

King Abdulaziz University

THE SYSTEMATIC RELATIONSHIP PRACTICE (1) MEMORIZATION (2) UNDERSTANDING AND (3) BOTH MEMORIZATION AND UNDERSTANDING, ONE OF THE SUSTAINABLE BASES OF NATIONAL DEVELOPMENT

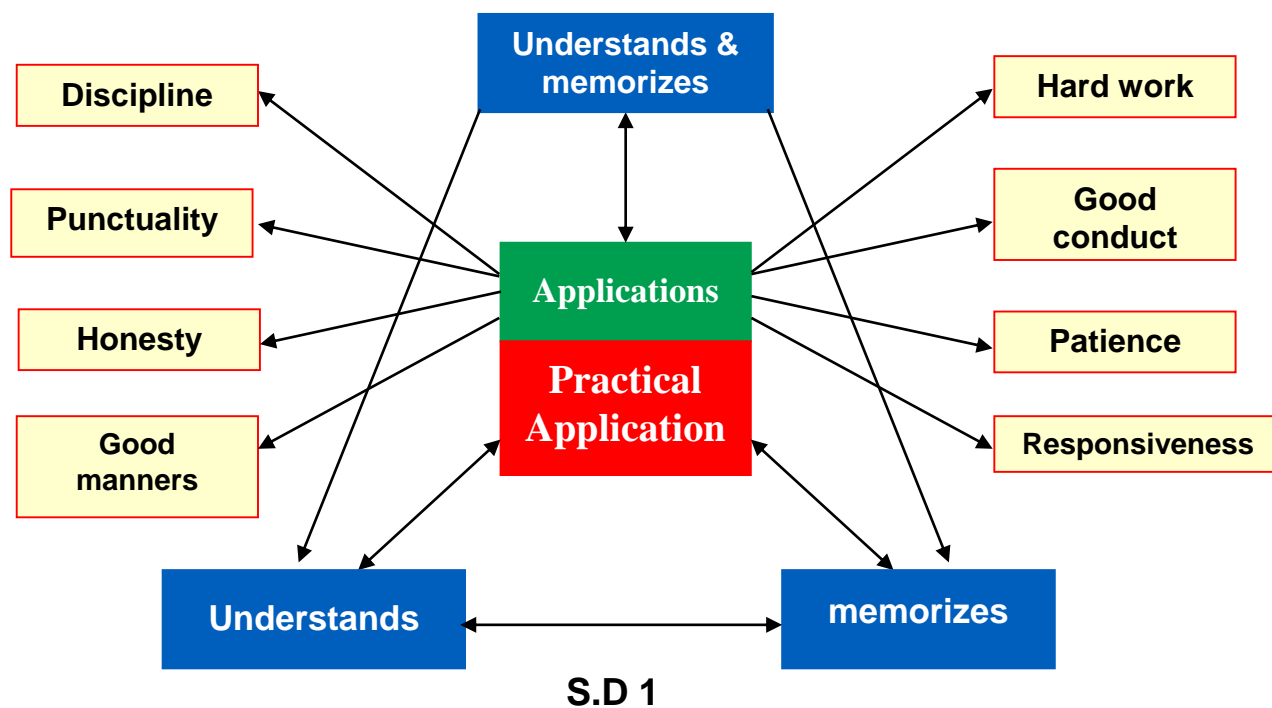
Maisaa Mohmed Al-Rawi* and Hassan Abdulkader
Al Bar**

* Dept. of Biology, Girls Edu. college, Makkah, P.O.B. 10122, Makkah 21955, E.mail:
mrawi5@hotmail.com

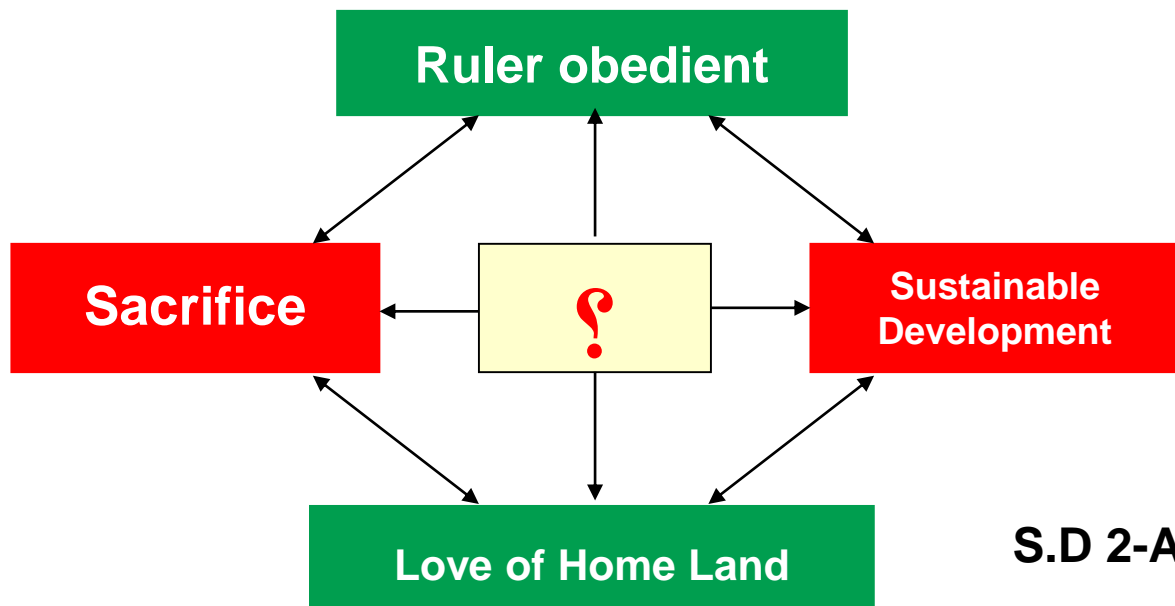
** Dept. of Chemistry, King Abdulaziz University. P.O.B. 80203, Jeddah 21589. Website:
kau.edu.sa/halbar

The applied ability and skill of the student doesn't depend on memorization and understanding or on both of them. The student who understands a piece of knowledge only or who memorizes in brain only or who can understand and memorizes by heart does not achieve in practice. To achieve in practice, the student needs means characteristics in his personality such as discipline, punctuality, honesty, hard work and good manners, good conduct, patience and responsiveness as shown in the following advanced application

(**S**ystemic **D**iagram 1 = S. D. 1):

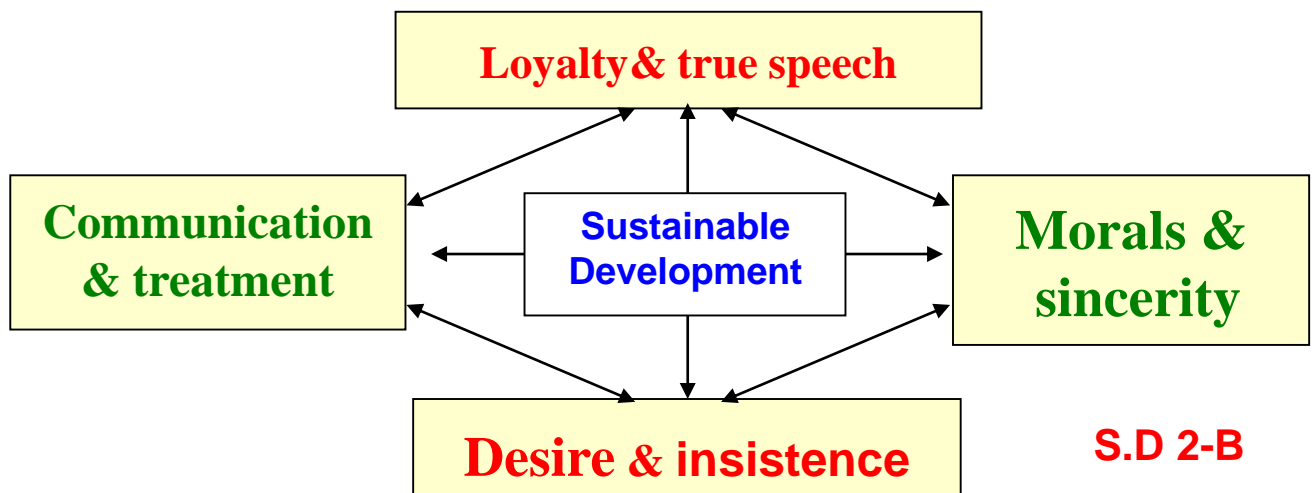


So, we find the student who understands or land who memorizes cannot achieve progress in practice without these characteristics. The top of these characteristics is referred to by a question mark (?) in the S.D. 2-A. This characteristic systematically joins ruler obedient, love of home land, sacrifice and sustainable development to each other as shown in figure (S.D. no. 2-A).

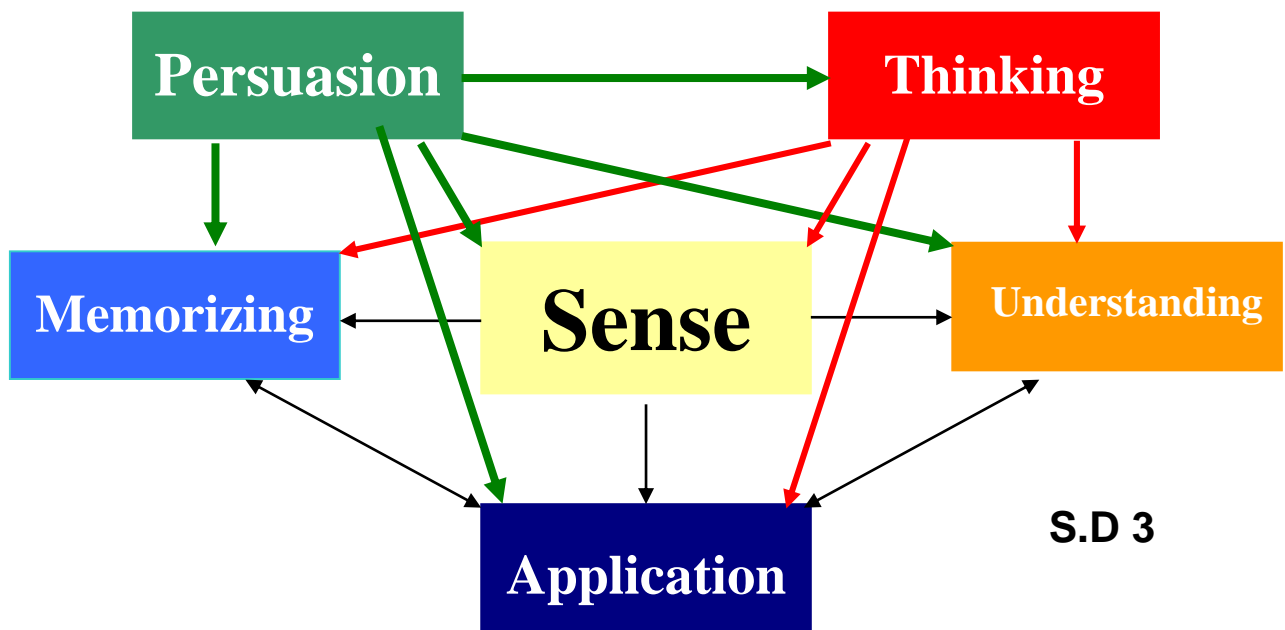


S.D 2-A

Many of joining systems can be formed up by every three or four characteristics favored for our students. This, of course, will be reflected on all aspects and levels of sustainable development in our religious societies. Such four- dimensional system is shown in S.D. 2-B. **It includes honesty and loyalty, morals and sincerity, communication and treatment, desire and insistence. Rally, every one belongs to his homeland should have these characteristics.**



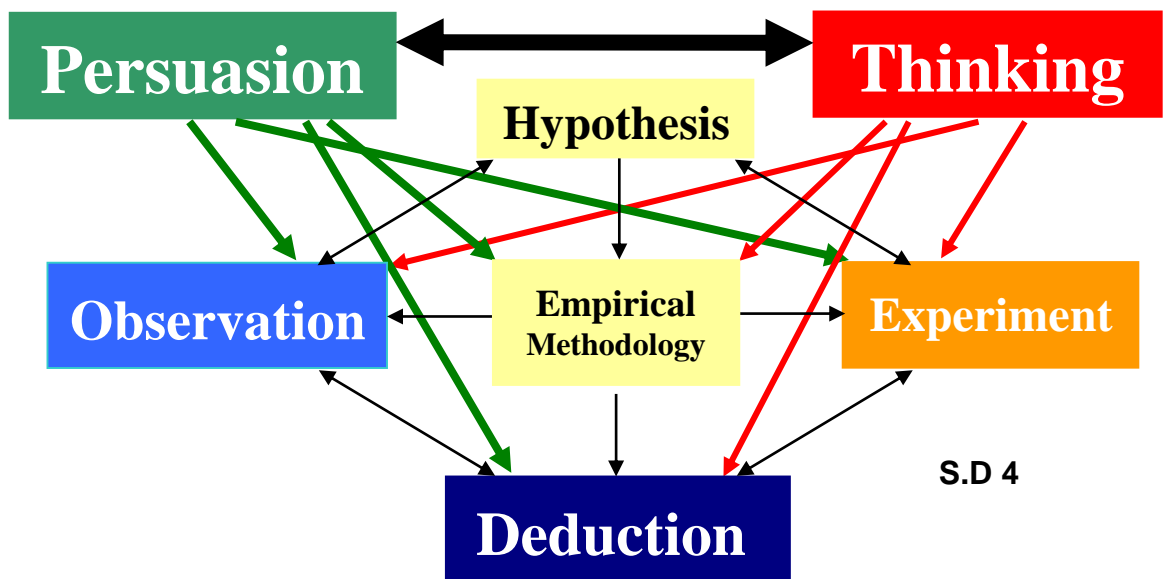
Understanding and memorization depend on thinking Persuasion. Thinking leads to understand and memorize the scientific subjects. Moreover we should concentrate greatly when we receive the scientific knowledge in order to understand it and as a result memorizing it. The most important methods and techniques of learning is using our special characteristics that concern with sense to support the intellectual thinking in order to understand the subject. The following system shows the importance of linking the persuasion of the learner with thinking concentration to understand the information. This will supports and distinguishes the scientific application of scientific information when we use it in the scientific life.



S.D 3

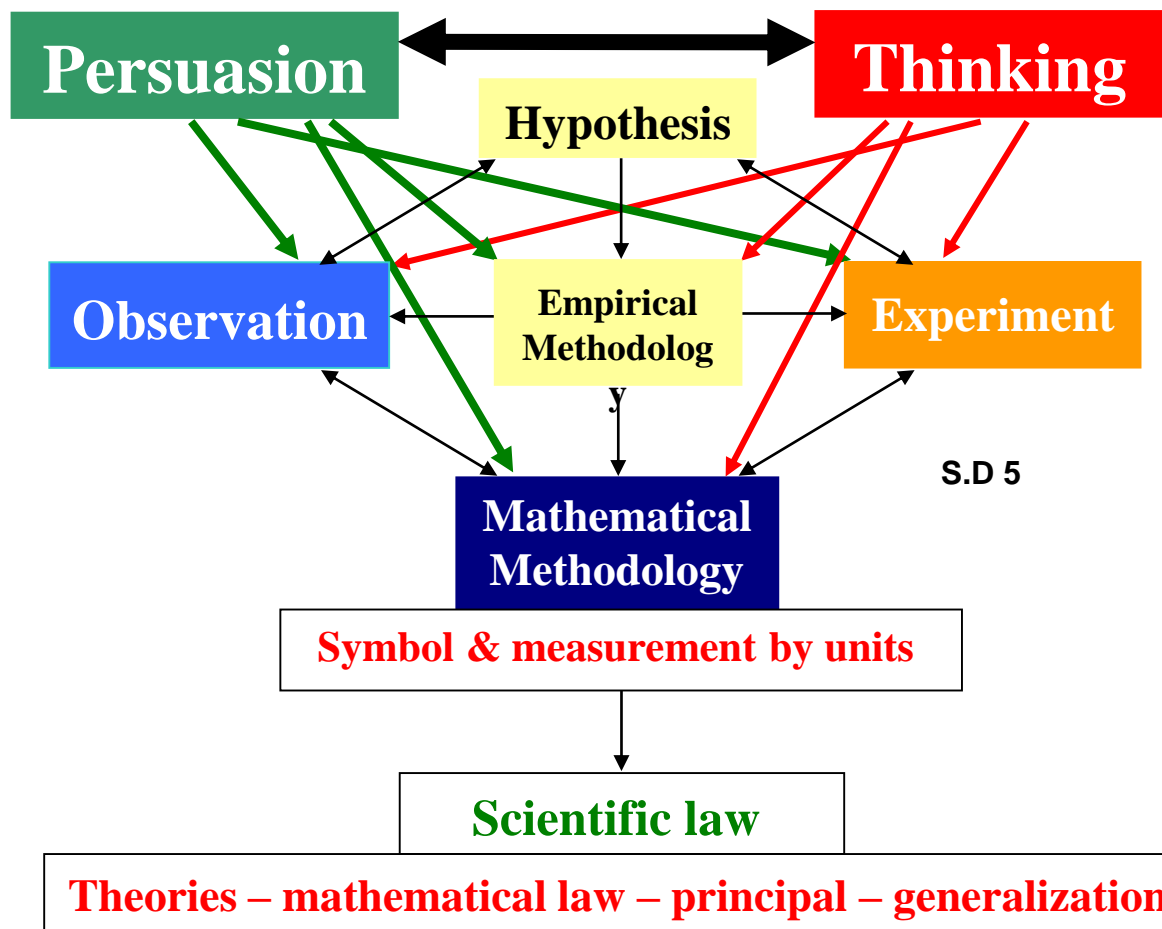
“Empirical Methodology depends on material basis that provide us with results which explain some of universal phenomenon”

Empirical (experimental) methodology studies or develops a certain phenomenon. Moreover, the literature background of the phenomenon is searched to obtain its benefits in addition to thinking experience and scientific persuasion to put a work strategy by using the scientific experiment that leads to deductions that explain this phenomenon or develop it as shown in the following S.D.4.

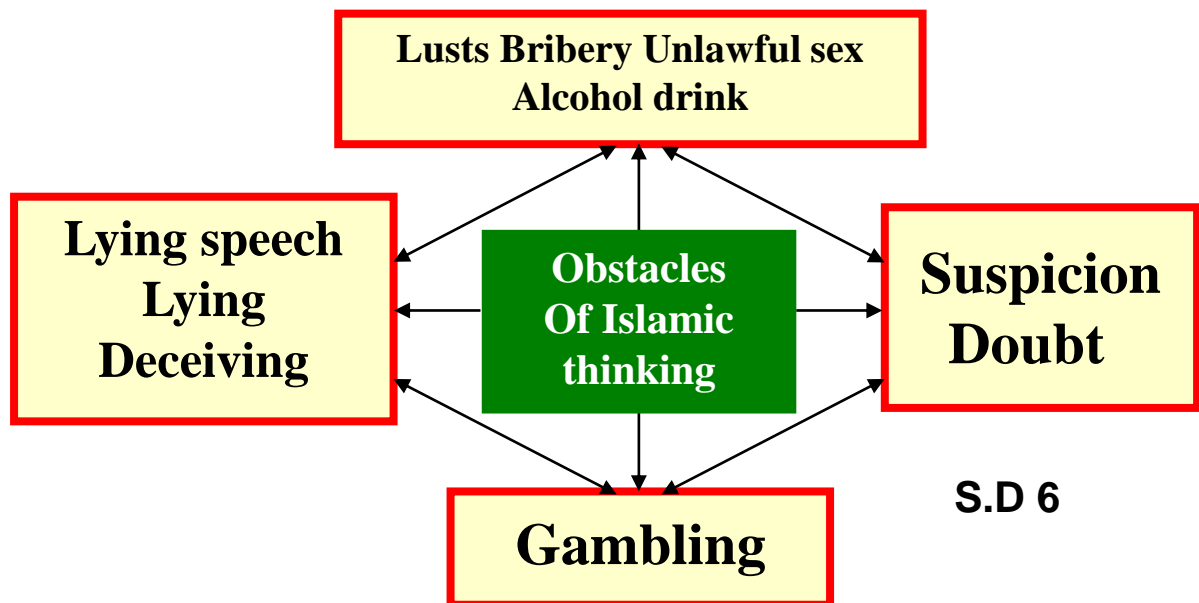


“Muslims success in using the scientific methodology to put some lows concern with some of the universal phenomenon and they preceded the others in this aspect”

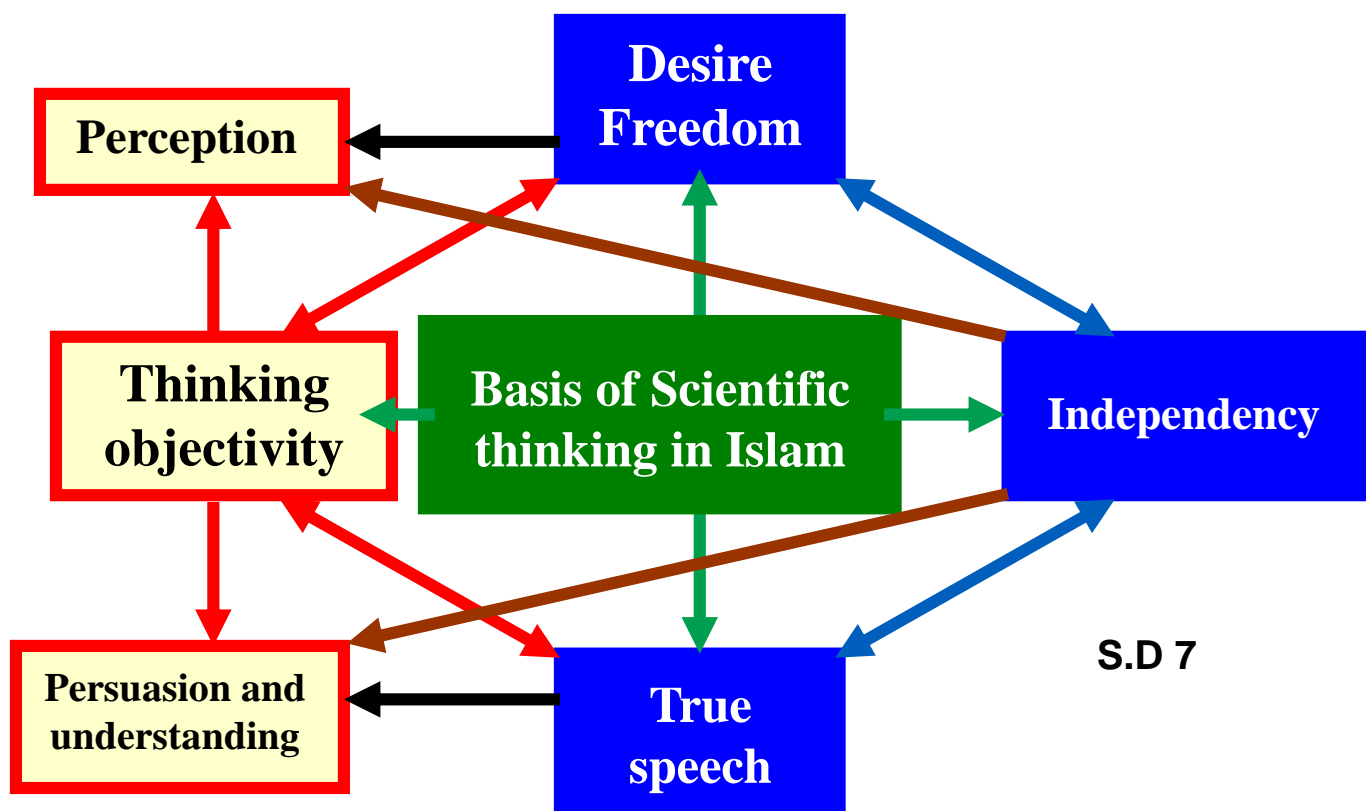
To complete the system S.D.4 to show the Muslims role in applying the scientific methodology to achieve the scientific low that explains the theories, tenderizations, principles, and mathematical low. And there are many famous scientists as: (1) Ibn-Al Haytham, (2) Al Khowarizmy,(3) Gabber Bin Hyan (4) Al Byrony and (5) Ibn Sina. The following system shows that the Islamic scientists depended on thinking and persuasion to make hypothesizes, achieving it scientifically, noting the observations of the experiments and its results accurately. Also, they put lows by using symbols and units of measurement.



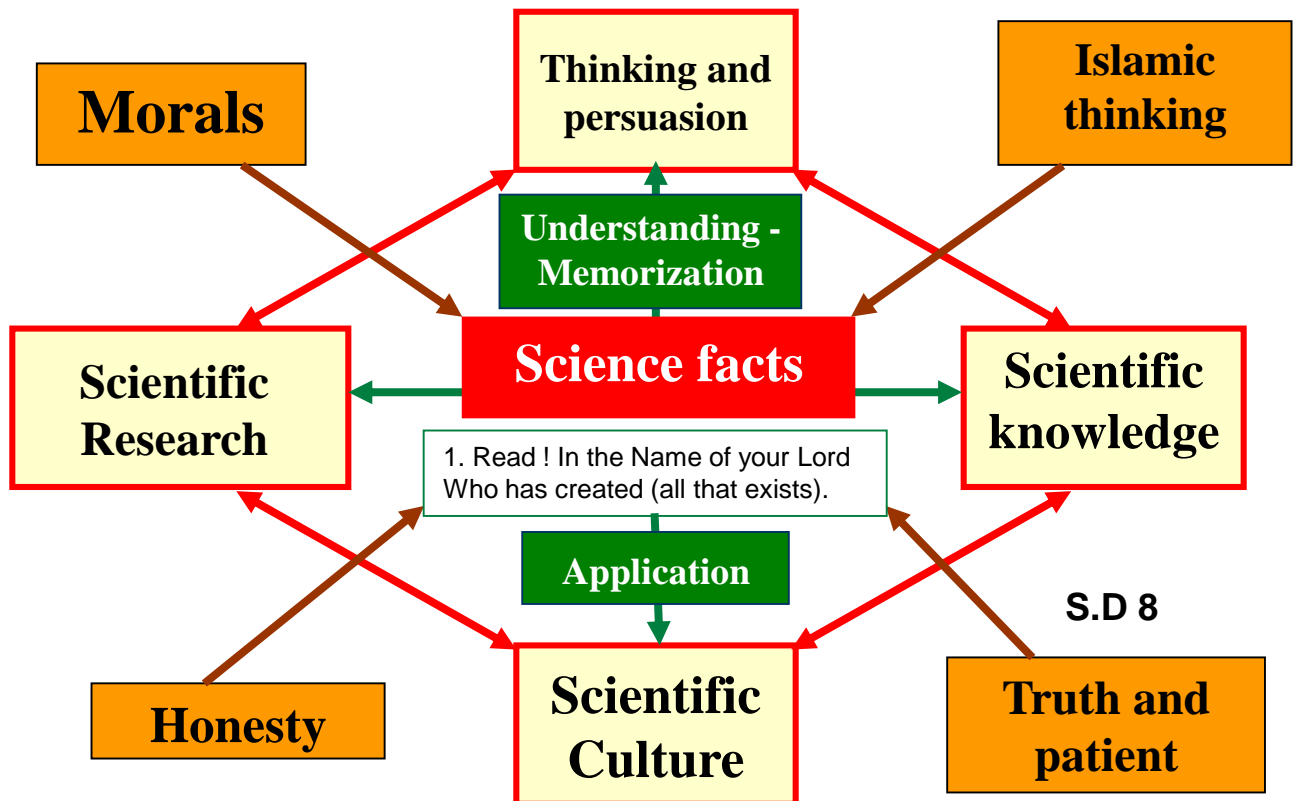
The teacher and learner should save their health (cleaning, discipline and punctuality) their mental and psychological state (to help them to think clearly) modest during communication and treatments (religion is the treatment) loyalty and fidelity in work.....etc. In order to save these characters of the human that appear during his control to his abilities, skills and desires against the obstacles of Islamic thinking that mentioned in Holly Qur'an and the Sunna as we should avoid the psych (bribery, wine and unlawful sex), suspicion in treatments (conjecture and backbiting), lying speech (lying or saying false statements) and gambling as shown in S.D.6. Really, these obstacles destroy good thinking that supports understanding the universal phenomenon to have its benefits in raising the human during his life as shown in S.D.17



The learner can use thinking after recognizing the credibility and importance of the science and after studying one of the universal phenomenon and understanding and memorizing it, so he should have some characteristics as (1)Free desire (care with his psych, health mind, principles and his believes), (2) Independency as refusing imitation to avoid: a) any conflict with the others that leads to terrorism and b) psych destruction, (3) credibility of thinking as avoid using any wrong techniques that mislead the universal scientific realities, (4) true speech as the learner should be true with himself , through noting the scientific results and true with the environment where he lives. The system S.D. 7 shows these characteristics that are considered the basis of the scientific thinking in Islam.

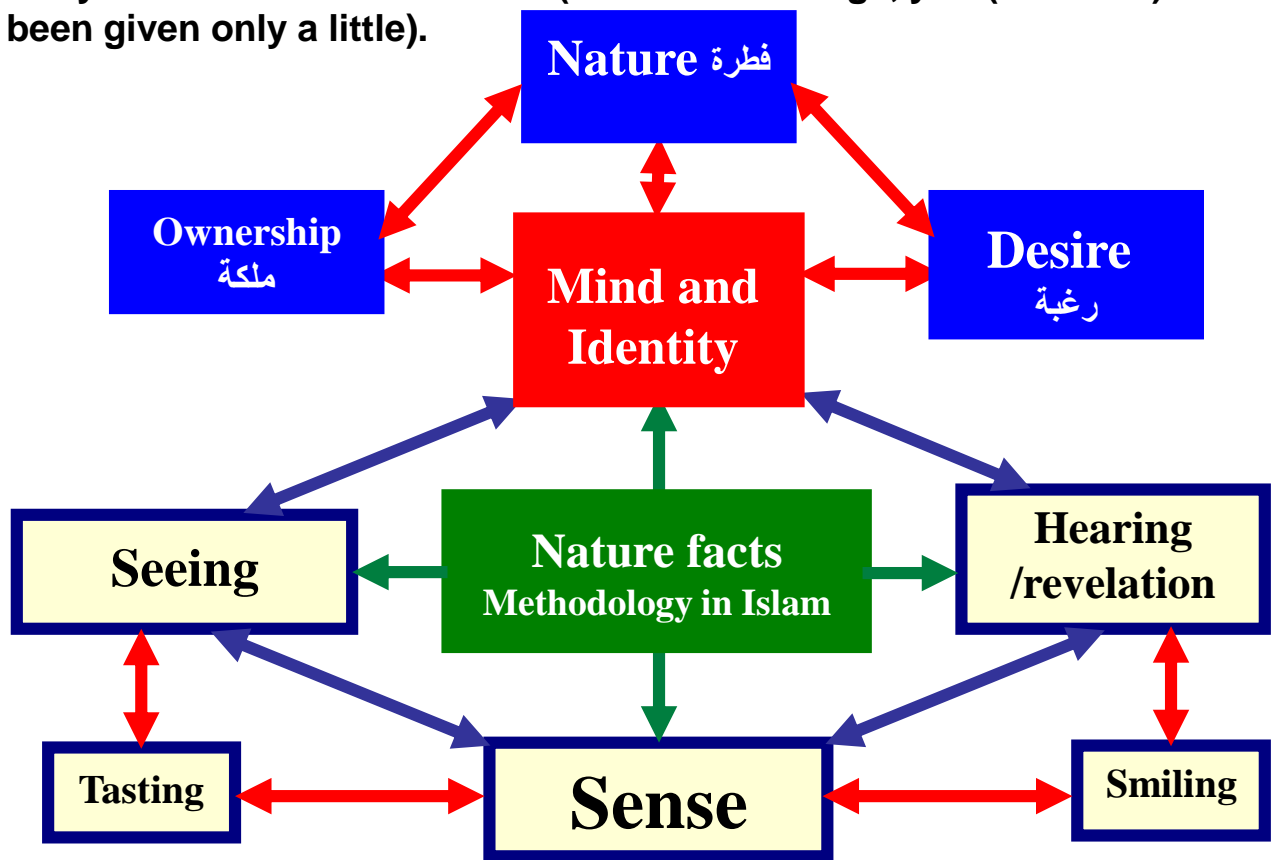


The basis of religion is the word READ as mentioned in Holly Qur'an and the Sunna, and it means that science is characterized by four concepts as: (1)Thinking and persuasion (2) scientific knowledge (3) scientific research (4) scientific culture (S.D.8). We can believe what we read by thinking and persuasion when we find the credibility of the scientific evidence. Also, the scientific culture is being represented now in scientific magazines, data, and the works of the scientists and their history through years. Moreover, religion asks the human to investigate the substances and materials generally that all creatures are made from the creator (Allah). **Rally, the more discoveries and explanations of the universal phenomenon, the more thinking and persuasion of the creator of this universe.** In addition, we can utilize the benefits of these materials in good ways as development and establishing the civilizations that depend on the basis of the sciences reality, not in destruction. Also, we live now in **our life stage (see S.D. 17)** that we can make it good or bad and this is depending on the purposes of the human. What we have mentioned is human thinking that if he is persuaded by it, he will understand the reality of science to use it in the scientific application of good aspects and raising home land.



Thinking is non material and is happening in the mind of the human which the brain is material likes the computer where information is saved and restored by our mind when we need it. The question is how information stored is (saved) in the brain for a long time without missing it? Also, what is the human's memory strength?

The answer is thinking that depends on persuasion leads to understanding that is translated in the brain where information is stored. Moreover the strength of the memory depends on many factors that represented in the mental facts that the human feels as: (1) the mind which leads the human thinking (2) Senses (hearing, seeing, touching, smiling and tasting) (3) Non material sense as revelation , non material feeling and non material tasting. As a result, we can say that thinking depends on the psych of the learner during his thinking of on of the universal phenomenon and during his interaction with it as shown in S.D. 9. In addition, throughout establishing a complete knowledge that supported by scientific experiments, we find that the rang of thinking is increased and we discover some of mental facts that supported by developing our non material abilities that make us think greatly of the creatures of the universe and assure that our knowledge is little when increasing our discovery of the universe as mentioned in Holly Qur'an in Sorat Al- Esraa (And of knowledge, you (mankind) have been given only a little).

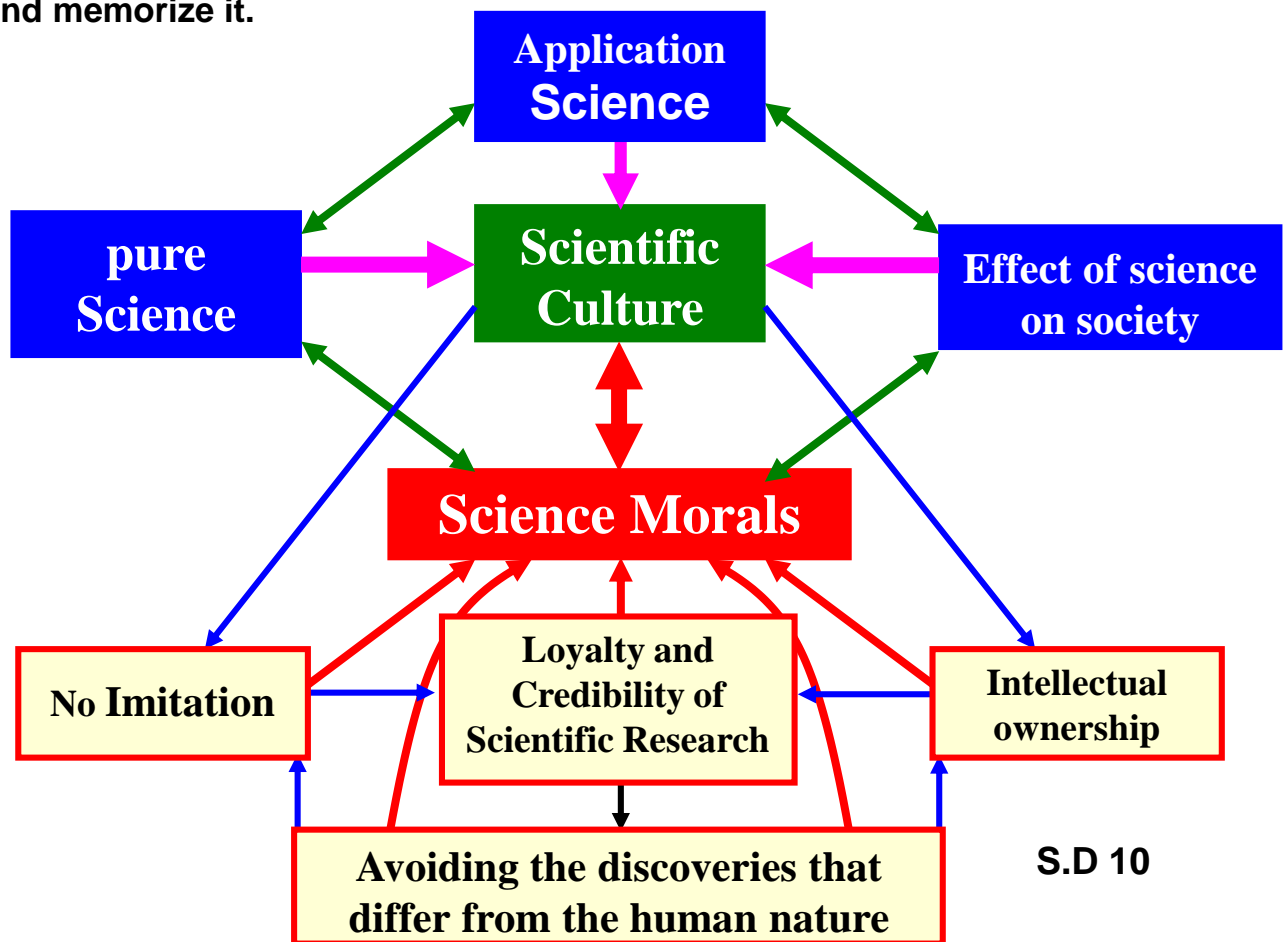


S.D 9

System S.D.10 shows the morals of science that followed in Islam and it depends on the following concepts: (1) Scientific culture.(2)Thinking ownership.(3) Don't imitate.(4)Avoiding the discoveries that differ from the human nature.

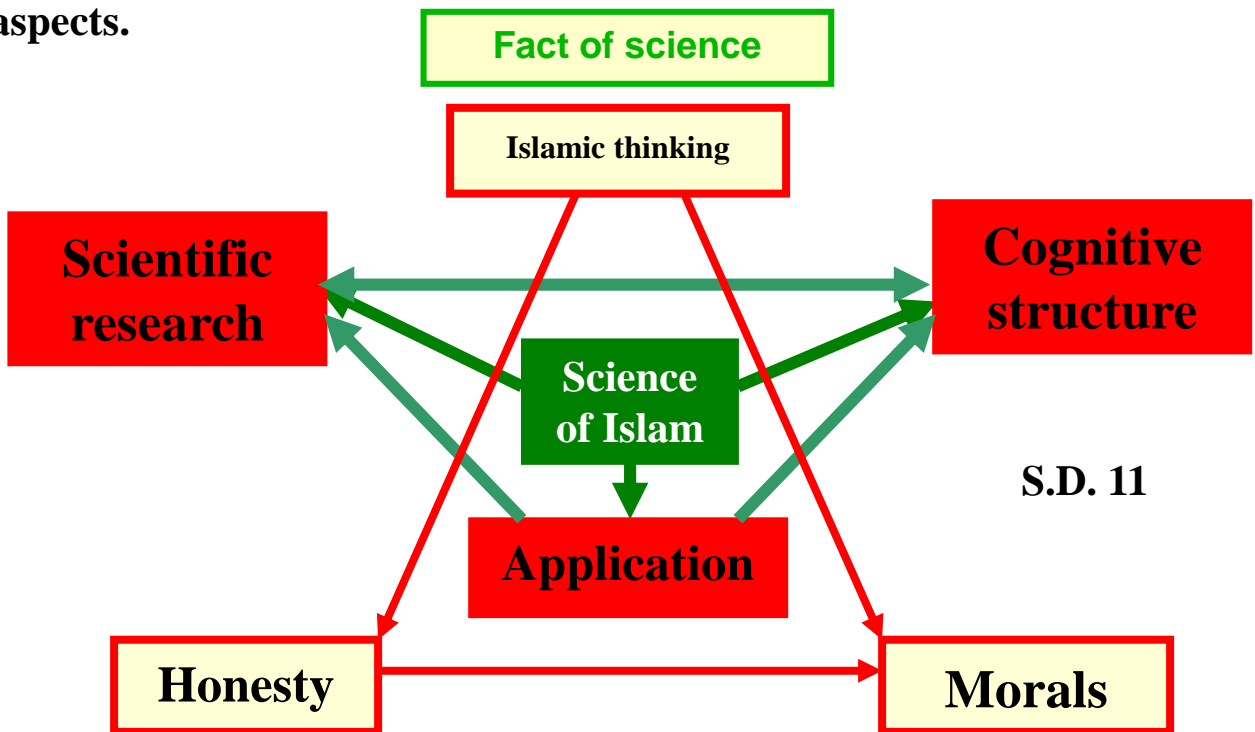
Avoiding the blind imitation (that is considered one of the scientific development obstacles and that leads to many problems as terrorism) and avoiding the discoveries that go away from the natural abilities of the human as destruction by using biological weapons and the nuclear radiation that destroy our ordinary life. Allah, glorified is He creates the human on the nature of respect, good morals to think of His creatures and to believe in Him. The examples of this what is issued by the American law to destroy the fertilized ovum after its sixteenth's division when the nervous cells are created.

Concerning scientific culture(S.D.10), it has the history of this science from the beginning of the life. So, this culture should equal the level of science morals as credibility in the scientific application, noting its effect on the societies truly, and it should have the scientific ownership for every discovery and translating it to benefit all coming generations easily and to help the learner to understand and memorize it.



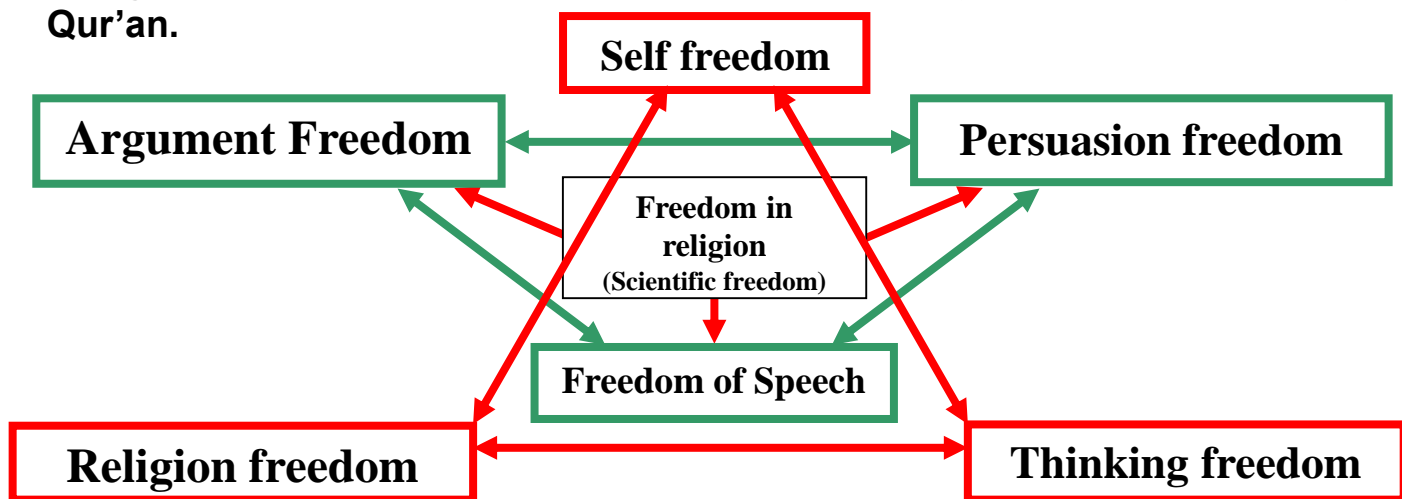
Islam shows that the science depends on (1) cognitive structure and (2) the scientific research. Both of the concern with the scientific applications to explain the different universal phenomenon. Also, he should own good thinking and loyalty to achieve the application that raise the human during his life as shown in the following S.D.11.

The fact of science depends on believe in Allah, justice and equity and they are the basis that all sciences built on and depends on the amount of cognitive structure that we gain to be used in the scientific research to recognize the universal phenomenon. And this is to increase believe in God. Moreover, we should do our best, have good morals and have loyalty in noting and explaining the results of discoveries by using several methods of scientific research as a result we can use it in applied aspects.



S.D. 11

The system S.D12 shows the freedom of religion from the freedom of thinking which appears from inside the freedom of human (as shown in red triangle). Moreover, green triangle shows the strategies if expressing the freedom of religion and science from with freedom of persuasion, argument and speech (S.D.12). Moreover, the freedom of religion should be supported by evidences, examples, the sunna and prophecies ...etc (as shown in S.D.13). We show and represent the evidences of persuasion in the educational, religious methodology that we follow in our environment, also, we should show the systemic link that concerns with importance of understanding that should be supported by thinking and persuasion to be stored for a time in the brain depending on the learner's understanding and persuasion. This methodology is reflected on the level of scientific application for both cognitive structure and scientific research. In addition, the researcher is responsible for developing the learner's abilities according to his skills and attitudes by using techniques of evaluating his abilities. Also, S.D.14 shows the bases that support the scientific methodology (as using the mind, personal freedom) and supported by evidences from Holly Qur'an.



S.D. 12

سورة البقرة

Verily, the Right Path has become distinct from the wrong path. Whoever disbelieves in *Tāghūt*¹¹ and believes in Allāh, then he has grasped the most trustworthy handhold that will never break. And Allāh is All-Hearer, All-Knower.

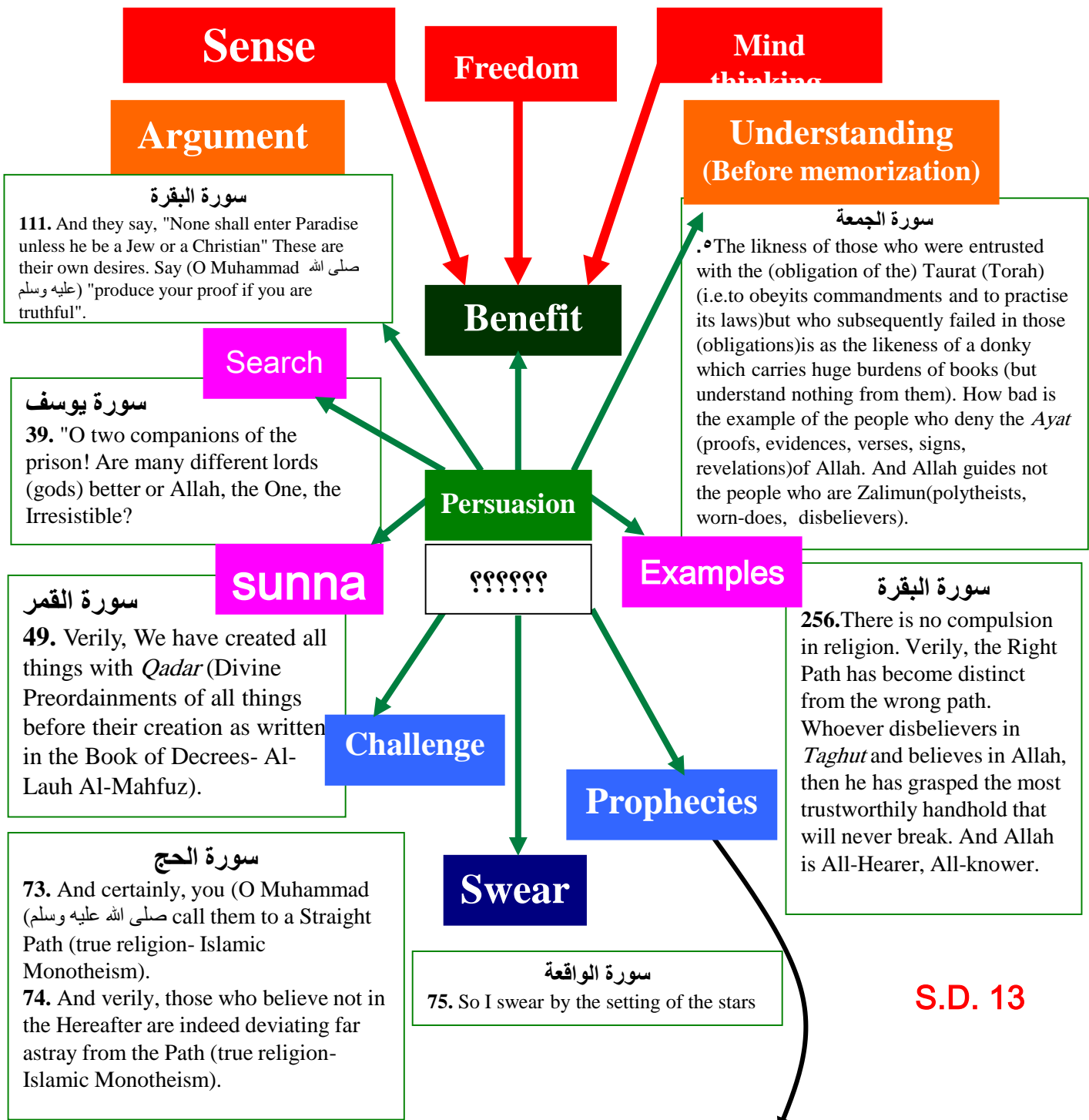
سورة الممتحنة

8. Allāh does not forbid you to deal justly and kindly with those who fought not against you on account of religion nor drove you out of your homes. Verily, Allāh loves those who deal with equity.

سورة العنكبوت

46. And argue not with the people of the Scripture (Jews and Christians), unless it be in (a way) that is better (with good words and in good manner, inviting them to Islāmic Monotheism with His Verses), except with such of them as do wrong; and say (to them): "We believe in that which has been revealed

to us and revealed to you; our *Ilāh* (God) and your *Ilāh* (God) is One (i.e. Allāh), and to Him we have submitted (as Muslims)."



S.D. 13

سورة الروم

1. *Alif-Lam-Mim*. (These letters are one of the miracles of the Quran, and none but Allah (Alone) knows their meanings).
2. The Romans have been defeated.
3. In the nearest land (Syria, Iraq, Jordan, and Palestine) and they, after their defeat will be victorious.
4. Within three to nine years. The decision of the matter, before and after (these events) is only with Allah, (before the defeat of the Romans by the Persians, and after the defeat of the Persians by the Romans) And on that Day, the believers (i.e. Muslims) will rejoice (at the victory given by Allah to the Romans against Persians).
5. With the help of Allah. He helps whom He wills, and He is the All-Mighty, the Most Merciful.

سورة الحج

So shun the abomination (worshipping) of idol, and shun lying speech (false statements)

سورة النجم

28. But they have no knowledge thereof. They follow but a guess, and verily, guess is no substitute for the truth.

سورة البقرة

195. Do not throw yourselves into destruction (by not spending your wealth in the cause of Allah).

Refusing lying speech

forbidding Risk

Refusing lusts

Forbidding imitation

Islamic thinking

سورة التوبة

31. They (Jews and Christians) took their rabbis and their monks to be their lords besides Allah (by obeying them in things which they made lawful or unlawful according to their own desires without being ordered by Allah), and (they also took as their Lord) Messiah, son of Maryam (Mary), while they (Jews and Christians) were commanded (in the Taurat "Torah" and the Injeel "Gospel") to worship none but One Ilah (Allah) La ilaha illa Huwa (none has the right to be worshipped but He). Glorified is He (far above is He) from having the partners they associate (with Him).

Refusing suspicion

سورة آل عمران

191. Those who remember Allah (always, and in prayers) standing, sitting, and lying down on their sides, and think deeply about the creation of the heavens and the earth (saying): Our Lord! You have not created (all) this without purpose, glory to You (Exalted are You above all that they associate with You as parents). Give us salvation from the torment of the fire.

Scientific methodology

Mind using

See S.D. 13

Persuasion

سورة الحج

46. Have they not traveled through the land, and have they hearts wherewith to understand and ears wherewith to hear? Verily, it is not the eyes that grow blind, but it is the hearts which are in the breasts that grow blind.

سورة الرعد

3. And it is He Who spread out the earth and placed therein firm mountains and rivers and of every kind of fruits He made *Zawjain Ithnain* (two in pairs- may mean two kinds or it may mean: of two varieties, e.g. black and white, sweet and sour, small and big). He brings the night as a cover over the day. Verily, in these things, there are *Ayat* (proofs, evidences, lessons, signs, etc.) for a people who reflect.

S.D.14

Research methodology

Personal freedom

Imperial sense

(persuasion of materials)
(persuasion of nonmaterial)

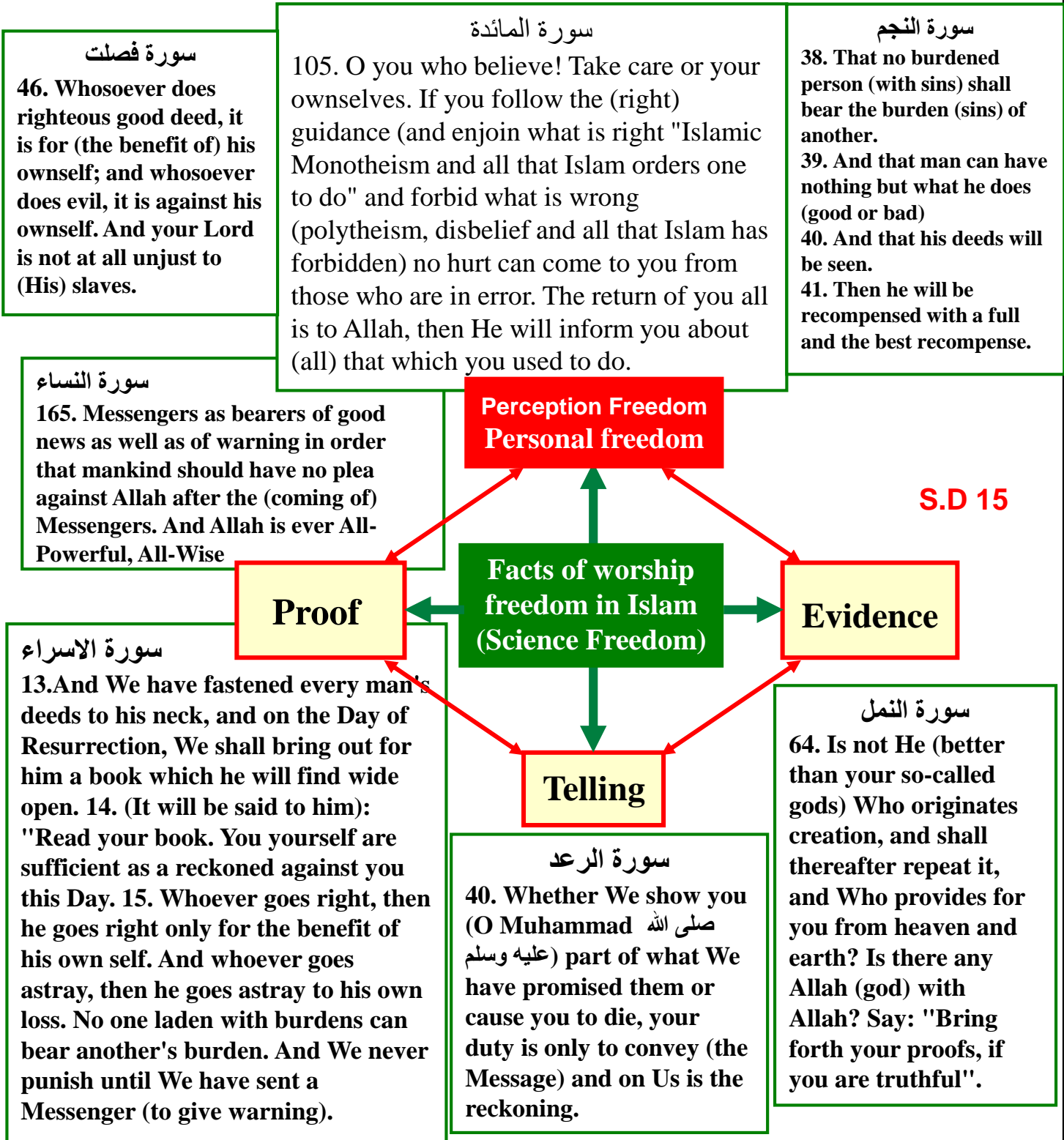
سورة الأنعام

97. It is He Who has set the stars for you, so that you may guide your course with their help through the darkness of the land and the sea. We have (indeed) explained in detail Our *Ayat* (proofs, evidences, lessons, signs) for a people who know.

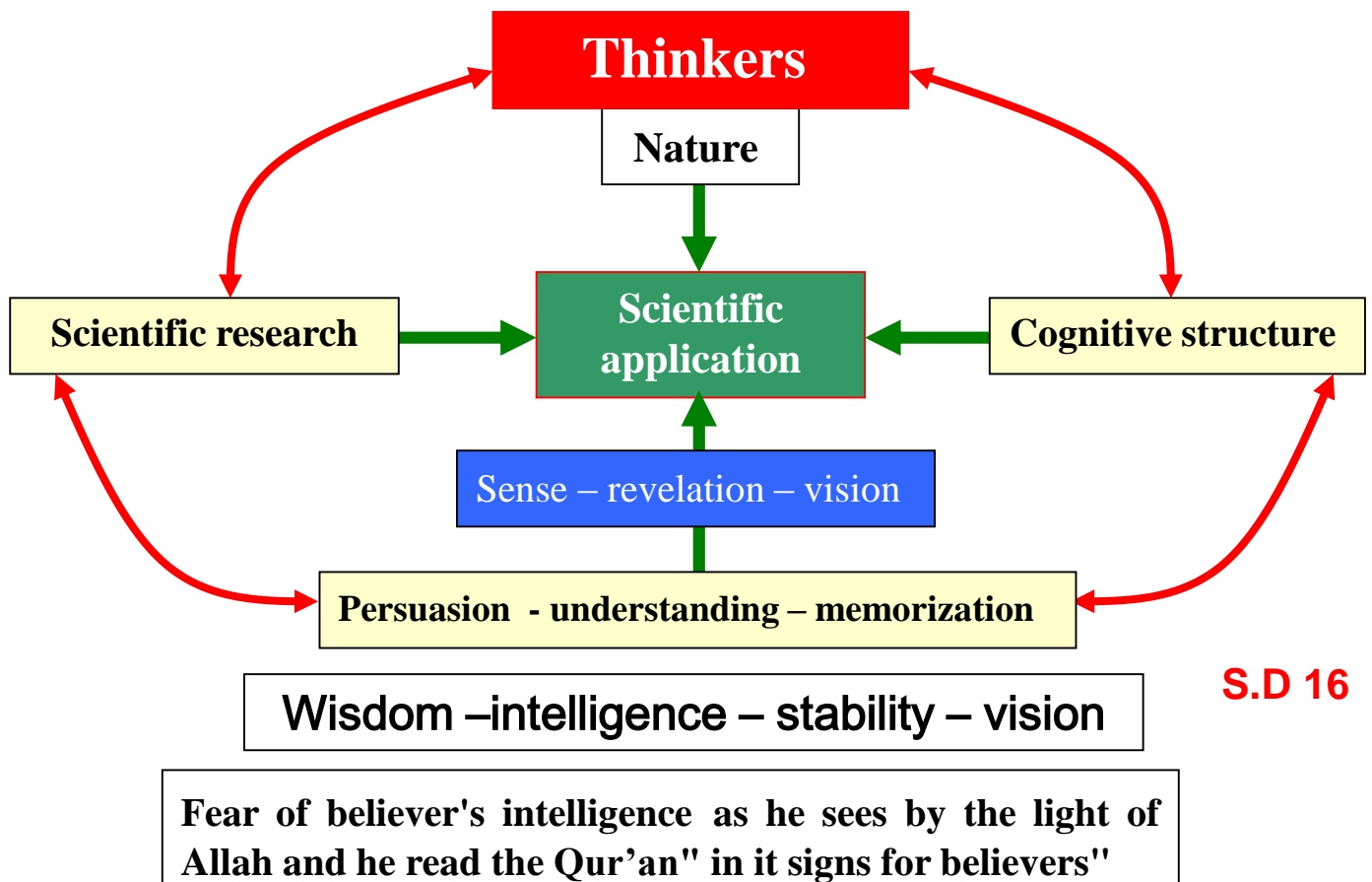
سورة البقرة

256. There is no compulsion in religion. Verily, the Right Path has become distinct from the wrong path. Whoever disbelievers in *Taghut* and believers in Allah, then he has grasped the most trustworthy handhold that will never break. And Allah is All-Hearer, All-Knower.

We will recognize the facts of worship freedom or science freedom that depends on evidence and desire independency in expressing and work in addition to being free in his actions that don't hurt him or the others (S.D.15). Moreover, when the teacher feels free and independent, it will be reflected on his freedom of using methodology and the mechanism of giving information to the learner. Really, the learner's self confidence will increase, if he has a certain amount of independency. And, this will be reflected on raising ranges of his perceptions of thinking and persuasion to lead him to the way of memorizing and understanding that reflected on strengthening his cognitive structure and artistic skills. And, this makes his application in the scientific life is distinguished and reflected on raising the development levels in the Country (home land).



Kingdom of Saudi Arabia is interested in developing the abilities of talents whom are expected good thinkers and responsible for continuing thinking and persuading the learners to develop the scientific knowledge and research to serve the kingdom. The role of thinkers in the kingdom now is guiding every talent (according to his attitudes, nature and abilities) to develop his thinking abilities to feel independent, so he will understand and memorize greatly, and this will be reflected on developing the cognitive structure that will be the basis of developing the scientific research in the kingdom. And, this will lead to creations that suite the natural resources in the kingdom to be used in the applied aspects and sectors. In addition, wisdom, stability and intelligence are characters of the thinkers.



S.D 16

سورة البقرة

269. He grants Hikmah to whom He pleases, and he, to whom Hikmah is granted, is indeed granted abundant good. But none remember (will receive admonition) except men of understanding.

سورة الحجر

75. Surely in this are signs for those who see (or understand or learn the lessons from the signs of Allah).

W 'd like to show that the human cycle that mentioned in the system S.D.17 agrees with most of the religions. This system shows three stages as: (1)Paradise/ Hell, (2) life, (3) the Day of judgment. This stages includes the material actions that we feel and mentioned in blue circle as: (1) Birth (2) Death (3) Day of Judgment (Doomsday). Also, we should confess that it is a certain period that can't be changed by any one so the scientific education should be built on good basis as good treatments, true speech, patience, and loyalty. This is to build generations on the human morals that guide their thinking towards the applied aspects of peace to avoid terrorism that all religion refuse and call for peace.

سورة البقرة

25. And give glad tidings to those who believe and do righteous good deeds, that for them will be Gardens under which rivers flow (Paradise). Every time they will be provided with a fruit therefrom they will say: This is what were provided with before, and they will be given things in resemblance (i.e. in the same form but different in taste) and they shall have therein *Azawajun Mutahharatun* (purified mates or wives) and they will abide therein forever.

سورة النجم
38. That no burdened person (with sins) shall bear (sins) of another.

Paradise / Hell

Birth

Doomsday

سورة الاسراء

55. And your Lord knows best all who are in the heavens and the earth. And indeed. We have preferred some of the Prophets to others, and to Dawaud (David) We gave the Zabur (Psalms).

سورة محمد

36. The life of this world is but play and pastime but if you believe (in the Oneness of Allah-Islamic Monotheism) and fear Allah and avoid evil, He will grant you your wages and will not ask you your wealth.

Human circle

سورة الروم
56. And those who have been bestowed with knowledge and faith will say: Indeed you have stayed according to the Decree of Allah until the Day of Resurrection: so this is the Day of Resurrection, but you knew not.

Life after death

سورة الاسراء

life

25. Your Lord knows best what is in your inner-selves. If you are righteous, then verily He is ever Most Forgiving to those who turn to Him again in obedience and in repentance.

سورة غافر
46. The fire, they are exposed to it morning and afternoon. And on the Day when the Hour will be established (it will be said to the angels): "Cause Firaun's (Pharaoh) people to enter the severest torment!.

Body – Soul

Death

Body – Soul

S.D.17

**Soul back to God
Body back to earth**

**Both of them control
the materials**

Soul out of body

سورة آل عمران

سورة الاسراء
85. And they ask you (O) صلى الله عليه وسلم Muhammad concerning the *Ruh* (the Spirit); Say: "The *Ruh* is one of the things, the knowledge of which is only with my Lord. And of knowledge, you (mankind) have been given only a little".

Abo horira said prophet Mohammed said " place of foot in paradise is better than life

سورة آل عمران
189. And to Allah belongs the dominion of the heavens and the earth, and Allah has power over all things.

سورة محمد

27. Then how (will it be) when the angles will take their souls at death, smiting their faces and their backs?