Ten fractal faculties…

…*a pattern of us all?*

Origin and progress of the *Octaikon* project.
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faculty, n. 1. Aptitude for any special kind of action; power inherent in the body.
2. branch of art or science, department of University teaching.
fractal, a. A detailed (geometric) pattern that is self-similar at different scales.
**Octaikon**, n. *oct-eye-con.* An educational graphic model of a person based on ten faculties.

About two decades ago I became increasingly exercised by the way people approached life (for instance at play, work or worship) in different ways, each arguing that theirs was the best. I started reading articles and books about our behaviour and beliefs, so as to find answers. But I soon became even more frustrated when each concept or theory was presented as being the truest explanation, and comparison with others was often limited.

I decided that there must be a better way to understand things and looked for common features among the theories. I soon noticed that many identified *four* aspects of secular or religious life, often presented as extremes of two intersecting axes. The description of each aspect varied according to the theory, but there seemed to be underlying human faculties common to us all, which could be described as **observation**, **interpretation**, **expression** and **application** (*A,E,I,O = you* is a useful mnemonic).

I
O — A
E
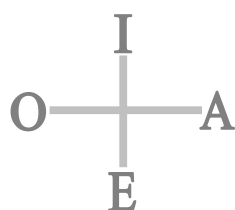
These four faculties embrace more than their names imply. *Observation* (or watching, if you like) includes not only how and what we take in through our five (or more) senses, but all stuff we consume (e.g. air, food). *Interpretation* is how we think, using our reason or logic, solving problems – that is, processing with our brain. *Expression* includes not only speech, but also gestures and emotions – all the ways we convey thoughts and ideas. And *application* is our output – doing physical actions, and includes the things we produce.

The following are examples of the ideas and theories that gave me clues for defining these four underlying faculties: The Hippocratic humours - *phlegmatic, melancholic, sanguine, choleric;* Jung's temperaments - *introvert watcher, introvert thinker, extravert talker, extravert doer (see next figure)*; Hans Eysenck's approaches to government - *Democratic-autocratic, conservative-radical*; effects on health of drugs: *sensory, mental, behavioural, physical;* Honey and Mumford's ways of learning - *reflector, theorist, activist, pragmatist*; and forms of religious piety (Swanson) - *Ascetical, sensual, intellectual, emotional.*
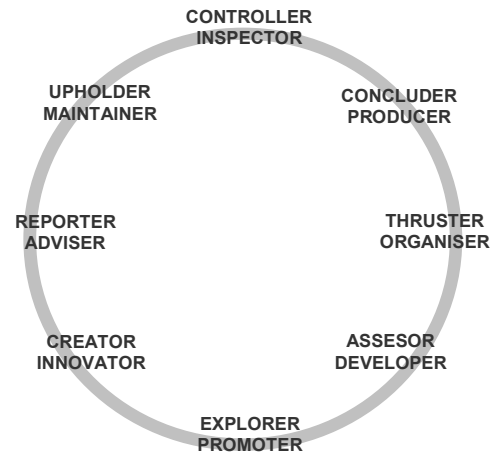
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Melancholic
Introvert
Thinker

Phlegmatic
Introvert
Watcher

Choleric
Extrovert
Doer

Sanguine
Extrovert
Talker
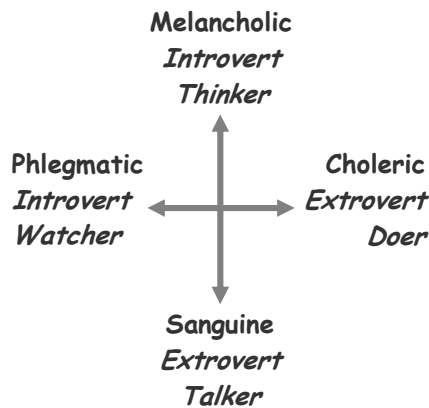
Since the four faculties can be indentified in just about all theories, they can be qualified as *main* or *primary* ones. However, the degree to which they correspond to the four aspects of any idea varies, and it's important to note that the faculties overlap in scope, and there are sometimes alternative ways in which the different theories can be made to correspond with each other.

We'll now consider further faculties, which can be described as *secondary* or *linking*.
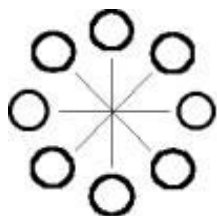
As I studied more, it became clear that whereas many ideas required only four or just two descriptors, others were based on multiples of four – eight or sixteen. And rather than forming intersecting axes, those with eight had a circular arrangement and relationship one to another. The clues to identifying the underlying faculties of these came mainly from the team theories of Margerison & McCann (*see next figure*), and Belbin & Pretty; the problem-solving ideas of E. & M. Lumsdaine; and the learning styles of Kolb & McCarthy.

CONTROLLER
INSPECTOR

UPHOLDER
MAINTAINER

CONCLUDER
PRODUCER

REPORTER
ADVISER

THRUSTER
ORGANISER

CREATOR
INNOVATOR

ASSESOR
DEVELOPER

EXPLORER
PROMOTER

The four additional faculties (making a total of eight) in effect link the four primary faculties to form a circle or octagon. These secondary faculties can be named as follows: ***monitoring,*** linking observation and interpretation; ***judging,*** linking interpretation and application; ***directing,*** linking application and expression; and ***creating,*** linking expression and observation, completing the circle.
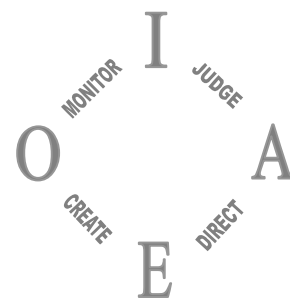
Again, these four names encompass much more than they imply. *Monitoring* is concerned with comparing, distinguishing or differentiating things into parts and finding their purpose. On the other hand, *directing* is to do with integrating things back together, and giving meaning and direction to the whole. *Judging* embraces the decisions or choices we make, and the rules that govern them (natural or man-made), whereas *creating* is to do with creativity in all its forms – freedom (from control), imagination, art, innovation, or humour.

As with the primary faculties, their boundaries are not clear-cut and there is a lot of overlap. For example, judging involves interpretation, and creating involves expression. But there is a logical link between them all. For instance, we may observe, then discern, interpret, decide, and finally act. Not only that, but faculties opposite each other form pairs that have complementary roles (for example, *judging* involves control whereas *creating* is freedom from control). This is a feature of all the original ideas and concepts studied.

This synthesis of ideas into eight underlying common faculties was helpful as far as it went. But it highlighted two links that were not covered in existing studies – that is, between *interpretation* and *expression*, and *observation* and *application*. These two faculties I had to propose myself, and called them **reflecting** (inner dialogue, meditation or prayer), and **relating** (in all its forms, mainly externally with other people).
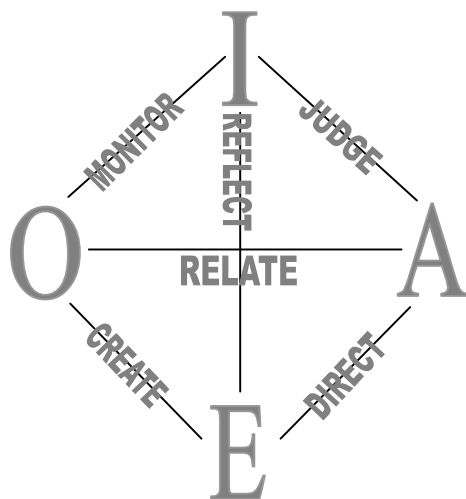

In diagrammatic form, they intersect in the middle of the octagon. And like the other faculties, they also form a complementary pair (inward vs. outward), making five pairs of faculties in all.

As this octagonal/circular/intersecting model of ten faculties emerged out of the synthesis of ideas, I was concerned to represent the fact that people can be thought of as body and soul – since many of the concepts dealt with what is religious or spiritual. Intuitively, it seemed to me that the outer part of the diagram would represent the body, whereas the inner would be the soul. This seemed appropriate, since the two faculties of *reflecting* and *relating* that crossed the centre appeared to be the most spiritual of the ten faculties.

As I gradually developed the description and structure of four, eight, then ten faculties to represent all the ideas I had studied, I quickly tried to make the model more visually clear using colours, rather than letters and lines. The result was a circular colour wheel, fading to white in the middle.
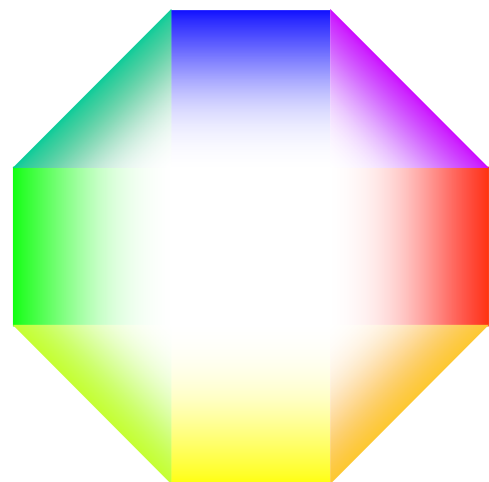

I called this an *Octaikon,* since it is octagonal and it facilitates thinking about the spiritual world. Serendipitously, the colour wheel spectrum corresponded very well with common perceptions of the eight "outer" faculties (e.g. red for doing, green for observing). I also devised symbols to help explain the model (e.g. a cloud for interpretation) (*see next figure*).
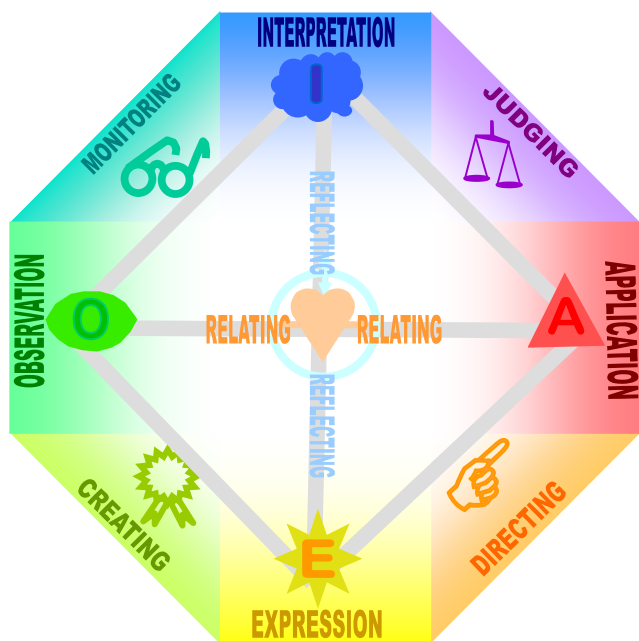
The blank coloured *Octaikon* formed a very useful framework on which to map the elements of existing theories, summarising them and showing how they might relate together. It also encouraged me to develop my own ideas about how people behave and what they believe. Over several years, I gradually documented these mostly as slides, using graphics and presentation programs.

These slides are laid out with an *Octaikon* mapped with key features on one side, and a short explanation on the other (*see example of Lumsdaines' problem solving*). I call them *Okki-maps*, and they are a type of mind-map as devised by Tony Buzan. To date, over one hundred maps have been produced as I explored different ideas and developed my own. Some ideas correspond to the faculties very well, whereas with others there is only a tentative correspondence. As with many tools, it is possible to use the *Octaikon* in ways it was not originally intended for, in which case comparison between ideas must be done carefully and critically.
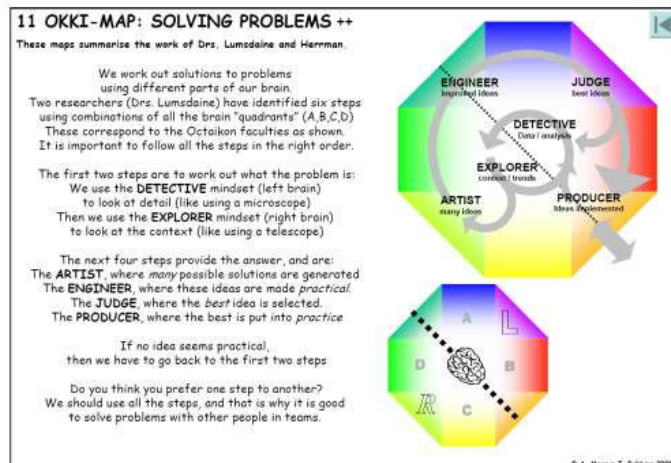
It was only later in my studies that I realised that the underlying ten faculties of the *Octaikon* formed an excellent model of how we function, body and soul – in its own right and without reference to the originating theories, say of personalities or learning styles, on which it is based. Since each faculty can be described in such a way as to be understandable by young people, I conceived the idea of using the model as a life-long learning tool for self-understanding and development. This would be done by starting with the underlying faculties, and then graduating to the more specific and complex theories from which the *Octaikon* model evolved, as the need arose.

To this end, I have devised many introductory explanations of the model, suitable for a wide range of audiences and situations – all focusing on how to look after and develop our faculties. They include Flash-movie interactive models, a cartoon character (*Okki the Acrobat*), and a story about a boy who is introduced to the faculties, as characters, in a dream (*Toby's Tent*). One form of the model is a set of magnetised coloured blocks (*Okki-blocs*), which can be used not only as an aid in teaching older people, but also in play for children of kindergarten and primary age.
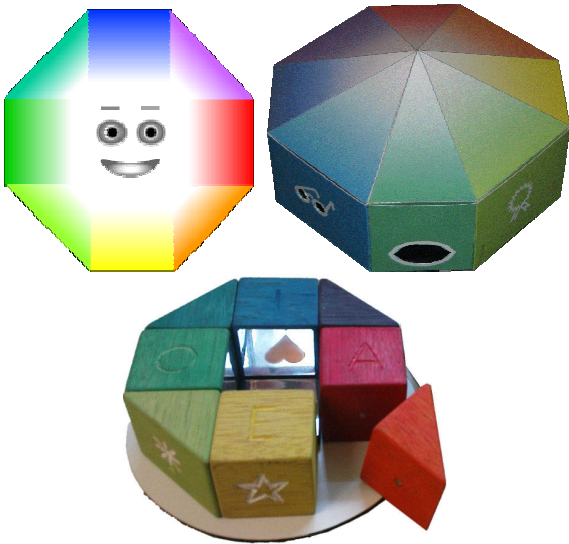
A characteristic of the model that has become apparent over time is its **fractal** nature (I use the word in a loose sense). By this I mean that the pattern of faculties seems to be repeated at different scales. The model started life representing an individual person, but it can also represent (at a lower scale) a specific part or aspect of a person, or (at a higher scale) a group of people, a community, a nation, and even the whole universe. Thought of in terms of evolution, this self-similarity at different scales is perhaps not surprising.

Two examples of repetition at a lower scale are as follows. With regard to using the model just for the *interpretation* faculty, studies by Herrman suggest that the left and right hemispheres of the brain can each be divided into two areas, making four quadrants, each concerned with different modes of thought. These correspond remarkably well with the characteristics of each faculty, showing how brain functioning underpins all we do (*see next figure*). And with regard to the *expression* faculty, the function of the eight parts of speech in language appear to correspond with the requirements of each faculty, too.
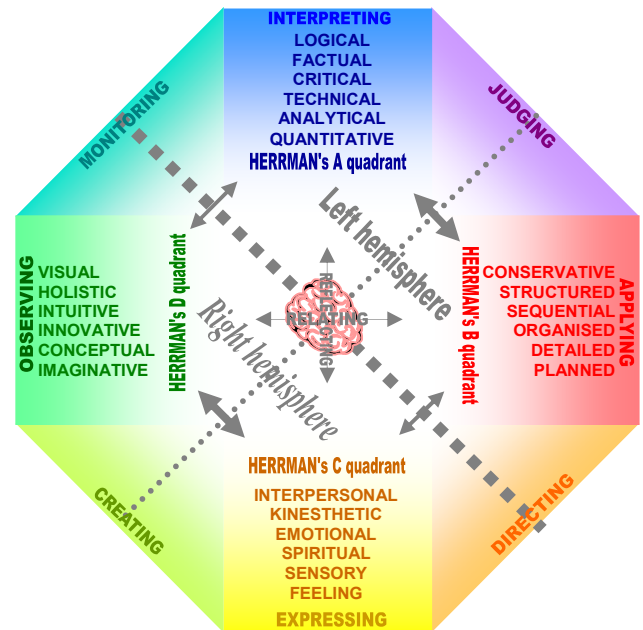
Examples of repetition at a larger scale are many. For example, Eysenck's theory of governance types applies to groups of people. I think there is also correlation in wider ethnic groups and types of religious communities or denominations. At the ultimate of scales, the cosmic level, I've found that the ten faculties form a useful way of looking at reality as a whole, relating them to matter, energy, patterns, and other aspects of the universe (*see next figure*).
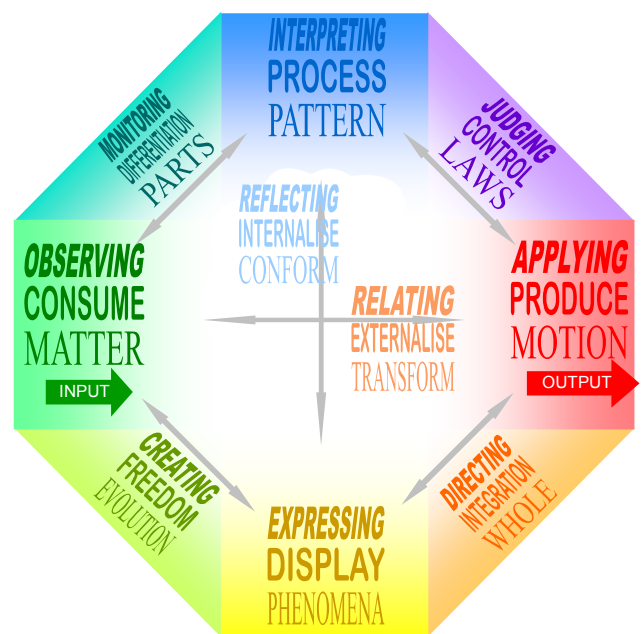
This should not come as a surprise either since we all have come from stardust! My essay *"Faculties of the Universe"* explores that idea further.

This brings me on to the use of the *Octaikon* model to help understand spiritual issues. The studies I came across about these mostly stopped short of constructing a graphical model. I therefore had to experiment using the faculties to make sense of theological ideas. Even if there were no clear correlations, trying to find them certainly helped me to understand these ideas better. Attempts to map concepts such as body/soul/spirit, the trinity, dual vs. non-dual, types of prayer, spiritual gifts, forms of love, sources of knowledge, and aspects of sin can be revealing and helpful. I also went beyond my own Christian under-standing to look at other religious beliefs.
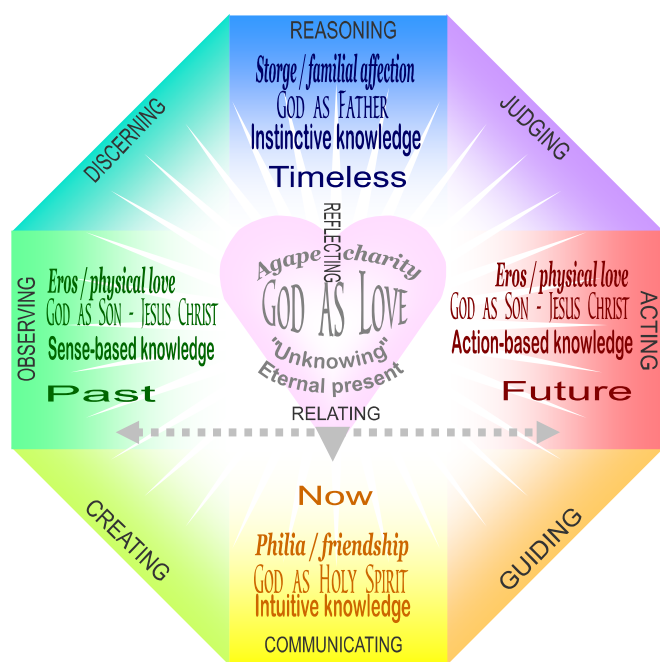
Using the *Octaikon* model to explore C.S.Lewis' exposition of love was particularly interesting and fruitful for me. It made me rethink what is the ultimate reality of the world we live in. If (as Christians believe) we are made in the image of God (who ultimately created us), and "God is love" (as stated in the New Testament) – then all our ten faculties should reflect some aspect of that love, not only at our personal level, but at all fractal levels. Such a concept requires a shift in thinking from the usual materialistic approach of understanding the universe as being simply particles and fields etc., to one of imagining everything as aspects of love. I found the *Octaikon* useful in thinking about this.

At the present time, the *Octaikon project*, as I have come to call my studies, is at a crossroads. As can be seen, I have used the model to explore and understand many existing and new ideas about why we are all different in our approaches to life. In so doing, I have become increasingly convinced that if we could only understand ourselves and each other better, we should soon realise that these differences are good and are essential to make up the rich tapestry of life we like to enjoy. But we must strive for balance in their expression if we are to find harmony first within ourselves, and then in the outer world, and so be happy.

Over the past twenty years, given that I have found the model increasingly useful in all the ways mentioned, I am convinced that it could be used as a life-long learning tool in self-development, helping to find balance and create harmony. As a result I have developed a whole range of potential educational resources to cover all ages. But for the tool to work (as one of many existing ones), it has to be introduced into a programme of education right from a young age, and then repeatedly taken out of the educational toolbox and used as and when needed. Here's what I am imagining.

At the youngest age (using the *Okki-blocs*) it could be used in the kindergarten to help develop a basic understanding of shape and colour, and aid dexterity.

Once abstract ideas can be grasped, then the ten faculties form an ideal way of gradually helping a young person at primary level to become aware of how they function as persons and to look after themselves using their faculties intelligently. At the same time, they learn how other people "work" and are helped to understand, empathise and embrace the differences they see around them, forming better relationships.


Then, during secondary and into tertiary education and the workplace, the model can, as and when required, help to introduce and reinforce discussion of existing specialised ideas of personality, team-working, problem solving, management, etc. showing how they are all related. Additionally, if a person is wanting to explore in-depth social, political, economic, philosophical or psychological topics related to how people or communities behave and believe, the model, as one tool among others, can help develop original ideas (as I have done, hopefully!)

Mindfulness meditation is an example of a topic where I have recently enlisted the *Octaikon* to facilitate understanding. Having read the book *Mindfulness – a practical guide to finding peace in a frantic world* by Mark Williams and Danny Penman, I was impressed by the way many of their ideas could be made to correspond to the faculties. Examples are: *being* vs. *doing* mode; observing yourself observing; being fully aware; not judging or comparing; embracing difficulties; breaking habits; and being kind to yourself. It confirmed my thought that a better awareness of all our faculties would enable us to understand ourselves better, and hence relate to others in a more balanced, harmonious and kinder way.

Now - I hope that the rather mystical uses of the model I have just described, and what could be considered misuse for topics where it is not really appropriate, will not put off the more traditional researchers or academics from considering the *Octaikon* as a serious tool. As the biochemist Rupert Sheldrake suggests in his book *The Science Delusion,* we must *free the spirit of enquiry* and be prepared to try out new and unusual

ways of considering the world around us. Indeed, I have tried to see how his ideas of morphic fields and the extended mind could relate to the *Octaikon* model, and my piece *Octaikon islands of life* explores these ideas.
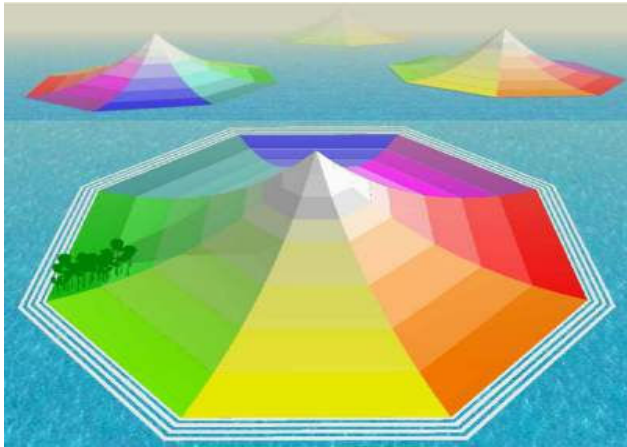
So, to conclude this introduction to the *Octaikon* project – having read this far, your curiosity should have been piqued and your appetite whetted and you will have lots of questions. Many of the answers will be found if you visit the project website at:

www.octaikon.co.uk

where all the resources I have mentioned can be found. In particular, you may find of interest the series of 5 minute narrated *Octaikon maps* posted on YouTube. They are the latest example of resources I am experimenting with. And if you are interested in my own biographical background, there is a draft book which you can read (in web-form called *Peaces of Eight*, or in downloadable PDF form, called *Octaikon: keeping body and soul together*).

My vision of the *Octaikon* being used as a life long-learning tool throughout education will only be realised if I can find champions who are prepared to give it a go. That said, without the previous work of all sorts of

people who have carried out the studies on which the *Octaikon* is based, I would have had nothing on which to base my idea. They are mentioned on the website and in the books, and I am indebted to their work. So too am I to all my relatives and friends who have put up with, and commented on, my ideas over the years. And in particular, I am extremely grateful to my wonderful wife and fantastic children who have been so patient and encouraging. Whenever my attention wanders, my eyes glaze over, and an "Aha!" moment is born, they roll up their eyes, give a knowing look, and think to themselves "Oh-oh! – another *Octaikon* moment coming up". Thanks to everyone!

Ten fractal faculties – a pattern of us all?
You decide and please tell me!

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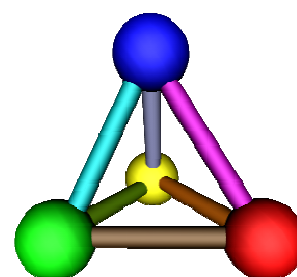
Another way of looking at
the ten faculties.

Note: If you use an iPhone or iPad to view the website, the opening and other *Adobe Flash* animations will not play. You'll need to view these on a PC or use an *Android* device. However, animated *gifs* and, of course, all YouTube videos will play.

8,1,2,7,6,3,4,5