

# THE SCIENTIST WITH A SUFI TOUCH!

## Noble Prize Winner, the late Prof. Abdus Salam

Think of a Nobel Prize winning scientist, sitting in a scientific conference with a Muslim type Fez cap on his head, and actively participating in the serious discussions. Suddenly he looks at his watch, mutters "Excuse me" and walks out silently. Well! what happened?..... Nothing. It was the time for his Nemaz, the time to place his head on the ground; to take Allah's name on the tongue and throb the heart in His devotion.

Think of a scientist, who shared the Nobel prize with two American Physicists, for taking the world of Science deeper into the mysteries of God; and who said that the prize came to him by "the grace of Allah" and gave away the prize money for the benefit of the children in Pakistan!

He was Professor Abdus Salam originally from Pakistan, the only Nobel Prize Winner from that Country, who died recently.

Prof. Salam (1926-1997) was a theoretical physicist. He, along with Sheldon Glashow and Steven Weinberg, shared the 1979 Nobel prize "for their contributions to the theory of the unified weak and electromagnetic interaction between, elementary particles, including, inter alia, the prediction of the weak neutral current." Want to know something about what this means? Just a workable little?

The Eternal Question:  
"What is Inside It?"

Ours is a world of matter. Physics is the science of matter. The illusioned 19th century thought that any piece of matter is made up of indivisible particles of matter - call them "atoms", the unbreakable. All matter in the universe was a combination of 92 kinds of atoms. Everything was therefore explained and understood.

But an English physicist, Rutherford, found that the atom was not indivisible. It had, within it, electrical particles whirling in the fashion of a solar system – a heavy nucleus with positive electric charge acting as the 'Sun', and electrons, the negatively charged light particles, revolving around it.

Then, the eternal question began: What is inside a nucleus and electrons? The answer led to the fact that there were smaller and smaller particles within the larger particles - call them elementary or ultimate particles of matter. (They are more than one hundred!) But what was within the smallest particle? The answer was: don't know. The search for final ultimate particle - God particle as some people call it has proven elusive and even abortive.

Forget about God particle. How do these fleet of ultimate particles operate? What are the forces governing their behaviour?

The answer: the whole of the physical world operates on just four forces. The big chunks of matter like a stone or a star (or a man's head) operate by the force called gravitation. The very tiny pieces like elementary particles operate on three forces called "electromagnetic," "strong nuclear" and "weak nuclear." "Electromagnetic" is roughly the force of magnetism and electricity. "Nuclear" is the force operating deep within the nucleus of an atom. The strong nuclear force holds together the elementary particles in the nucleus. The weak nuclear force is also hidden in an atom and sometimes becomes too weak to hold the particles and throw out radioactive particles from certain atoms like uranium and radium.

The scientific urge in the scientists led them to ask: is there anything common in these four distinct forces of Nature? Can we find out a theory or a mathematical structure, which can show the unification of the four forces?

Every human being is constantly in search of unity amongst diversities. Nature should have some law, order and beauty which can cover everything. This is perhaps God's voice ("Asha Vahishta") murmuring in a human heart. The greatest scientist of the century, Einstein, dedicated the full last decade of his life to arrive at such theory of unification of all the four forces- the Unified field Theory as he called it - but failed. The search for such Theory of Everything - TOE- or Grand Unification Theory - GUT - is continuing, but has so far eluded science like a mirage in the intellectual desert of man.

Prof. Abdus Salam and his two fellow scientists have arrived at a theory which brings at least two of the

four forces viz., "The weak nuclear" and "the electromagnetic" nearer to unification. The four forces have now become three - a trinity perhaps? It is a monumental achievement.

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Abdus Salam was not honoured in his own country, because he belonged to "Ahmedia Sect." This was a line of mystical thought founded by a Sufi Saint Mirza Gulam Ahmed, who had died in 1908. A beautiful element in the teachings of this saint was the meaning he assigned to the word "Jehad." Normally it means a war for religion and has resulted in many a futile wars and many a cruel oppressions and tyrannies. Mirza Gulam Ahmed pointed out that Jehad is not a war of man against man; it was the incessant battle of man with his own inner faults of the flesh, which dragged him away from righteousness. To strive for righteousness, to fight for the conversion of the evil within into good is the real Jehad. All humans know how furious this battle has to be, and how powerful are the forces of evil within. Fight with them with Allah-ho-Akbar on your tongue.....

### **"Cosmos, Theos, Bios"**

There is a wonderful book of this name edited by Henry Margenan and Roy Abraham Verghese. They posed six questions to 60 renowned scientists of the world (24 being Nobel prize winners), on the origin of universe, life and man, the existence of God and the relationship that should be between religion and science. (Open Court 1992-1993) of those 60, one is Prof. Salam. The following passage occurs in his answers to the questions - particularly the one relating to science and religion. He summarises, in a masterly analytical way, the elements of what he calls "Abrahamic Religions", although his analysis equally applies to Religion in general as also to any particular Religion : -

"The Abrahamic religions claim to provide a meaning to the mystery of life and death. These religions speak of a Lord who not only created natural law and the universe in his glory, his own holiness and his majesty; but also created us, the human beings in his own image, endowing us not only with speech, but also with spiritual longings. This is one aspect of transcendence. The second aspect is of the Lord who answers prayers when one turns to him in distress. The third is of the Lord who, in the eyes of the mystic and the Sufi, personifies eternal beauty and is to be adored for this. These transcendent aspects of religion as a rule lead to a heightening of one's obligation towards living beings. The fourth is of the Lord who endows some humans - the prophets and his chosen saints - with divinely inspired knowledge through revelation.

"Regarding what may be called (in the present context) the "societal", "secularist" thinking, Abrahamic religions speak of the Lord who is also the guardian of the moral law, the precept which states that "Like one does, one shall be done by"; the Lord who gives a meaning to the history of mankind the rise and fall of nations for disobedience to his commandments; the Lord who specifies what should be human belief as well as ideal human conduct of affairs; and finally, the Lord who rewards one's good deeds and punishes wrongdoing (like a father), in this world or a life hereafter."

How precise and how beautiful?

Had all scientists understood Religion as Salam did, world would have been a different place.

Our Salam to Prof. Abdus Salam. May Allah take you nearer and nearer to Him.

- Scientix.

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