Bhagvat Gita *Jnana* Model to attain *Para Vidya*

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Abstract: *True happiness of an everlasting nature is the happiness of the spirit which is the true essence of human beings. It is permanent and indestructible and has existence even after the physical body is destroyed. Spirit is the inner core of man and is bliss, peace and happiness of a permanent nature. The right goal of life should, therefore be to seek happiness of the Spirit. The founders and earliest practitioners of religion had shown that Knowledge, Devotion and Action are the inalienable aspects of the fundamental unity of human nature and suggested three paths Karma Yoga, Para Vidya and Bhakti that will enable the seeker to take him to the Goal of Super Consciousness. Para Vidya or 'The Ultimate Study' is the study of what lies beyond the reach of mind and senses, which are the two normal faculties for the acquisition of knowledge. It can only be 'realized' by instruments of perception beyond the realm of senses. This is the area of Consciousness, and Para Vidya can only be attained by elevation of Consciousness. In this paper a Bhagvad Gita-Jnana Model is developed to identify criteria and generate spiritual scenarios for attaining Super Consciousness by the Jnana Marg (Yoga) approach of Bhagvad Gita. The criteria were identified for 3 periods: Adolescence Period, Adulthood Period and Old Age Period and evaluated using Dynamic Fuzzy Hierarchy Process Methodology.*
Keywords: Bhagvad Gita, Jnana, Para Vidya, Super Consciousness, Moksha, spiritual scenarios.

I. Introduction

In this world where nothing is stationary and where everything is perishable and transitory, every living being desires pleasure and seeks to avoid suffering. Craving and ignorance are the two main causes of suffering. True happiness of an everlasting nature is the happiness of the spirit which is the true essence of human beings. It is permanent and indestructible and has existence even after the physical body is destroyed. Spirit, the inner core of man, is bliss, peace and happiness of a permanent nature. The right goal of life should, therefore be to seek happiness of the Spirit.

According to the philosophy of the Sanatana Dharma, life is a fourfold path that, if pursued properly, could bring us harmony and success in our lives and work. Moksha is the ultimate goal of life. The founders and earliest practitioners of religion have shown that Knowledge, Devotion and Action are the inalienable aspects of the fundamental unity of human nature and suggested three paths Karma Yoga, Para Vidya and Bhakti that will enable the seeker to take him to the Goal of Super Consciousness.

Two types of knowledge (Vidya) should be known to a religious seeker: Para Vidya and Apara Vidya. Knowledge of worldly things is Apara Vidya and that by which Eternal Truth is obtained is Para Vidya. Though Apara Vidya enables to earn ones bread and helps to understand each object of universe separately, it does not show the ultimate reality or root cause of this universe. Para Vidya, on the other hand, doesn't teach objects of this universe but enables to understand underlying fabric of it.

All knowledge is knowledge of God and whatever knowledge (Apara Vidya) one gains from daily experiences leads to intuitive knowledge or Para Vidya. Just as the human body is a perfect microcosm of the macrocosm of the Universe and it's possible to establish communion or correspondence with it, so too is this Apara Vidya having these communication channels for understanding Para Vidya, i.e. learning of the world beyond ours.

Para Vidya or 'The Ultimate Study' is the study of what lies beyond the reach of mind and senses, which are the two normal faculties for the acquisition of knowledge. It can only be 'realized' by instruments of perception beyond the realm of senses. This is the area of Consciousness, and Para Vidya can only be attained by elevation of Consciousness. Para Vidya is, therefore, transcendental knowledge which leads to wisdom. Being blessed with Para Vidya, the soul is freed of all attachments, enters the calm stillness in the realm of the Self, and

is able to perform tasks without compulsion, for the sake of duty alone (Swadharma) rather than out of self-interest or benefit. One then becomes liberated, a Jivan Mukta in the present life itself. This paper presents a Bhagvat Gita-Jnana model for attaining Para Vidya to achieve the goal of Super Consciousness.

II.   The Bhagvad Gita-Jnana (BG-J) Model

In the Bhagvad Gita, Lord Krishna tells Arjuna that Jnana is the supreme and the most difficult of the sciences. It is all pervading, yet it is beyond the reach of the sense organs; and it is revealed to the seeker by a Self Realized (Tattvadarshi) Guru alone. The Upanishads serve a warning to those who consider rituals as real: "deluded by sacrifice, austerity, alms–giving, pilgrimage and outer worship, men pass their time in misery". A similar note of caution is sounded in the Garuda Purana also.

The Bhagvad Gita-Jnana (BG-J) Model presented in this paper is therefore based on Jnana acquired from a Self Realized Guru by following the practices prescribed by Him. These practices are in the nature of (1) Inner purification (Chitta Shuddhi) which is attained by withdrawing the bodily senses from their outward tendencies, the mind thereby becomes Samachitta and fit for concentration of attention; and (2) contemplation on the cosmic sound (Name) and form.

The Goal of the Bhagvad Gita-Jnana (BG-J) Model is to identify the factors responsible for achieving Para Vidya and to generate Spiritual Scenarios to increase Jnana for attaining Super Consciousness (or Moksha) by Jnana Marga (Yoga) approach of Bhagvad Gita. The criteria for attaining the Goal were identified from the literature and interviewing experts.

The identified criteria are grouped into different system and sub-systems. This model was evaluated for 3 periods: Adolescence, Adulthood and Old Age. The criteria were evaluated using a multi-criteria decision making methodology, the Dynamic Fuzzy Hierarchy Process (DFHP), (steps and mathematical background are given in Appendices I and II) for determining the prioritized criteria to achieve the Goal. The Cause-and-Effect Relationships between the criteria for the Goal were developed as shown in Figure 1.
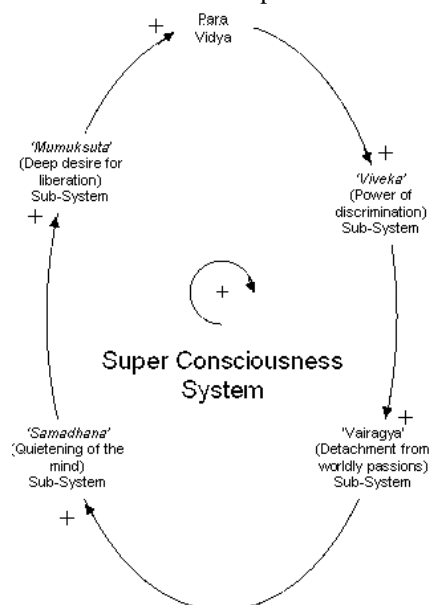

Figure 1: The Cause-and –Effect Relationship for the identified factors
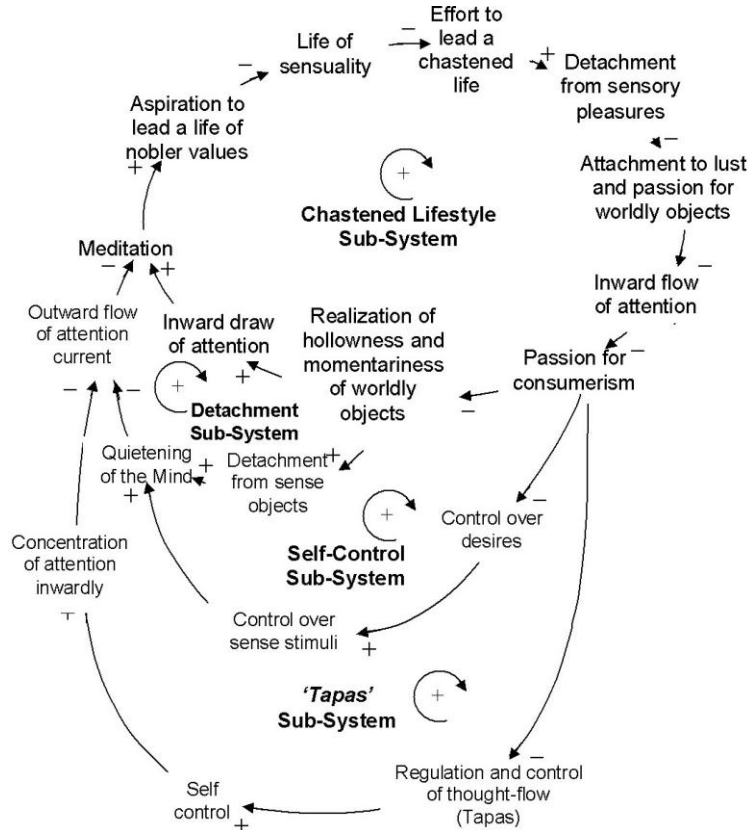
Figure 1 (Contd.): The CER for Samadhana Sub-System (Doctrine: Bhagvad Gita)

Figure 1 (Contd.): The CER for Viveka Sub-System (Doctrine: Bhagvad Gita)

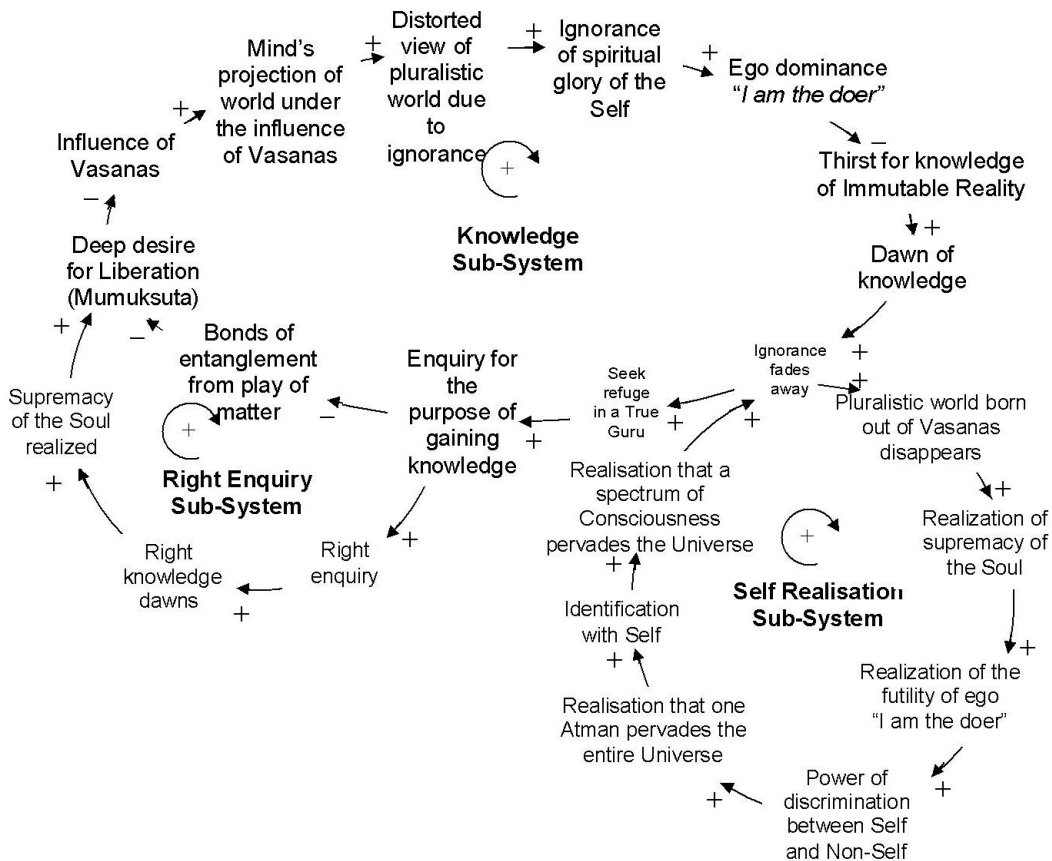**Figure 1 (Contd.):** The CER for Vairagya Sub-System (Doctrine: Bhagvad Gita)

Figure 1 (Contd.): The CER for Mumuksuta Sub-System (Doctrine: Bhagvad Gita)

Then Fuzzy Knowledge Base was generated from the Cause-and-Effect Relationships. A Priority Relation Questionnaire (PRQ) was developed to rate and rank the criteria on a 9–point scale for three periods (K = 3). These rating and ranking helped in generating spiritual scenarios for attaining Para Vidya.

III.   Results

Based on the computed weights, the criteria found important for the three periods are as follows:

I.   Adolescence Period

To increase Jnana for attaining Super Consciousness (Moksha) by Jnana Marga (Yoga) approach of Bhagvad Gita, the highly prioritized criteria for adolescence period are: (1) **Samadhana** ($W_i^{K_L}$ **:0.2942**), i.e. the mind becoming quiet and withdrawal of attention current, (2) **Viveka** ($W_i^{K_L}$ **:0.2473**), i.e. the capacity to discriminate between what is transient (body) and what is eternal (Spirit) and (3) **Mumuksuta** ($W_i^{K_L}$ **:0.2069**), i.e. an intense desire for liberation from the cycles of birth and death.

Prioritized criteria for achieving "Samadhana"

For Quietening of the Mind i.e. **"Samadhana",** Control over Desires sub-system was rated most important. To achieve **Control over Desires**, the highest priorities were given to the criteria **Capacity to Concentrate and Contemplate upon the truth** ($W_i^{K_L}$ **: 0.0445**), **Capacity to Assimilate the teachings of the Scriptures** ($W_i^{K_L}$ **: 0.0378**) and **Control over Mental Thought process (Swabhava)** ($W_i^{K_L}$ **: 0.0376**). Capacity to assimilate the teachings of scriptures means the extent to which the teachings of Scriptures can be understood and practiced in daily life. Capacity to concentrate and contemplate upon truth means the extent to which the flow of the senses can be drawn inwards and the attention current can be directed towards the Ultimate Reality and Control over mental thought process (i.e. Swabhava) means being able to channelize our thought process by modulation of our desires and emotions

Prioritized criteria for attaining "Viveka"

To develop Power of Discrimination i.e. **Viveka**, the most important criteria of the Contemplation sub-system were **Devotion to Guru i.e. Bhakti** ($W_i^{K_L}$ **: 0.0346**) which is constant remembrance of the Lord, Elevation of **Consciousness level** ($W_i^{K_L}$ **: 0.0298**) and **Growth of Divine Personality** ($W_i^{K_L}$ **: 0.0291**). Consciousness levels are (1) Jagrat (2) Swapn (3) Sushupti (4) Turiya and (5) Turiya Tita. Growth of Divine Personality means personality formed upon practice to the teachings of Scriptures.

Prioritized criteria for achieving "Mumuksuta"

For acquiring Deep Desire for Liberation i.e. **Mumuksuta,** the Right Enquiry sub-system was rated most important sub-system, for which **Thirst for Knowledge of Immutable reality (God)** ($W_i^{K_L}$ **: 0.0243**), **Enquiry for the Purpose of gaining Knowledge** ($W_i^{K_L}$ **: 0.0217**) and **Right Enquiry** ($W_i^{K_L}$ **: 0.0209**) were rated important respectively. Thirst for knowledge of immutable Reality is longing for the knowledge of Ultimate Reality. Enquiry for the purpose of gaining knowledge means effort to gain knowledge of the Ultimate Reality and Right Knowledge means realization of our real Self.

II.   The Adulthood Period

During the second period of life i.e. adulthood, ones' view of life and inclination towards Nivritti Marga is influenced by his life experiences, his Sanskaras and social circumstances. Consequently, **Viveka** ($W_i^{K_L}$ **:0.2845**), **Samadhana** ($W^{K_{1L}}$ **: 0.2465**) and **Mumuksuta** ($W^{K_{1L}}$ **: 0.2152**) were rated as the most important criteria for the adulthood period to increase Jnana for attaining Super Consciousness (Moksha) by Jnana Marga approach of Bhagvad Gita.

Prioritized criteria for increasing "Viveka"

For developing Viveka, the most important criteria of the Contemplation sub-system were **Consciousness Level** ($W_i^{K_L}$ **: 0.0398**), **Contemplation on the Ultimate Reality** ($W_i^{K_L}$ **: 0.0343**) and **Growth in Spiritual**

Dimension ($W_i^{K_L}$ **: 0.0335**). Growth in spiritual dimension is elevation of the level of consciousness and contemplation upon the Ultimate Reality means concentrating attention current on the form of Deity.

For **Growth in Spiritual Dimensions**, both Samachitta and Endurance sub-systems were rated equally important. For Samachitta (equi-poised between the pair of opposites), **Capacity to Differentiate between what is Temporary and what is Permanent** ($W_i^{K_L}$ **: 0.00577**), **Realization that Spirit is the Guiding Force** ($W_i^{K_L}$ **: 0.00469**) and **Realization that world of Emotions and thoughts are ever Changing** ($W_i^{K_L}$ **: 0.00464**) were rated prioritized criteria respectively. Realization that the Self is Eternal and Changeless means Knowledge of and belief in the veracity of the Mahavakyas if the Vedas which expound that the real Self is the Soul.

For Endurance sub-system, the criteria **Realization that the Self is Eternal and Changeless** ($W_i^{K_L}$ **: 0.00200**), **Realization that world of Emotions and thoughts are ever Changing** ($W_i^{K_L}$ **: 0.00192**) and **Capacity to overlook Misfortunes and to Rise above them** ($W_i^{K_L}$ **: 0.00192**) were rated most important This points to the importance of enduring adversity which is a pre-requisite for one in pursuit of Nivritti Marga. Developing this attribute one becomes Samachitta which is the goal for a Yogi. Capacity to overlook misfortunes and to rise above them means enhancing level of tolerance.

For **Realization that the Self is Eternal and Changeless** the **Awareness that illumines Discrimination is Eternal** ($W_i^{K_L}$ **: 0.00133**) and **Experience born out of Contemplation and Meditation** ($W_i^{K_L}$ **: 0.00132**) were ranked important. Awareness that illumines discrimination is eternal means awareness comes first, even before consciousness. Awareness imparts the capacity to discriminate between the Self (the soul) and the Non-Self (the body). Experience born out of Contemplation and Meditation means internal experience gained as a result of concentration of attention current during meditation.

Prioritized criteria for attaining "Mumuksuta"
For Desire for Liberation i.e. **Mumuksuta** to emerge from within oneself, Right Enquiry sub-system was rated most important for which **Right Knowledge Dawn** ($W_i^{K_L}$ **: 0.0253**) (which raises the level of consciousness) and **Supremacy to the Soul Realized** ($W_i^{K_L}$ **: 0.0226**) were considered important criteria. Supremacy of the Soul Realized is the recognition that the Soul (not the body) is our real Self. The Sequence of Urgency for the Adulthood Period is given in Figure 2.

III. Old Age
During the last period of life i.e. old age, there is a decline of both physical strength and mental agility. Depending on one's Sanskaras and Karmas, this period of life is better suited for pursuit of Nivritti Marga to achieve the Super Consciousness (Moksha). Consequently, **Vairagya** ($W_i^{K_L}$ **: 0.2834**), **Mumuksuta** ($W_i^{K_L}$ **:0.2427**) and **Samadhana** ($W_i^{K_L}$ **:0.2107**) were rated important for the Old Age Period to increase Jnana for attaining Super Consciousness by Jnana Marga approach of Bhagvad Gita.

Prioritized criteria for achieving "Vairagya"
For achieving **Vairagya** Tapas sub-system was ranked important, for which the criteria in order of importance were **Meditation** ($W_i^{K_L}$ **: 0.0388**), **Self Control** ($W_i^{K_L}$ **: 0.0254**) and **Inward Flow of Attention current** ($W_i^{K_L}$ **: 0.0249**).
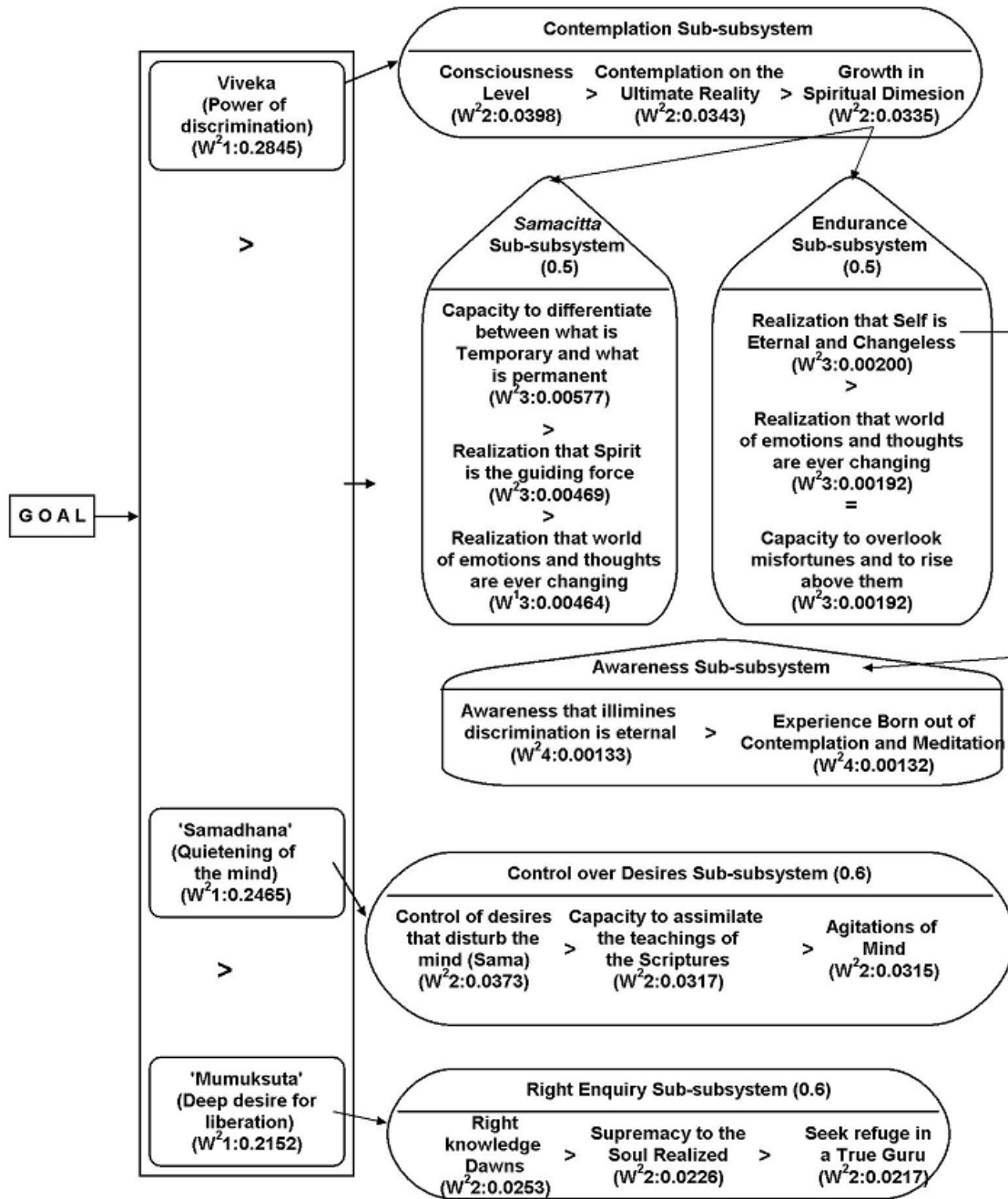
Figure 2: Sequence of Urgency for Adulthood Period

Prioritized criteria for attaining "Mumuksuta"

For **Mumuksuta** to emerge from within oneself, Knowledge sub-system was rated most important. The important criteria to attain the knowledge were **Dawn of Knowledge** ($W_i^{K_L}$ **: 0.0311**), **Ignorance Fades Away** ($W_i^{K_L}$ **: 0.0274**) and **Seek refuge in a True Guru** ($W_i^{K_L}$ **: 0.0267**), respectively. Dawn of knowledge is Realization that the Soul is the real Self and ignorance fades away means the belief that our body is the real Self fades away and knowledge dawns. The Sequence of Urgency (SOU) for the Old Age Period is given in Figure 3.
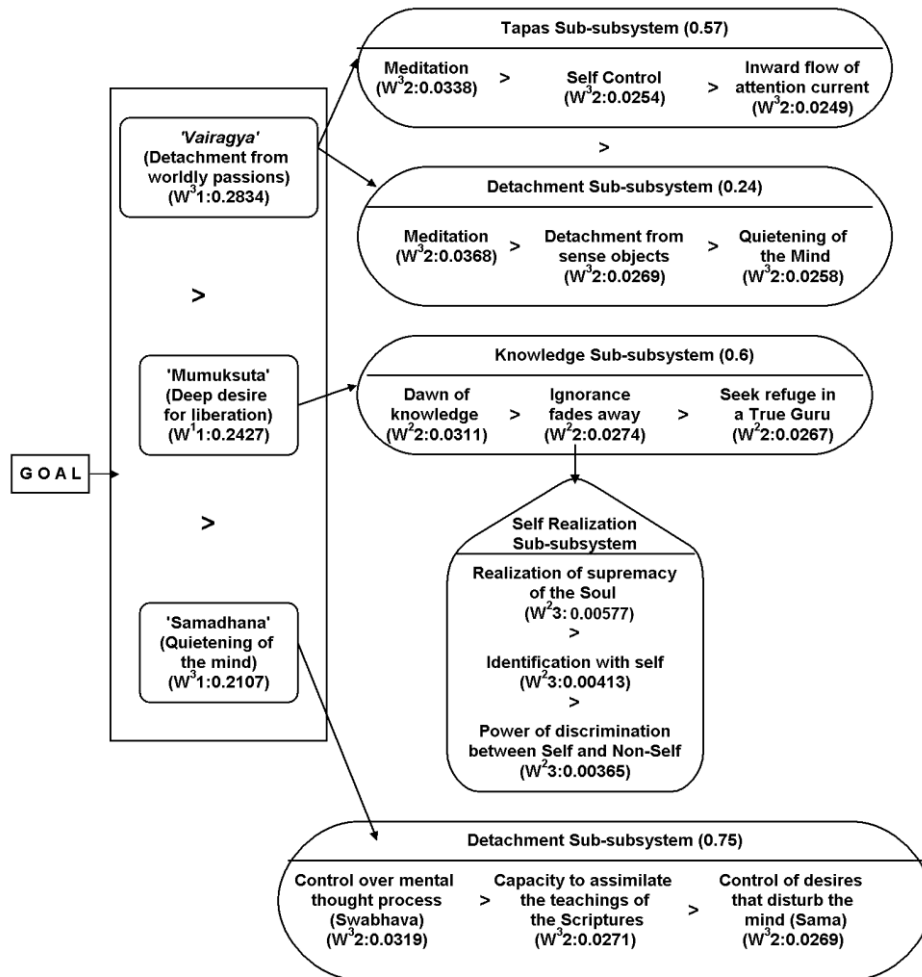
Figure 3: Sequence of Urgency for Old Age Period

IV. Spiritual Scenarios

The prioritized criteria based on their Global Futuristic Priority Weights, $W_i^{K_L}$, helped in generating Spiritual Scenarios for the three periods: Adolescence, Adulthood and Old Age to attain Super Consciousness (Moksha) by Jnana Marga approach of Bhagvad Gita. For different systems, the spiritual scenarios were generated in form of answers to the following Spiritual Decision Questions (SDEC-Q):

Samadhana System
SDEC-Q 1: When one develops the capacity to concentrate and contemplate upon the truth, how does that lead to Jnana and Super Consciousness (Moksha).
Spiritual Scenario 1: Referring to the Control over Desires sub-system
Control over the vagaries of the mind gives the **Capacity to Concentrate and Contemplate upon the Truth** ($W_i^{K_L}$ **: 0.0445**) which generates the **Capacity to Assimilate the Teachings of Scriptures** ($W_i^{K_L}$ **: 0.0378**). This gives one **Control over his Mental Thought Process** ($W_i^{K_L}$ **: 0.0376**) and subdues the **Agitations of the mind** ($W_i^{K_L}$ **:0.0375**). This way the religious seeker gains control over his desires and a yearning for acquiring Jnana develops, which leads to Super Consciousness (Moksha).

SDEC-Q 2: When one develops the capacity to assimilate the teachings of the scriptures, how does that lead to Jnana and Super Consciousness (Moksha).
Spiritual Scenario 2 (a): Referring to the Control over Desires sub-system

Capacity to **Assimilate the Teachings of Scriptures** ($W_i^{K_L}$ **: 0.0378**) gives **Control over Mental Thought Process**, which helps developing **Internal Control over mind** and desires. This develops a yearning for Jnana, which leads to Super Consciousness (Moksha).

Spiritual Scenario 2(b): Referring to the Control over Desires sub-system

Upon gaining the **Capacity to assimilate the teachings of scriptures** ($W_i^{K_L}$ **:0.0378**) there is reduction in the **Attachment to senses** and an increase in **Control over desires that disturb the mind (Sama)**, i.e. Concentration of the attention current. **Agitations of the mind**, i.e. wavering of attention current due to Sanskaras (accumulated impressions from past lives), are subdued and one becomes Samachitta and develops a yearning for true knowledge (Jnana), which leads to Super Consciousness (Moksha).

SDEC-Q 3: When one gains control over his thought process, how does that lead to Jnana and Super Consciousness (Moksha).
Spiritual Scenario 3: Referring to the Control over Desires sub-sub system:

Control over Mental Thought Process ($W_i^{K_L}$ **:0.0376**) causes a decline in the **Attachment to Senses** which reduce the **Agitations of the Mind** and one gains control over desires. A yearning for acquiring Jnana is developed which leads to Super Consciousness.

SDEC-Q 4: Upon gaining control over desires that disturb the mind, how does one then tend to acquire Jnana which in turn leads to Super Consciousness (Moksha)?
Spiritual Scenario 4: Referring to the Control over desires sub-system

When one gains **Control over Desires that Disturb the Mind** ($W_i^{K_L}$ **: 0.0337**), one develops the **Capacity to assimilate the teachings of Scriptures** and gains control over **Agitations of the Mind**. One becomes Samachitta and develops a yearning for true knowledge (Jnana), which leads to Super Consciousness (Moksha).

"Viveka" System
SDEC-Q 1: How will devotion to Guru help in acquiring Jnana?
Spiritual Scenario 1: Referring to the "Contemplation sub-system"

Devotion to Guru ($W_i^{K_L}$ **: 0.0346**) leads to the mind being constantly immersed in his thought, which leads to **Quietening of the Mind**, i.e. inward flow of attention current and elevation of **Consciousness Level.** This leads to **Growth in Divine personality** and one develops interest in **Contemplation** and a yearning for Jnana is generated which leads to Moksha.

SDEC-Q 2: How will elevation of Consciousness Level help in acquiring Jnana and lead to Super Consciousness (Moksha)?
Spiritual Scenario 2: Growth in **Consciousness Level** ($W_i^{K_L}$ **:0.0298**) leads to **Growth in Spiritual Dimension** and **Devotion to Guru** increases. The seeker **Surrenders to the Guru** which leads to **Quietening of the Mind** and **Withdrawal of Attention Current**. This develops an interest in **Contemplation** and a yearning for **Jnana** is generated which leads to Moksha.

SDEC-Q 3: How does Growth of Divine personality help in acquiring Jnana and lead to Super Consciousness?
Spiritual Scenario 3: **Growth of Divine personality** ($W_i^{K_L}$ **: 0.0291**) leads to **Contemplation on the Ultimate Reality** which leads to **Devotion to Guru**. This generates a yearning for **Jnana** is generated which leads to Super Consciousness (Moksha).

SDEC-Q 4: How does Contemplation on the Ultimate reality lead to acquisition of Jnana?
Spiritual Scenario 4: Referring to the Contemplation sub-system

Contemplation on the Ultimate reality ($W_i^{K_L}$ **:0.0206**) leads to **Withdrawal of Attention current** and **Growth in the Spiritual Dimension**. There is a yearning for acquisition of Jnana which leads to Super Consciousness.

SDEC-Q 5: How does Growth in Spiritual Dimension lead to Jnana and to Super Consciousness (Moksha)?
Spiritual Scenario 5(a): Referring to the Samchitta sub-system

Upon **Growth in Spiritual Dimension** ($W_i^{K_L}$ **:0.0193**) the **Capacity to Differentiate between what is Temporary (body) and what is Permanent (Soul)** increases. There is a **Realization that Spirit is the guiding force** and that the **World of emotions and thoughts is ever changing.** One becomes indifferent to the affairs of the world (Samchitta) and yearns for true knowledge (Jnana) which leads to Moksha.

Spiritual Scenario 5(b): Referring to the Contemplation sub-system

Upon **Growth in Spiritual Dimension** ($W_i^{K_L}$ **:0.0193**) one engages in **Contemplation on the Ultimate Reality** which leads to the **Entanglements of the body mind and intellect** withering away and one's **level of consciousness** rises. One contemplates upon the Ultimate Reality and yearns for true knowledge (Jnana).

Spiritual Scenario 5(c): Referring to the Endurance sub-system

Upon the realization that the **Self is eternal and changeless** ($W_i^{K_L}$ **: 0.00377**) it is also **Realised that the world of emotions and thoughts are ever changing** and there is an increase in **Capacity to overlook misfortunes and to rise above them**. This cultivates endurance which leads to Viveka and a yearning for true knowledge (Jnana).

"Mumuksuta" Sub-system:
SDEC-Q 1: How does thirst for knowledge of Immutable Reality (God) lead to Jnana and Super Consciousness (Moksha)?
Spiritual Scenario 1: Referring to the Right Enquiry sub-system

When **Thirst for Knowledge of Immutable Reality** ($W_i^{K_L}$ **: 0.0210**) develops, **Ignorance starts to fade away** and one makes **Enquiry for the purpose of gaining knowledge**. There is yearning for Jnana which leads to Super Consciousness.

SDEC-Q 2: How does Enquiry for the purpose of gaining knowledge lead to Jnana?
Spiritual Scenario 2: Referring to the Right Enquiry sub-system:

When one makes **Enquiry for the purpose of gaining knowledge** ($W_i^{K_L}$ **:0210**) and makes the **Right Enquiry, Right knowledge dawns** and the **Supremacy of Soul is realized**. There is **Thirst for knowledge of immutable Reality** and a yearning for Jnana which leads to Super Consciousness.

SDEC-Q 3: When Right Knowledge dawns how does that help in acquiring Jnana and lead to Super Consciousness.
Spiritual Scenario 3: Referring to the Right Enquiry sub-system

When **Right knowledge dawns** ($W_i^{K_L}$ **:0.0113**) one realizes the **Supremacy of the Soul** and a **Deep desire for liberation (Mumuksuta)** develops. One develops a **Thirst for knowledge of Immutable Reality** and a yearning for Jnana, which leads to Super Consciousness.

SDEC-Q 4: Upon one realizing the supremacy of the Soul how does that lead to Jnana and to Super Consciousness?
Spiritual Scenario 4: Referring to the Self-realization sub-system

Upon the realization of the **Supremacy of the Soul** ($W_i^{K_L}$ **:0.00354**), i.e. the dawn of knowledge of our true self, one **Identifies with the Self** and not the physical body. This leads to enhancement in the **Power of discrimination between Self and Non-Self**, i.e. the ability to distinguish between our body (with its senses) i.e. our Non-Self and the Soul which is the Self which leads to Jnana and to Super Consciousness.

SDEC-Q 5: When one seeks refuge in a True Guru, how does that lead to acquiring Jnana and Super Consciousness?
Spiritual Scenario 5: Referring to the Right Enquiry sub-system

Having taken **Refuge in a True Guru** ($W_i^{K_L}$ **:0.0265**) one makes **Enquiry for the purpose of gaining knowledge** and **Right knowledge dawns.** One **Realizes the supremacy of the Soul** ($W_i^{K_L}$ **: 0.0127**) and a **Deep desire for liberation** develops. One develops a **Thirst for knowledge of Immutable Reality** and a yearning for Jnana, which leads to Super Consciousness.

SDEC-Q 6: Upon dawn of knowledge how does one acquire Jnana?
Spiritual Scenario 6: Referring to the Knowledge sub-system

Upon the **Dawn of knowledge** ($W_i^{K_L}$: **0.0219**) **Ignorance fades away** and one **Seeks the refuge of a true Guru**. There is a **Deep desire for liberation** and **Thirst for the knowledge of the Immutable Reality**. A yearning for Jnana develops, which leads to Super Consciousness (Moksha).

SDEC-Q 7: When one develops the power of discrimination between Self and Non-Self, how does that lead to Jnana?
Spiritual Scenario 7: Referring to the Self-realization sub-system

When one **Develops the power of discrimination between Self and Non-Self** ($W_i^{K_L}$:**0.00203**) one **Identifies with the Self** and not the physical body, there is a realization of the **Futility of ego** and the **Realization that one Atman pervades the entire Universe**. This leads to Jnana.

Vairagya Sub-system
SDEC-Q 1: How will meditation help in acquiring Jnana?
Spiritual Scenario 1(a): Referring to the Tapas sub-system

Meditation ($W_i^{K_L}$: **0.0189**) on the Divine name and form leads to **Inward flow of attention current** and one gains greater **Self Control**. This facilitates Concentration **of attention inwardly** and cleansing of the Antahkarana, which leads to true knowledge (Jnana).

Spiritual Scenario 1(b): Referring to the Detachment sub-system

Meditation on the Divine name and form ($W_i^{K_L}$: **0.0311**) induces **Detachment from sense objects** and **quietening of the mind**. A yearning for Jnana develops, which leads to Super Consciousness.

SDEC-Q 2: How will Self Control lead to Jnana?
Spiritual Scenario 2: Referring to the Tapas sub-system

Self-control ($W_i^{K_L}$:**0.0246**) leads to a control over the vagaries of the mind and facilitates **Concentration of attention current inwardly**. This helps in **Meditation** on the Divine name and form and **Regulates and Controls thought flow (Tapas).** One develops a yearning for Jnana, which leads to Moksha.

SDEC-Q 3: How does Inward flow of attention current lead to Jnana?
Spiritual Scenario 3: Referring to the Tapas sub-system

Inward flow of Attention current ($W_i^{K_L}$:**0.0124**) helps in **Regulation and control of thought flow (Tapas)** which gives one greater **Self Control** and facilitates **Meditation.** One develops a yearning for Jnana, which leads to Super Consciousness.

V.   Concluding Remarks

This paper presents a Bhagvad Gita- Jnana (BG-J) Model to identify the criteria (factors) responsible for achieving Para Vidya and to generate spiritual scenarios to increase Jnana for attaining Super Consciousness by the Jnana Marg (Yoga) approach of Bhagvad Gita. The criteria were identified for 3 periods: Adolescence Period, Adulthood Period and Old Age Period. The criteria were evaluated using Dynamic Fuzzy Hierarchy Process (DFHP) Methodology by computing Global Futuristic Priority Weights, $W_i^{K_L}$. The Bhagvad Gita Model helps religious seekers in making spiritual decisions for acquiring spiritual wisdom, which helps in cutting asunder bondages of the Jivatma and enables it to enter the calm stillness of Moksha.

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Appendix I
The Dynamic Fuzzy Hierarchy Process (DFHP) Methodology

The Dynamic Fuzzy Hierarchy Process (DFHP) Methodology is a multi–disciplinary, multi person, multi–level, multi–period, multi–dimensional futurologistic decision making methodology. The methodology qualitatively analyses Cause-and-Effect relationship to study the behaviour of variables linguistically. The methodology incorporates the uncertainties in a model that could be attributed to the belief and perception of the user, and models them using fuzzy quantifiers and fuzzy relations. The proposed approach provides a systematic method of assessing the qualitative impact of relationships depicted in the Cause-and-Effect relationships.

The multi–criteria approach of the DFHP Methodology involves the systematic solicitation and collation of experts and general users on a particular goal through a set of carefully designed sequential questionnaires interspersed with summarized information and feedback of opinions derived from earlier responses. Considering the fuzziness in the decision data and futuristic approach strengthen the comprehensiveness and reasonableness of the futuristic fuzzy decision making process. The methodology consolidates individual fuzzy preferences into a group consensus and provides prioritized alternatives and thus develops an effective way to deal with the multi–facets of the problem. The advantage of the proposed methodology is that it guides decision making under vagueness type uncertainty, considers the concept of risk attitude and associated confidence of a decision maker on the estimates of pair wise comparisons, adds quantitative and qualitative precision and fine–tuning to any multi criteria decision problem.

The Dynamic Fuzzy Hierarchy Process (DFHP) Methodology can evaluate qualitative, quantitative and intuitive criteria comprehensively, and it is possible to raise the level of confidence through carrying out consistency testing.

The Algorithm
The steps of the DFHP Methodology are given below:

Step 1: Generation of Goal, Formation of three teams: Judgment Making Team, Expert Team and Respondent Team, and identification of criteria using Modified Delphi Method.

Step 2: Development of Cause-and-Effect Relationships (CER) for the Goal under cetris paribus conditions

Step 3: Collection of relevant data for quantification of the criteria

Step 4: Linguistic definitions of the criteria

Step 5: Generation of Fuzzy Knowledge Base from the CER

Step 6: Generation of Fuzzy Rule Matrices $\left(R_i^L \right)$ from the Fuzzy Knowledge Base using modus ponens and compositional rule of inference.

Step 7:   Analyzing Fuzzy Rule Matrices $\left(R_i^L \right)$ by using the compositional rule of inference to get normalized Trapezoidal Fuzzy Numbers (TrFN) $\left(\tilde{t}_i^{\,N_L} \right)$.

Step 8: Development of a Priority Relation Questionnaire for the Respondent Team to rate and rank the criteria on a 9–point scale to generate the Fuzzy Priority Relation Matrices $\left(\tilde{P}^{K_L} \right)$ for different periods K (=1, 2, …, k).

0.1	0.5	0.9
Least imp	Equal imp	Most imp
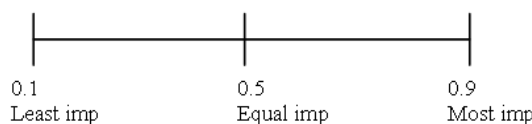
These matrices $\widetilde{P}^{K_L} = \left[\widetilde{p}_{MN}^{K_L}\right]$ are additively transitive and reciprocal. For diagonal entries $\widetilde{p}_{MN}^{K_L} = 0.5$ and $\widetilde{p}_{NM}^{K_L} = 1 - \widetilde{p}_{MN}^{K_L}$; for $M, N = 1, 2, \ldots\ldots, p$.

Step 9: Aggregation of Fuzzy Priority Relation Matrices $\left(\widetilde{P}^{K_L}\right)$ by $\widetilde{t}_i^{N_L}$ using equation (1) to generate Fuzzy Aggregation Matrix $\widetilde{G}^{K_L} = \left[\widetilde{g}_{mn}^{K_L}\right]$

$$\mu^w(a_i, a_j) = \sum_{k=1}^{m} \widetilde{\widetilde{w}}_k \mu_k(a_i, a_j) \tag{1}$$

Step 10: Calculation of Dynamic Fuzzy Weights $\widetilde{Y}_i^{K_L}$ using equations (2), (3):

$$\widetilde{Y}_i^K = \left(\frac{y_{i1}^{K_L}}{\sum_{i=1}^{p} y_{i4}^{K_L}}, \frac{y_{i2}^{K_L}}{\sum_{i=1}^{p} y_{i3}^{K_L}}, \frac{y_{i3}^{K_L}}{\sum_{i=1}^{p} y_{i2}^{K_L}}, \frac{y_{i4}^{K_L}}{\sum_{i=1}^{p} y_{i1}^{K_L}} \right)$$

(2)

where $\quad \widetilde{y}_i^{K_L} = \sum_i \sum_j \widetilde{g}_{ij}^{K_L} \qquad$ for $i = 1, 2, \ldots, m; j = 1, 2, \ldots, n$

(3)

Step 11: Preparation of Pairwise Comparison Questionnaire for Expert Team for rating and ranking of criteria for K (=1,2, …,k) period using Fuzzy Evaluation Scale (Table 2).

Relative Importance	Fuzzy Scale	Definition
$\widetilde{1}$	(1,1,1, 1) if diagonal else (0.5, 1, 1, 3)	Equally important
$\widetilde{2}$ $\widetilde{4}$ $\widetilde{6}$ $\widetilde{8}$	(0.5, 1, 2, 4) (1, 2, 4, 6) (2, 4, 6, 8) (6, 8, 9, 9)	Intermediate values between two adjacent judgments
$\widetilde{3}$	(1, 3, 3, 5)	Moderately more important
$\widetilde{5}$	(3, 5, 5, 7)	Strongly more important
$\widetilde{7}$	(5, 7, 7, 9)	Very strongly more important
$\widetilde{9}$	(7, 9, 9, 9)	Extremely more important
$1/\widetilde{x}$ b	$\left(1/\widetilde{x} + \Delta, \ 1/\widetilde{x}, \ 1/\widetilde{x}, \ 1/\widetilde{x} - \Delta\right)$	If criteria i has one of the above assigned to it when compared with criteria j, then j has the reciprocal value when compared with i

a Δ is the fuzzification factor

b $\widetilde{x} = 2 \cdots\cdots 9$

Table 2: Fuzzy Evaluation Scale

Step 12: Conversion of rating and ranking to trapezoidal fuzzy numbers to get the Expert Fuzzy Ranking Matrices for different periods K.

Step 13: Generation of Expert Fuzzy Pairwise Comparison Matrix from the Expert Fuzzy Ranking Matrices by using the equations (5) to (9). The EFPC Matrix $\widetilde{X}^{K_L}$ is:

$$\tilde{X}^{K_L} = \begin{bmatrix} \tilde{x}_{11}^{K_L} & \tilde{x}_{12}^{K_L} & & \tilde{x}_{1n}^{K_L} \\ | & & & | \\ | & & & | \\ | & & & | \\ | & & & | \\ \tilde{x}_{m1}^{K_L} & \tilde{x}_{m2}^{K_L} & & \tilde{x}_{mn}^{K_L} \end{bmatrix} \tag{4}$$

Here $\quad \tilde{x}_{ij}^{K_L} = \left(x_{ij1}^{K_L}, x_{ij2}^{K_L}, x_{ij3}^{K_L}, x_{ij4}^{K_L} \right)$ (5)

and $\quad x_{ij1}^{K_L} = \min_{d}\left(t_{ij1}^{d} \right)$ (6)

$\quad x_{ij}^{K_L} = \left(\prod \left(t_{ij2}^{d} \right) \right)^{1/d}$ (7)

$\quad x_{ij3}^{K_L} = \left(\prod \left(t_{ij3}^{d} \right) \right)^{1/d}$ (8)

$\quad x_{ij1}^{K_L} = \max_{d}\left(t_{ij1}^{d} \right)$ (9)

For diagonal entries i.e., $m = n$, $\tilde{x}_{mn}^{K_L} = 1$ and $\tilde{x}_{nm}^{K_L} = \dfrac{1}{\tilde{x}_{mn}^{K_L}}$; for $m, n = 1, 2, \ldots\ldots, p$ and K = 1, 2,…, k.

Step 14: Calculation of Expert Fuzzy Decision Weights, $\tilde{E}_i^{K_L}$, by normalizing the EFPC Matrix $\tilde{X}^{K_L}$

Step 15: Computation of Fuzzy Judgment Weights, $\tilde{F}_i^{K_L}$, by taking the average of $\tilde{Y}_i^{K_L}$ and $\tilde{E}_i^{K_L}$.

Step 16: Determination of Crisp value of Fuzzy Judgment Weights using:

$$U_{\alpha,\beta}(\tilde{F}_i^{K}) = [\beta \ u_\alpha(F_{il}^{K_L}) + (1-\beta) \ u_\alpha(F_{ir}^{K_L})],$$
$$0 \le \beta \le 1, \ 0 \le \alpha \le 1 \tag{10}$$

where

$u_\alpha\left(F_{il}^{K_L} \right) = \left(F_{i2}^{K_L} - F_{i1}^{K_L} \right)\alpha + F_{i1}^{K_L}$ represents the left value of α –cut for $\tilde{F}_i^{K_L}$

and $u_\alpha\left(F_{ir}^{K_L} \right) = \left[-\left(F_{i4}^{K_L} - F_{i3}^{K_L} \right)\alpha + F_{i4}^{K_L} \right]$ represents the right value of α –cut for $\tilde{F}_i^{K_L}$

Step 17: Calculation of Normalized Futuristic Judgment Weights $N_i^{K_L}$ using:

$$N_i^{K_L} = \frac{U_{\alpha,\beta}\left(\tilde{F}_i^{K_L} \right)}{\sum_i U_{\alpha,\beta}\left(\tilde{F}_i^{K_L} \right)} \tag{11}$$

Step 18: Computation of Global Futuristic Priority Weights, $W_i^{K_L}$, from computed Normalized Futuristic Judgment Weights for all levels using the Principle of Hierarchic Composition, and generate Scenarios and Action Plan for the Goal.

Appendix II
Foundation of DFHP Methodology
The traditional multi–criteria methods are not robust when dealing with limited experimental data, human judgments and various metrics of decision variables. The main difficulties appear when quantitative measures are combined with linguistic expressions and the decision makers attitudes toward risk need to be modelled appropriately.

Cause-and-Effect Relationship (CER):
Cause-and-Effect Relationships (CER), representing a Visual Model, are maps of relationships between individual system variables that, when linked, form closed loops. The loop consists of two or more variables connected by links, which usually take the form of arrows. A closed circle of variables and links makes up a feedback loop. For example, more stress leads to greater use of coping strategies to reduce stress
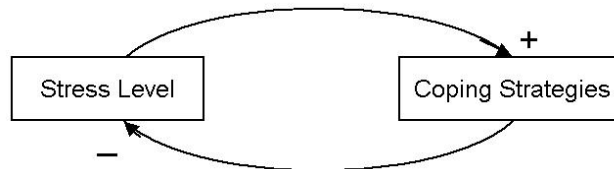

Figure 6.03: Example of a CER

In a CER, there are two kinds of relationships between variables:
1. When variable A changes, variable B changes in the same direction. For example, when the level of rainfall increases, the rate at which the grass grows also increases.
2. When A changes, B changes in the opposite direction. For example, when the price of gold drops, the volume of gold purchasing goes up.

These relationships are shown on the loop diagram with a "+" for a same direction change, and a "−" for an opposite direction change.

The values of each variable in the loop take on a trend over time. A key step in building a CER is first understanding what these trends are.

The relationships as depicted by the CERs are often fuzzy in nature as there are no crisp answers to questions like how much increase in budget would raise the sales by a certain amount. Indeed in real life the answers to such questions are likely to be of the form that a large increase in budget may increase the sales by 'Very Large', 'Moderate', 'Small' or 'Very Small' amount. Thus the links could be viewed as fuzzy relationships so that the model captures real life characteristics.

Linguistic variable

A Linguistic variable is a variable whose values are linguistic terms. The concept of a linguistic variable is very useful in dealing with situations that are too complex, or ill–defined, to be described reasonably in conventional quantitative expressions. Linguistic terms have been found intuitively easy to use in expressing the subjectiveness and/or imprecision qualitative of a decision maker's assessments.