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Principal Dr. M. B. Fernandes

G. Tavares PhD

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Editorial

The authors of The Andrean Research Journal, Volume V respond to several strains of discourse in the humanities, and physical and social sciences. Their debates have arisen from differing disciplinary perspectives and motivations, and responded to a range of temporal and cultural situations.

In *The Power of Music and the Rhythm of Time*, Principal of St Andrew's College, Dr. M. B. Fernandes, explores the fact that music and poetry play an important role by taking us to the level of the sublime, making us search for the meaning of life and death, God and our place in the universe.

There is an increasingly robust literature in recent times that can be classified as Young Adult literature, targeting the segment of young adults aged between 14 and 21 years. These contemporary writers use the mythical framework in its complete form with historical settings, mythical characters and themes. It contains a large frame work of epic narrative within itself. The topic has been explored by Dr. P.Oza in *Theorizing Mythical Structure: A Case Study of Young Adult Literature*.

Portrayal of mental illness in films is generally negative, over dramatised and exaggerated. It has also been established that this negative portrayal influences the perception of the public about mental illness. If media representations of mental illness aren't improving, individuals can at least become aware of the insidious portrayals that shape their perceptions of real-life people with

psychological disorders. That way, they can distinguish between fact and fiction, stereotype and reality and the characters onscreen versus their real life peers. Dr. M. Rai examines this in *Portrayal of Mental Illness: Misrepresentations in Cinema.*

In *ISIS and the Crisis in Syria*, J. Coelho traces the growth of ISIS from its roots in the 1990's to its current ambition to form an orthodox Caliphate These dilemmas have long plagued the Middle East where the potent mix of religion, oil money and violence render long term settlements and peace a distant dream.

In the paper *Three Great Geniuses in the Field of Physics*, F. Arland, provides an overview of the works of Galileo, Newton and Einstein. He explains the life and works of Galileo the hero of modern science, Newtonian physics and discusses the landmark contributions to physics of Einstein, the greatest scientific mind of the 20th century

N. Shukla discusses anti-matter and the 'God particle' in his paper *Attempt to Explain Nature*. He concludes by stating that the inner search, a search in a space-less space within us, in the innermost recesses of the individual, hides the most precious secrets of the world

G. Tavares Ph.D

The Power of Music and the Rhythm of Time

Dr. M. B. Fernandes

> If music be the food of love, play on:
> Give me excess of it, that surfeiting,
> The appetite may sicken, and so die.[1]
>
> (Shakespeare -*Twelfth Night I,i*)

Shakespeare's *Twelfth Night* opens with the words of Duke Orsino who is passionately in love with Countess Olivia. As all romantic lovers, he believes that music has the power to enhance this feeling of exhilaration and he commands his musicians to play on. It is food for the soul and he wants to feast on it till he is so satiated that he will hunger for it no more. He seems more in love with being in love rather than in love with Olivia. For when Valentine informs him that Olivia will abjure the society of men to mourn the death of her brother, for seven years, Duke Orsino is unaffected. He hopes one day that she too will be bewitched by love as he is. The scene ends with Orsino going to sleep in a bed of flowers. It is important to note that we have here a case of synaesthesia, a trope that refers to the mixing of sensations. In this case, one hears music one does not eat it. This figure of speech emphasizes Orsino's restlessness because of love.

The title of the play *Twelfth Night* refers to the Feast of the Epiphany, the twelfth day after Christmas when the three wise men go with gifts of gold, frankincense and myrrh to visit the new born Baby Jesus. This is deeply symbolic, for it represents the manifestation of Christ as Light, or Truth, to those who believe and understand. This revelation of Light, or Truth, is the subject of the play. In Shakespeare's England, the feast of the *Twelfth Night* was also time of cakes and ale, great revelry and mirth, wine flowed freely and chaos and anarchy reigned. Malvolio, the die-heart Puritan is ill at ease and becomes the wet blanket and stops the rowdy and boisterous singing of Sir Toby, Sir Andrew, Feste and Maria. He is censorious when he says: — "Do ye

make an ale-house of my lady's house?" (II.iii.80–81). But Sir Toby snaps back: "Dost thou think because thou art virtuous, there shall be no more cakes and ale?" (II.iii.103–104). Sir Toby has judged rightly, he knows that Malvolio detests revelry, music and alcohol entirely.

Feste, the clown often sings songs about love in order to entertain others in the play.

> O mistress mine, where are you roaming?
> O stay and hear, your true love's coming,
> That can sing both high and low.
> Trip no further, pretty sweeting.
> Journeys end in lovers meeting,
> Every wise man's son doth now.
>
> (Act II, iii)

Conclusively, we may say that music plays an important role in the play because it is often linked with lovesickness, one of the main themes of the play.

John Dryden in his poem "Alexander's Feast" beautifully articulates the power that music has on one of the greatest kings of Macedonia – Alexander the Great, the man who said: I want to conquer the world. The ode was written to commemorate the feast of St. Cecilia, the patron saint of music. His court singer Timotheus while entertaining his great master, very skilfully takes control of his feelings, at a banquet to celebrate Alexander's victory over the Persian King Darius III. Timotheus is able to inspire and arouse in his listeners a range of intense emotions: sense of sublime divinity, bacchanalian joy, martial zeal, heartfelt pity, tender love, and even fiery revenge. Alexander sits with Thais, the young and attractive Athenian courtesan as he listens to this performance. Timotheus while praising the 'godlike hero' adds, "None but the brave deserves the fair!"

Timotheus soon takes his hero one notch higher and while the "trembling notes ascend the sky" he flatters Alexander into believing that he is in fact the son of Jove, King of the gods and supreme in Olympia. The king of the gods has begotten the conqueror of the world. The crowds grow wild and hail him as "a present deity". The monarch hears this, is filled with vainglorious pride, "Assumes the god; / Affects to nod, /And seems to shake the sphere."

Timotheus then sings in praise of Bacchus, the God of wine and merrymaking, and the scene is filled with drunken revelry. "Drinking is a soldier's pleasure". Alexander indulges his vanity and fights all his battles again in his mind. "And thrice he routed all his foes, and thrice he slew the slain!" Seeing the madness in Alexander's eyes, Timotheus changes his song to check Alexander's pride and create a mood of pity. He sings of the fall of Darius, the Persian king, "Fallen from his high estate… And weltering in his blood;" What is even worse, is that "On the bare earth exposed he lies / With not a friend to close his eyes". The Greeks believed that those who were left exposed and not buried properly were doomed to wander by the river Styx, the entrance to the Underworld, for eternity; their souls could never be at rest. Thus, denying burial to a corpse not only insulted the body, but also damned his soul for all time. The joy of victory fades and a pall of gloom descends on the scene: Alexander sighs and "tears began to flow".

The master musician then smiles and artfully changes the tune and plays on the heart strings of love. Alexander the Great is rendered helpless again and is obliged to sigh and look and sigh again. Smitten by love Alexander falls upon the breast of Thais. The Conqueror of Persia lies vanquished by music.

Timotheus now strikes his golden lyre again and rouses Alexander like "a rattling peal of thunder" to feelings of revenge. The slain Greek

soldiers who lay unburied rise with "Each a *torch in his hand" and seem to urge Alexander to avenge their death.*

> And the king seized a flambeau with zeal to destroy:
> Thais led the way
> To light him to his prey
> And like another Helen, fired another Troy.
>
> (John Dryden, *Alexander's Feast,* 1697)

Just as Helen was responsible for destroying the city of Troy so too Thais urges Alexander to burn Persepolis. Following this, text and music join hands again with the divine St. Cecilia's appearance. By giving mortals the instrument of heavenly harmony – the organ – she extends the benefits of music beyond those influences which Timotheus exerted. A rousing double fugue concludes Dryden's poem with "He raised a mortal to the skies, (she drew an Angel down." This evocative image of Timotheus raising Alexander, creating the delusion of divine status, juxtaposed with St. Cecilia bringing an angel, or music, down from heaven supersedes humanity's (Alexander's) flawed nature.[2]

Where Timotheus starts out by celebrating Alexander's martial prowess, he reveals his own power in his ability to reverse his audience's evaluation of war by leading them to accept that the honour won in battle is never enough, as it is "Never ending, still beginning" (101), it has to be won again and again. His audience responds enthusiastically, but while it is love they celebrate, it is in fact "music [that] won the cause" (108). With this line which might embody the poem's theme as a whole Dryden makes music the victor as it displaces Alexander's victory in war.

On an entirely different note T.S. Eliot's *Four Quartets* invites attention. A Quartet is a musical composition for four voices or instruments. Like most modernist writers, Eliot was interested in the divide between high and low culture, which he symbolized using music. He believed

that high culture, including art, opera, and drama, was in decline while popular culture was on the rise. In his lecture on "The Music of Poetry", Eliot states: "I believe that the properties in which music concerns the poet most nearly are the sense of rhythm and the sense of structure… The use of recurrent themes is as natural to poetry as to music. There are possibilities for verse which bear some analogy to the development of a theme by different groups of instruments; there are possibilities of transition in a poem comparable to the different movements of a symphony or a quartet. There are possibilities of contrapuntal arrangement of subject matter. It is in the concert room, rather than in the opera house, that the germ of a poem may be quickened."[3]

As Dame Helen Gardner indicates, each poem contains what are best descried as five movements, each with its own necessary structure. The first movement suggests at once a musical analogy. In each poem it contains statements and counter-statements, or two contrasted but related themes, like the first and second subjects of a movement in strict sonata form… The second movement is constructed on the opposite principle of a single subject handled in two boldly contrasted ways. The effect is like that of hearing the same melody played on a different group of instruments. The third movement is the core of each poem, out of which reconcilement grows: it is an exploration with a twist of ideas of the first two movements. The ear is prepared for the lyric fourth movement. The fifth movement recapitulates the themes of the poem with personal and topical applications and makes a resolution of the contradictions of the first.[4]

The first quartet 'Burnt Norton' begins with four statements about Time, each spoken perhaps by a different voice. First, Time as a continuous chain of events:

> Time present and time past
> Are both perhaps present in time future
> And time future contained in time past
> If all time is eternally present
> All time is unredeemable
>
> (T.S. Eliot, *Four Quartets*, 1943)

Second, Time as eternally present and therefore unredeemable. Third, Time as a continuum of events which might have been different. And lastly these possibilities are pointed toward a divine purpose not ours and therefore ‘the ground of our beseeching’:

> What might have been and what has been
> Point to one end, which is always present.
>
> (T.S. Eliot, *Four Quartets,* 1943)

To disturb the fictive past is futile, but it will be disturbed, because we have filled the garden with our own echoes, and nothing is sweeter than our own deception. **It is a poem about air,**

> The second quartet “East Coker” begins with the line: “In my beginning is my end”
>
> (T.S. Eliot, *Four Quartets,* 1943)

This is the theme which dominates the whole work. Like a musical phrase it is woven back and forth through the entire texture of the composition, now stated in one key of meaning, now in another. The actual wording of the theme is possibly an echo of the inscription “*En ma fin est mon commencement*” embroidered upon the Chair of State of Mary Queen of Scots. Maurice Baring reports:

> Her motto was symbolic in more ways than one. Putting aside the question of whether the death of Queen of Scots was, as some think, the triumph of a martyred saint awaiting canonization in the future, or a consummate piece of playacting, there is no doubt that practically and politically the end of the Queen of Scots was her beginning: for at her death her son, James Stuart, became heir to the crowns of England and Scotland and he lived to wear both crowns.[5]

The beginning and the end are common. Throughout the poem we find this theme given two contrasting interpretations: a spiritual one and a material or temporal one. In the spiritual interpretation the

beginning is seen as the highest type of knowledge or knowledge of God, which can only come by intuition, through love. ***East Coker*** **is a poem about earth.** The material or temporal interpretation stresses the cyclic nature of history, the temporality of material achievements, and the mortality of man in the spirit of the admonition: 'Remember, man, that thou art dust and unto dust thou shalt return'. Man as a physical being has his cycle of life, its opening predicates its close.

These two interpretations of the dominant theme are played back and forth until their final combination in that victorious reversal of the introductory statement that closes the poem: ' In my end is my beginning'.

The third section ***The Dry Salvages*** **is a poem about water** which some Greek thinkers thought was the primitive material out of which the world arose, and which man has always thought as surrounding and embracing the land, limiting the land and encroaching on it, itself illimitable.[4] The first movement of the poem is a contrast between both the river, 'sullen, untamed and intractable', and the sea, vast and incomprehensible, on the one hand, and the mechanized pretences of man on the other hand. His mechanical accomplishments have allowed man to forget the river which is within him and the sea that is all about him: but the river remains, 'waiting, watching and waiting', and the sea, with its many gods and many voices, is a perpetual reminder of the ultimate destiny of man and his fancy creations.

We can regulate our watches, we can measure the time of our ordinary experiences, but we can never control the intractable, inevitable character of destruction, which is the real meaning of the flux, if we take it as the ultimate. This is the time that is measured by the tolling bell of the ground swell, 'that is and was from the beginning', which is Death:

> And under the oppression of the silent fog
> The tolling bell

Measures time not out time, rung by the unhurried
Ground swell, a time
Older than the time of chronometers, older
Than time counted by anxious worried women.

(T.S. Eliot, *Four Quartets,* 1943)

In the final movement of this poem Eliot believes the highest moment of human achievement is reached when one understands everything *sub specie aeternitatis.* To apprehend the immanence of God in the temporal is not to deny the reality of the temporal or to proclaim its illusory character; but to comprehend its mode of reality for the first time as a creation of God, with its own characteristics of individuality.

His fourth quartet *Little Gidding* is a poem about fire, the purest of the elements, by which some have thought the world would end, fire which consumes and purifies. We could then say that the whole poem is about the four elements whose mysterious union makes life, pointing out that in each of the separate poems, all four are present.

Little Gidding is a grand recapitulation of the whole of the Quartets, so far as time is concerned, although the emphasis is now on the active or positive way of salvation. Detachment from things, persons and places is the proper position of man. It is in this condition we reflect on the nature of history, for history is a reflection of timeless moments; and no one can deny its ultimate significance and meaning which is God and his unconditional love for us.. We need not know the whole of history but only any one of its moments, for that moment will contain the whole meaning within it.

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

(T.S. Eliot, *Four Quartets,* 1943)

And finally, it is in any of these moments that man can find his unity with God through the identification of his human love with the love of the Divine:

> Quick now, here, now, always –
> A condition of complete simplicity
> (Costing not less than everything)
> And all shall be well. When the tongues of flame are in-folded
> Into the crowded knot of fire
> And the fire and rose are one.
>
> (T.S. Eliot, *Four Quartets,* 1943)

It is evident from this discussion that music and poetry, has the potential to raise our spirits and take us to level of the sublime, it can also make us delve within to search for meaning of life and death, God and our place in the universe.

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5 Maurice Baring, *In the End Is My Beginning*" (House of Stratus, 2001)

Theorizing Mythical Structure: A Case Study of Young Adult Literature

Dr. Preeti Oza

Introduction:

"... historically, the reign of the Author has also been that of the Critic. ... the birth of the reader must be at the cost of the death of the Author" (Roland Barthes, The Death of the Author, 1977). The last couple of years have witnessed the emergence of a new kind of writing in the subcontinent, classified as Young Adult literature, targeting the segment of young adults aged between 14 and 21 years. Young Adult Fiction is fiction written, published, or marketed to adolescents and young adults, between 12 and 18 years of age. The "fringe" readership may go as low as 10 years at the one end and as high as 20 or more at the other.

There was a time when *Malgudi Days*, Ruskin Bond's stories or *Amar Chitra Katha* series were considered as foundational in the development of young adult and children's literature in India. That was, however, way back in the 1970s and 1980s. We have seen the emergence of a vast variety of 'new writing' in the form of *chicklit*, graphic novels, detective fiction, pulp fiction, campus fiction and the latest entrant seems to be 'Young Adult Fiction' or 'YA fiction' as it has come to be known.

The young readers are looking for fresh, intelligent stories where history, mythology and/or societal/political issues are merged with the narrative. The 16-28 age group comprises a very important chunk of readers and whatever the story, it has to have elements and issues that appeal to them. These are usually loaded with easy vocabulary, lots of local references and flavors. As a result, we have seen hundreds of first time authors followed by thousands of young adult readers.

New generation Indian writers have been experimenting with the age old concepts and genre like mythological mysteries of late. And surprisingly it has got a tremendous response from young Indian readers. With the new generation of writers approaching mythology as an entity and a genre, mythology has grown in terms of content and form. Young readers have started identifying with this new-found phenomenon. Writers like Amish Tripathi, Ashwin Sanghi, Ashok Banker and many others have popularized this genre in recent years.

These contemporary writers use the mythical framework in its complete form with historical settings, mythical characters and themes. It contains a large frame work of epic narrative within itself. The use of archetypes in literature provokes response from the readers, as the audiences share the intentions of the writers. This sort of writing is said to fall into the category of 'epic fantasy.' It is the sub-genre of popular fantasy fiction. The genre 'epic fantasy' has been popular for over three decades and is considered to be dominant in the market. Having been influenced by Tolkien, the writers like J.K Rowling and C.S Lewis mastered the genre with audacity.

It is a phenomenon which is supported by publishers as well. Sayoni Basu, who co-founded the publishing house, Duckbill in 2012, says, "YA literature as a category existed since the 1970s, and came into its own internationally in the 1990s. In India, it was only after 2000 that books were specifically published with the 'YA' tag." Meanwhile, international titles, including the Harry Potter, Twilight and Hunger Games series, continued to hold YA readers in thrall.

Another writer Jash Sen, the writer of ' *The Wordkeeper's Trilogy'* observes:

> "In 2009, when I began writing *The Wordkeepers Trilogy* (a mythological YA thriller), many people asked me to ditch mythology and stick to adventure. Until two years ago, the

> assumption was to move to ‘proper’ English yet keep the Indianness aside. But that’s changing — YA literature in India is finding a most unique, endearing ‘Indian’ voice. Fewer authors are imitating their Western counterparts. Now, I’d like to see books which nudge issues like sexuality, race and skin colour.”

The young adult category has grown immensely in the last 15 years thanks to the Harry Potter mania that had swept kids and adults off their feet across the world. Books such as the *Twilight, Hunger Games, Narnia, Veronica Roth* series, *Heroes of Olympus* series and *Alex Rider* series have pushed the sales numbers. YA writing by Indian authors are at a nascent stage yet, it is a fairly new genre that is coming up now. Stories from Indian mythology and folk tales, for long the staple of children’s and YA books in India, along with tales of summer-holiday adventure, are now getting added on to by modern mythologies emerging out of speculative fiction, and other newer themes like romance and those inspired by gaming and movies. While it was the foreign authors who bridged the gap between *Panchatantra,* Satyajit Ray’s *Feluda,* Ruskin Bond, R.K. Narayan’s *Swami* and adult fiction, a new crop of authors are staking a claim to shelf space.

Today, the Children and Teen section contributes about 25 per cent of the books category and young adult fiction (age 14 - 21) forms the biggest part of this. A lot of these titles have a huge fan following in India. The demand from the metros is higher. Some of the major topics included in this genre are- interesting twists to mythology, small town young professionals in big town corporate, political enmity, campus love stories, cricket controversies, coming of age tales, women’s issues, funny insider views into industries… the book stores -the real and the virtual- are full of works by Indian authors for young adult readers.

The epic characters that have been immortalized and revered for ages are being interpreted in different ways in popular culture to find resonance with the young readers. The characters are also reinvented

in such a way that their vulnerable side is revealed and the readers identify with their struggles and life. Stories and characters from Indian epics are timeless and will never lose their relevance, according to J. Anjana, who works for a publication house. “There is romance, adventure, individual struggles and epic battles, so retelling the stories of these characters in a modern framework, or revisiting their lives and circumstances, is extremely viable because there’s so much scope for a great story.” she says, emphasizing that Indian fantasy literature will never fade away.

Some prominent examples:

Some major examples in this category can be discussed as under:

In *The Immortals of Meluha* – the first of Amish Tripathi’s *Shiva Trilogy*, Shiva is an ordinary warrior who overcomes his personal demons and challenges to acquire the title of Mahadeva. Reader Suhasini S. says, “The book connected with the masses because it had simple philosophy and its central protagonist Shiva did not have a god-like image, he was more like a common man. It was easier to understand the character and history associated with the period through his struggles and persona, which makes it a very interesting read as well.” Amish Tripathy’s debut His debut work, ‘*The Immortals of Meluha’*, became a surprise bestseller; a re-imagining of Hindu mythology that will ultimately comprise “*The Shiva Trilogy*,” it went on to sell 125,000 copies in 2010, making it one of the top selling fiction titles of the year. It revolves around the character of Lord Shiva, who according to Hindu Mythology is the God of Destruction but here he is portrayed as a hero in all his humanity who is doing things which are very much doable by anyone and everyone.

The book *Palace of Illusions* revisits *the Mahabharata* from Draupadi’s perspective. The author explores her loneliness in her father’s house, her friction with her mother-in-law Kunti and her seemingly inexplicable attraction towards Karna. Sumitra Nair, who works for a woman’s magazine, says, “The book explores Mahabharata

from a woman's point of view. The book had a bit of history and mythology written in a contemporary style. The characters seemed more modern and, therefore, I could connect with them."

Namita Gokhale's *'Shakuntala',* Ashwin Sanghi's *'Chanakya's Chant'* or David Hair's *'Return of the Ramayana'* series have all explored the ancient classics. The pace of the novels is fast and the language is simple and modern to engage the readers. Apart from books, *Amar Chitra Katha* comic book series and animated shows like Roll No. 21 on various mythological characters also entices children to learn more about Indian fantasy literature.

Why mythology?:

As Josephine Angelini, Author of YA Mythology Novel, 'Dreamless' puts it, "it's a combination of things. Everything supernatural is popular right now, and not just in books. There are lots of supernatural movies and TV shows as well, and like vampires, werewolves, ghosts and fairies, Greek mythology is one of the major sources for supernatural lore."

Another factor that' is making Greek myth in particular hot right now is that the Percy Jackson set is growing up. They already know and love mythology, and they are ready for YA books about it. Readers, actually people in general, have always been drawn to myth. *The Iliad*, *Odyssey, Beowulf* — myth is the oldest and most enduring form of storytelling, and not just in Western culture. China is famous for their dragons. In India there is magic and monsters in their oldest and most beloved tales. No matter where you go around the world in all of the oldest stories, from the Native Americans to the Aborigines in Australia, myth and monsters are everywhere. Heroic storytelling is a common denominator across cultures, and I'm pretty confident that for as long as we tell stories, we will tell tall tales of giants and the little guys that rise up to defeat them. Myth is too awesome not to tell.

Why not yet mainstream literature?

Jojo Joy and Merin Simi righly raises the questions on the current status as well as the future of Young Adult Literature in India.

1. How do we understand YA fiction in the context of contemporary literary studies which work best within the paradigms and complexities of '–isms' constituted by the postcolonial and postmodern constructs?
2. How do we position YA fiction in the contemporary scenario where there is an increasing demand and need to access literary and cultural products from the insightful perspectives enabled by gender and caste?
3. Is YA fiction representative of the post-Rushdie era where literature is just another cultural artifact that obeys the dictates of the global economy?

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Portrayal of Mental Illness: Misrepresentations in Cinema

Dr. Madhu Rai

Introduction: Since the beginning of 20th century, the silver screen has featured many images related to mental illness. Hollywood has been fascinated with topics related to psychiatric conditions. Research has shown that media is the main source of public information about mental illness (Coverdale et. al, 2002).For better or worse, the media, including films, shapes our ideas and ways in which we understand those around us. Inaccurate information in the media, even if it is positive, results in misunderstandings. For example, inaccurate depictions of schizophrenia which is often confused in the cinema with multiple personality disorder can lead to false beliefs, confusion, conflict and a delay in receiving treatment.

Wrong portrayal of mental illness and psychotherapy has far-reaching results. Inaccurate depictions fuel stigma and may prevent people from seeking help.

"There are people out there who could benefit from therapy but don't go because they think it's just for 'crazy' people or think all therapists are nuts — because that's what they see in the media," said Ryan Howes, Ph.D, a psychologist, writer and professor in Pasadena, California.

When a tragic or violent act happens, the news media tends to exaggerate mental illness and depict it negatively, according to Jeffrey Sumber, MA, a Chicago psychotherapist, author and teacher.

All forms of media i.e. films, internet, TV, print media have covered mental illness topics extensively. One is presently running on Star World "The Monk" where Mr. Monk, the investigator, is suffering with OCD. Another popular TV serial was "Homeland" where special agent Carrie was shown to have bipolar disorder.

"One Flew over the Cuckoo's Nest" produced in Hollywood was the first movie which generated lot of public interest and also anxiety because it questioned the issue of same treatment modality irrespective of the diagnoses. Jack Nicholson won an Oscar for his portrayal of mentally ill.

As far as portrayal of illness is concerned it has been over dramatic and mostly negative in nature. People with schizophrenia, bipolar disorder, multiple personality disorder etc have been shown as unpredictable, untrustworthy, violent and criminal in nature.

In the present paper some of these issues are highlighted by reviewing the literature and doing content analyses of 20- contemporary movies.

Review of literature: Many studies have explored the on screen portrayal of people with mental illness. Overwhelmingly, studies in this area have shown that such portrayal is negative in nature and it perpetuates myths and stereotypes about mental illness. Various 'framing' techniques are used to indicate that characters with mental illness are different than other characters. Filmic devices such as the individual point of view, close-up shots, discordant music, atmospheric lighting and setting selection are frequently employed (Sieff, 2003; Hyler, 1991; Wilson et al, 1999; Rose, 1998; McDonald, 2001).

Terms such as "crazy", "mad", "losing your mind", "psycho", "deranged", "wacko", "loony" is often used by other characters in reference to the character in question(Wilson,2000; Goldstein, 1979).

Negative portrayals and misrepresentations have been classified by Hyler et al (1991). One misrepresentation is homicidal maniac who, in movies, is responsible for murder, rape, robbery and assault. This rate is much higher than occurs in real life (Condren, 2000; Wilson, 1999; Diefenback, 1995, Rose, 1998; Wahl, 1982; McDonald, 2001; Fruth, 1989). Classic film examples of this stereotyping are The Maniac Cook (1909), Psycho (1960) and The Exorcist (1973).

According to literature, fictional portrayals of mental illness in film are also often presented in a manner that fosters misconceptions about specific disorders. Key examples are dissociative identity disorder, gender identity disorder and anterograde amnesia, featured in films like The three faces of eve (1957), Psycho (1960) and Memento (2000), respectively (Fearing, 1946; Greenberg, 2003; Diefenbach, 1995; Diefenbach, 1997).

While the media easily pins the blame for violent acts on mental illness, a closer look often reveals that many confounding factors such as social class or substance abuse are likely to form the connection to violence, Ketteringham (2011) maintained. He added that many studies connecting violence and mental illness have suffered from selection bias because they draw from populations of jail inmates or from psychiatric patients. However, the latter is only a subset of the mentally ill population and not representative of people with mental illness as a whole.

Present Study:

Objectives:

1. To study portrayal of mental illness in cinema.

2. To study whether portrayal is correct, exaggerated and /or negative in nature.

Hypothesis 1: People with mental illness are wrongly portrayed in cinema as violent & dangerous.

Hypothesis – 2: Cinema encourages gender stereotyping in depicting mentally ill

Method: Content analysis of 20-contemporary Hollywood films with at least one main character suffering with mental illness was done. Review of literature on mental illness portrayed in films was compared with actual data.

List of 20-movies: Sucker Punch, Memento, Aviator, Silver Linings Playbook, Secret Window, Shutter Island,Girl, Interrupted,A Beautiful Mind,Psycho ,Silence of the Lambs,The Cell,Matchstick Men ,American Psycho,Black Swan, Donnie Darko ,One Flew Over the Cuckoo's Nest,Requiem for a Dream,Prozac Nation,88 Minutes and We Need to Talk About Kevin.

Results:

Hypothesis-1: Mental illness and violence in movies

After content analyzing twenty films it was found that

- Ø 65% movies showed violent behavior toward others
- Ø 40% inflicted some form of self-harm
- Ø 20% movies showing homicidal behavior
- Ø 20% committed suicide during the story

Patricia Owen (Psychiatric Services, July) of the psychology department at St. Mary's University in San Antonio, Texas, reviewed 41 English-language films released between 1990 and 2010 that featured at least one main character with mental illness.

Owen found that 83 percent of those characters were portrayed as dangerous or violent to others or themselves. Almost one-third engaged in homicidal behaviour, and one-quarter committed suicide.

Some very violent movies that I analysed were The Manic Cook (1909), Psycho (1960), Silence of the Lambs (1991) and Secret Window (2004).

According to Centre for Mental Health and Media at Massachusetts General Hospital Department of Psychiatry "mentally ill people are more likely to be victims than perpetrators of violence."

Research found that mental illness alone doesn't predict violent behaviour (Elbogen & Johnson, 2009). Other variables—including substance abuse, demographic variables (e.g., sex, age) and the presence of stressors (e.g., unemployment)—also play a role.

Substance use disorders have increased the risk of a violent incident. Holcomb (2002) found that patients with alcohol or drug use had more arrests over their lifetime than patients with schizophrenia, personality disorders, or affective disorders.

Hypothesis-2: Gender stereotyping

Out of 20-movies 16 movies i.e. 80% had males as main characters suffering with mental illness. In another study conducted in Texas it was found that out of 40 reviewed movies 79% were males playing the lead role of mentally ill and 95% were whites.

Actual research findings for women being more mentally ill than men are many. The Guardian **(**James Ball**,** a clinical psychologist at Oxford University, 2005) found that women are 40% more likely than men to develop mental illness.

Conclusion:

In the present study it was found that most of the movies (65%) showed that mentally ill were violent people. According to the U.S. National Institute of Mental Health, the risk of violence is small among people with schizophrenia. “Studies have found that dangerousness/ crime is the most common theme of stories on mental illness,” said Cheryl K. Olson, Sc.D., co-director of the Centre for Mental Health and Media at Massachusetts General Hospital Department of Psychiatry.

But research suggests that mentally ill people are more likely to be victims than perpetrators of violence. Also, recent research found that mental illness alone doesn’t predict violent behavior (Elbogen & Johnson, 2009). Other variables—including substance abuse, history of violence, demographic variables (e.g., sex, age) and the presence of stressors (e.g., unemployment)—also play a role.

Therefore it can be concluded that individuals with mental illness, when appropriately treated, do not pose any increased risk of violence

over the general population. Violence may be more of an issue in patients diagnosed with personality disorders and substance dependence. The overall impact of mental illness as a factor in the violence that occurs in society as a whole appears to be overemphasized, possibly intensifying the stigma already surrounding psychiatric disorders. Violence and mental illness are not without connection, however, as they share many biologic and psychosocial aspects. (Marie E. Rueve, and Randon S. Welton, 2008)

As for second hypothesis, in the present study it was found that 80% movies had male characters suffering with mental illness. According to WHO there are no consistent gender differences in prevalence rates for severe mental disorders such as schizophrenia and bipolar disorder. For depression and anxiety there are large gender differences. Women are likely to suffer more with such disorders than men.

Gender and Depression

Unipolar or major depression occurs approximately twice as often in women. Depression and anxiety are the most common comorbid disorders and a significant gender difference exists in the rate of comorbidity (Linzer et al., 1996).

Depression is more common in women than men. 1 in 4 women will require treatment for depression at some time, compared to 1 in 10 men. The reasons for this are unclear, but are thought to be due to both social and biological factors. (National Institute for Clinical Excellence, 2003)

According to Freeman's study, women are approximately 75% more likely than men to report having recently suffered from depression, and around 60% more likely to report an anxiety disorder.

Women also have significantly higher rates of post traumatic stress disorder (PTSD) than men (Kessler et al, 1995).

General population surveys have reported that around 1 in every 12 adults experiences PTSD at some time in their lives and women's risk of developing PTSD following exposure to trauma is approximately twofold higher than men's (Breslau et al, 1998), and thus paralleling the difference found in rates of depression.

Women are twice as likely to experience anxiety as men. Of people with phobias or OCD, about 60% are female. (The Office for National Statistics Psychiatric Morbidity report, 2001)

Men are more likely than women to have an alcohol or drug problem and also ADHD (The Office for National Statistics Psychiatric Morbidity report, 2001) Women are more likely to have been treated for a mental health problem than men (29% compared to 17%).This could be because, when asked, women are more likely to report symptoms of common mental health problems. (Better Or Worse: A Longitudinal Study Of The Mental Health Of Adults In Great Britain, National Statistics, 2003).

Hence, it can be concluded that there is misrepresentation in cinema as far as gender stereotyping is concerned.

Some Observations:

Depiction of Psychotherapists:

Gabbard (2001) concluded that psychiatrists are ridiculed, demonized and mocked. Other professions are negatively stereotyped in the movies such as corrupt politician, chubby donut loving cop, dishonest lawyer, but the psychology profession suffers the most from on-screen portrayals. The first movie psychiatrist appeared in 1906 in a film called *Dr. Dippy's Sanitarium*. Where psychotherapist is shown as bearded, incompetent, and often clownish who sometimes acted "crazier" than his patients.

They are also shown as neurotic, rigid, comically inept, uncaring, self-absorbed, foolish and idiotic.

Treatment methods (ECT):

In one study by McDonald & Walter (2009) after reviewing 22 Hollywood films found that on-screen ECT has very little in common with the actual procedure. Recent movies have turned ECT into an institutional device to control or punish patients who do not follow norms. Many viewers, who gain knowledge from films, responded that ECT is torture and cruel method to control patients. One flew over the cuckoo's nest featured a scene which became famous for its depiction of ECT. In reality ECT is given under mild sedation along with a muscle relaxant.

Causes of mental illness:

Other movie myths concerning mental illness involve the cause of mental disorders. Firstly, films depict mental illness as the result of earlier traumatic experiences, or the product of a dysfunctional relationship with a cold and aloof parent (Wedding & Niemec, 2003), whereas, it has been established that heredity plays a big role in causation of mental illness.

In the end it can be concluded that misrepresentations of mentally ill as violent, incompetent and bizarre stigmatize mental illness and discourage help seeking and treatment compliance.

In entertainment media's defence it can be said that their primary job is to entertain and not to educate but society will benefit a lot if they portray mental disorder more responsibly.

Limitations of the study:

1. Twenty movies are not enough, more movies should be analyzed.
2. Only Hollywood movies were reviewed.

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ISIS and the Crisis in Syria

Janine Coelho

This paper traces the growth of ISIS from its roots in the 1990's to its current ambition to form an orthodox Caliphate. I will also briefly outline the history of Syria in order to understand the ISIS challenge to the authoritarian Syrian government and the ethnic tensions and Western interests which serve to fuel the current civil war.

Syria

Jordan, Syria, Palestine (and Israel), Lebanon and Iraq, commonly called the Middle East today, form what was once known as the Levant. Syria's capital city Damascus, is one of human civilization's oldest cities dating back to the Neolithic cultures of 10,000 BCE. In fact, the earliest evidence of cattle breeding and language, in this case Eblaite, were found in Syria. Over the millenia, Assyrians, Phoenicians, Greeks, Armenians, Hittites, Romans, Mongols, Umayyads and Mamluks have ruled the region. The majority of the population are Arab Sunni Muslims but significant minorities include Alawaites (Sh'ias), Druze, (Lebanese Sh'ias), Christians, Armenians, Kurds, Yezidis and Turks. In 1516 CE, the Ottoman Turks annexed Syria and each community formed a 'millet' which controlled personal and civil law. In 1831, Ibrahim Pasha of Egypt briefly captured Damascus, bringing in Egyptians to populate the plains and suppressing the native Druze. In 1864, the Ottomans who had reclaimed Syria, introduced the Tanzimat reforms carving out new provinces.

Broken Promises

By the end of the 19th century, the Ottoman Empire was fast crumbling and Syrians and other Arabs wanted to be free of the empire. Six weeks before the Ottoman Empire entered World War I, Lord Kitchener, British Minister of War, approached Sharief Hussein in Mecca to enlist Arab support for the Allies against the Ottomans. The British hinted that they would support Sharief Hussein as Grand Sharief of

Mecca and in future an Arab Caliphate was a possibility. This hint was also dropped to Ibn Saud of Nejd and all but confirmed by MacMohan in his letter dated October 24, 1915. The British subsequently declared that they had never clarified that the Syrian Mediterranean, Allepo and Lebanon would be included in this Arab state. In fact, whilst dropping these broad hints to secure Arab support, the British and French were actually secretly deciding how they would share out the Ottoman territories after World War I ended. This secret Sykes-Picot Agreement of 1916 in fact allowed Britian and France to fix the borders of modern Syria, but the plan was hidden. Unaware, the Arabs kept their part of the deal and revolted under Sharief Hussein against the Ottomans in June 1916. By November, his supporters were calling Hussein the 'King of the Arab Countries'.

Naturally, the Levant populations were bitterly disappointed when they were hustled into British and French Mandates after the Great War. Anti-British and anti-French sentiments were running high and thus the French, in charge of Syria, declared the Hashemite King Faisal I as king of Syria in 1920 hoping to placate the local population. But rebellions broke out with startling regularity and thus in 1936; the French-Syrian Treaty of Independence was signed. But the French parliament refused to ratify the treaty and in 1941, with World War II in progress, Free French and British troops occupied Syria. Finally in 1946, international pressure forced France to grant Syria independence.

But instability raged on. The creation of the Jewish state of Israel in the British mandated Palestine added to the volatility of the region as local populations grappled with unaccustomed borders and often un-popular kings. Between 1948 and 1954 Syria saw 4 coups, some military backed. In 1956 with Nasser's Arab Nationalism sweeping the Arab world, Syria drew closer to Egypt and her newest ally, the USSR. In 1958, Syria joined the Nasser sponsored United Arab Republic. This not only upset Western Allies but within Syria, opposition to the Egyptian dominated UAR grew in the form of the

Ba'at Party and in 1963, the Ba'atists siezed power. Syria faced more upheavals as Israel siezed the Golan Heights from her and faced defeat by Israel in the Yom Kippur War of 1976. In retaliation, Syria actively supported the Palestine Liberation Organization and annoyed her neighbour Lebanon by seizing territory under the excuse of defending it from Israel. These failures along with a Socialist leaning policy earned the Ba'at government in Syria and other Arab states Islamist critics who considered these policies and friendship with the communist USSR as un-Islamic. This religious opposition crystallized in the form of the Muslim Brotherhood formed in the 1970's.

Dictatorship and dissent

In 1971, Hafez al Assad, a Ba'athist of the minority Shi'a Alawite community came to power in Syria un-opposed in a Presidential election. To appease Muslim opposition, al Assad granted important government posts to Sunnis went on Haj and often used the term 'Jihad' while rallying support against Israel. He got rid of his other Ba'at opponents and called his government the National Progressive Front. He was re-elected unopposed every 7 years and remained dictator of Syria for 37 years. Yet, his 1973 constitution was deemed "un-Islamic" especially by many Sunni Arabs and the Muslim Brotherhood led several rebellions against him. The minority Alawite community, to which he belonged, became the target of attacks and in 1980 there was a bid to assassinate him. In retaliation, al Assad unleashed the Syrian army on cities like Hama and Homs and other Muslim Brotherhood areas which were the centres of Islamic protest. He successfully used the army, Alawites, Christian Arabs and the salaried middle class to counterbalance his opponents. His success at damming the Euphrates river greatly increased cultivable land thus earning him important peasant support too.

But elsewhere al Assad's problems were mounting. The Syrian economy was plagued by state control, corruption and smuggling. Partnerships with the collapsing USSR, Egypt, the PLO, Iran (in the

Iran-Iraq War), and adventures in Lebanon proved costly, chronic problems and also resulted in the US bombing of Syria in the 1980's. To cling to power, al Assad announced economic liberalization in 1991 and joined the US sponsored co-alition against Saddam Hussein, but these met with limited success. Also in the 1990's al Assad began building a support base for his son Bashar al Assad (currently President of Syria), to succeed him. After al Assad's death in 2000, Bashar succeded him as dictator-President of Syria.

ISIS (Islamic State Iraq and Syria)

In 1989 Abu Musab al Zarqawi, a Jordanian, gathered a group of fighters to join the US sponsored Mujahideen in Afghanistan. Ever since the USSR spread its communist control over Afghanistan, the US began an unofficial policy of pumping funds and weapons into Islamic militant groups who could, and did, eventually bring down communism in Afghanistan. Once the Soviets were successfully destroyed, these Islamic militant groups trained their guns on the next big obstacle in their quest for power; the USA and her Western Allies. In the late 1990's, Zarqawi was part of a terror camp in Afghanistan where he met Osama bin Ladin and other Mujahideen groups. In 2001 he travelled to Iraq and during the US led Iraq War, he set up the Jamat al Tawhid wal Jihad which attacked mainly Sh'ia Muslims whose power grew as Saddam Hussein was defeated. Ironically, it was Saddam Hussein, Hafez al Assad and other such dictators who had kept Islamist groups in check, but after their fall, jihadi groups including Al Qaeda and ISIS began to operate in these areas. Zarqawi renamed his terror outfit AQI (Al Qaeda Iraq) but though Osama bin Ladin's Al Qaeda considered Sh'ias heretics, it was not happy to see Muslims targetting Muslims.

By 2006 Zarqawi was imposing strict Sharia law in the areas he dominated and proposed himself as the future 'Caliph', in other words, a politico-religious head. But in June 2006, Zarqawi was killed by US bombing. By the end of 2006, the US was desperate to get out of Iraq

and as US co-alition troops began to withdraw, Sunni-Sh'ia hostilities resumed. The US installed Shia dominated government in Iraq repressed Sunnis and left many former Sunni soldiers and officers jobless. Thus AQI returned under Abu Bakr al Bagdadi. Bagdadi renamed his group ISI or Islamic State of Iraq. Besides civilian Sh'ias, the ISI also attacked police and military posts, government buildings etc. Several ex-soldiers of the Saddam regime also joined ISI, turning the organization into a quasi-army. Strenghtened, the ISI moved next door to Syria and soon siezed leadership of popular rebellions against President Bashar al Assad. The group successfully seized control of the city of Homs and re-named itself ISIS, Islamic State of Iraq and Syria, (they also sometimes refer to themselves as ISIL or Islamic State in Levant). It exhorted all 'true' Muslims to do their duty by defeating heretics (in their definition Shi'as, other minorities, Christians and Western powers), and re-establish an Islamic Caliphate. ISIS often employs the historical fact that after World War I, the victorious Allies forced the Ottoman Caliph to abdicate thus ending the Islamic Caliphate. It is their premise, that they are only re-instating what was unfairly taken away and in any case, this new Caliphate will be a truer one since it will be led by Arabs. This then forms not only their call to local Sunni Muslims in Iraq, Syria and the Middle East, but it also serves to recruit jihadis from all over the world. As a result, ISIS set up base in southern Iraq and Syria.

In 2014 President Assad seized Homs back marking the beginning of the current Civil War in Syria but ISIS captured the oil rich city of Mosul and Bagdadi proclaimed himself the Caliph.

ISIS has been bolstered by numerous Mujahedeen fighters from the West and world over, aggressive online recruitment campaigns, ex-Iraqi soldiers and spectacular victories particularly in oil rich areas which assure it finance. It has made a practice out of beheading Western hostages, destroying historical treasures like the city of Palmira and forcing minority women like the Yazedis into slavery.

Since this paper was first researched and presented, ISIS has been commanded by Haji Bakr and has taken control of key cities and oil producing areas including Aleppo, Tikrit, Baiji, Raqqa, al Omar, Shaer, Zumar, Sinjar and Tal Keif. ISIS has claimed responsiblitity for several terrorist attackes in the West culminating in Paris in November 2015. Until then, numerous Shi'a groups like the Hezbollah, minority tribes and the Syrian and Iraqi army were waging what looked like a losing battle against ISIS. Russian attempts to actively help President Bashar and urging other Western Allies to do the same were met with excuses and even criticism. Indeed the USA has not been keen to commit troops in the Middle East so soon after its recent involvement in Afghanistan and Iraq. France, England and other EU nations have been likewise shy of active involvement. But the Paris attacks and the unpresidented refugee crisis seems to have changed this half-hearted response. A resurgent Russia led by Vladimir Putin and a badly stung France have already actively begun supporting the Syrian Army's anti-ISIS campaigns and these already appear to be bearing fruit with significant victories. Western involvement once again raises unresolved questions…can the West afford another (mis)adventure in the Middle East? In the long run, will it strengthen the resolve of jihadi groups to target the West? Is it ethical to prop up a dictator like Bashar al Assad just because ISIS seems a more dangerous threat? Once ISIS is defeated, and it will be in my opinion, when and where in the Middle East will the next jihadi group surface? (That too, in my opinion, is inevitable). These dilemmas have long plagued the Middle East where the potent mix of religion, oil money and violence render longterm settlements and peace a distant dream.

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Three Great Geniuses in the Field of Physics

F. Arland

Introduction:

There are many great stalwarts in Physics, their contribution to the development of Physics and hence to the well-being and progress of mankind is enormous. Mankind shall ever be grateful to the works of these great Physicists for all times. But this paper examines the best three among them. For a moment if we assume these three great giants were non-existent we would still be living in medieval times in this age of the 21st Century.

These three giants are:

1. Galileo Galilei (1564-1642)
2. Sir Isaac Newton (1642-1721)
3. Sir Albert Einstein (1879-1955)

I am talking of a time span of 400 years, each was born in a different environment and with different settings of discoveries at their point of time, where they had to start their work. It is no doubt that as we go down the ladder in time; the latter was at a greater advantage than its predecessor. But the wonders created by each surpassed these advantages and hence each is considered as a genius in his own way.

Galileo Galilei

He was born in Pisa, Italy in 1564. He was the key figure in the scientific revolution in Europe. He advocated the *Heliocentric* Theory of the Solar system proposed by Copernicus. He said that "size matters". He advocated the concept of "free fall" and discovered the law of inertia.

Size Matters:

It is awesome to see how in nature's scaling of area and volume has tremendous impact on the physical characteristics and behaviour of

physical objects (includes very much living beings). Imagine Alice in Wonderland when her size reduces from a few inches to nine feet, how her physical qualities change. When small in dimension she can walk on water, jump many times her height, . As a giant of nine feet she is unable to do the same things. It is all about scaling up or down and bingo you change your physical characteristics from one species to another. Alice of three inches can jump from the Eiffel tower and would still be laughing when she reached the bottom and what about Alice nine feet tall, boom disaster for her! Chances of survival in odd conditions has dramatically changed.

Take a simple formula:

$$\text{Strength} \propto \text{Area and Weight} \propto \text{Volume}$$

$$\frac{Strength}{Volume} \propto \frac{1}{Length}$$

This explains it all.

If in the future we could invent a machine (which is quite possible) which will change our size from minimal (to infinitum) to maximal and vice- versa we will be able to understand bacteria and viruses and then learn how to deal with them. The day this happens man may become free from diseases and may be immortality which has been his dream since he came into creation!!! A wild thought but Physics is that way, it predicts and people of the time laugh and call you insane but generations later, they are regarded as a genius. No wonder Galileo Galilei has received unparalleled recognition in the present century than during his time.

Sir Isaac Newton

He was born in England in the year1642. It was the day Galileo died in Italy, He gave us the " Laws of Motion, Impulse, Momentum. Feeling of Weightlessness" He is regarded as the "Father of Gravity" His Law of Gravitation: $f = g (m_1 \times m_2 / r^2)$

Nature, and Nature's Laws lay hid in Night.
God said, Let Newton be, and all was Light

Alexander Pope

Law of Gravitation:

Strange but true when one genius died in the same year another genius was born. It was nature at its best when it gave Newton to us. I consider Newton as reincarnation of Galileo, for the works that Galileo could not complete Newton did. Astronomy shall ever be grateful to this great son of mankind. Tomorrow if you can afford and are among the lucky to go to Mars, thank Newton. It is not about an apple falling, it had not fallen for the first time, it had been falling for ages before Newton and even today after Newton, but it fell for it to be eaten. Not that Newton might not have eaten the apple, he surely must have done that though no Scientific Journal talks about that and may be my wildest imagination says he might have thought of 'gravity' only after he had eaten the apple.

Take a simple formula:

$$F= G (M_1 X M_2 / r^2)$$

The letter 'G' is very important; it is called the Universal Gravitational constant. That is the beauty of Newton, from a simple explanation to why objects on earth fall towards the center of the earth, he universalized the concept and said that the heavenly bodies (Planets, Satellites,) are all bound by Gravitational forces and it is this Gravitational force which keeps them in their desired orbit. Fantastic!!! Two key points he highlighted - Gravitational force exists between two uncharged bodies and it is always an attractive force in the entire universe. The concept of a "black hole" discovered almost 200 years after Newton is a fantastic tribute to this great giant. A black hole is an entity (body) such that anything inside it never escapes not even light, so when you look inside a black hole (if at all that is possible) we cannot see any events occurring inside the black hole since even light

cannot escape from a black hole. Things away from the black hole are as normal. If the Sun collapsed to form a black hole, the orbits of the planets would be unaffected. Can earth ever become a black hole?

Sir Albert Einstein

He gave us the concept of the fourth dimension. Mass is relative, as an object moves it becomes heavy. Light has no weight, it is not continuous, and it is made up of photons. Photons are never at rest. They have no mass, only energy. The **highest speed in the universe is the speed of light.** Newton **could not** explain the concept of Gravity, it was explained by Einstein. He also gave us the concept of the 'black hole'.

Concept of Gravity and Light

It is true that Sir Isaac Newton discovered gravity but could not explain how gravity works. For almost 200 years scientists did not dare question Newton about how gravity works because they were mesmerized by his discoveries, but Newton knew one thing and that was, he did not know how gravity works. Imagine one fine day if the Sun evaporates, Newton believed that the planets would instantly move away from their orbits and wander in space. Albert Einstein at the age of 26, was working on properties of light and came to the conclusion that the highest speed in the Universe is the speed of light. Nothing in the Universe can travel faster than the speed of light. It takes 8 minutes for sunlight to reach the earth's surface covering a distance of approximately 150 million km. So there is no question that gravity would disappear instantaneously as thought by Newton, because gravity cannot travel faster than light.

So Einstein laid the foundation of the 'space time' concept, where space is three dimensional and time being the fourth dimension. When the heavenly bodies did not exist the 'space time' geometry was like that of a surface, straight with no curvature. When we bring in the Sun, it creates a curvature in the network of space time and then due

to this curvature heavenly bodies (like planets) starts moving along the curvature and follows their path in orbit. This is gravity. So when one fine day when the Sun will evaporate completely this curvature will slowly unfold just like ripples on the surface of water in a pond when a small pebble is dropped in it. This ripple travels with the speed of light and when it reaches the earth after 8 minutes after the Sun has evaporated the earth will then move away from its orbit and wanders in space. This is indeed amark of supreme genius.

Mass is not constant and time slows with speed

Einstein showed that mass is not a constant but increases with speed of the body; a striking contradiction to Newton's concept who thought that mass was always constant. Another brilliance of Einstein was his concept of time. He said time is not constant, it slows with speed. Scientists of different countries have proved this fact by the use of atomic clocks, one situated on earth and the other in an aircraft taken over different places. He found that the clock in motion runs slower as compared to the one at rest, relative to the earth.

This conclusively led to Einstein to formulate his theory that, "***Time is an Illusion: Past, Present and Future all exist together".***

Finally time is assumed to be unidirectional and it appears to be flowing like a river always forward. We talk about "Time's arrow". But is it true? Can we go back in time? According to Physics there is no reason why time should not go back. All equations suggest so. Even Einstein equations about time say so. It is possible to go into the future, nature allows it. Why is it that the same nature does not allow us to go back? For this we have to go to the beginning of time - the BIG BANG!!! That is the starting of time, before that nothing existed. At the BIG BANG everything was ordered and there existed an absolute perfect order of things. After the BIG BANG everything blew up and became chaotic and random. With passage of time this randomness is ever increasing, that is entropy is ever increasing, it simply means that the Universe is expanding and disintegrating, adding

to randomness. That is nature is moving towards expansion and disorientation and going back means adding order to randomness which nature will not allow at any cost. So time cannot be reversed? Presently yes, but if we can force a tunnel between two time events then as predicted by Einstein's Theory of Relativity we can move behind in time and may meet and enjoy with our forefathers. Till that time comes we will move forward in time and look to the future and not to the past, for the elders say you cannot change your past but you can change your future, although Einstein and I don't fully agree with that!!!

Conclusion:

In this presentation I have put scientific facts before you, theoretically suggested and experimentally proven. I have also demonstrated certain concepts related with gravity, the black hole and time. The three great giants of Physics Galileo Galilei, Sir Isaac Newton and Sir Albert Einstein have revealed many secrets of nature and have shown that laws of nature can not only be known, but can be used to predict the future if complete information was available about the present state of light and matter.

I conclude the presentation with an open-ended question:

No Physicist has ever "seen" an electron, yet all Physicists believe in the existence of electrons.

An intelligent but superstitious man advances his analogy to argue that 'ghosts' exist even though no one has seen one.

How would you refute his argument?

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Attempt to Explain Nature

N. Shukla

History of Atomic Theory

In The Beginning

Actually, the thought about electricity came before atoms. In about 600 B.C. Thales of Miletus discovered that a piece of amber, after rubbing it with fur, attracts bits of hair and feathers and other light objects. He suggested that this mysterious force came from the amber. Thales, however, did not connect this force with any atomic particle.

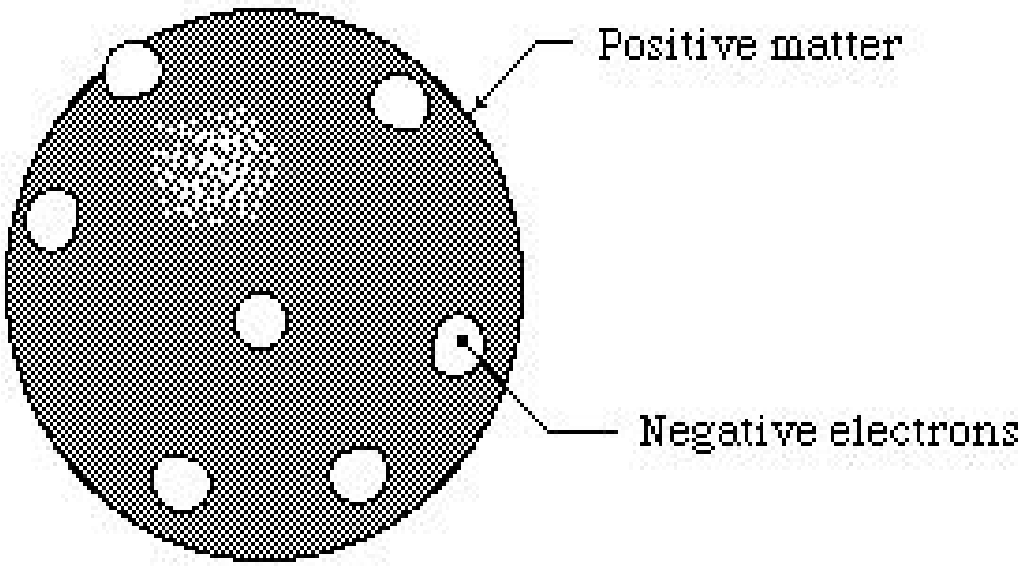
Not until around 460 B.C., did a Greek philosopher, Democritus, develop the idea of atoms. He asked this question: If you break a piece of matter in half, and then break it in half again, how many breaks will you have to make before you can break it no further? Democritus thought that it ended at some point, a smallest possible bit of matter. He called these basic matter particles, atoms.

Unfortunately, the atomic ideas of Democritus had no lasting effects on other Greek philosophers, including Aristotle. In fact, Aristotle dismissed the atomic idea as worthless. People considered Aristotle's opinions very important and if Aristotle thought the atomic idea had no merit, then most other people thought the same too. (Primates have great mimicking ability.)

For more than 2000 years nobody did anything to continue the explorations that the Greeks had started into the nature of matter. Not until the early 1800's did people begin again to question the structure of matter.

John Dalton and Atoms

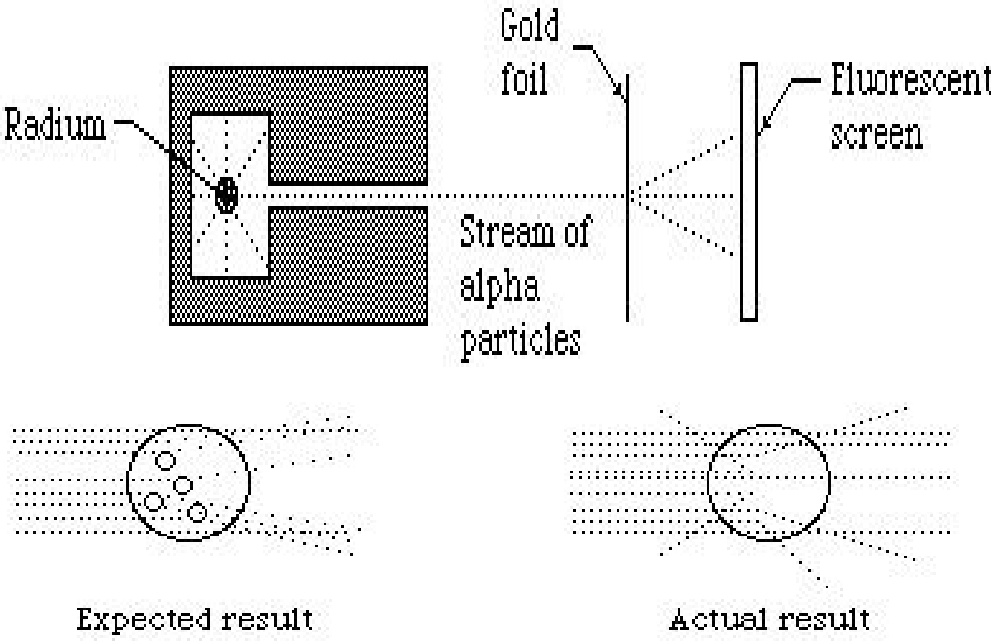
In the 1800's an English chemist, John Dalton performed experiments with various chemicals that showed that matter, indeed, seem to consist



of elementary lumpy particles (atoms). Although he did not know about their structure, he knew that the evidence pointed to something fundamental. Dalton went on to say that matter is made up of tiny particles, called atoms, that cannot be divided into smaller pieces and cannot be destroyed. He also stated that all atoms of the same element will be exactly the same and that atoms of different elements can combine to form compounds. The really awesome thing about Dalton's model of the atom is that he came up with it without ever seeing the atom! He had no concept of protons, neutrons or electrons. His model was created solely on experiments that were macroscopic, or seen with the unaided eye.

Thomson and the Discovery of Electrons

Now, let's fast-forward to the late 1800s when J.J. Thomson discovered the electron. Thomson used what was called a cathode ray tube, or an electron gun. You've probably seen a cathode ray tube without even knowing it! They are the bulky electronic part of old television sets. Thomson used the cathode ray tube with a magnet and discovered that the green beam it produced was made up of negatively charged material. He performed many experiments and found that the mass of one of these particles was almost 2,000 times lighter than a hydrogen



atom. From this he decided that these particles must have come from somewhere within the atom and that Dalton was incorrect in stating that atoms cannot be divided into smaller pieces. Thomson went one step further and determined that these negatively charged electrons needed something positive to balance them out. So, he determined that they were surrounded by positively-charged material. This became known as the 'plum pudding' model of the atom. The negatively charged plums were surrounded by positively charged pudding.

Rutherford and the Nucleus

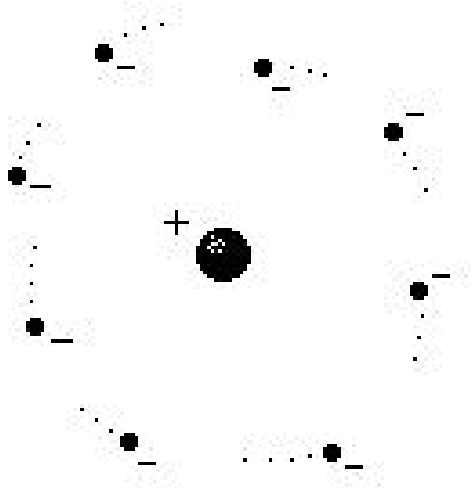
A few years later, Ernest Rutherford, one of Thomson's students, did some tests on Thomson's plum pudding model. The members of his lab fired a beam of positively charged particles called alpha particles at a very thin sheet of gold foil. (Later on you will learn that alpha particles are really just the nuclei of helium atoms.) Because these alpha particles had so much mass, he fully expected that all of the alpha particles would go right through the gold foil. This is because, if Thomson were correct about the plum pudding model of the atom,

the alpha particles would just go through the positively charged matter and hit the detecting screen on the other side.

You have around 7 billion billion billion atoms in your body, yet you replace about 98% of them every year!

The results of the experiments came unexpected. Most of the alpha particles went smoothly through the foil. Only an occasional alpha veered sharply from its original path, sometimes bouncing straight back from the foil! Rutherford reasoned that they must get scattered by tiny bits of positively charged matter. Most of the space around these positive centers had nothing in them. He thought that the electrons must exist somewhere within this empty space. Rutherford thought that the negative electrons orbited a positive center in a manner like the solar system where the planets orbit the sun.

Rutherford knew that atoms consist of a compact positively charged nucleus, around which circulate negative electrons at a relatively large distance. The nucleus occupies less than one thousand million millionths (10) of the atomic volume, but contains almost all of the atom's mass. If an atom had the size of the earth, the nucleus would have the size of a football stadium.



But there appeared something terribly wrong with Rutherford's model of the atom. The theory of electricity and magnetism predicted that opposite charges attract each other and the electrons should gradually lose energy and spiral inward. Moreover, physicists reasoned that the atoms should give off a rainbow of colors as they do so. But no experiment could verify this rainbow.

Niel-bohrs Atomic Model

In 1912 a Danish physicist, Niels Bohr came up with a theory that said the electrons do not spiral into the nucleus and came up with some rules for what does happen. (This began a new approach to science because for the first time rules had to fit the observation regardless of how they conflicted with the theories of the time.)

Bohr said, "Here's some rules that seem impossible, but they describe the way atoms operate, so let's pretend they're correct and use them." Bohr came up with two rules which agreed with experiment:

RULE 1: Electrons can orbit only at certain allowed distances from the nucleus.

RULE 2: Atoms radiate energy when an electron jumps from a higher-energy orbit to a lower-energy orbit. Also, an atom absorbs energy when an electron gets boosted from a low-energy orbit to a high-energy orbit.

Quantum Theory

Although the mathematical concept of the atom got better, the visual concept of the atom got worse. Regardless, even simplistic visual models can still prove useful. Chemists usually describe the atom as a simple solar system model similar to Bohr's model but without the different orbit shapes. The important emphasis for chemistry attempts to show the groupings of electrons in orbital shells. (The example above shows the first eleven elements.)

Chemical behavior of the elements combine together to create molecules. Molecules may share electrons as the hydrogen and water molecules above illustrates. (Atoms which share electrons have the name “ions.”) The outer electron shell of an atom actually does the sharing and bonding of the atoms. This in turn allows chemists to describe the interactions of chemistry. Even though the orbit model of the atom does not provide an accurate model, it works well for describing chemistry.

A mystery of the nature of the nucleus remained unsolved. The nucleus contains most of the atom’s mass as well as the positive charge. The protons supposedly accounted for this mass. However, a nucleus with twice the charge of another should have twice the number of protons and twice the mass. But this did not prove correct. Rutherford speculated in 1920 that there existed electrically neutral particles with the protons that make up the missing mass but no one accepted his idea at the time.

Not until 1932 did the English physicist James Chadwick finally discover the neutron. He found it to measure slightly heavier than the proton with a mass of 1840 electrons and with no charge (neutral). The proton-neutron together, received the name, “nucleon.”

Although scientists knew that atoms of a particular element have the same number of protons, they discovered that some of these atoms have slightly different masses. They concluded that the variations in mass result, more or less, from the number of neutrons in the nucleus of the atom. Atoms of an element having the same atomic number but different atomic masses get called “isotopes” of that element.

In 1928, Paul Dirac produced equations which predicted an unthinkable thing at the time- a positive charged electron. He did not accept his own theory at the time. In 1932 in experiments with cosmic rays, Carl Anderson discovered the anti-electron, which proved Dirac’s equations. Physicists call it the positron.

For each variety of matter there should exist a corresponding ‘opposite’ or antimatter. Physicists now know that antimatter exists. However, because matter and antimatter annihilates whenever they come in contact, it does not stay around for very long. (By the way, an unsolved problem remains as to why the universe consists of mostly regular matter and not an equal amount of antimatter. Physicists’ call this “symmetry breaking”.)

There exists not only anti-electrons but in 1955, physicists found the anti-proton and later the anti-neutron. This allows the existence for anti-atoms, a true form of antimatter.

When scientists found out about the atomic nucleus, they questioned why the positively charged protons should remain so close without repelling. The scientists realized that there must exist new forces at work and the secrets must lie within the nucleus. They knew that the force which holds the protons together must occur much stronger than the electromagnetic force and that the force must act over very small distances (otherwise they would have noticed this force in interactions between the nucleus and the outer electrons).

In 1932, Werner Heisenberg concluded that charged particles bounce photons of light back and forth between them. This exchange of photons provides a way for the electromagnetic forces to act between the particles. The theory says that a proton shoots a photon at the electron, and the electron shoots a photon back at the proton. These photon exchanges go on all the time, very rapidly. However, because no one can see them (measure them), Heisenberg called these exchange particles, virtual photons. (Virtual meaning, not exactly ‘real’.)

In 1935 a Japanese physicist, Hideki Yukawa, suggested that exchange forces might also describe the strong force between nucleons. However, virtual photons did not have enough strength for this force, so he thought that there must exist a new kind of virtual particle. Yukawa used Heisenberg’s uncertainty principle to explain that a virtual particle could exist for an extremely small fraction of a second. Since

its time of existence occurs nearly exactly, there would occur a great uncertainty in the energy of the virtual particle. This uncertainty allowed the particles to exist very strongly only at certain times and the particles could slip in and out of existence. He also calculated that these particles should be about 250 times as heavy as an electron. Later, in 1947, the physicist Cecil F. Powell detected this particle and called it the "pion."

GOD PARTICLE

The "God particle" is the nickname of a subatomic particle called the Higgs boson. In layman's terms, different subatomic particles are responsible for giving matter different properties. One of the most mysterious and important properties is mass. Some particles, like protons and neutrons, have mass. Others, like photons, do not. The Higgs boson, or "God particle," is believed to be the particle which gives mass to matter. The "God particle" nickname grew out of the long, drawn-out struggles of physicists to find this elusive piece of the cosmic puzzle. What follows is a very brief, very simplified explanation of how the Higgs boson fits into modern physics, and how science is attempting to study it.

The "standard model" of particle physics is a system that attempts to describe the forces, components, and reactions of the basic particles that make up matter. It not only deals with atoms and their components, but the pieces that compose some subatomic particles. This model does have some major gaps, including gravity, and some experimental contradictions. The standard model is still a very good method of understanding particle physics, and it continues to improve. The model predicts that there are certain elementary particles even smaller than protons and neutrons. As of the date of this writing, the only particle predicted by the model which has not been experimentally verified is the "Higgs boson," jokingly referred to as the "God particle."

Each of the subatomic particles contributes to the forces that cause all matter interactions. One of the most important, but least understood, aspects of matter is mass. Science is not entirely sure why some

particles seem mass-less, like photons, and others are “massive.” The standard model predicts that there is an elementary particle, the Higgs boson, which would produce the effect of mass. Confirmation of the Higgs boson would be a major milestone in our understanding of physics.

The “God particle” nickname actually arose when the book *The God Particle: If the Universe Is the Answer, What Is the Question?* by Leon Lederman was published. Since then, it’s taken on a life of its own, in part because of the monumental questions about matter that the God particle might be able to answer. The man who first proposed the Higgs boson’s existence, Peter Higgs, isn’t all that amused by the nickname “God particle,” as he’s an avowed atheist. All the same, there isn’t really any religious intention behind the nickname.

Currently, efforts are under way to confirm the Higgs boson using the Large Hadron Collider, a particle accelerator in Switzerland, which should be able to confirm or refute the existence of the God particle. As with any scientific discovery, God’s amazing creation becomes more and more impressive as we learn more about it. Either result—that the Higgs boson exists, or does not exist—represents a step forward in human knowledge and another step forward in our appreciation of God’s awe-inspiring universe. Whether or not there is a “God particle,” we know this about Christ: “For by him all things were created: things in heaven and on earth, visible and invisible ... all things were created by him and for him” (Colossians 1:16).

Conclusion

While whole-heartedly congratulating the Physicists teams – for their extraordinary discovery – and wishing them greater successes in unraveling the mysteries of the Universe - we also need to look at the huge super structure we are building on the Big Bang Theory. Whether the Big Bang is, or is not a Fact – we will never know. What caused, if at all, the Big Bang, and how and why, are not easily explainable.

There just can't be a reaction without an action – and the action itself is a reaction, which needs another action. This chain never ends in any distant past – even if we take it past any number of billions of years. Nor will it ever end in the future, after any number of billions of years.

We can explain movement, gravitation, mass, no-mass, light, heat, sound, touch, smell, change and so on – in absolutely scientific terms. But, can we put them together and explain INTELLIGENCE?

Can we really explain what intelligence is? Can we explain a consciousness which at least pervades human beings?

If Human Beings do have intelligence (and the five senses to receive and record it to some extent), what prevents Earth, Sun, and Galaxies from having extraordinary levels of intelligence – of which we get an infinitesimally small part each – from them? Yes. They give all the intelligence to us – if physical particles, however minute, are the only things we are made up of. And, the Big Bang theory tells us JUST THAT.

In relation to these huge moving masses in the sky – aren't we like the white or red cells in the human body? The cells don't know why they do, what they do. But they do them all the same. Therefore we are alive as human beings. There is obviously a clock work installed within us, and within them, which takes us from birth to death, through a fixed linear path, unless we end the path foolishly midway.

The Indian thinking on all this is wrongly concluded as RELIGION – but it is not religion; it is not mere faith. It is absolute science. What the West does in the outer world, the Indian scientists had done partly in outer world – but mostly in the inner world.

There is no need for blind faith in any of this; each person can prove the ultimate riddle of this Universe and the riddle of creation as such, to himself.

But the search in outer cosmos, will never take us to the end; the ultimate goal. We will never discover anything one hundred percent even about one atom, no, not even about one Higgs Boson particle. The search will be endless. In due course of time, the Higgs Boson Particles will, without an iota of doubt, reveal further sub-sub-sub atomic particles within them.

If anything exists in physical form – it is made up of PARTS.

It can't be otherwise. Its minuteness is immaterial and does not alter this rule. Does it mean, the search is useless? No. Not at all. The external search must continue. It happened in ancient India too.

But, the inner search, a search in a space-less space within us, in the innermost recesses of the Individual, hides the most precious secrets of the world. Search for Intelligence – not just for mass, not for gravitation, not for physical properties. Search for an awareness that pervades the Individual and the entire Universe.

Indian sciences firmly say – that all that is outside of us – is also equally within us in miniature form. The whole Universe is in us in miniature form.

It is a fact that – in the external world, the Bosons, Photons, Electrons, Atoms, the whole earth, the Sun, the whole Galaxy will all fold back into a nothingness some time in future – and then come up again in some form . We do have some proof now that these do disappear into nothingness. It is happening to some star in the cosmos all the time.

Likewise- human beings come up, grow, play, and disappear all the time.

People are willing to believe either science or even religion – which has come up in the last 2000-3000 years. But not earlier than that! Science which had sprung up in Ancient India is looked at with suspicion – and not with absolute scientific spirit. People are unwilling to think straightly - and admit that huge body of scientific knowledge could have come up several lakhs of years back – when the world looked different; and extraordinary levels of scientific spirit was available in India. It had extraordinary levels of knowledge and wisdom even then – which is extremely useful to humanity now.

Today-we simultaneously believe both the Big Bang theory and the 7-Day creation theory. Likewise, we simultaneously believe the Human evolution theory as in Adam-and-Eve story and the Darwinian hypotheses. Aren't we excellent, highly adjusted split personalities?

We do not know who we are; yet, we know, by birth that we are going to a heaven, where we don't know what we will be doing. They don't reform the most glaring FALSITIES in them – as long as we remain mere believers.

At the same time, science co-existed with religion all the time. It was more so in India. The Indian religions do exist partly for the faithful. But, it also provides a huge opportunity for the explorer, for one who is willing to transform himself into a Powerhouse of Intelligence and awareness.

The Inner science that India promoted so perfectly - is more important to us today - than the outer science – and more beneficial too. It is also the shortest route – to more important facts about the Universe. Instead of "split-split-split –And see"; the Inner science takes us to Join-Join-Join-and become one with it.

India may produce a Satyendra Nath Bose – or many such, for the outer search too; but the inner science is India's Forte. India has a lot to achieve in this respect. The world has a lot to gain from it.

Ignoring this takes the world nowhere.

The Inner science is the easiest path to the finest of truths.

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Relationship between Spirituality, Religion and Spiritual Intelligence: Intelligence of the 21st century (A Comparative Analysis)

Sharmila Dhote

Introduction:

For long, the world gave much importance to Intelligence Quotient. The higher the figure, the belief went, the greater the intelligence. This attitude is a legacy of the early 20th century when psychologists devised tests to measure intelligence. These tests primarily measured intellectual or rational intelligence (used to solve logical problems).

In mid-1990s, Daniel Goleman revealed findings in neuroscience and psychology that stressed the importance of Emotional Quotient (EQ). This makes us aware of our feelings and that of others. Goleman argued that EQ was a basic requirement for the use of IQ. If the areas of our brain that feel are damaged, our ability to think effectively is diminished.

In 2000, however, authors Dana Zohar and Ian Marshall introduced a new dimension to human intelligence namely, SpiritualQuotient (or SQ), the ultimate intelligence. This is the intelligence used to solve problems of meaning and value. “Is my job giving me the fulfillment I seek?” “Am I relating to the people in my life in a way that contributes to their happiness and mine?” Answers to these questions determine whether we will find happiness or not. IQ and EQ are inadequate in such issues.

IQ and EQ give way to spiritual intelligence, the ultimate intelligence that can add value and meaning to your life.

Definitions Of Spiritual Intelligence

Definitions of spiritual intelligence rely on the concept of spirituality as being distinct from religiosity.

Danah Zohar defined 12 principles underlying spiritual intelligence:

- Self-awareness: Knowing what I believe in and value, and what deeply motivates me.
- Spontaneity: Living in and being responsive to the moment.

Robert Emmons defines spiritual intelligence as "the adaptive use of spiritual information to facilitate everyday problem solving and goal attainment."

Accordingly to **Frances Vaughan**, Spiritual intelligence is concerned with the inner life of mind and spirit and its relationship to being in the world.

Cindy Wigglesworth defines spiritual intelligence as "the ability to act with wisdom and compassion, while maintaining inner and outer peace, regardless of the circumstances."[11] She breaks down the competencies that comprise SQ into 21 skills, arranged into a four quadrant model similar to Daniel Goleman's widely used model of emotional intelligence or EQ.

David B. King defines spiritual intelligence "as a set of adaptive mental capacities based on non-material and transcendent aspects of reality, specifically those that contribute to the awareness, integration, and adaptive application of the nonmaterial and transcendent aspects of one's existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states."

King further proposes four core abilities or capacities of spiritual intelligence.

Vineeth V. Kumar and Manju Mehta have also researched the concept, extensively. Operationalizing the construct, they defined spiritual intelligence as "the capacity of an individual to possess a socially relevant purpose in life by understanding 'self' and having a

high degree of conscience, compassion and commitment to human values."

Differentiating Spirituality and Religion

Definitions of Religion and Spirituality

Religion is defined as a set of beliefs concerning the cause, nature, and purpose of the universe, especially when considered as the creation of a superhuman agency or agencies, usually involving devotional and ritual observances, and often containing a moral code governing the conduct of human affairs. Religion is an important aspect of culture, and norms that govern family pattern variations are often affected by the socio-religious climate in a given society. Religious beliefs mould people's attitudes and ways of behaviour. India is a land of bewildering diversity and a country which is a host to all the conceivable religions and ways of life— Hindus, Muslims, Christians, Sikhs, Buddhists, Jain, Jews, Zoroastrians — some of which were born on this land and others were brought in by trade contracts and the successive political and cultural invasions. They all were assimilated by the people of India.

There are many theories about the relationship between religion and its impact on life from famous and outstanding theorizing in psychology. In this paper the author reviews some of these theories.

Freud's Theory. Freud believed that religious beliefs and rituals rise up from childhood period fears and desires, particularly those related to Oedipus complex- Freud believed that paternal picture of God is the recreation of the same wise and powerful god in child hood period, and for the first time inspires fear and love to a religious individual, as well as, forms his/her attitude toward divinity.

Freud (1910) believed that psychologically "personal god" is nothing more than "the most high father" and the main reason of religiosity relates to long term distress of human's child hood and his need for

help. More over Freud (1913) believed that, the root of any kind of religion rises for loving the father. Absolute resining to the childhood powerful father formed as introverted ego and exposes or extroverted as god leads individual's religious life (Wulff 1998 translated by Dehghani, 2007).

Ericson Eric Ericson (1987), says that religion as a social institute through the history has tried to meet human's "fundamental trust". He says that trust in childhood builds up faith capacity during adulthood. Faith as and a "life need" drives human to accept religion. For a religious person final conflict about integrity is a permanent crisis. This person is always elder than his playmate, parents and teachers or suddenly becomes elder than them and focuses earlier than his age on something that requires a long time of others to think about it or even understand a bit of it(Wulf 1998, translated by dehghani,2007).

Jung: Religious as an Ancient Model process

According to Jung archetypal are various religious symbols. Jung (1938) believed that religion is one of the oldest and the most popular effects of human mind. Jung says that religion is a perception which consists of observing and considering some dynamic factors "power" spirits, devils, laws, thoughts, and ideals.

Gordon Allport (1950) used "religious sense" term to describe and emphasize on individuality in religious experience. He says that "Religious sense is a comprehensive outlook that connects an individual with the entire world meaning fully". Allport used his theory i.e. "An individual's Internal and External Direction against Religion" to study the relationship between racial prejudices and religious direction either socially or psychologically (1987).

Allport's classification of religious direction is concerned as an original theory in religious psychology and is used by psychologist is an efficient theory in studying the cases in which religion has a main role.

Allport divided individuals according to their religion direction in two groups: individuals with internal and external direction. All port believed that the formers internalize the religion and refer to it as end; while the letters have external direction and refer to religion as a means to an end (Allport and Rash)

Fromm (1960) defined religion as: "Any kind of mental and physical action shared by a group and which brings a clear frame work for direction and source for an individual".

Fromm differentiates two types of religion:

Authoritarian religion: Here every body submitting before a dominant power and exchange their freedom, value and integrity with attachment sense protectorate. Those who have an authoritarian attribute the most magnificent personalities to God and unfortunately become weak, while God is an existence full of love, intellectual and justice.

Humanistic Religion: The end in humanistic religion is acquiring a great power not a great weakness. Virtue flourishes by itself not obedience. Fromm believes that religious experience due to unity with the whole and based on a personal attach meant to the world which surrounded by love and thought.

Spirituality is a concept whose definition is a bit more diffuse and with less agreement regarding its meaning.(Love & Talbot, 1999) synthesized a number of definitions of spirituality taken from the literature of theology, social science, and other helping fields (e.g., nursing, counselling, social work).

According to the synthesis, spirituality:is an internal process of seeking personal authenticity, genuineness, and wholeness as an aspect of identity development;

Comparing the Definitions

The main area of overlap is that in both religion and spirituality there is a concern for that which exists **beyond** the corporeal, rational, and

visible universe. Both attempt to provide a means for understanding or knowing that which lies beyond our physical, time-bound world. One aspect of the "beyond" is the notion of a supreme being. In religion, the being or being(s) is identified. In spirituality, there can be an openness to a supreme being, even perhaps a belief that something exists beyond what we can see, but also a tentativeness about just whom or what that is. A spiritually developed religious person may very well identify that entity as **God**. Whereas a spiritually developed nonreligious person may have no means (or no need for that matter) of defining that which lies beyond rational knowing. When discussing spirituality, the term **supernatural** is used explicitly in the sense of that which exists beyond the natural world. Issues of deity and divine power are issues of religion.

Other areas of apparent overlap actually differ in character. One such area is the issue of **action**. Both definitions have a focus in activity. However, in religion the action is embodied in **rituals, prayers**, and exercises, whereas each of the descriptors of spirituality includes words that connote action and movement, including **process, transcending**, developing, deriving, and exploring. Closely related to action is the **static-dynamic** aspect of the two concepts.

Sharon Parks the author of "Big Questions, Worthy Dreams: Mentoring Young Adults in their Search for Meaning, Purpose, and Faith" (2000), proposes that **faith** is another word with multiple meanings, especially in the context of religion spirituality is the dynamic process of **faith development**, whereas religion provides adherents with **beliefs**

Additionally, both definitions make reference to external and internal dimensions. However, religion begins as, and is for the most part, an **external phenomenon**. Its primary concern is external to the visible world, it is centered on the existence of a Supreme Being or eternal principle, and includes an agreed upon set of beliefs and practices that are external to the individual. Religion can exist separate and apart

from the individual, not so for spirituality. Spirituality begins and is perpetually an **internal process**, though there is the moving outward from oneself through self-transcendence, connectedness to self and others, and relationship with that which lies beyond the known and knowable world. In a way, the inner world expands to include the outer world.

Parks views spirituality to be more of a **personal** rather than **a public search for meaning,** transcendence, wholeness, purpose, and "apprehension of spirit (or Spirit) as the animating essence at the core of life." She describes spirituality as both immanent (within the individual) and transcendent (beyond the individual).

Moving beyond the Comparisons

In these two sets of definitions, one can also see the potential for great resonance, interaction, and overlap between these two concepts. Religion, with its beliefs, practices, rituals, prayers, and spiritual exercises, can be, and is for many people, a wonderful means through which one can explore one's spirituality and develop spiritually. It provides a language, a context, and often a community through which an individual can pursue their spiritual journey.

The problem, of course, is that these definitions only tell a part of the story of religion and spirituality as lived reality. In so many instances, religions and people acting in the name of some religion have behaved in ways that are antithetical to the notions of genuineness, which are expressed in the definition of spirituality. Human history is stained with the blood of people oppressed, abused, and murdered in the name of some religion, its supreme being, or its doctrines. Not a single religion is exception to this reality. Christianity, Judaism, Islam, Hinduism have all condoned or otherwise supported barbaric, anti-spiritual actions. It seems to the author that this occurs in part when beliefs and practices, which may, have begun as spiritually grounded

exercises, mutate into dogma and doctrines. The dynamic spiritual aspect of the religion of early adherents is lost or repressed. Religion and spirituality have become disconnected.

Effects of differentiated notions of Religion and Spirituality

Differentiating between the notions of religion and spirituality have real consequences when one looks at the development of undergraduate students. For example, Pascarella and Terenzini (1991) found that most of the research done in the area of religious attitude change fell into two categories: general religiosity and religious activities. Most studies in the past 30 years have shown significant declines in religious attitudes, values, and behaviours. There are, however, changes in students, identified in the literature of the past 30 years not often associated with religion, but congruent with the propositions related to spirituality and spiritual development. These include a movement toward greater altruism, humanitarianism, and social conscience, more social, racial, ethnic, and political tolerance, greater support for the rights of individuals, and for gender equality, and being able to consider situations from beyond one's own perspective

In the earlier developmental stages, moral rules and religious teachings were interpreted literally. But if the stories are seen to contradict each other or if the teachings contradict life experience, literalism seems to break down. New teachers may be found, but sooner or later, interpreters are bound to differ. As students deal with tensions between ancient traditions and new ideas, conformity and questioning, guilt and freedom, self-interest and unselfishness, they slowly recognize the need to take responsibility for defining their own positions, to commit to beliefs that ring true to their deepest selves, while remaining open and tolerant.

Implications

What good is the study of SQ? Religious beliefs have often divided our nation and caused communal riots.

The first goal is to create a language that enables us to discuss these concepts without being limited to the language of any one faith tradition. The second goal is to create a competency-based language that helps people assess where they are and where they want to go in their own spiritual development. The third goal is that the faith-neutral language of competencies will make SQ acceptable for discussion in the workplace…the place where most of us spend most of our time. This will hopefully lead to support for individual and group SQ growth – creating more meaningful work, improved products and services, and ensuring responsible academic and corporate behaviour.

Whether one speaks of Hindus, Muslims, Christians, Sikhs, Parsis, Jains etc, all individuals are alike in their suffering, their hopes and their joys. They are all striving to reach the same goals: peace and love. Perhaps with a more neutral language for SQ one can see the commonality and work together towards getting there. Finally, the development of SQ will not only benefit individuals, it will also benefit their families, communities, and the companies they work for and ultimately the nation at large.

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