurred during the morning of that day. We were well equipped for the event with folding chairs, rugs and hot coffee.

By ten o'clock when the moon was due to begin to obscure the sun, our area of the country became very overcast; the sun could not be seen at all through the clouds. It remained overcast for the whole eclipse period. But that did not mean that we had no experience of the eclipse. On the contrary; let me describe what happened.

To begin with, as the moon began to obscure the sun it became colder and an eerie light developed. Then at about 11 minutes past 11 the sky began to be very

dark to the west over Plymouth just as if the sun was setting very quickly. The streetlights came on. The shadow of the moon over the earth was moving very quickly – at about 1500 miles per hour. Very soon it covered our hill top. It became almost completely dark, the darkness only being broken by flash photographs being taken by hundreds of people on our hill and the hills around. Soon the darkness moved to cover the eastern horizon while new light was appearing to the west. The shadow had passed over us taking about a minute to do so. An amazing experience that made the journey to see it enormously worth while – we were very glad not to have missed it.

In this sermon I present three themes which use the experience of the eclipse to illustrate truths of fundamental importance to us as Christians.

## **An orderly and precise creation**

My first theme is that the eclipse dramatically demonstrates the order and precision of the universe. It is a fantastic creation. Just to illustrate that, it is interesting to ask the question why eclipses occur in the way they do on earth. The sun is about 400 times larger in diameter than the moon but is also about 400 times further away. The sun and the moon therefore appear in the sky with about the same apparent size. In fact the moon appears in the sky to be about 2% larger than the Sun; if it appeared smaller, total eclipses of the sun would not be possible at all.

There are good scientific reasons why the sun and the moon have to be about the size they are. If the sun were only a little larger we would be too hot, if only a little smaller we would be too cold. The moon too has to be about the size it is for its gravitational pull (which we experience as tides) to influence motions in the earth's interior so as to create the pattern of land and sea and mountains that are so critical to sustain the earth's enormous variety of life.

All this just illustrates the fine tuning which has gone into the design of the solar system and indeed of the whole universe. So much so that some eminent cosmologists consider that the scientific evidence points to a universe designed with humans in mind. Just how special the whole universe had to be for humans to be part of it is illustrated by some work by Roger Penrose, a distinguished Oxford Mathematics Professor.

He has estimated that the conditions at the start of the universe as we know it, at what is known as the Big Bang over ten thousand million years ago, had to be special to the tune of one part in 10 to the power of (ten to the power of 123). That is a number so large it cannot be written down in ordinary notation; it possesses more digits than the number of particles in the universe! Even more surprising is that humans have the capacity to begin to understand some of the mechanisms behind the construction of the universe. As Albert Einstein said, 'The most incomprehensible thing about the universe is that it is comprehensible!'

As Christians we are not surprised by this. God is the great creator, designer of all that is. He is far greater than we can imagine. Looking at the universe helps us to stretch that imagination. And he has made humans 'in his own image' so that we can enjoy some of the wonder of his creation. The first part of Psalm 19 eloquently expresses the order and the wonder of creation.

*'The heavens declare the glory of God; the skies proclaim the work of his hands' (Psalm 19 v1).*

What reasons we have for thanks and praise and worship! The eclipse experience brings some of these wonders home to us.

## **The sun of righteousness**

My second theme I have called 'The sun of righteousness'. Just as the sun, created by God, is the source of energy for physical life on earth, so God is the source of our spiritual life. Of the rather few references in scripture to God being like the sun (maybe the biblical writers were reluctant to use analogies of this kind because the sun was so often worshipped as one of the pagan gods), there is a verse in the last chapter of the Old Testament which speaks of 'the sun of righteousness'. It is generally understood to be a reference to Jesus, the coming Messiah. Charles Wesley presents it that way in the beautiful words of the hymn:

*'Christ whose glory fills the skies,  
Christ the true the only light,  
Sun of righteousness arise,  
Triumph o'er the shades of night.'*

Just as there is a physical universe that is orderly and precise, operating according to what we call physical laws, so there is a moral universe based on righteousness. This also runs according to laws, moral laws of the kind formulated in the Mosaic laws of the Old Testament. There we have, for instance, the ten commandments, the laws of love for God and for our neighbour spelt out in considerable detail. The teaching of Jesus especially in the sermon on the mount amplified these laws and expanded their scope – bringing in our thoughts as well as our actions. Humans made in the image of God are central to that moral universe.

Let me refer back to Psalm 19. The first 6 verses very beautifully describe God's work in creation, its regularity and reliability. The 8 verses of the rest of the psalm express the excellence of God's moral and spiritual creation.

*'The law of the Lord is perfect...  
The statutes of the Lord are trustworthy...  
The precepts of the Lord are right...  
The commands of the Lord are radiant...  
The fear of the Lord is pure...  
The ordinances of the Lord are sure...'*

To David, the author of Psalm 19, there is an entirely natural progression from the laws controlling the physical universe to those that govern the moral universe.

The physical and moral universes are, in fact, strongly connected and we, humans, are at the point of connection. Being in God's image brings with it responsibilities, in particular the important responsibility of taking care of the planet on which we have been placed. In the first chapter of the Bible, God said, 'Let us make man in our image, in our likeness, and let them rule over ... all the earth' (Genesis 1 v 26); and in the second chapter we were put in the garden of Eden 'to work it and take care of

it' (Genesis 2 v 15). There are many precepts and ordinances given to the Israelites in the Old Testament that refer to care for the land. Today there is enormous pressure on the earth's resources from the vastly increased human population. Stewardship of the earth as God intended presents a very large challenge to all of us and to Christians in particular – something in which we are seriously failing at this present time.

It is not popular these days to talk about laws of morality. We can all 'do our own thing', providing it is not too objectionable. Morality is relative; there are few, if any, moral absolutes. But just as God's universe is based on laws that are kept precisely and reliably (a universe not properly ordered would rapidly fall apart), so God's righteousness is set forth in God's standards of behaviour and responsibility based on laws that demand our adherence. But, we fail miserably to live to his standards. Every day, every minute even, we fall short of the righteousness that he requires. The result is that there is much chaos, unhappiness and suffering in the world and, as I have already pointed out, much damage to the environment. Our failure also means that we have a real problem in approaching God.

### **Viewing the eclipse and approaching God**

One of the very strong instructions we were given before the eclipse was that we should not look directly at the sun as this would damage our eyes. Just as we cannot look at the sun so we cannot look at God directly. He is too great, good, pure, righteous and holy. There were three ways in which people were advised to view the sun at the eclipse – that is for those who were more fortunate than we in being able to see it! The first was to use dark glasses – because of the sun's brightness they had to be very dark glasses, so dark that everything else but the sun was blotted out. Similarly, if we are to approach God we have to concentrate on him alone and block everything else out. A second way was to view the sun by reflection in a bucket of water. That also is an illustration of our approach to God; we can view God by reflection in Jesus who is God manifest in human form. 'He who has seen me has seen the Father' said Jesus.

A third way of viewing the sun was by television – a sure way of seeing the event and all the possible detail associated with it. Viewing by TV ensured no danger of damage to the eyes but it also avoided the direct experience – no participation, no feeling colder as the sun was eclipsed, no exposure to the scale and uniqueness of the event. There are many who prefer God by TV. They want to know something about him but feel threatened by any possibility of direct contact. But that sort of arm's length relationship gives no satisfaction. God wants us directly to experience his presence, to feel his warmth, to experience his love. That is why he has made us.

The verse in Malachi (chapter 4 v 2) to which I have referred provides a clue as to how this relationship with God can be made. *'The Sun of righteousness will rise with healing in its wings'*. For 'wings' it is helpful to read 'rays'. It looks forward to the coming of Jesus, the Sun of righteousness, who brings healing and forgiveness in his rays.

### **When God is eclipsed**

That brings me to Part 3 of my sermon which I have entitled, 'When God is eclipsed'. Just as the moon blocks the whole of the sun's disc during an eclipse, so things can block out God from our experience. The most obvious block comes because of sin. *'Your iniquities have separated you from your God; your sins have hidden his face from you so that he will not hear'* (Isaiah 59 v 2).

If God is eclipsed in your life the reason is likely to be that some wrongdoing or wrong thinking has not been dealt with or forgiven. Perhaps it is a failure on your part to forgive someone else, perhaps you are being disobedient about something you know God wants you to do, perhaps you are putting yourself first instead of God. Perhaps you are failing badly to be a good steward of God's earth. You probably know, if you think and search, what is blocking God in your life. Psalm 19 refers to the required searching. *'Who can discern his errors? Forgive my hidden faults. Keep your servant also from wilful sins; may they not rule over me'* (Psalm 19 vv12-13). We have a continual need to pray such searching prayers and to act upon them. But even if we have sincerely confessed our sins and begged for and claimed forgiveness, there are times when God does not seem to be there; he still seems to be eclipsed. Sometimes we feel this way when we are ill; at these times the support of an understanding fellow Christian can be most valuable.

Sometimes God uses such times to bring us closer to him and to make us appreciate more of what he means to us. It is only when the moon is eclipsing the sun that we can see and study the sun's photosphere, its dynamic outer atmosphere with clouds of hot gas and streams of particles steered by the solar magnetic field. Just as there is more to the sun than the bright central disc, there is more to God than can be known from superficial acquaintance. So God, in his grace and love, arranges ways in which he can reveal more of himself to us.

On the day of the eclipse, I was given a poster with a large picture of the eclipse overprinted with the words:

*'I believe in the sun even when it is not shining  
I believe in love even when I cannot feel it  
I believe in God even when he is silent.'*

Someone had added in pencil, *'I believe in the eclipse even though we didn't see it!'*

## The most telling darkness

Finally, let me remind you of the occasion of the most telling darkness the world has known, that Friday when Jesus was on the cross and it was dark from midday until three in the afternoon. It was too long for an eclipse; we do not know the natural cause of the darkness. Very simply, Mark describes it in his gospel:

*'At the sixth hour darkness came over the whole land until the ninth hour. And at the ninth hour Jesus cried out in a loud voice, "Eloi, Eloi, lama sabachthani?" – which means, "My God, my God, why have you forsaken me?"'* (Mark 15 vv 33-34)

Jesus' 'hour' had come, the hour he had so often spoken of, when for him his Father God was eclipsed. Sin had got in the way, not Jesus' sin but our sin. To fulfil his saving mission, Jesus was prepared to suffer the excruciating pain of crucifixion plus the most intense loneliness of separation from his Father God. In some way we shall never fully understand, God was himself meeting the demands of his moral universe. As Paul puts it, 'God made him who had no sin to be sin for us, so that in him we might become the righteousness of God' (2 Cor 5 v 21). How is that transformation achieved? How can I be so transformed? The key phrase is 'in him'. Jesus demonstrated the success of his mission when he rose from the dead. He is alive today and invites us to trust in what he has done. What is more he has provided his Holy Spirit to work within us to that end. I urge you to take this truly remarkable message

on board. Ask Jesus into your life and ask God for the help and power of the Holy Spirit to accomplish the change.

## Two revelations of God

Our Christian faith is dominated by two extremely powerful revelations of God, that he is the creator and sustainer of the universe and that he, the righteous ruler of the universe, is also our Saviour. Our experience of the eclipse has illustrated both of these messages. They are not new messages. We have seen how Psalm 19 written by David over 3000 years ago very eloquently brings them together. But they come with renewed force to each generation. As we close our service a more modern composition, the hymn 'How great thou art!' provides words with which we, in our turn, can thank and worship God for revealing himself so wonderfully to us.

*'O Lord my God when I in awesome wonder  
Consider all the worlds thy hands have made.  
I see the stars, I hear the rolling thunder,  
Thy power throughout the universe displayed.  
Then sings my soul my Saviour God to thee,  
How great thou art!*

*And when I think that God his Son not sparing,  
Sent him to die I scarce can take it in.  
When on the cross my burden gladly bearing,  
He bled and died to take away my sin.  
Then sings my soul, my Saviour God to thee,  
How great thou art!*



Sir John Houghton is the chairman of the John Ray Initiative.

Sir John is co-chairman of the Scientific Assessment Working Group for the Intergovernmental Panel on Climate Change and a member of the Government Panel on Sustainable Development, and from 1991 to 1998 was Chairman of the Royal Commission on Environmental Pollution. He is the author of several books including 'Global Warming – the complete briefing' and 'The Search for God: can science help?'.

The *John Ray Initiative* is dedicated to promoting responsible environmental stewardship in accordance with Christian principles and the wise use of science and technology.

The initiative organises seminars, courses and workshops and disseminates information regarding environmental stewardship.

Inspiration for the initiative has been taken from John Ray, the seventeenth century scientist and Christian, an early fellow of the Royal Society who pioneered work on the classification of plants and animals. He saw scientific enquiry as a form of worship and his book *The Wisdom of God Manifested in the Works of Creation* (1691) has been described as perhaps the best natural theology ever written, proclaiming God as creator and redeemer of all things.

For more information contact us at: JRI, QW212,  
University of Gloucestershire, Francis Close Hall,  
Swindon Road, Cheltenham GL50 4AZ, UK.  
Tel: 012 4254 3580 Fax: 087 0132 3943

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