Belief in God

By: Sayyid Sa'eed Akhtar Rizvi

1) Belief in God: A Natural Instinct

Belief in God is as natural as any instinct can be. An atheist asked Imam Ja'far as-Sadiq how could he convince him about the existence of God. Coming to know that the man had gone several times on sea voyages, Imam asked him "Have you ever been caught in a fierce storm in middle of nowhere, your rudder gone, your sails torn away, trying desperately to keep your boat afloat?" The answer was `Yes'. Then Imam asked: "And sometimes perhaps even that leaking boat went down leaving you exhausted and helpless on the mercy of raging waves?"

The answer was again `Yes'.

Then Imam asked: "Was not there, in all that black despair, a glimmer of hope in your heart that some unnamed and unknown power could still save you?" When he agreed, Imam said: "That power is God."

That atheist was intelligent. He knew the truth when he saw it.

2) To Be or Not To Be

We think about thousands and thousands of things. We imagine a horse, a man, an aeroplane, the earth, a train and a book. We see the pictures of these things displayed on the screen of our imagination.

This is called `the existence in imagination' (wujud-i dhihni)

And also a horse, a man, an aeroplane, the earth, a train or a book has its own existence outside our imagination. That is called 'existence outside imagination.' This is the real existence (wujud-i khariji)

Sometimes, we imagine such ideas which can never be found outside our imagination. We may imagine 2 + 2 = 5. But can 2 + 2 be 5 in real existence? No. We may imagine that a thing exists and also does not exist at the same place at the same time. But can this happen in the world of reality? Certainly not.

Such imagined ideas which can never exist wujud -

Also we imagine a man walking at a certain time. Can this happen in reality? Remove all other ideas from your mind. Just look at the imagined picture of that man walking at a particular time. Now say., is it necessary that that man in reality are called `impossible' (mumtani'u'l) should be walking at that time? Or, on the other side, is it impossible of him to be walking at that time? The answer to both questions is `No'.

Why? Because it is neither essential nor impossible for any man to walk at a given time. He may be walking; he may not be walking. So far as the reason and logic is concerned both his walking and not walking are possible - possible, but not necessary.

Such imagined ideas which have equal relation called `mumkinul-wujud' -Possible, or Transient. They may exist in reality; they may not exist. There is nothing in their nature to demand this or that. So far as their nature is concerned, `To be' and `Not to be' both are equal to them.

So far we have seen two categories of relationship between an imagined idea and its existence in reality with existence and non-existence, are

1. Where that idea has equal relation with existence and non-existence. It may exist; it may not exist. There is nothing in its nature to prefer either side.

2. Where that idea can have absolutely no relation with existence. It, by its very nature is non-existence.

It will appear from above classification that there should be a third category which would be opposite of `Impossible' (mumtani`ul-wujud) mentioned in (2) above.

This third category is of the idea which can have absolutely no relation with non-existence. By its very definition, it is self-existent. Such an idea is called (wajibu'l wujud) `Essential Existence' or 'Absolute Existence'.

Now the picture is complete.

3) Beginning Point of the World

There is much conflict between the points of views of atheists and those who believe in a Supreme-Being Who created the world. Still, there is one important point where both are in complete agreement. Both agree that the basic source or cause of the universe is Eternal - has no beginning and no end; was always and will remain for ever. In other words, it is 'self-existent' or 'wajibu'l-wujud'. The reason for this idea is very simple: As every thing in this universe falls under the category of `mumkinul-wujud' ` Transient,' it has equal relation with

existence and non-existence. Once these things did not exist; now they exist; sometime in future they will cease to exist. By their nature, they cannot demand to exist or to cease to exist. Therefore, there must be a source or cause to bring them to existence or to terminate their existence.

And (it is the important point) that source or cause should not itself be just a `Transient'; otherwise it will itself need a source or cause to bring into existence. And this chain of cause and effect must stop on a cause which needs no outside source or cause for its existence. It means that the final source or cause of bringing this universe into existence must be 'self-existent.' It is interesting to note that even the atheists accept this point, because they say that nothing can come out of nothing, and, therefore, the basic source of existence must be eternal. It is from ever and will remain for ever.

Now comes the first difference. The atheists say that that eternal source of existence is `Matter.' The believers say that that eternal source of existence is God. We will discuss it afterwards. Here it is enough to establish a common ground of belief, and that is the faith that the basic source or cause of the existence of the universe is Eternal - without beginning and without end.

4) Essential Qualities of the Eternal

A) By its very definition, Eternal is Self-existent, it could never have been non-existent nor can it ever be terminated. In other words, it has no beginning - because if we suppose for it a beginning we must admit that it was non-existent before that beginning. But we already know that it could never have been non-existent. Therefore, we must accept that the Eternal has no beginning - it is ever-existent.

B) By the same reason, it can have no end. It is ever-lasting, because it can never be non-existent.

C) The Eternal must be self-sufficient. In other words it should be above all needs; it should not be in need of anything. Because, if it needs anything, it will be dependent upon that thing. But by its very definition, . the Eternal does not depend upon anything, as it is Self-existent. In other words, the Eternal must have absolute perfection.

D) The Eternal can be neither compound nor mixture. A compound or mixture depends for its existence upon its parts or components. As we accept that Eternal is Self-existent, we cannot admit that its existence depends upon its components or parts. Moreover, look at any mixture or compound. You will find that the components or parts existed before the resulting mixture or compound. As the Eternal has no beginning, we cannot say that anything preceded it in existence. Otherwise, we will have to imagine a beginning point for the Eternal which is admittedly wrong.

E) The Eternal can be neither a body nor a surface, neither a line nor a point. A body, by its very nature, needs space to be in. As we have already seen, the Eternal should not be in need of anything. It follows that the Eternal cannot be a body. In real existence, a surface needs a body; a line needs a surface; a point needs a line. Eternal needs nothing. Therefore, the Eternal is neither a surface, line nor a point.

Nor can it be anything which is found in a body, like dimension, colour, smell, position, condition or other such things which are called `incorporeal' (arad in philosophical language, because such things depend on a substance or body for their existence - they are not self-existent.

F) The Eternal should not be subject to any change, because if that change be for better, it would mean that the Eternal before that change was not perfect, that is, it was in need of something. But we have already said that the Eternal cannot need anything.

And if that change be for worse, it would mean that the Eternal is now in need of something to make it perfect. And, as just explained, it is not possible. And if that change is just to the same level of perfection, then what is the need or use of such a change?

In fact, the changes may occur either in a substance (body, matter) or in its incorporeal qualities like colour, dimension etc. But it has just been proved that the Eternal can be neither a substance nor an incorporeal quality of another substance.

G) The Eternal must be a living being. Because it is agreed that the Eternal is the source and cause of the existence of the universe. And also it is agreed that nothing can come out of nothing. Now, as we find abundance of life in the universe, we have to admit that the source of all these living things must itself be All-life. It could not bestow life if it had itself no life.

H) The Eternal source of world must be all-knowing (Omniscient). The intricate design of a single atom shows the perfect wisdom embodied in it. The elaborate system and perfect design of universe leaves no doubt that whoever or whatever is the source or cause of the universe is all-knowing.

I) By the same reasoning the Eternal source or cause of the universe must be allpoweful

(Omnipotent).

5) Is Matter Eternal?

The atheists maintain that the matter is the Eternal source of the universe. It needs no great intelligence to see that matter does not possess any of the qualities of the Eternal mentioned in the previous chapter. Matter has a body and as such it needs space. It is divisible and as such it is made up of several parts. It is constantly changing. But the atheists maintain that matter has no beginning and no end; and therefore, it is eternal. But the recent theories challenge these two last stands of atheism.

6) Matter begins and Ends

What is `matter'? It is "substance of which a physical thing is made." Or "anything which has the property of occupying space and the attributes of gravity and inertia." Before going further it is necessary to point out one important thing. There are, in every branch of science, certain ideas which have no existence in reality. Yet they are assumed to exist in reality just to make it easy for the beginners to understand the arguments of that subject.

Take for example geometry. They teach the children that `point' is a thing having neither length, breadth nor depth. Such a thing has no physical existence. They teach that `line' is a thing having only length, but neither breadth nor depth. This also has no physical existence. In fact, it is only by taking a body (which has all three dimensions - length, breadth and depth) and sub-dividing it in imagination that we can understand the conception of surface, line and point.

Still students of geometry are taught as though these things have real physical existence. It is done not to deceive the student, but to make it easier for him to understand geometry.

Likewise, in chemistry, the student is taught that matter can neither be created nor destroyed. But it is just a stepping stone so that student can understand further arguments. Also, it is for this reason that chemistry students are taught separate conservation of matter

and energy. But read the following quotation carefully: "In classical mechanics, mass and energy are considered to be conserved separately; in atomic and nuclear reactions, matter can be converted into energy and vice versa . . . So far as chemistry is concerned, the law of conservation of matter, that is, matter can neither be created nor, destroyed can be assumed to be true." So you see, the theory that matter is eternal (it is neither created nor destroyed) is just an assumption for the purpose of simplifying the subject for chemistry students. It is a fact that matter changes into energy.

So it is not a thing ever-lasting nor is it a thing which does not change. Thus, we see that matter does not pass the test of eternity - it is not without end, and it is not without change. And as it is supposed that energy can be changed into matter, it is admitted that matter has a beginning. So it is not eternal - it is not without beginning.

It is assumed that when the matter changes into energy, it exists in that form, and, thus they try to prove that matter is ever-lasting-But what is Energy? It is "Capacity of matter to perform work as the result of its motion or its position in relation to forces acting upon it." So, the energy is not a thing having independent existence. It is an incorporeal thing, that is, it depends upon a matter or substance for its existence. By its very definition, it cannot be found except in a matter. As energy is a dependent thing, it cannot be an eternal thing.

7) Two Suppositions

Now, it should be mentioned here that there are two hypotheses, that is, tentative theories, in science about the creation or beginning of the universe (Universe: All created or existing things). First there is the evolutionary theory. This theory says that all the material in the universe was formally concentrated in a sort of `primeval' (that is, ancient) atom; that the universe was created at one particular moment and that it will eventually die. If this idea is correct then that primitive atom cannot be said to be eternal. A thing which dies, which comes to an end, cannot be said, by any stretch of imagination, to be self-existence, ever-lasting or eternal.

The second hypothesis is called `Steady state' theory. It maintains that the universe has always existed and will exist for ever, and that fresh matter is continually being created. Now the universe is a collection of matter; and they believe that matter is continually being created. In other words, the universe is a compound of created things. How can a collection of created things be called "Eternal" (without beginning) is beyond credulity.

Thus it is clear that, whatever view one takes matter cannot be proved to be eternal (without beginning and without end). Now, that matter is believed to be constantly created afresh, is known to change into energy, is known to need a shape and a place, is subject to division and constant changes, can it be said that matter is eternal when all its qualities are those of

Transient.

Five atheists had had a discussion with the Holy Prophet, at the end of which the Holy Prophet told them "This universe is of such a nature that some of its parts are dependent on some other parts; they cannot exist without those other parts, just as some parts of a structure depend upon other parts for their strength and existence.

And that whole universe is, in this respect like that building. Now, tell me, if that part (which is dependent upon other parts for its strength and existence) is eternal in spite of its dependence and need, then what would have been its quality had it been just transient (possible, not eternal)?" Yes. Let the atheists say what it would have been like if the matter were not eternal?

8) Matter not the Source of Life

Now, we come to the last three qualities mentioned in chapter 4. We have already accepted the atheists' notion that nothing comes out of nothing. Now, we see in the universe a most intelligent design and pattern and a most perfect coordination in this unparalleled system. And we see it teeming with life. And, admittedly, matter has no life, and hence no power or knowledge.

Had the matter been the cause or source of the universe, the universe would have been without life; it would have been without system and coordination, because it could not give to universe what it did not possess itself. Is there still need to emphasize in so many words that matter cannot be considered as the source of universe?

9) Theism versus Atheism

Here I give the translation of the discussion of the Holy Prophet with the atheists, a part of which has been mentioned earlier: The Holy Prophet asked them: "What is the reason of your belief that the universe has neither beginning nor end and that these things are from ever and will remain for ever?" Atheists: "We believe only what we see. As we have not seen the beginning of the universe, therefore we say that it has always existed, and as we have not seen its extinction, we say that it will remain for ever."

Holy Prophet: "Well, have you seen that the universe is without beginning and without end?" Atheists: "No, we have not seen its being without beginning nor have we seen its being without end."

Holy Prophet: "Then how do you believe in its eternity? And why should your view be preferred to the view of that person who believes the universe to be transient because he has not seen it being without beginning or without end?"

Then after some more arguments the Holy Prophet asked: "Can you tell me whether the days (time) which have passed on this earth were finite (limited) or infinite (limitless) ? If you say that the time which has passed so far was limitless, then how the later time came in if the former did not pass away?

"And if you say that the time is finite (limited) then you will have to admit that it is not eternal."

Atheists: "Yes, it is finite."

Holy Prophet: "Well, you were saying that universe is eternal, not created nor finite. Do you realize what is the implication of your admission that time is finite? What were you denying? What have you admitted? " Atheists accepted that their belief was not correct.

Incidentally, this argument of the Holy Prophet shows that `time' has unbreakable relation with matter. Otherwise, he could not have introduced the element of time in the discussion about matter. The beauty of this can best be appreciated by only those who have studied the theory of Relativity.

10) Some Talks

The most simple arguments of ancients on this topics are still valid, in spite of all the complexity of the modern science. An old woman was spinning yarn. Someone asked her why she did believe in God. She stopped her hand and the spindle stopped. She said: "You see, a simple spindle needs a hand to make it revolve. Can you think that this sun, this moon, these stars, all this world moves without any guiding hand?"

Imam `Ali ibn Abi Talib (peace be upon him) was asked for a proof of the existence of the Almighty Designer. He replied: "The faeces of camel and of donkey lead one to conclude that such animals have passed that way. The traces of human feet indicate a man's trek. Do not this magnificent universe, with all its sublimity and this lowly point (the earth) with all its solidity point to the existence of the Almighty Allah, the Sublime and the Omniscient?" Once Abu Shakir ad-Dayasani (an atheist) came to Imam Ja'far as-Sadiq (p.b.u.h.) and asked him to guide him to the recognition of "my Supreme Lord." The Imam asked him to take his seat. There arrived a small child with an egg in his hand.

The Imam, taking the egg from him, addressed Abu Shakir ad-Dayasani: "Here is a mysterious fortress enclosed within a hard shell, underneath which is a fine wrapping which covers molten silver (the albumen of the egg) and some molten gold (the yellow yolk). The molten gold does not get alloyed with the molten silver, nor does the molten silver get mixed with the molten gold. (Yet both are semifluid and they should have mixed together on jerking.) They retain their separate states. No artist comes out of it to say that he has made any changes therein, nor does any vitiating agent enter it to tell of any vitiation therein. Nor is it known whether it is designed to produce a male or a female. Pea-birds of florid colouration issue therefrom. Do you think it has a Designer (the Omniscient Creator)? Who has painted all this inside it? And how did the chick come about? Who designed all these variegated hues, the feathers, the limbs, the paintings, the feet, the beak, the wings, the eyes, the ears, the nose, the 33 bowels, the crop, the joints, etc., etc. seeing that no one entered it? "

Abu Shakir, according to the narration, was absorbed in his thoughts for sometime with his head downcast and then suddenly proclaimed, "I bear witness that there is no god but Allah, the one without peer, and I bear witness that Muhammad (peace be upon him and his progeny) is His servant and prophet, and that you are Imam and Proof of Allah for His creation, and I turn away from my erstwhile attitude."

11) Religion versus Darwinism

When Darwin first published his treatise Origin of Species in 1859, he stirred a thunderous opposition from religious groups. The religious opposition was based, mainly, upon two factors:

1. Darwin asserted - with convincing proofs - that the universe was not made in six days, as described in the Bible, but in a very very long time with so many stages between the first state and the present form; and

2. He denied - without any valid reason, of course - the need of a Supreme Being (God) in the scheme of the universe. The Jews and Christians of that time believed in the six day-creation quite literally; they could not swallow the idea of the pro tracted creation easily. And so the conflict between Christianity and Science reached its climax in the later half of the 19th century. But what about the Muslims?

The Qur'an says that the skies and the earth were created in six "ayyam". The word "ayyam" has two meanings: `days' and `periods'. The Sunni commentators of Qur'an generally followed Ka'bu'l-Ahbar, a former Jew converted to Islam in the days of second Caliph. It was but natural for him to explain the verses of Qur'an in the light of his previous learning. So he imported every Jewish legend into Islam. Though the Qur'an was silent about the details, the Muslims interpreted the `ayahs' in such a way that every detail of Genesis (of the Bible) was incorporated in the commentaries of Qur'an and thus became a part of Sunni religious belief. But the Shi'ahs commentators rejected the idea of six-days-creation right from the early days of Islam. According to them, `ayydm' in those verses meant `Periods' and not the `days'. For instance, see the commentaries of Qur'an by `Ali ibn Ibrahim al-Qummi (died sometime after 919 A. D.) and Muhsin Fayd (d. 1680 A.D.). Also see the Dictionary of Qur'an and Traditions, by ash-Shaykh Fakhru'd-Din at Tarihi (d. 1676 A. D.). According to them the Qur'an says that the skies and the earth were created in six periods. (Or should we say `in six stages".)

Therefore, we, the Shi'ahs, have nothing against the theory of gradual Creation, which is embodied in the theory of evolution. More than that, ours is not a belated attempt of reinterpreting our religion - as Christians are doing now to cover the Christianity's defeat by the science. We were thinking on this line one thousand years before Darwin.

But it must be mentioned here that the acceptance of gradual creation does not mean that we endorse the hypothesis of evolution. Evolutionists claim that

1. Living things change from generation to generation producing descendants with new characteristics;

2. This process has produced all the groups and kind of things now living as well as others now extinct;

3. All these different living things are related to each other.

But, as was mentioned in Need of Religion there is not a single fossil-evidence to show that a member of lower species developed into a higher species. It is for this reason that Dr. T. N. Tahmisian (a physiologist for the Atomic Energy Commission) said: "Scientists who go about teaching that evolution is a fact of life are great con men, and the story they are telling may be the greatest hoax ever. In explaining evolution we do not have one iota of fact." It is one thing to say, as we say (and the fossils and scientific data support us) that God created this universe in stages and created the things and living beings on earth one after an other with time gaps in between; and quite another, as the Darwinisms or neo-Darwinisms say (and have no evidence to prove it) that the living things on this earth developed from non-living matter and that unicellular organisms developed stage by stage to become a human being.

12) Where The Darwinists Went Astray

So much about the first ground of the conflict between religion and science. Now we come to the second ground of the conflict, that is, the denial of God. Here we, the Shi`ahs, as well as other religious (and many scientists of the present generation) are totally against the Darwinism.

The whole deliberation on `evolution' attempts to answer the question "How the universe came into being?" But it does not touch the other big question: "By whom was it created?" But Darwin and his followers said that as they could explain the sequence of the creation and its working method, so it was automatically proved that there was no God. It is just like saying, "As I can explain the working of an automobile and can guess the sequence of its manufacturing, so it is automatically proved that there is no manufacturer of that car." It may seem absurd as I have put it on paper here. But the more you read their denial of God the more you will be reminded of this fallacy in their arguments.

Now let us look at one more fallacy of atheism. It has already been mentioned in previous chapters. But here it is repeated to com plete the picture. They assert that `thing' cannot come out of `nothing'. Therefore, according to them, it is wrong to say that God created the universe out of nothing. There must be a source of every thing. So, they believe that the Matter is eternal; and every thing is a development of the eternal Matter.

This line of argument goes straight until it reaches the stage where begins the phenomenon called life'. Nobody has ever succeeded in solving the mysteries of life. Nobody knows where the life came from. Having rejected the belief in God, the atheists are compelled to say "We do not know; but the life must have come from the Matter." Now, Matter is lifeless. If `thing' cannot come from `nothing', how can the `life' come from `lifeless'?

Not only this. Let us proceed further. As they say, there must be a source for everything. And as everybody knows, the Matter is a `thing'. What was the source of `Matter'? These phenomena of the universe cannot be explained without stopping at a certain point and believing that the universe began from it. The atheist say that the Matter is that beginning point. But the Matter is lifeless. So, the existence of life cannot be explained by this theory. And the Matter is senseless. The existence of Sense and Wisdom in the animals and human beings cannot be explained by it.

Therefore, if we are to have a satisfactory theory for the existence of the universe as a whole, we have to accept that there is an Eternal Being Who is the Source of Existence, the Source of Life and the Source of Wisdom. That Being is God.

13) Russell's "Arguments"]

Why I Am Not A Christian is a collection of Bertrand Russell's essays and papers "on religion and related subjects." Professor Paul Edwards, the editor of the book, says that these essays are "perhaps the most moving and the most graceful presentation of the free-thinker's position since the days of Hume and Voltaire." This statement, coupled with the name of Russell, was enough to compel one to study the book with high expectation of scholarly and logical discourses on the subject of religion. Whether those expectations were justified will be seen from a few comments appended below:- The first thing which comes before the eyes is the inconsistency of the arguments. Russell called himself a free-thinker, and during a debate with Rev. F. C. Copleston he said that he was not an atheist but an agnostic.

The position of atheists is that non-existence of God can be proved. The agnostics, on the other hand, say that "man does not and can not in the nature of things know anything about a spiritual existence, either of God or man or of any after-death state." They assert that "man's only cognition can be of the phenomenal world (that is, the world which may be perceived by one of the five senses)". According to them, it does not mean that there may not be a noumenal entity (that is, an entity known through intellectual institution only) or soul behind the phenomenal world.

The agnostics repudiate even atheism or materialism on the ground that these theories are dogmatic. They say that if you cannot know a thing, you have no right to reject it. An agnostic's one and only answer to all questions concerning soul, God or spiritual existence is that "we do not know and there are so far no reasonable grounds for believing that we shall ever know. In other words, man, being finite, can never comprehend Infinite."

Rev. Copleston had asked Russell at the beginning of their debate (in 1948): "Perhaps you would tell me if your position is that of agnosticism or of atheism. I mean, would you say

that the non-existence of God can be proved?" Russell replied: "No, I should not say that; my position is agnostic."

If Russell believed in agnosticism, then his only answer about all questions concerning God, or life after death should have been "I do not know." Instead, he declares right on the jacket of the book, "I believe that when I die I shall rot, and nothing of my ego will survive." Another example: Russell says at the beginning of the preface: "I think all the great religions of the world -Buddhism, Hinduism, Christianity, Islam and Communism - both untrue and harmful. It is evident as a matter of logic that, since they disagree, not more than one of them can be true." After this statement, one would expect him to look at each of the above religions in turn to prove why even one of them was not true. But he did not feel obliged in any of his essays to bring this argument to its logical end. He just said that, "since they disagree, not more than one of them can be true," and then arbitrarily concluded that not even one of them was true!

This type of inconsistency goes on from essay to essay; and one finishes the book with a feeling that if these essays would have been written by a lesser being than Russell, the publishers would not have designed to publish them.

The first article Why I Am Not A Christian was delivered as a lecture in 1927; Russell has tried in this lecture to repudiate the arguments of Church for the existence of God. He says: "Perhaps the simplest and easiest to understand is the argument of the First Cause. (It is maintained that every thing we see in this world has a cause, and as you go back in the chain of causes further and further you must come to a First Cause, and to that First Cause you give the name of God.)... I may say that when I was a young man and was debating these questions very seriously in my mind, I for a long time accepted the argument of the First Cause, until one day, at the age of 18, I read John Stuart Mill's Autobiography and I there found this sentence: `My father taught me that the question, `Who made me?' cannot be answered since it immediately suggests the further question, `Who made God?' That very simple sentence showed me, as I still think, the fallacy in the argument of the First Cause."

Now, Russell has, perhaps unwittingly, misquoted the arguments of believers. To refresh the memory, the reader is advised to read again Chapter 2 and 3 of this book. There he will find, inter alia, the following sentences: "As every thing in this universe falls under the category of `mumkinu'l-wujud' (Transient), it has equal relation with existence and non-existence. Once these things did not exist; now they exist; sometime in future they will cease to exist. By their nature, they cannot demand to exist or to cease to exist. Therefore, there must be a source or cause to bring them to existence or to terminate their existence." And then comes the important point which Russell has missed. The point is that that source or cause should not itself be just Transient. Otherwise it will itself need a source or cause to bring it into existence. It means that the final source or cause of this universe must be 'Self-existent'. If one compares the Islamic version of the argument of `The First Cause' (as given in this book) with the version of the Church as pre sented by Russell at the beginning, one finds two important differences.

He said: "Everything we see in this world has a cause." But he should have said: "Everything we see in this world is transient and as such must have a cause for its existence." Again, he said: "As you go back in the chain of causes further and further you must come to a First Cause." But he should have said:" You must come to a Cause which is not transient, which is Self-existent (whose very essence is the existence itself)." Read his version with these amendments, and see how his objections loose every weight. Russell thought it sufficient to scoff at this argument off-handedly. "I can illustrate what seems to me (the believers') fallacy. Every man who exists has a mother and it seems to me (their) argument is that therefore the human race must have a mother, but obviously the human race hasn't a mother."

It seems to me that it is Russell who is indulging in fallacy. He has failed to note that the believers do not say that `every transient thing has a transient cause, therefore, the whole universe should have a transient cause.' Our argument is that, as all the components of the universe are transient, and as a collection of billions of transient things is still transient, the whole universe is still transient, and as such must have an external cause to bring it into existence. And that cause must be Selfexistent. And as He is Self-existent, the question, `Who made God?' doesn't arise.

14) Creation by Chance? Without a Creator?

Russel further wrote: "If there can be anything without a cause it may just as well be the world as God."

The reason why the world could not have existed or come into being without a Cause, is that its components some times exist and some times cease to exist. So there is nothing in their

essence, in their nature, to demand existence. If they exist, it must be because of a hand which tilted the scale in favour of existence; if they cease to exist it must be because that hand has now tipped the scale towards nonexistence. Russell: "Nor there is any reason why it (the world) should not have always existed." The claim that the world may have always existed is refuted by all prevalant theories of science: This is quite apart from the fact that a collection of transient things could not exist " always".

The reader should read Chapter 7 again, where he will find that whatever view one takes, matter cannot be proved to be eternal (without beginning and without end).

Again he says: "There is no reason why the world could not have come into being without a cause."

Before commenting further on this sentence, let me quote his words (from the same article) where he refutes the idea that there is any "natural law".

He writes: "There is, as we all know, a law that if you throw dice you will get double sixes only once in thirty six times, and we do not regard that as evidence that the fall of dice is regulated by design; on the contrary, if the double sixes came every time, we should think that there was design."

Here Russell admits that if events appeared in the same sequence again and again it would be a proof that there was design. Now, one wonders why he did not spare a few moments looking at the well-planned and superbly-executed movements of the galaxies, stars, planets and moons? Let us suppose that there is someone in outer space who has never heard about earth or human beings. Then one day he sees a space-ship streaking past and after some time another one, and then another one. Of course, their paths are not the same, and the gap between their appearances is not systematic so that it might be measured and estimated in advance. But he knows that each space-ship contains thousands of parts which are well connected to each other and together they form a superbly effecient apparatus.

What would Russel think of him if he were to declare that those space-ships had come into being without a creator?

And how strongly would he have condemned the arrogance of that inhabitant of outer space, if all the space-ships would have been well regulated in their paths and frequency? And, remember that those space-ships have no connection with each other. Compare that with this universe of uncounted millions of galaxies, each having millions of solar systems, each system containing numerous planets, and the planets having their various moons etc. And all of them "bound" together in the chain of gravity, each influencing its neighbour, and in turn being influenced by it. And then think that Mr. Russell says that it was not proof of any design.

Frank Allen, former professor of Biophysics in University of Manitoba, Canada, writes in his articles: The Origin of the World: By Chance of Design: "If in the origin of life there was no design, then living matter must have arisen by chance. Now chance, or probability as it is termed, is a highly developed mathematical theory which applies to that vast range of knowledge that are beyond absolute certainty. This theory puts us in possession of the soundest principles on which to discriminate truth from error, and to calculate the likelihood of the occurrence of and particular form of an event.

"Proteins are the essential constituents of all living cells, and they consist of the five elements, carbon, hydrogen, nitrogen, oxygen and sulphur, with possibly 40,000 atoms in the ponderous molecule. As there are 92 chemical elements in Nature, all distributed at random, the chance that these five elements may come together to form the molecule, the quantity of matter that must be continually shaken up, and the length of time necessary to finish this task, can all be calculated. A Swiss mathematician, Charles Eugen Guye[1][1], has made the computation and finds that the odds against such an occurence are 10 ^ 160 to 1, or only one chance in 10 160, that is, 10 miltiplied by itself 160 times, a number far too large to be expressed in words[2][2].

The amount of matter to be shaken together to produce a single molecule of protein would be millions of times greater than that in the whole universe. For it to occur on the earth alone would require many, almost endless billions (10 243) of years[3][3].

"Proteins are made from long chains called amino acids. The way those are put together matters enormously. If in the wrong way they will not sustain life and may be poisons. Professor J. B. Leathes (England) has calculated that the links in the chain of quite a simple protein could be put together in millions of ways (10 48).[4][4]

It is impossible for all these chances to have coincided to build one molecule of protein." But there are incalculable billions of molecules of protein in only one human body, let alone the whole earth. They are created systematically and still Russell clings to his theory of chance Frank Allen goes on to say: "But proteins as chemicals are without life. It is only where the mysterious life comes into them that they live. Only Infinite Mind, that is God, could have foreseen that such a molecule could be the abode of life, could have constructed it, and made it live."

Russell has endeavoured to challenge this argument in these words: "You all know the argument from design: everything in the world is made just so that we can manage to live in the world, and if the world was ever so little different we could not manage to live in it. That is the argument from design. It sometimes takes a rather curious form; for instance, it is argued that rabbits have white tails in order to be easy to shoot. I do not know how rabbits would view that application. It is an easy argument to parody. You all know Voltaire's remark, that obviously the nose was designed to be such as to fit spectacles. That sort of parody has turned out to be not nearly so wide of the mark as it might have seemed in the eighteenth century, because since the time of Darwin we understand much better why living creatures are adapted to their environment. It is not that their environment was made to be suitable to them, but they grew to be suitable to it, and that is the basis of adaption. There is no evidence of design about it. "

Let us suppose, for the time being, that the living creatures adapted themselves to their environment. But was Russell really blind to the fact that long long before the "living creatures" came on this earth, this earth, its atmosphere, its whole structure, together with its relations with sun and other planets and moon had been "made" in such a way that the life became possible at all. Does he want us to believe that the living things, that is, the animals and man, before their own existence, influenced the whole system of universe in general, and that of this earth in particular, so that they might be born here untold millions of year in future?

Frank Allen writes in the same article: "The adjustments of the earth for life are far too numerous to be accounted for by chance. First, the earth is a sphere freely poised in space in daily rotation on its polar axis, giving the alternation of day and night, and in yearly revolution around the sun. These motions give stability to its orientation in space, and, coupled with the inclination (23 degrees) of the polar axis to the place of its revolution (the ecliptic), affords regularity to the seasons, thus doubling the habitable area of the earth and providing a greater diversity of plant life than a stationary globe could sustain.

Secondly, the atmosphere of life-supporting gases is sufficiently high (about 500 miles) and dense to blanket the earth against the dead ly impact of twenty million meteors that daily enter it at speeds of about thirty miles per second. Among many other functions the atmosphere also maintains the temperature within safe limits for life; and carries the vital supply of fresh water-vapour far inland from the oceans to irrigate the earth, without which it would become a lifeless desert. Thus the oceans, with the atmosphere, are the balancewheel of Nature.

"Four remarkable properties of water, its power of absorbing vast quantities of oxygen at low temperatures, its maximum density at 4 degrees `C' above freezing whereby lakes and rivers remain liquid, the lesser density of ice than water so that it remains on the surface, and the power of releasing great quantities of heat as it freezes, preserve life in oceans, lakes and rivers throughout the long winters. "The dry land is a stable platform for much terrestrial life. The soil provides the minerals which plant life assimilates and trans forms into needful foods for animals. The presence of metals near the surface renders the arts of civilization possible.

"The diminutive size of the earth compared with the immensity of space is sometimes disparagingly referred to. If the earth were as small as the moon, if one-fourth its present diameter, the force of gravity (one sixth that of the earth) would fail to hold both atmosphere and water, and temperatures would be fatally extreme. If double its present diameter, the enlarged earth would have four times its present surface and twice its force of gravity, the atmosphere would be dangerously reduced in height, and its pressure would be increased from 15 to 30 pounds per square inch, with serious repercussions upon life. The winter areas would be greatly increased and the regions of habitability would be seriously diminished. Communities of people would be isolated, travel and communication rendered difficult or almost impossible.

"If our earth were of the size of the sun, but retaining its density, gravity would be 150 times as great, the atmosphere diminished to about four miles in height, evaporation of water rendered imposssible, and pressures increased to over a ton per square inch. A one-pound ani- mal would weigh 150 pounds, and human beings reduced in size to that of say, a squirrel. Intellectual life would be impossible to such creatures. "If the earth were removed to double its present distance from the sun, the heat received would be reduced to one-fourth of its present amount, the orbital velocity would be only onehalf, the winter season would be doubled in length and life would be frozen out. If its solar distance were halved, the heat received would be four times as great, the orbital velocity would be doubled, seasons would be halved in length, if changes could even be effected, and the planet would be too parched to sustain life. In size and distance from the sun, and in orbital velocity, the earth is able to sustain life, so that mankind can enjoy physical, intellectual and spiritual life as it now prevails."

15) The Safest Course for Agnostics

As was mentioned earlier, Russell claimed to be an agnostic. If we take that claim on its face-value, then the best and safest course for him would have been to believe in a Creator and Day of Judgement.

Here is a tradition of Imam Ja'far as- Sadiq (p. b. u. h.)

Ibn Abi al-`Awja' and Ibn al-Mugaffa` were sitting in Masjidu'I-haram at the time of pilgrimage, with some of their fellow atheists. (They pretended to be Muslims just to save their skins; but were always openly arguing against the belief in God.) Ibn al-Mugaffa` said pointing towards the space around Ka'bah: "Do you see this mob? There is none among them who may be called human being except that old man (that is, Imam Ja'far as-Sadiq - p.b.u.h.). As for the others, they are just tattles and animals." Ibn Abi al-`Awja' asked how could he say such a thing?

Ibn al-Mugaffa` said: "Because I found with him (the virtues and knowledge) which I did not find anywhere else."

Ibn Abi al-`Awja' said: "Now it is necessary to test whether what you say is true." Ibn al-Mugaffa` tried to dissuade him from it. But Ibn Abi al-`Awja' went to the Imam. lie came back after sometime and said: "O' Ibn al Mugaffa`, he is not just human being. If there were in this world a spiritual thing ... which becomes a body if wishes so, and turns into a spirit if wants so, then it is he."

Ibn al-Mugaffa` said: "How-come?" Ibn Abi al-`Awja' said: "I sat near him. When all others went away, he started talking (without my asking anything) and said ` If the fact is as they believe and it is as they (that is, the pilgrims) say, then they would be saved and you would be in trouble. And if the fact is as you (atheists) say, and not as they say, then you and they both would be equal (and no harm would come to anybody)' "I said: `May Allah have mercy on you, what is it which we say and what is it which they say? My belief and their belief is but one.' "Imam said: `How could your belief and their belief be the same ? They say that there is to be resurrection, and reward and punishment; and they believe that there is a God.' " (And you do not believe it).

Imam meant that if there was in reality no God and no Day of Judgement, as Ibn Abi al-`Awja' said, then the believers and non believers will be in the same position after death. Both will perish for ever and nobody would suffer for his belief or dis-belief. On the other hand, if there is a God and a Day of Judgement, as the believers say, then after death the believers would be saved and would be blessed, while the atheists and non-believers would have to suffer. Therefore, it is the dictate of wisdom to have Faith and Belief in God and Day of Judgement, to save oneself from the possibility of disgrace and eternal punishment. The reader should also see the chapter "Pascal's Bet" in Need of Religion.

16) Universe: Witness of One God

A unique pattern of the universe is emerging with the advent of science. There was a time when the earth was considered to be the centre of the universe; and the universe was confined within nine skies. Our fifth Imam, Muhammad al-Baqir (p.b.u.h.) explained to his companions that there were inumerable worlds besides what they knew about. But, strangely, the Muslims ignored his teachings and followed the pagan philosophers, like Ptolemy, who thought and taught that the earth was stationary and the heavenly bodies revolved around it. Consequently, the gate of knowledge remained shut against them for more than one thousand years. Then came a time when the people explored the Solar system by the help of telescopes. So, they gave the Sun the pride of place. Now we know that our Solar system is but an insignificant family of Planets placed at the edge of the huge galaxy which we call Milky Way.

We see the moon rotating around the earth, like a happy child dancing brightly around its mother. There are eight other planets, besides our earth, in the solar family; and five of them have got satellites of their own. Mars and Neptune have two moons each; Jupitor has twelve moons and satellites; Saturn has nine and Uranus five moons. All the moons and satellites rotate round their planets. And all these planets, in turn, rotate round the sun, which may be called the Head of Family.

Now, let us trace back our steps, before going further.

All these stars, planets and satellites are made of atoms. And atom itself is just a miniature solar system. Formerly it was believed that atoms were immutable entities, that is, they could not be divided. Now the atoms are known to have so many particles; the belief in their

indestructibility has been shattered away. Atoms consist of a nucleus and a number of electrons. The nucleus is built from simple particles: neutrons and protons. The nucleus is located at the centre of the atom and is surrounded by electrons.

It should be mentioned here, to make the picture more clear, that the nucleus of an atom is a particle of very small radius, but of exceedingly great density. In plain words, all the atomic mass (except a negligible fraction) is concentrated in the nucleus, while the size of the nucleus is less than one hundred thousandth of the size of atom. And don't forget that more than 100,000,000 atoms can be put side by side in one centimetre. Now, as we have stated earlier, the atom is a world in itself. The Protons and Neutrons behave as though they were rotating around their own axis, like rotating tops. Their spin suggests the idea of an internal rotation.

Thus, we see that there is a single pattern of operation, right from the smallest sub-atomic particles to the mighty solar system. But this is not the end of the story. As we have known, the sun, together with its family, is placed on the brink of the Milky Way. "If we could view the Milky Way from a vast distance and see it as a whole, we should observe a rather flat wheel of stars with spiral arms -something like the sparks of a Catherine wheel." It consists of many millions separate stars like our sun. This system of stars is physically connected by gravitational forces and moves through space as a whole. It is called a Galaxy. If we think that our solar system is a family of stars, a galaxy may be called a very big tribe consisting of millions and millions of such families.

The multitude of galaxies were unknown in the past. By about 1920 it was thought that there were at least 500,000 galaxies. Now, with the advent of the powerful telescopes this number rose to 100,000,000, and is being increased further day by day. So far as the eyes of cameras and telescopes can see, there are clusters and clusters of galaxies.

Human knowledge, at present, is in its infancy. Nobody knows what is beyond these galaxies. Nor we know much about the nature of their movement. Qur'an says that

"Allah has decorated the nearest sky with these lamps" (that is, the stars) (67: 5).

So we know that until now, we have not seen the end of even the first sky. And who knows what wonders are hidden beyond the first sky!

"You have not been given knowledge but a little" (Qur'an, 17:85)

So, let us confine our talks to the little we know about. We know that the particles of atoms are rotating around their axis; satellites are ro tating around their planets; planets are rotating around their stars; and stars along with their dependant families, are rotating in the galaxies. Our faith in the Unity of God is the purest in the world. We have given countless proofs I'm our belief in the last fourteen centuries. Now the science has opened a new path, which, also, leads to the belief in the Unity of God. It may be described briefly, in these words: "The uniform pattern of the universe is an indisputable proof that all this has been made by one, and only one, Creator."

When we see two identical watches, we need not be told that they are made in the same factory. On the same ground, when we see all the universe woven into a single entity; all its components governed by the same laws, all its parts operated on the same pattern, our natural instinct guides us to believe that it is created, made and controlled by One and only One Creator.

And there is a great difference between the watches and the universe. Watches may be imitated or duplicated by imposters and forgerers. But, as the scientists say, "by definition there is only one universe. One cannot repeat it or do experiments with it." So, we need not bother ourselves with thought of any imitation-gods. If the universe - the thing made -cannot be more than one, how Allah - the Maker - can be more than One?

Now we should have a look at living things. There also we see the same uniformity of design in bone-structure. It is quite amusing to see the atheists use this uniformity to prove that there is no God. They say that "Because all the living beings are developed systematically and because, for instance, the skeletons of Gibbons, Orange, Chimpanzee, Gorilla, and man are quite similar in construction, it is proved that they have not been made by any Creator."

Suppose there had been no system in the universe nor in the structure of living beings and they had used that lack of method against the existence of any Creator, it could have made sense. But astonishingly enough, they are using the unique and perfect system of the universe and the living beings against the Omniscient and Omnipotent God. Any body can see the absurdity of this argument. Because the perfectness of the universe is an irrefutable proof that it has not been made by a blind and senseless nature. Ironically enough, they are using an argument which is basically against their claim.

Darwinists may use this single and uniform pattern of Creation against those who believe that different things were created by different gods. They may use it against those who say that, for instance, cow was created by a good-natured creator and snake was made by another badnatured god. But how can they use it against the belief of One Creator Who created all the things according to His own systematic plan? It is quite obvious that Darwin failed in drawing the conclusion. He could not see the Eternal Truth, which his evidence was pointing at. The evidence, gathered by him, is crying out loudly that all the universe, living or without life, has been created by One and only One, Allah, Who is Omnipotent and Omniscient.

17) Seven Reasons Why a Scientist Believes in God

(This article of Mr. A. Cressy Morrison, former President of the New York Academy of Sciences, first appeared in the Reader's Digest [January 19481; then on recommendation of Professor C. A. Coulson, F.R.S., Professor of Mathematics at Oxford University, was republished in the Reader's Digest [Novermber, 1960]. It shows how the science compels the scientists to admit the essential need of a Supreme Creator.)

We are still in the dawn of the scientific age and every increase of light reveals more brightly the handiwork of an intelligent Creator. In the ninety years since Darwin we have made stupendous discoveries; with a spirit of scientific humility and of faith grounded in knowledge we are approaching even nearer to an awareness of God.

For myself, I count seven reasons for my faith:

First: By unwavering mathematical law we can prove that our universe was designed and executed by a great engineering Intelligence. Suppose you put ten coins, marked from one to ten, into your pocket and give them a good shuffle. Now try to take them out in sequence from one to ten, putting back the coin each time and shaking them all again. Mathematically we know that your chance of first drawing number is one in ten; of drawing one and two in succession, one in hundred; of drawing one, two and three in succession, one in a thousand, and so on; your chance of drawing them all, from one to number ten in succession, would reach the unbelievable figure of one chance in ten thousand million. By the same reasoning, so many exacting conditions are necessary for life on earth that they could not possibly exist in proper relation ship by chance.

The earth rotates on its axis at one thousand miles an hour; if it turned at one hundred miles an hour, our days and nights would be ten times as long as now, and the hot sun would then burn up our vegetation during each long day while in the long night any surviving sprout would freeze.

Again, the sun, source of our life, has a surface temperature of 12,000 degrees Fahrenheit, and our earth is just far enough away so that this "eternal fire" warms us just enough and not too much! If the sun gave off only one half its present radiation, we would freeze, and if it gave half as much more, we would roast. The slant of the earth, tilted at an angle of 23 degrees, gives us our seasons; if it had not been so tilted, vapours from the ocean would move north and south, piling up for us continents of ice. If our moon was, say, only fifty thousand miles away instead of its actual distance our tides would be so enormous that twice a day all continents would be submerged; even the mountains would soon be eroded away. If the crust of the earth had been only ten feet thicker, there would be no oxygen without which animal life must die. Had the ocean been a few feet deeper, carbon dioxide and oxygen would have been absorbed and no vegetable life could exist. Or if our atmosphere had been thinner, some of the earth, starting fires everywhere.

Because of these, and host of other examples, there is not one chance in millions that life on our planet is an accident.

Second: The resourcefulness of life to accomplish its purpose is a manifestation of all-pervading intelligence. What life itself is no man has fathomed. It has neither weight nor dimensions, but it does have force; a growing root will crack a rock. Life has conquered water, land and air, mastering the elements, compelling them to dissolve and reform their combinations.

Life, the sculptor, shapes all living things; an artist, it designs every leaf of every tree, and colours every flower. Life is a musician and has each bird sing its love songs, the insects to call each other in the music of their multitudinous sounds. Life is a sublime chemist, giving taste to fruits and spices, and perfume to the rose changing water and carbonic acid into sugar and wood and, in so doing, releasing oxygen that animals may have the breath of life. Behold an almost invisible drop of protoplasm, transparent and jelly-like, capable of motion, drawing energy from the sun. This single cell, this transparent mistlike droplet, holds within itself the germ of life, and has the power to distribute this life to every living thing, great and small. The powers of this droplet are greater than our vegetation and animals and people, for all life came from it. Nature did not create life; fire-blistered rocks and a saltless sea could not meet the necessary requirements. "Who, then, has put it here?"

Third: Animal wisdom speaks irresistibly of a good Creator who infused instinct into otherwise helpless little creatures. The young salmon spends years at sea, then comes back to his own river, and travels up the very side of the river into which flows the tributary where he was born. What brings him back so precisely? If you transfer him to another tributary he will know at once that he is off his course and he will fight his way down and back to the main stream and then turn up against the current to finish his destiny more accurately.

Even more difficult to solve is the mystery of eels. These amazing creatures migrate at maturity from all ponds and rivers everywhere those from Europe across thousands of miles of ocean - all bound for the same abysmal deeps near Bermuda . There they breed and die. The little ones, with no apparent means of knowing anything except that they are in a wilderness of water, nevertheless find their way back not only to the very shore from which their parents came but thence to the rivers, lakes or little ponds so that each body of water is always populated with eels. No American eel has ever been caught in Europe , no European eel in American waters.

Nature has even delayed the maturity of the European eel by a year or more to make up for its I onger journey. Where does the directing impulse originate ?

A wasp overpower a grasshopper, dig a hole in the earth, sting the grasshopper in exactly the right place so that he does not die but becomes unconscious and lives on as a form of preserved meat. Then the wasp will lay her eggs handily so that her children when they hatch can nibble without killing the insect on which they feed; to them dead meat would be fatal. The mother then flies away and dies; she never sees her young. Surely the wasp must have done all this right the first time and every time, or else there would be no wasp. Such mysterious techniques cannot be explained by adaption; they were bestowed.

Fourth: Man has something more than animal instinct – the power of reason. No other animal has ever left a record of its ability to count ten or even to understand the meaning of ten. Where instinct is like a single note of a flute, beautiful but limited, the human brain contains all the notes of all the instruments in the orchestra. No need to belabour this fourth point; thanks to the human reason we can contemplate the possibility that we are what we are only because we have received a spark of universe intelligence.

Fifth: Provision for all living is revealed in phenomena which we know today but which Darwin did not know - such as the wonders of genes. So unspeakably tiny are these genes that, if all of them responsible for all living people in the world could be put in one place, there would be less than a thimbleful. Yet these ultramicroscopic genes and their companions, the chromosomes, inhabit every living cell and are the absolute keys to all human, animal and vegetable characteristics. A thimble is a small place in which to put all the individual characteristics of two thousand million human beings. However, the facts are beyond question. Well then, how do genes lock up all the normal heredity of a multitude of ancestors and preserve the psychology of each in such an infinitely small place? Here evolution really begins - at the cell, the entity which holds and carries genes. How a few million atoms, locked up as an ultramicroscopic gene, can absolutely rule all on earth is an example of profound cunning and provision that could emanate only from a Creative Intelligence – no other hypothesis will serve.

Sixth: By the economy of nature, we are forced to realize that only infinite wisdom could have foreseen and prepared with such astute husbandry.

Many years ago a species of cactus was planted in Australia as a protective fence. Having no insect enemies in Australia the cactus soon begun a prodigious growth; the alarming abundance persisted until the plants covered an area as long and wide as England, crowding inhabitants out of the towns and villages, and destroying their farms. Seeking a defence, the entomologists scoured the world; finally they turned up an insect which exclusively feeds on cactus, and would eat nothing else.

It would breed freely too; and it had no enemies in Australia . So animal soon conquered vegetable and today the cactus pest has retreated, and with it all but a small protective residue of the insects enough to hold the cactus in check for ever. Such checks and balances have been universelly provided. Why have not fast-breeding insects dominated the earth? Because they have no lungs such as man possesses; they breathe through tubes. But when insects grow large, their tubes do not grow in ratio to the increasing size of the body. Hence there has never been an insect of great size; this limitation on growth has held them all in check.

If this physical check had not been provided, man could not exist. Imagine meeting a hornet as big as a lion!

Seventh: The fact that man conceive the idea of God is in itself a unique proof. The conception of god rises from a divine faculty of man, unshared with the rest of our world - the faculty we call imagination. By its power, man and man alone can find the evidence of

things unseen. The vista that power opens up is unbounded; indeed, as man is perfected imagination becomes a spiritual reality. He may discern in all the evidence of design and purpose the great truth that heaven is wherever and whatever is; that God is everywhere and in everything, but nowhere so close as in our hearts. It is scientifically as well as imaginatively true; in the words of the psalmist: "The heavens declare the glory of God and the firmament sheweth His handiwork."

Notes:

[5][1] Quoted by V. H. Mottran in the organ Corporation, Liner, April, 22nd 1948.)