

SCIENCE AND BEAUTY

: Louis de Broglie

1. By nature, man has a noble instinct which is the desire to search for truth, gain knowledge and to have an understanding of everything.
This is an aspect of science.
2. Man has also another desire - the desire to use laws and forces of nature into the service of mankind.
For this reason man wants to explore the laws of nature.
3. The origin of applied science begins with the attempt to apply laws of nature for decreasing the burden of life.
4. Main features of two fold aspects of science:
 - * To increase knowledge for the delight or happiness of knowing and understanding.
 - * To increase knowledge for utilising the forces of nature to serve mankind.
5. Pure science is for the harmony of the world. Many unknown facts discovered by scientists were already there in nature.
6. History of science says and proves that at all stages of history, a feeling for beauty has guided and directed the minds of the scientists in their research.
7. Here the question arises is there some mysterious link between truth and beauty? The answer could be that truth is beauty and beauty is truth.
8. Applied Science
 - * Science applied to real situation is applied science.
 - * Applied science has transformed human civilisation and the conditions of human existence.

human existence.

- * It would continue to do so till the end of civilisation.
- * With the help of applied science, the forces of nature have been pressed to the service of man, [Heat, electricity, atomic energy : all are under the control of man]
- * Globe is getting smaller and smaller by the speed of modern transport.
- * The world is being on the process of transformation and it has been proved that there is no limit to this progress and transformation.

9. Applied science and technology have their peculiar beauty. By beauty here it does not mean the beauty of synchronisation between parts of a machine.

It refers to moral beauty in applied science.

10. Moral beauty in applied science

It refers to :

- * Flourishing the lot (luck/fate) of mankind by making life easier, by administering man's suffering and decreasing the cause of sickness and death.
 - * Such beauty is compassionate. It tends to render greater services.
 - * It has a sensitive approach.
11. Nothing in this world is an unmixed blessing. Every merit is associated with a demerit.
- * While scientific discoveries and inventions have brought benefits to mankind, they have also made armed conflicts more critical and deadly.

MAHATMA GANDHI

LOUIS FISCHER

1. Gandhi was not born great.
2. As a young boy, he made mistakes. He was an unsuccessful lawyer, an ordinary individual until he remade himself.
3. He had a deep faith in himself as well as in the common people of India.
[Common people: farmers, labourers, vendors etc.]
4. Gandhi transformed ordinary men and women into heroes of life. He taught them fearlessness.
5. Gandhi was a life long champion of "non-violence".
6. Once he told, if he has to choose between violence and cowardice, he would go for violence as cowardice (fear) kills one's spirit of freedom.
7. Gandhi straightened our backs and spines. He made us challenge the system. He made people so heroic that they would lie down in the tracks of vehicles and trains, in the path of galloping horses.
8. Civil disobedience movement was Gandhi's unique political weapon. It was employed to establish the higher law of conscience.
9. Democracy is meaningless without the right to disagree. Like Thoreau, Gandhi gave emphasis on individual's right to oppose Govt. when the Govt. is at wrong.
10. Modern world is degenerating and the cause is "materialism".
11. Gandhi explained materialism as accumulation of wealth and "brute force" (force that is treacherous) to crush the spirit of freedom.

12. Gandhi never told any one to give up wealth or power. Rather he taught a set of values that would give real happiness which is not dependent on material possession.
13. Renouncing worldly assets should not be a momentary decision. One should not renounce materialism until the person has won over his/her desire. As long as there is an inner desire to avail the comforts of materialism, one should keep it. Renunciation needs a clean and pure heart.
14. When one finds that something or the other has no longer any attraction for him/her, he/she can go for renunciation.
15. Materialism in form of mad desire to destroy distance and time, to increase animal appetite and to reach the other end of earth in search of satisfaction could never take the ~~ste~~ world a step nearer to its real goal.
16. When he was asked why didn't he travel to the West to teach his doctrine (principle) of materialism, his answer was rather blunt:
 Why someone should travel so far to teach two times two is four?
 He meant that the Western world knows the truth. But they are enslaved to the things. They would not love to rise above the level of material comforts which involves job security, social approval, personal safety, economic security etc.
19. Gandhi, Gandhian concept and India's liberation:
 * Gandhi is known for his successful effort to liberate India.
 * For him developing India through her people with freedom of spirit was more important than freeing India.
 * Most of Gandhi's followers were not Gandhians. They did not share his ideas.

- * They only accepted his leadership because it paved a smooth way to achieve India's freedom. For them national independence was an end.
- * But for Gandhi, it could not be an end. Political freedom can never be equalised with freedom of spirit.
- * Furthermore, what worsen the matter was the birth of two bleeding children torn violently from the body of mother India that marked India's independence in colour red.
- * He didn't celebrate on 15th August, 1947.

20. Gandhi and Nationalism

- * Gandhi was a nationalist. He loved India; but, he was not "Indo-maniac" (exhibiting love for India in an unreasonable matter).
- * He said he would not bring harm upon England to help or to do good to India.
- * All the time he fought against British-Boer racial discrimination in South Africa and British Imperialism in India.
- * He never believed in the term "enemy". He tried to understand them.
- * The British in India were victims of their past. In liberating India, Gandhi also liberated the British in India for a new future.

21. Gandhi's idea on "War and life with the Opposition after war"

- * During a "war" time, Gandhi never forgot that we have to live with the enemy after the war is done. Isolated independence could not be the goal.
- * He fought against England without fostering Anti-White or Anti-West sentiment among Indians. He also did not allow the British to hate Indians.
- * He could bring about a balance between white-supremacy and brown arrogance.

22. Gandhian Philosophy

- * Gandhi's philosophy is like two parallel bars of equal sign (equality without similarity).
- * All (races, nations, religions and persons) are equal while not loosing their individual identity. Gandhi treated all equally while paying respect to their individuality.
- * Gandhi had preferences. He preferred Hinduism.
- * Gandhi loved India more than other countries.
- * He loved some of his immediate associates more than others. But no one was a second class.
- * He worked throughout his life against casteism, untouchability, pride, provincial and religious separation.

23. On all his ideologies, philosophies and many other subjects, ^{Gandhi wrote} in volumes and in details.

24. He spoke in many occasions.

25. He showed that it is possible to be good and effective.

26. Gandhi's contribution to the world

- * Gandhi's biggest contribution to the modern world is his LIFE.
- * He proved that it is possible to be a Christ in 20th Century.
- * Tagore told about him in following words -
"Gandhi will not succeed. Perhaps he will fail as Buddha failed and as Christ failed to wear men from their inequalities, but he will always be remembered as one who made his life a lesson for all ages to come".

27. Gandhi belongs to the world

- * The life of Gandhi, reveals a purity of purpose, devotion to truth, greatness of mind, humanity, spirit and character.
- * He was an Indian. He belongs to the world.

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TENSE

"Tense" is the form of a verb which shows "the time of action and its degree of completeness".

There are two tenses - past and present

Future is not tense - it is time as no action is done.

There are 04 tense forms:

1. Simple - it simply states an action.
2. Progressive - it indicates that the action continues.
3. Perfect - it shows that the action is complete.
4. Perfect Progressive - it denotes that the action has been continuous.

TENSE TABLE

Tense	Tense Form	Verb Form	Example
Present Tense	Simple	V ₁	I see.
	Progressive	is/am/are + V ₄	We are seeing.
	Perfect	has/have + V ₃	He has seen.
	Perfect Prog.	has/have + been + V ₄	They have been seeing.
Past Tense	Simple	V ₂	He saw.
	Progressive	was/were + V ₄	She was seeing.
	Perfect	had + V ₃	I had seen.
	Perfect Prog.	had + been + V ₄	You had been seeing.
Future Time	Simple	will/shall + V ₁	We shall see.
	Progressive	will/shall + be + V ₄	I shall be seeing.
	Perfect	will/shall + have + V ₃	He will have seen.
	Perfect Prog.	will/shall + have + been + V ₄	They shall have been seeing.

[Note that : V₁ - Verb present , V₂ - Verb past ,
 V₃ - verb past participle ,
 V₄ - verb present participle or Verb-ing]

APPLICATION OF TENSE FORMS:

1. Simple Present : It states -

- a. Universal truth : Sun rises in the east.
Two and two makes four.
- b. Scientific truth : Oil floats on water.
- c. A habitual fact : We play tennis in the evening.
He goes to temple every Monday.
- d. A planned future action: Our college closes on 18th.

2. Present Progressive : It expresses -

- a. An action going on at the time of speaking about it :
She is listening to radio.
I am working out a sum
- b. Two actions simultaneously taking place at the time of speaking : He is dancing while his brother is singing.
- c. A longer action that is continuous in a sentence. The other shorter action remains in simple present tense form.
She visits me while I am cooking.

3. Present Perfect : It denotes

- a. An action that is completed just at the time of speaking about it : Sumeet has completed the task.
- b. A past action that continues up to the present moment :
: I have learnt French for a year.
(Means: I am still learning French)
- c. The first action where there are two actions in a sentence. The second action remains in simple present.
: By the time the doctor arrives they have sifted him to the hospital.

4. Perfect Progressive : It states -

- An action that began in past and still continues.
- : She has been waiting for you since Monday.

1. Simple Past : It is used to indicate (past action)

- a. An action done in past : I wrote a letter to Salima.
She died of cholera.
- b. A habitual action in past : He took a morning walk daily.
We lived and played for years together.

6. Past Progressive : It denotes (past action)

- a. An action that was going on at the time of speaking :
: I was taking my breakfast.
- b. Two actions simultaneously going on at the time of speaking : While I was eating, he was talking.
- c. A longer action that continued while a shorter action took place.
Longer action - past progressive
Shorter action - simple past
: Some one rang the bell while I was watering the plants.

7. Past Perfect : It is used to express an action which had been completed before another action began : Sher Singh came when I had finished my work.

8. Past Perfect Progressive : It is used to express an action that has been going on at, or before some point of time in the past : I had been studying for three hours before I went to bed.

9. Simple Future : It is used to express an action in future time : I shall write to her next week.
They will play a match on Monday.

10. Future Progressive : It speaks of an action as going on at some point of time in future :
: He will be looking after the plants by then.
I shall be washing my cloths.

Future Perfect : It indicates an action that will be completed at some point of time in future.

: They shall have heard the news by the time you reach there.

I shall have completed my work by that time.

12. Future Perfect Progressive : It indicates an action that will have been going on at, or before, some point of time in future.

: He will have been studying commerce for three years by next year.

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