INTRODUCTION
Even as the subject is broached several questions arise in rapid succession:
Can scientific fact be readily explained by Scripture?
Do religious texts contain scientific facts deliberately inserted / revealed?
Are science and religion reconcilable?
Should one even attempt to reconcile what seems irreconcilable?
Is it even necessary to reconcile the two?
A host of such questions must surely arise in the minds of most scientists at least.

In recent years, almost all major religions have witnessed an increase in the number of theologians with scientific backgrounds trying to use science to justify religious convictions or interpreting religious texts in ways that “make” certain verses scientifically accurate, thereby “proving” the Divine origins of those texts (verses). Are such interpretations justified? To try and answer this and other questions, perhaps clarifying certain words, as used in this paper, may be in order.

Science is defined as “systematic knowledge of natural or physical phenomena (wherein) truth is ascertained by observation, experiment, and induction” [6]. Religion here will confine itself to Holy Scripture / Holy Texts (which in our case will mean Aad Guru Granth Sahib [1]). The crux of this paper is about science and scripture.

Common Factors
The following features, with minor variations, are common to most religions:

i. A belief in God.
ii. A belief that the founder of the religion was divinely inspired and that his utterances, as revelation, were directly from God.
iii. A belief that the scripture (holy book of the faith) is infallible and that it contains all that is ever going to be needed for man’s spiritual requirements.
iv. A belief that, since it is directly from God, any Scriptural references to any physical phenomena cannot be wrong (God cannot err).

All these “common factors”, in turn, have a common base: belief / faith. Belief and faith are used synonymously and interchangeably in this paper, as is done commonly. Faith is defined as ‘belief in the traditional doctrines of a religion… firm belief in something for which there is no proof’ [3] As for ‘proof’, it means something for which the evidence is incontrovertible and where there can be no room for doubt; for issues demanding unquestioning allegiance (religion) the possibility of something being true just ‘on the balance of probabilities’ will not do.

Revelation and the Founders of Faith
In relation to ‘revelation’ it cannot be that God literally speaks to the recipients of revelation, whether directly or through a conduit. In each case the founders of religions will have had some kind of ‘contact’ with what they considered a Divine Being, felt inspired by this Being,
and thereafter made pronouncements, which they must have felt were necessary to 'commune' with that Being. They would then have been ‘inspired’ to order a certain mode of life, which in turn may well have necessitated a code of conduct, to enable an individual to reach a state of ‘spiritual bliss’. The faithful of any religion, thus, have to have faith in the preceptors (founders) of their religion in that, what they (the founders) reveal is Divine revelation as claimed by the preceptors. In other words “The preceptors (founders) of the faith are Divinely-inspired men (and women) and the ‘Revelation’ (scripture) has to be taken on faith since it is a ‘revelation’ only to those who receive it first-hand; for the rest of us (followers) it is ‘hearsay’ and has to be believed on faith alone” [5].

If, as is asserted thus far, revelation (scripture) constitutes the utterances of a Divinely-inspired individual, as opposed to a dictation by the Divine (whether directly or via a conduit), the possibility of error of fact can be entertained. This is especially so in relation to scientific “facts” in scripture. It has to be that the founder of any religion would employ the language, idiom and metaphor of his time, in order to transmit his message. He would thus be ‘limited’ by the available vocabulary, and would have to make the most of it in expressing his idea / message; a great deal would necessarily have to be metaphorical or allegorical and certainly literal in many cases. The language employed in transmitting the message may have been clearly understood in his time, but with the passage of time, owing to evolution of language itself, the scriptural verses eventually fall to “interpretation”. The pitfalls of this need for “interpretation” must, for the moment, be left alone. What has to be kept in mind is that for all religions their own scripture is immutable and for all time.

In such circumstances, the founder’s “knowledge” of matters spiritual may be accepted as exceptional (if not perfect) as he has been ‘touched’ by the Divine. But when it comes to making statements relating to physical phenomena (science), it has to be admitted that such pronouncements must have been limited by the available scientific knowledge and by the (scientifically) inadequate vocabulary, and such pronouncements, therefore, fall to “interpretation” and “re-interpretation” to bring the scriptural scientific ‘fact’ into line with current knowledge. This will, of necessity, involve a great deal of verbal gymnastics, and to, therefore, insist upon the absolute accuracy of the scriptural text (vis-à-vis scientific knowledge) is unrealistic. But to admit that the science in scripture is deficient, if not out-rightly defective, invites more problems.

**DISCUSSION**

**Religion and Science**

The problem between the two (religion and science) arises out of their differing demands. Science offers evidence (not absolute proof), draws some conclusions from it, and only asks of you that you accept what is supported by this evidence. Religion, on the other hand, refuses to consider the evidence, offers no proof and demands total acceptance. Science is ready for change in the light of new evidence, and scientific theory thrives on attempts by scientists to prove or disprove it. Religion (scripture) because of its alleged Divine origins, cannot admit to error or change, and so must remain ossified in its thought or be ever subject to interpretation and re-interpretation, and in the process slip from its originally high position. Problems arise when scientific ‘facts’ are culled from scriptural verses, or when scientific interpretations are offered for verses essentially meant to transmit some spiritual idea. This need to inject science into scripture is evidently required to give proof of the divine origins of the particular scripture (since the Divine, by Its very attributes, cannot err).

If, on the other hand, one accepts that scripture is intended only for the spiritual well being of mankind, that all verses (in the scripture) restrict themselves to only this, and that in transmitting this spiritual message it often employs terms and phrases metaphorically or allegorically, the apparent conflict between science and religion is easier to resolve. Since matters of religion are faith-based, religion cannot have any conflict with science, which is fact-based; they are simply two different areas of man’s existence.

It is often said that science deals with material problems whilst religion deals with spiritual / metaphysical issues. The former provides credible evidence whilst the latter, important though it is to most of mankind, offers no evidence for its claims. Thus a man of religion (faith) may have to be content with the knowledge that his faith is as good, or as defective, as that of another.

Science is a part of all school curricula and so second nature to most. Religion is a passively imbibed part of many lives and equally second nature for them. Is it, then, any wonder that a growing number of individuals look toward religion to explain what science cannot, and ask science to validate religious teachings? At the same time the accuracy of scientific explanations for so many phenomena, hitherto (inaccurately) explained by religion, makes it harder for people to accept religious teachings that cannot be verified.

It is in the nature of scientists to prove or disprove any hypothesis. They are so often involved in explaining the physical phenomena behind so-called miracles, or in exposing them as hoaxes. It is the right of a scientist to comment on even the existence of God. There can therefore be no quarrel with scientists commenting upon
scripture. For a scientist who believes in God and in the inerrancy of the scriptures of his faith it becomes a matter of reinterpretation of the scriptural verses to ‘fit’ into the current scientific knowledge or thought. Equally, a scientist who is an atheist will interpret the verses to prove that the scripture is in error. The non-scientist believer will take another route: explain the verses in some abstract, metaphysical terms and expect them to be believed, often using phrases akin to ‘God works in mysterious ways’.

Does all this mean that scientific explanations for scriptural verses should be abandoned, or that spiritual matters are outside the realm of scientific studies? No; not at all. If a scientific interpretation of scriptural verses is reasonably acceptable, and does not require too convoluted an argument, it cannot hurt. Science (a scientist) is not averse to accepting spiritual ‘truths’; it simply demands evidence. That evidence, unfortunately, is currently lacking (and religion / scripture remains faith-based), but should evidence for it (for example the ‘soul’) become available in the future science will have no problem embracing it. Therein lies the value of the calls by scientist-theologians (like Prof. Devinder Singh Chahal) “...that the theologians and scientists should get together to study Gurbani and try to represent the truth embodied in the Gurbani...” [2]

CONCLUSION / OPINION

For my part, I do not think that science and scripture (religion) will ever be reconciled. Any accurate reference to scientific fact in scripture is purely incidental. Attempts at fitting in scientific facts into revelation, via reinterpretations, even if plausible, cannot have been intended as such when the scriptural verse was first uttered or written.

Scientists with an interest in theology, knowing that science has made it possible for natural phenomena to be directly and immediately comprehensible to our way of thought, are tempted to merge (or at least cause to converge) their scientific facts into the metaphysical verses of the scriptures of their religion, and in the attempt run the risk of error and/or objections from the faithful. Niels Bohr, the famous physicist, was widely acclaimed for his ‘Principle of Complimentarity’ (which together with Werner Heisenberger’s ‘Uncertainty Principle’ was to lead to the “Copenhagen interpretation” of quantum mechanics). Later in life Bohr thought that his complimentarity principle applied to the problem of determining the material structure of living organism. He was completely wrong (and would be so proven). Heinz Pagels, another famous physicist, cites this example to show “...that even if you are as smart as Bohr, extending principles of science beyond their usual domain of application may lead to spurious conclusions.” [4] This little story is just to remind ourselves to exercise caution when introducing science into interpretation of scripture.

Must, then, scientists abandon religion, or must religious men abandon science? Mercifully neither is either done or demanded. Many scientists are religiously devout, and all religious people use science with nary a thought about it, and so do not call for abandonment of either science or religion. Even though the two are, in my opinion, irreconcilable and will ever remain, many successfully manage to go about their lives keeping the two in separate “compartments” of their intellect, and that, perhaps, is the way it has to be.

REFERENCES

1. AGGS = Aad Guru Granth Sahib. 1983 (reprint). Publishers: Shiromani Gurdwara Parbandhak Committee, Amritsar. (M = Mahla, i.e. succession number of the Sikh Gurus to the House of Nanak, M is replaced with the name of the Bhagat/ Bhatt for their Bani, p = Page of the AGGS).