CREATIVE REVIEW:

The Genius of APJA Kalam
A documentary Analysis
Santhosh Varghese

Wings of Fire: An Autobiography
APJ Abdul Kalam with Arun Tiwari
Universities Press [India] Private Limited, Hyderabad, 2002

"Are you aware of your inner signals? Do you trust them? Do you have the locus of control over your life in your own hands? Take this from me, the more decisions you can make avoiding external pressures, which will constantly try to manipulate and immobilize you, the better your life will be, the better your society will become."

- Dr. Avul Pakir Jainulabdeen Abdul Kalam

There has been a number of studies about the attributes of 'Genius'. The term attribute refers to the 'quality of creative mind-setting'. They are different from competencies or skills, knowledge, learning, experience, task performance, and so on.

Out of a selection of 87 attributes of geniuses identified by various researchers, evidences collected for 54 in the case of Dr. APJA Kalam. Please note that the 87 attributes are 'research findings' – based on analysis of hundreds of nominated samples of creative individuals.

It means, no one will have all the 87 in a functionally autonomous form. [The list of 87 attributes is not included with this article]
The ‘evidences’ for the presence of the attributes in the mind-setting of Dr. APJ A. Kalam have been identified from the book ‘Wings of Fire’. Most of the ‘evidences’ can indicate more than one attributes.

Not limited by circumstances

“All I had was the inner urge to seek more within myself. (...) The key to my motivation has always been to look at how far I had still to go rather than how far I had come. After all, what is life but a mixture of unsolved problems, ambiguous victories, and amorphous defeats?” Although he had a requirement of 275 scientists to execute the SLV3 project, he could get only 50, but still achieved the objectives by synergising the efforts of the many scientists / engineers.

Self-confidence

Never used any outside influence to advance career. Several incidents reveal that he has shown exceptional courage to be sufficiently independent, powerful, and influential in his own right to become a person to reckon with. “I have always received all the power I needed, and in fact have actually felt it flowing through me.”

Honesty and integrity

When he had to select Project Directors to lead individual missile projects, and when many of his senior colleagues tried to befriend him during this period, his decisions were purely to uphold the science of rocketry in India.

Self-reliance

Using several indigenous items, under him, four laboratories of DRDO and the CSIR developed a re-entry technology for rockets in 18 months - something other countries could do only after a decade of research and development.

Independent and autonomous

Several times people tried to influence his decisions, but he avoided any close contacts.

Self-discipline

Never lived out of the profits of others’ minds. In keeping with his nature, he has never been a ruthless achiever.

Unique and original style

When he was Project Director for SLV3, by his own idea of project management, he made each Project Manager present his portion of the work, something that was never done before at that time.

Creative Resilience [Ability to overcome setbacks]

Despite several constraints, Kalam persevered in School and even sold newspapers in his childhood.

Spiritual Linkages

While checking-out locations for building the RCI, he ‘felt’ some tremendous energy in a particular area and decided to locate the facilities there. They later discovered an ancient place of worship at this location. “I could feel intense vibrations when I entered the Shivananda Ashram situated a little way up the hill.”

Spontaneity

His love and concern for children - plenty of evidence

Freedom from inhibition

While working on the SLV, he bluntly submitted his views and demanded change in the indifference and red-tape tactics of insensitive bureaucrats; never sugar coated the bitter pill of facts.

Less critical of oneself

Especially when asked about his lack of experience in politics and lack of constitutional knowledge for the presidential role, he said that he would learn on the job.

High tolerance for ambiguity, uncertainty, unknown, strange, etc.

“Actually, problems can be the cutting edge that distinguishes between success and failure. They draw out innate courage and wisdom.”

Less defensive, less in need to protect self

His Padma Bhushan evoked mixed reactions at VSSC. People felt he was being unduly singled out for recognition. And he ‘wondered’ why his close associates turned envious. Yet, the names and achievements of subordinates are given high importance.

Internal locus of evaluation

Even though not an easy task, this he did by setting his own questions, seeking his own answers, and evaluating them for his own satisfaction.
Tendency for Wider Perspective

Looked at missile development as a multi-dimensional business. Even though he came from a technical background, he would assess the marketability of a product before its development.

Trust of intuitions

A major disaster was averted whilst assembling SLV-3 when his intuition told him that the water-ports were not positioned properly. While contemplating on moving from ISRO to DRDO, an inner voice told him that the time had come for renewal. When he met the Defense Minister to get funds allocation, wondering whether they would get enough funds for a project, he had a ‘hunch’ that they would get some funds at any rate.

Openness to experience

Interacting with senior people during childhood “I have never lived of the profits of others’ minds. My life, in keeping with my nature, has never been that of a ruthless achiever.”

“You, me, everyone on this planet is sent free by Him to cultivate all the creative potential within us and live at peace with our own conscience.”

Self-awareness - Less in need to prove oneself

When he was becoming the focus of media attention, he had aroused envy among some senior colleagues but he was willing to accept what he couldn’t change.

No ‘socializing’

His desired to escape from the demands of relationship since he considered it very difficult in comparison to making rockets.

Self-Transcendent level of existence

“One of the most constant and powerful urge I experienced was my desire to be more than what I was at that moment. I desired to feel more, learn more, express more. I desired to grow, improve, purify, expand.”

Wide range of interests

His interest in music, poetry, philosophy…

Open to feelings and emotions

Always took care of the concerns of young scientists and saw that they remained motivated.

Shifting from a conventional perspective and Flexibility

Once a child had asked Kalam whether the missiles developed can reach America. “The questions reflect the child’s innocence, but most of all they show how strongly they feel the desire to live in a strong and prosperous nation.”

Fearless to admit failures

“My story is the story of a scientist tested by failures and setbacks”

Appreciation for creativity

“It is purely because of creativity of the human species that we have grown so much, that we can sit and analyse all this today. I feel we belong to the largeness of this universe, which is controlled and governed by an unseen, powerful force that drives us all to be creative - to belong, to be together.”

Poise

“If you become restless speed up. If you become tense and high-strung, slow down. You should climb the mountain in a state of equilibrium.”

Comfortable with loneliness

Used to spend a good number of hours reading in his room rather going around with his colleagues. Not married.

Ability to take risks / Low fear of failure / Low fear of humiliation

In 1979, after ten years of planning a dream to launch an Indian satellite from Indian soil, despite the computer warnings of a serious error, Dr. Abdul Kalam proceeded to launch the satellite.

Acceptance of conflicts and ability to resolve opposites into wholes

He has always preferred a dash of daring and persistence and allowed mistakes as a part of the learning process. When the launch of the Agni missile was postponed several times, and was promptly mocked by the Indian press, he took it as ‘very common in rocketry’ and motivated hundreds of scientists and staff to successfully launch it within three weeks.

Flexible and exploring

“Not afraid to get his hands dirty or filthy, to use a hammer as a brush, to break something just to see how it works and to start with the impossible, which is where others usually stop” - K. Kasturirangan about Dr. Kalam
Childlike enthusiasm
Quite comfortable with children

Higher goal
India Vision 2020: Igniting young minds: clear awareness of a great need for actualization and renewal.

Excited by challenges
To set a vision for India and see the country as one of the top four developed nations in the world by 2020. “Let me understand the political system. Till a few days back, I was just a professor teaching final year students.”

Less formal, less conventional
Setting up a creativity center for science and education at Rashtrapathi Bhavan

Low in authoritarian values
When he took over as Director of DRDL in the Defense Research Complex at Kanchanbagh, on the periphery of Hyderabad’s Old City, he brought a whiff of ISRO informality to a laboratory that was used to an Army atmosphere.

He refused to move into the bungalow allotted to the Director, preferring to stay in one of the eight suites in the Defense Labs Mess. The suite, with a small study and a tiny bedroom, was his home for the next decade.

Persistence of: motive, liking, capacity for work
Works for almost 20 hours a day

Capable of overcoming inabilities in an effective manner
Effectively dealt with people and organizations where he has had to deal with people who were so full of their own limitations that they had no other way to prove their self-worth than by intimidating him.

Recognizing hidden opportunities of failures
“When your hopes and dreams and goals are dashed, search among the wreckage, you may find a golden opportunity hidden in the ruins. (…) Failures contain within themselves the seeds of further learning, which could lead to better technology, and eventually, to a high level of success.”

Persistence to goals
Desire to continue with his research and teaching activities even after assuming the highest office. Wants to see India as a member of the Group of Eight developed countries and says the country needs creativity and role models in leadership who can inspire the younger generation.

High quality task commitment and Inspired initiative
Dr. Kalam is inspiring a nation to believe in itself, motivating scientists to exploit technology for a better quality of life and telling Indians not to just say Mera Bharat Mahan, but make it so. He chalked a vision to see India as one of the top four developed nations in the world by 2020 much before he even became the President.

Modesty
“My story is that of a leader supported by a large team of dedicated professionals.” The autobiography “Wings of Fire” is marked by it.

Empathetic and Reciprocating
After winning the Bharat Ratna, Kalam’s elder brother who runs a newspaper distribution business near Chennai, wanted to go on Haj. Kalam, who was then heading the DRDO, took leave and supervised his brother’s business for eight days. Dr. Kalam would often say that a majority of employees in most organizations are of average abilities and that it was important to motivate them correctly and ensure that they delivered results. In DRDL, Dr. Kalam created an atmosphere of confidence where young scientists started questioning senior colleagues on solid technical issues. Nothing daunted the young scientists - because they feared nothing. After the Gujarat earthquake, Kalam along with a team of scientists was one of the first to reach Bhuj, and in seven days time, built 500 shelters for 1000 families.

“The real joy of living can be found in only one way – in one’s communion with an eternal source of hidden knowledge within oneself – which each individual is hidden to seek and find for himself or herself”
– Arun Tiwari
[co-author of the Wings of Fire]
Front Cover by Mahinth Gokul
Titled "THINKER" - Oil on Canvas, 2 x 3 ft
It was showcased in many parts of the world as a representative work from Singapore.

"Mahinth tells us the transformation of modern man in modern times. The figure in the painting is similar to a robot and destined to work in tune with machines. The factory depicted on the distant horizon represents the heavy eco-hostile industrialization. The barren land signifies the vanishing fertility of earth and our mind".
http://www.kunstfluss.de/index41.htm

Mahinth Gokul is currently a Consultant in Environment Management and Regulatory Compliance for several global corporations.
He lives in Delaware, USA.

All pencil sketches by Mantraa Rishiga