

Document describing the validity of diagnostic-interventional system Colours of Life and colour association methods

Processed by: Jiří Šimonek, Psychologist; Ing. Robert Bohoněk, Mgr. Jiří Šimonek,
Mgr. Ernest Páleník

Contents

Introduction	3
Diagnostic-interventional system Colours of Life.....	9
Consists of	9
OKAV model - Basic postulates of the concept of consciousness	9
CA technique	13
Remote data scan (on-line sensor)	15
Validity performed on OKAV Model.....	17
Preferential colour spectrum consistency	17
Visual strategy for verbal object I	22
Basic description, Self-conception, Rewards and Schools	24
Age analysis of word-object I WRITE depending on age and gender from 6 to 16 years	26
Construct validity of processes of SHAME and GUILT	28
Trends in conceptual network structures of human consciousness	31
Validation of Influence factor	33
Validation process of the influence the number of word-objects used in the sensor	39
Association processes and the semantic network in the somatic subsystem of consciousness	41
Analysis of the word-object Family and the confirmation by statistical functions	43
Temporal stability of CA profiles	48
Simulation of the relationship of My job object and Age	50
Reliability sample of Stimulation item	52
Parallel research	54
Antonio Damasio	54
Martin Lindstrom	54
Links	55

Introduction

The aim of this document is to demonstrate quality of the applied OKAV model. In the first part we describe the diagnostic-interventional system Colours of Life, how it works and what it stems from. In the second part we perform the validity and reliability of selected parameters, which prove the quality of the model.

In this document some parameters are described in terms of validity and reliability, all of the measured variables in all the profiles are created and validated in the same way. This document, however, does not content validity of all the variables. If you are interested in specific proofs of validity of products we recommend following the web pages of the respective projects.

If you find something that should be included, do not hesitate and write to us and we will be glad to supplement it.

Validity and reliability definition according to Doc. PhDr. Martina Kreidl, M.A., Ph.D.:

Quality of quantitative social research depends in a critical manner on the quality of data. Quality of data has two key components: representativeness and quality of measuring. Representativeness predicates the relationship between the selective set and the basic population of the research, but the quality of measuring, on the other hand, is generally assessed by employing reliability and validity concepts. By reliability we mean accuracy and consistency of measuring, that is the ability to achieve the same result of measuring in case that the state of the observed subject has not changed and by validity we mean the ability to measure the concept that we actually intend to measure.

Reliability is a necessary condition but insufficient for achieving validity nevertheless. As the tools for measuring reliability are easier to access, it sometimes happens that researchers test the reliability of measuring instruments only and not their validity. Among four basic tools for assessing reliability there is the method of measuring repeated in time (e. g. Quasi-simplex model) which is based on the premise that the state of an object does not change in a short temporal period and that is why the repeated measurements should achieve the same result.

Second reliability measuring method that is quite wide-spread is the inter-item reliability or the consistence of answers in response to a batch of questions determined for example by Cronbach alfa index.

Another common method is the detection of reliability by means of alternative forms of a question that differ e. g. in the formulation of the introductory stimulus, in the amount or sequencing of the offered answers and so on. Alternative versions of a question can appear in the same questionnaire where the same respondents answer them or only a part of respondents is offered each version in the split-halves design.

And finally the last method of detecting reliability is the comparison of more observers who assess the same situation or thing. This method is often used e. g. at schools where each exam is evaluated by more than one evaluator while using the same tool, for example evaluation instructions. The higher the agreement is among the evaluators, the better the reliability of the applied tool is.

Tools and procedures for measuring validity are generally scarcer. Perhaps the most frequent but on the other hand also the easiest and the least satisfactory one is the method of apparent validation. Apparent validity is based on the intuitive assumption that the result of measuring actually reflects the researcher's concept. Approaches that rely on apparent validation are unsatisfactory in principle. Disman (The Manufacture of Sociological Knowledge) in fact believes that apparent validation is a mere euphemism for situations when the validity verification has not been carried out at all.

The notion of contentual validity focuses on the entirety of the domain of significance of the phenomenon that we examine. Both apparent and contentual validity cannot be examined otherwise

than with a reference to existing literature, theory of the given phenomena, previous empirical research and opinions of experts.

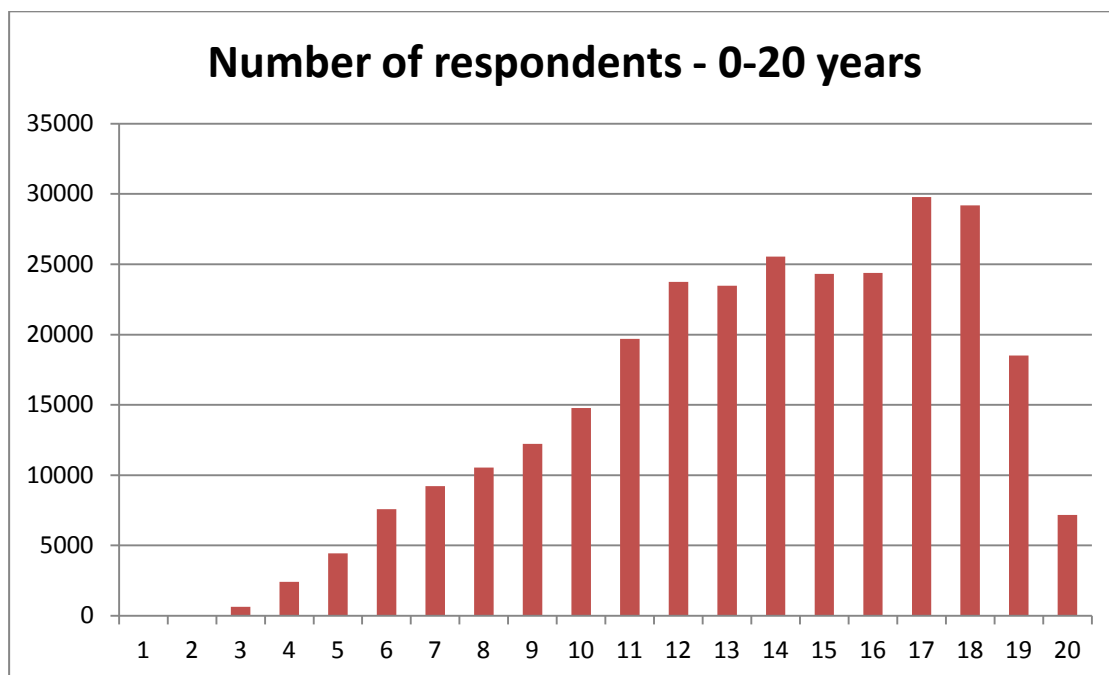
The third of the group of tools for determining validity - the criterion validity - is by contrast measurable more objectively, that is by comparing it with an objective and already validated criterion, in this case either simultaneously (simultaneous validity) or prospectively (predictive validity). E. g. an electoral prediction can be validated by actual poll results. The weak point of the approaches based on criterion validity is the absence of validated criteria.

The last approach to determining validity is construct validity. Construct validity is documented if there is detected a relationship in data between the given indicator and other variables that we would a priori expect on the basis of theory. Convergent validity is achieved when one indicator of the examined concept is associated with others that are nevertheless different indicators of the same concept. Discrimination validity is then achieved in case that the variable values measuring the given concept are not too strongly associated with measuring other but related concepts.

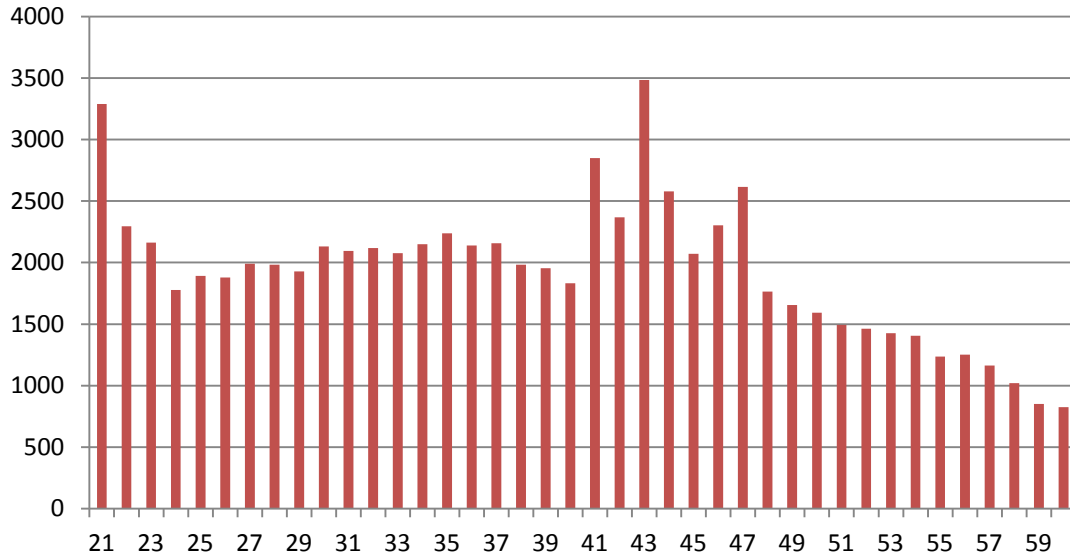
The basic tool for measuring convergent and discrimination validity is the exploration and confirmation factor analysis and its various aspects. The last, and in theory and methodology also the most demanding one, is the approach to measuring the construct validity that is called MIMIC model which places the examined measuring tool, usually a scale, into the context of conceptually related as well as differing variables, specifies the possible causal links between variables and contrasts the pattern of relationships detected in data with theory. If there are relationships corresponding to the theory in the data, this finding is perceived as a confirmation of construct validity of the examined variable.

How to achieve quality in defining parameters:

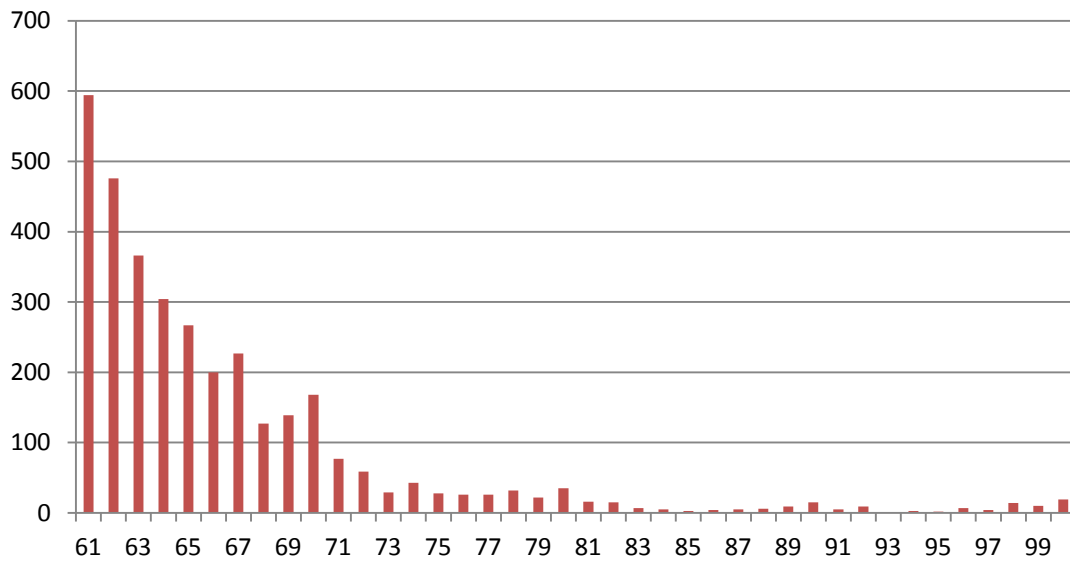
Representativeness is guaranteed by a big amount of profiles already acquired. In the following charts there are numbers of performed profiles according to age and gender. The figures are acquired on the date of 4th May, 2012.



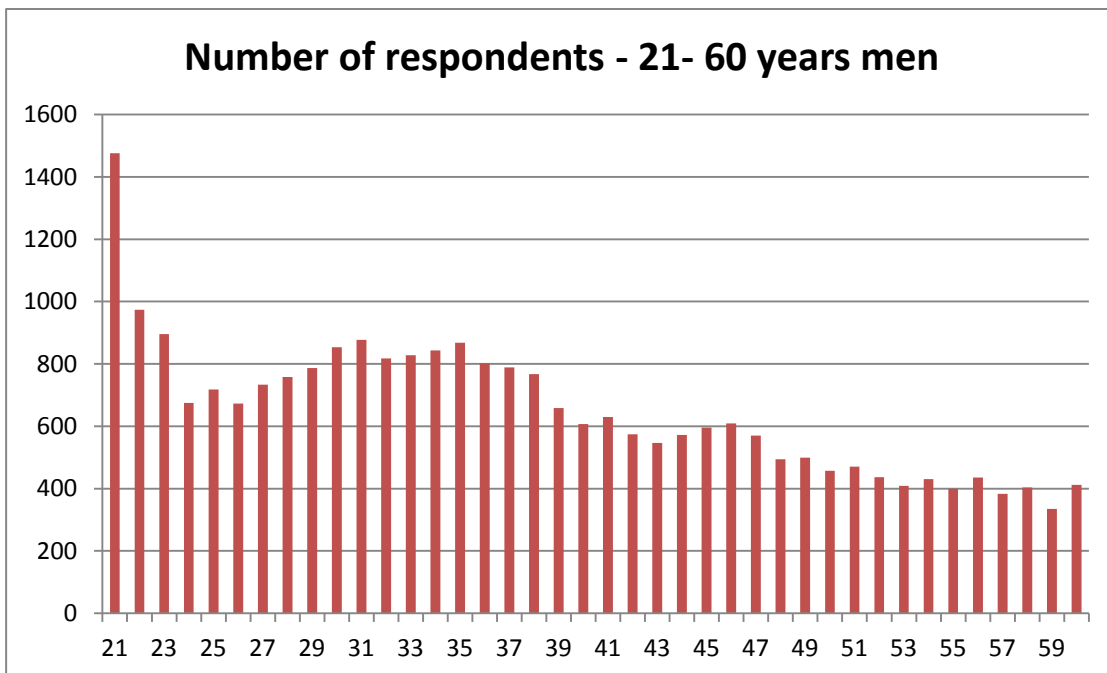
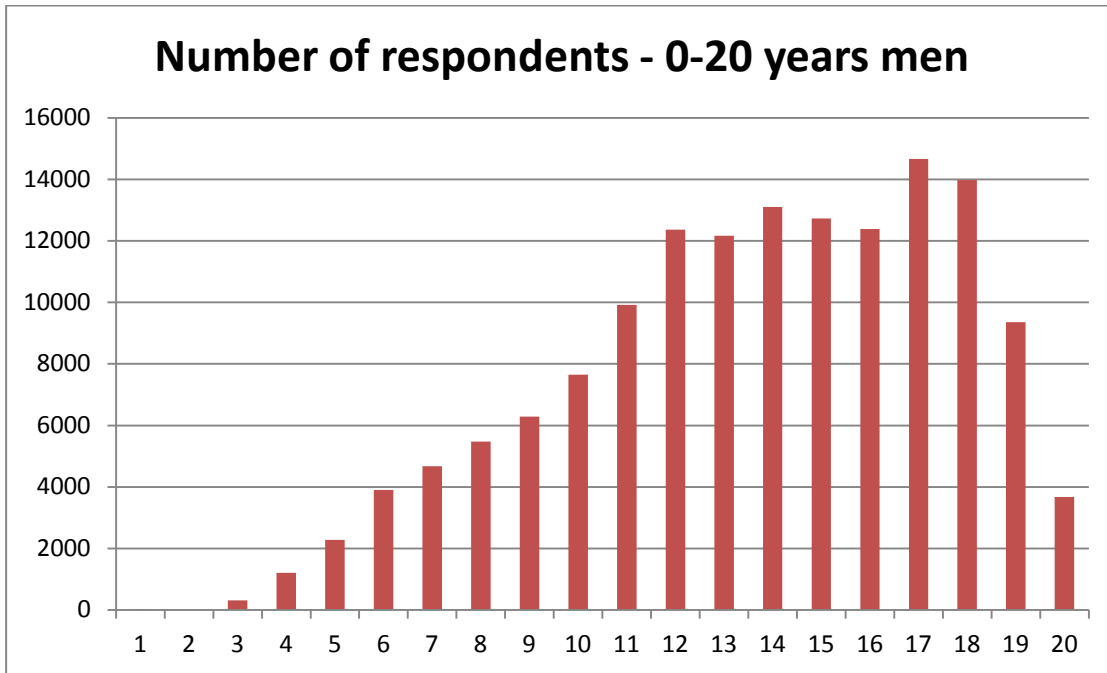
Number of respondents - 21-60 years

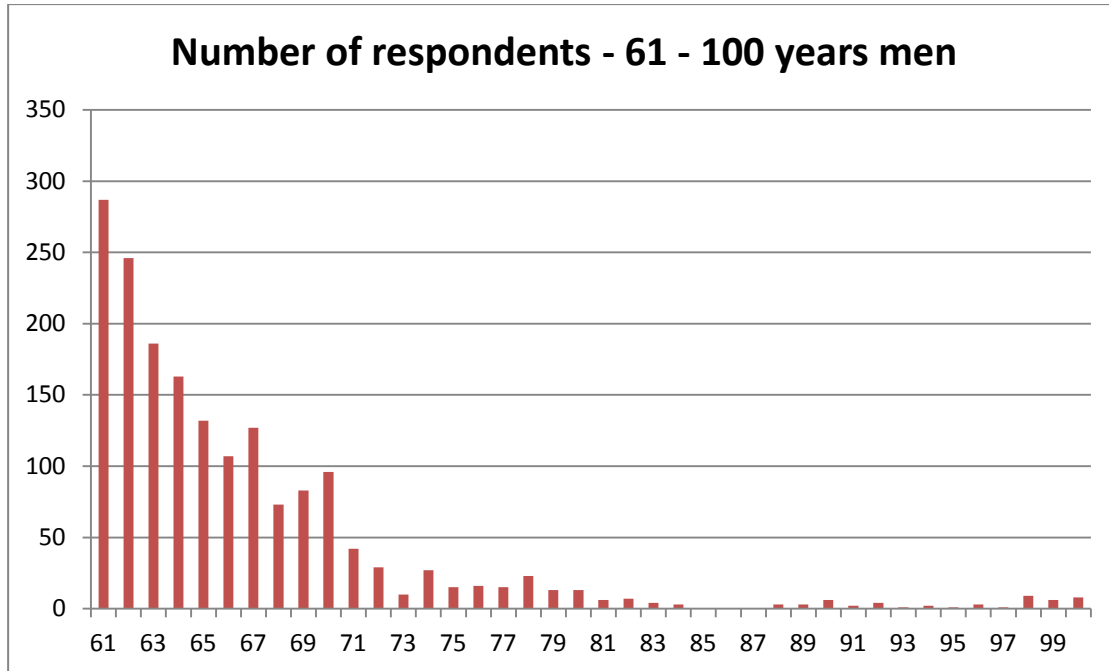


Number of respondents - 61-100 years

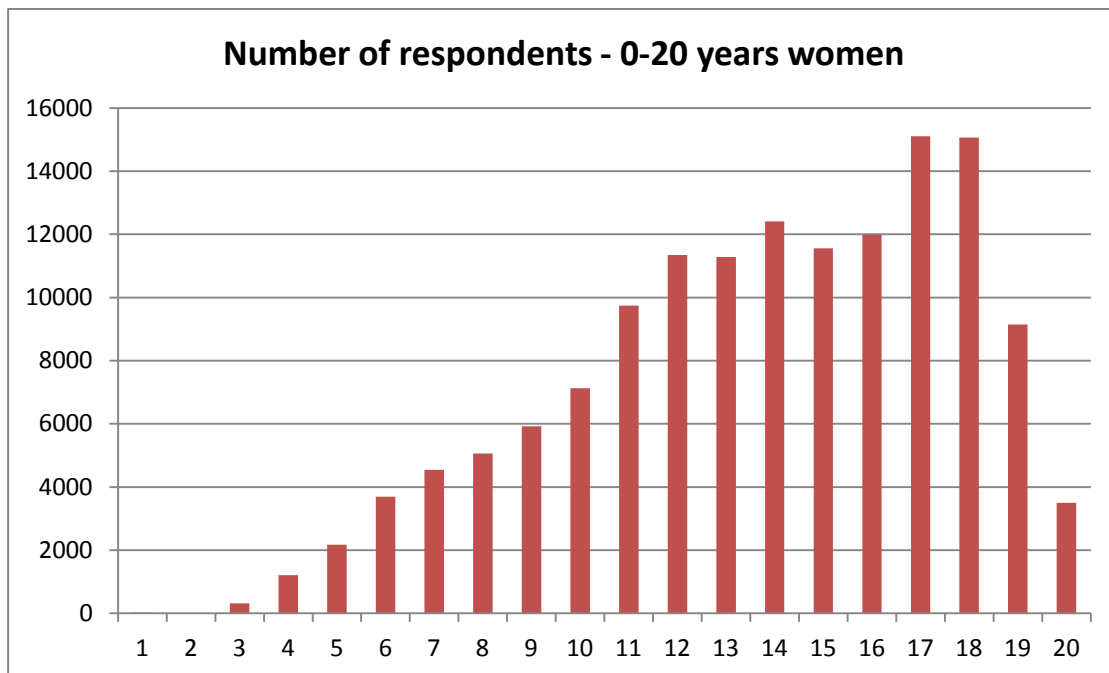


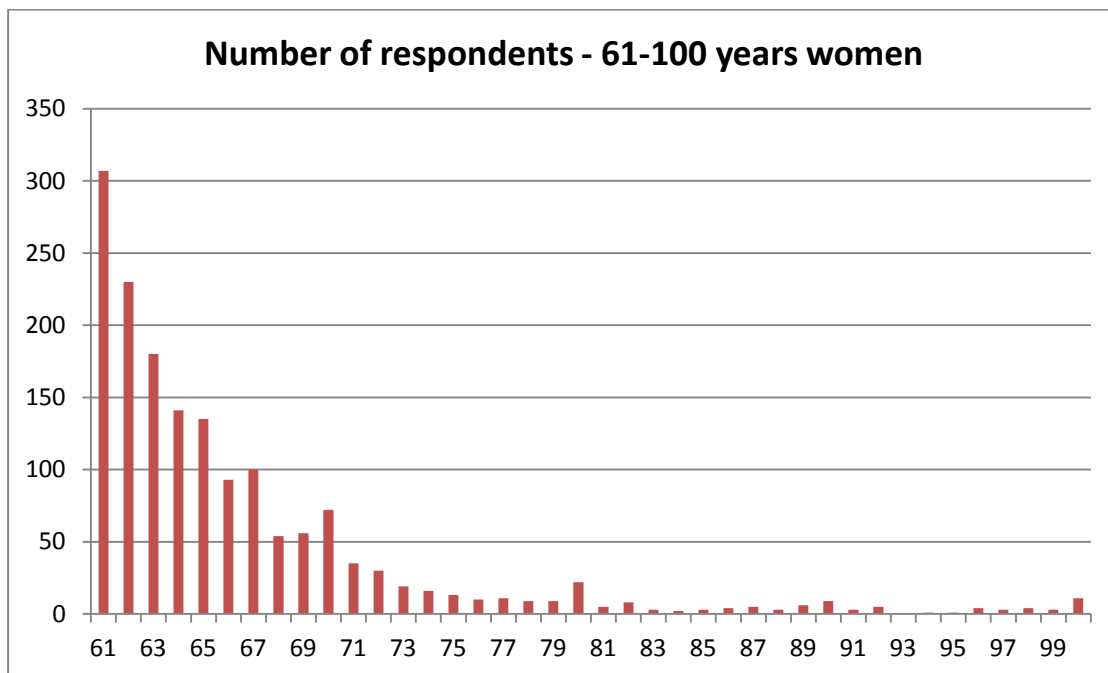
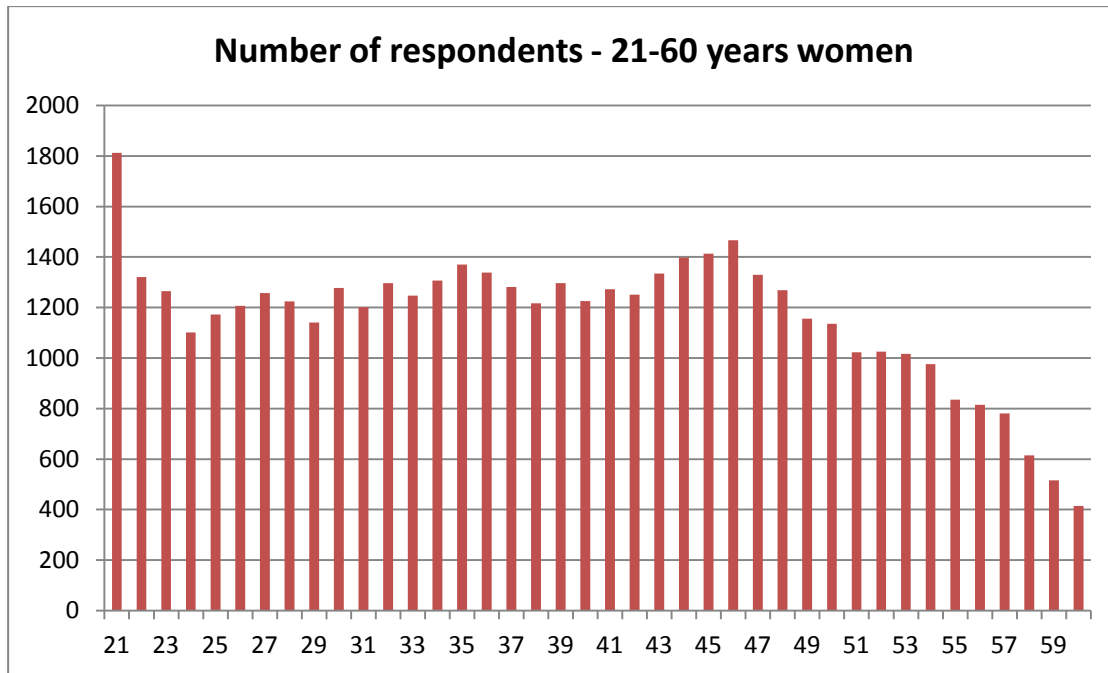
Men





Women





We perform the Reliability measurement either by comparing repeated measurements or by constructing a lay-out over the data file. Samples of respective measurements can be found in Temporal stability of CA profiles subchapter or in Reliability sample of Stimulation item.

Samples of validation of some OKAV parameters are included in the document. There are various ways of validation, some of them are based on theory and some belong into the category of apparent validations and so on. OKAV model works with four subsystems of consciousness and that is why a comparison with already existing results of measurements, performed using other methods that work with smaller number of subsystems, is impossible. The results will always be different.

Diagnostic-interventional system Colours of Life

Consists of

1. OKAV method (Object communication analysis of consciousness)
2. CA Technique (colour association)
3. Remote data collection
4. Evaluation of the OKAV model

OKAV model - Basic postulates of the concept of consciousness

We work with the statement of evolutionary psychology that formulates life requirements in accordance with the bio-psycho-socio (cosmo) requirements that were formed by the human evolution in the long-run. Here are the basic claims that are satisfied by OKAV:

1. Basic postulates of life have always been growth (expansion), self-preservation and reproduction (replication).
2. The direction of evolution is a two way street: complicated (or rather multivariable in sense of complicated and difficult) – simple (group-wise simple, easy and efficient). In OKAV these are the directions of individualistic association stereotypes by virtue of synergisms into group dynamism (complicated – simple) and back from innovated group association dynamisms with help of interference of a large number of individualized variants (complicated - simple). The law of dual causality of evolution.
3. Single objective, specific (domain) mechanisms are employed and according to that, various types of learning (its forms) are involved. In OKAV there are mechanisms of four systems of consciousness (somatic, energetic, mental and social) following point 9, and two parallel processes of learning, individual and group (spontaneous and formal = I recognize + I accept).
4. Coordination of point 1 + 8 is supposed to bring sufficient and well-balanced success (realization effectiveness – purpose-built profit for an individual, efficient profit for the group - species).
5. Cooperation functions systematically and increasingly as well as sharing values, help, protection and altruism (that is group-social factors, attitudes and roles).
6. Socialization (development of feelings + morality) + selective social skills and experience then supply success for intellectual capacity. With OKAV model we are able to measure the rate and quality of group consciousness and role management.
7. Interactive collisions happen constantly between the tendency of persisting thought constructs (collisions of individual dynamic association stereotypes taken over from group consciousness as easy and simple = variable attitudes of individual kind) and fast changes of the environment (the need to create innovated group association stereotypes in consciousness).

Furthermore there are points that stem from evolutionary psychology, they are only modified.

8. Individual potential of an individual is on a long-term basis standing on Energy, Time and Territory = Space. Hazard is just a modified attribute of the three components (TES triad). TES is a rule of law that enables the primary measurability of the contents of consciousness based on associations. Hazard is a leaving attribute of evolutionary development, similar to selective choice and its contents as well as rate depends on the triad of measurable items as its consequence.
9. In contrast to evolutionary psychology that works only with attack or escape, the OKAV model extends the attack mechanisms (destruction = 7, defence = 6 and attack = 0) in relation to motivation modules (types of constructive forms of associations – Logic, Vitality, Ambition,

Cooperation, Participation and Dominance), which leads to problem solving as to its target. If the decision was based only on one subsystem of consciousness (crisis situations) then we would in this point match the evolutionary psychology (see: Is „Attack the best possible defence“?)

10. Attachment - attachment + proximity bond (Temporal and Spatial identification) enables development of everyday interactions (overall interactive communication = OKAV), that is an active bilateral addressing.

Jiří Šimonek senior's supplementary postulate:

11. Mechanism of consciousness Me and Not-me excludes, what is not applicable in a group.

Other fields that helped to form OKAV:

1. Social psychology – from social psychology we employ especially attitudes, roles, knowledge of social genetics and group dynamic. Over the years it is apparent that there are dynamic association structures consistent with both small and large groups of people that are imbedded to Selfhood, with primary social groups, with the territory occupied and so on. That constitutes the group consciousness which we then express in the framework of groups - in sports in a team, in school in a class. Mr C. G. Jung (JUNG, Carl Gustav. *Výbor z díla*. 1. vyd. Brno : Nakladatelství Tomáše Janečka, 1997 2004, sv. 1-7. [ISBN 80-85880-11-3](https://www.isbn-international.org/number/80-85880-11-3)) was right when he stated that in groups and societies there are corresponding features at work but we do not need have to label them archetypes and collective subconsciousness, which is very hard to measure, and in addition it is usually possible to analyze it only in retrospect from the consequences and events. We focus on an analysis that is psychometrically founded, on prediction and the most accurate graphic and psychometric output possible.
2. Projective techniques are the source of a much more deep and qualitative perception of the personality of a person (we focus on refutation of the myth that we cannot measure anything psychometrically with these techniques) while employing generic association processes (portion of group consciousness) and projection (active part of the formation of individual consciousness).

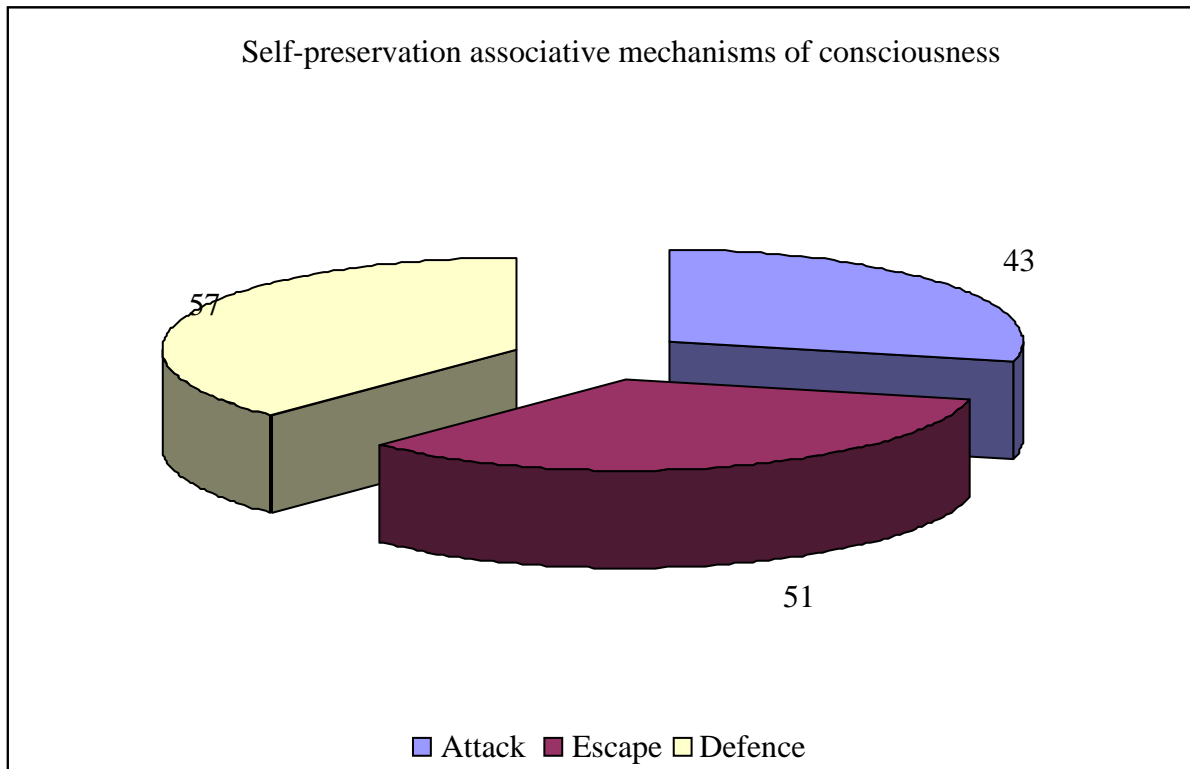
Is „Attack the best possible defence“?

Behaviourists, cognitive thinkers, evolutionists and perhaps even more other specialists, including common people, know and use three types of reactions, behaviour and sometimes even the whole life strategy in their lives - Attack, Defence and Escape. All the three types of behaviour are, in addition, considered as the triad of self-preserving activities that have their legitimate cause as well as explainable meaning. The biggest problems with these kinds of behaviour in communication, life, work and partnership do not arise only from the fact that people employ them when dealing with each other but also from because of the reason that these are inappropriately used in context of life situations and they are often perceived by the adverse party or by the environment as unexpected, including the consequences for the individual himself.

Let us now look inside the heads of Czech adults together and see how these three types of behaviour are associatively encoded in our consciousness and in which correlations and portions do they appear and what are is impact.

Firstly let us imagine that there is all the life information stored in our head and that it forms one operating complex. Now try to imagine this complex as it was composed of 100 life segments. The reason to do this is didactic so we are able to "count it and understand it" more easily

- Attack or aggressive and pressuring forms of behaviour are ready to partake in 43 segments.
- Escape or evasive and withdrawal forms of behaviour are ready to partake in 51 segments
- Defence or defensive and apologetic forms of behaviour are ready to partake in 57 segments.



Causal logics are beginning to cry. What is this? If something has 100 segments then the sum total of the three above mentioned forms has to fit into one hundred. It is just trivial percentage. And the sum total makes 151. Yes, it would be like that if we perceived our consciousness and its "work" as merchant's numbers and also as operating the same in all people and consisting of hard-set pigeon-holes. Luckily it works as a correlative network and it allows even using all the three forms at the same time in one general attitude that we express for example in our opinion of money.

We sidestep (we leave aside altogether) the fact that somebody does not have any and we will attack those who have much more than us and we guard our money tooth and nail. It is not something inconceivable. We all know it in various forms. It is enough to admit it. Measured values, however, give notice of a different fact. If we are going to use only one form in the course of self-preservation (even if it is in its hyper or pronounced form), the overall range of self-preservation of life will not be embraced in its entirety. Particular values in themselves move on the level which we can liken to a toss of a coin and the result will be the same – either heads or tails, yes or no, verso or obverse or the probability of half-and-half.

If we put all the three types of activities harmoniously together (association profiles of key words allow it mathematically as a matter of fact) then the overall self-preserving activities will partake in 65 life situations. They now clearly state that self-preservation is certainly important for man and that variously interlinked forms of the three basic activities have their unmistakable place in our lives. It is the easiest to recognize Defence, because people tend to be quite similar in this respect (57 segments), then Escape (51 segments) and the least „decipherable“, that is the most individualized, are the forms of aggressive behaviour (43 segments). If I should answer the question stated above in the headline then my answer goes be like this:

"A Czech adult prepares his life terrain with Defence. If (s)he can, s(he) will avoid a direct conflict and if there is no other way, he will set for a hardly expected Attack as the case may be, depending on time, opponent and place."

If we apply this generally measured share to e.g. football (football as a team activity), then the easiest process of human self-preservation that is collectively utilizable (not to lose, not to be beaten) is Defence. It is much harder to utilize Attack collectively (in a team). The most effective mechanism is a complex self-preservation (65 segments, that is employing the combination of all the three self-preservation mechanisms).

When we consider gender, there is a huge difference between men and women. It is 85 intelligible life segments in men of self-preservation that are actively linked to the overall behaviour while it is only 51 segments with women. It could be said that men think just "themselves" and about protecting their place in the sun much more than women do, and that they are also much more similar to each other in this respect. Women as a human group are naturally much more "unified" or to put it in a modern phrase they are not "pre-programmed" for self-preservation.

It is perhaps the best to illustrate it on the most aggressive example of a collective self-preservation and that is a war. Men (as a group) will go into war very easily, their behaviour will be similar and they will think and do similar things, both good and bad. Those 85 life segments are in themselves such a large share that we can be in anytime (past, present and unfortunately even future) sure about this at any place, at least in the Czech Republic. That is why, in the above mentioned specific example of football, we see that it is much more popular with men as regards both active sportsmen and the fans and that the favourite "chant" is to fight!

Apart from that, such a big share ensures also that men, as a group are quite easily controllable and shaped. So why should we not take advantage of this collective potential (for an overall readiness for self-preservation)? For example in the form of tactics and strategy, men are much more (collectively) formative and evolutionary equipped. To put it simply, fight and all the three self-preserving mechanisms are much more inherent with them (85 segments) and display a higher unification in their consciousness.

Luckily, the whole civilized world is trying to move away from real wars (including the effort to have professional armies; that is away from automatic conscriptions of all men) to wars rather imaginary and metaphorical. These forms of competing and rivalry are bound by rules and do not include physical liquidation. And that is where men as a social group amuse themselves on a large scale. The most obvious are naturally sports, especially the collective ones, but it is also true about business and science, where competition and rivalry is involved a lot.

On the other hand it is necessary to take into account the fact measured about women. The endless moaning about lack of women in various fields of professional life (see areas of male rivalry), and about them being in fact discriminated by men, is not an entirely "true" theory. To put it simply, women's forms of self-preservation go content-wise in a different direction, the direction of preserving life, caring and protecting professions and so on. This direction can be summarised as inhibiting the internal individual losses. Naturally they balance between the individual self-preservation and self-reward. Men as a social group simply cannot act like this and it is hardly possible they will learn anytime soon.

For basic life requirements of human development and growth it appears that it is optimal to link these two models of self-preservation. When we run a profile simulation (a family could naturally dispose of such potential when male and female conception can complete and enrich each other respectively), the result is 73 life segments oriented on self-preservation. That is unambiguously more than the number self-preservations as a general phenomena displays (see 65 life segments) and much more than what self-preservation shows in women (51 segments) and finally less than what proved to be a very high and unified conception of self-preservation with men. Only in a complete family one

can develop both the pronounced models of self-preservation conception from the gender point of view as well as the combined model that is advantageous and effective for human groups.

CA technique

By presenting any type impulse (picture, video, sound, written word that a person reads) we produce an association in the person. Its formation cannot be deliberately influenced by the person, it cannot be "scared off" or stopped.

This association is produced within a nanosecond in the person. From the neuroanatomic point of view of, it is in principle an activation of particular neuronal junctions and synapses. This process cannot be rationally interrupted. Association occurs in any case immediately after the impulse is submitted.

This association can be then rationally corrected by the man, e.g. on the basis of past experience or on the basis of other expectations. The persons ask themselves the questions: How to react appropriately now? How do I answer this correctly? When I say this what will the consequences be?

However, if we deal with "uncensored" authentic associations, we get a completely different, much deeper and more wholesome view.

The CA Technique is one of the few methods that deal with measuring and evaluating these "authentic and uncensored associations". By virtue of to this method it is possible to submit impulses in various forms (words, pictures, movies, sounds, smells eventually). These provoke associations to which the subject reacts via colours. After evaluating his/her answers and comparing them with the norm, we can describe the psychological characteristics of his/her associations quite precisely.

How is it possible to achieve this with eight colours, or more precisely eight coloured spheres? Colours are not used in this diagnostic method to demonstrate the symbolic meaning of colours as people often think. They are not here to represent blue, red or yellow as such. The reason for using colours, when detecting associations and their psychological dynamic in a complexly structured psychological field, is that each of the selected colours represents a part of physically and exactly measurable frequency field of colour radiation. That is why colours have distinguishing potential for people.

It is not essential how one calls a particular colour. It is not important whether a certain coloured sphere is called crimson, red, orange or fiery red. What is important is that the colour frequency waves passes through human eye to the brain. Via colours and impulse objects, or the analysis of their associative link, the person is capable to provide the experts with basic material to describe the dynamics of his/her inner way of experiencing and processing reality.

Using colours:

Colours have been used in psychology for a very long time. Using colours stems from ideas of old Chinese and Sumerian thinkers and also from the works of Johann Wolfgang von Goethe, Max Planck and Prof. Dr. Max Lüscher. The credibility of his research is supported by the most recent studies of neuron networks which were carried out by Antonio Damasio v USA.

Colours are a universal and transcultural impulse that enables us to "feel" the energetic-somatic system that is the primary realization capacity of consciousness. Objects (picture, video, sound, written word that a person reads...) are specifically human abstract constructs of significance which enable us to feel the socio-mental system, that is the significant orientation and hierarchy of

consciousness = value capacity. Still we can define them variably so they express exactly the area which we want to scan. All the four systems communicate inside and outside as one complex.

Non-homogeneous colour area instead of full homogenous colour (Lüscher):

These specifics have been chosen because of two reasons. The first one is that in the empirical reality of the outside world (Not-me principle), not considering human creations, there are almost no homogenous coloured surfaces, so the human brain did not evolutionary form in such an environment. World thus expressed in colours as it influences the person now is on one hand essential nowadays, but it is not so long a time - from the evolutionary perspective it is only an insignificant period and a very short one. This will probably change in the future but that depends on whether the mankind still exists that long and also on whether people realize the fact that manufacturing, producing and seeking to achieve some "absolute perfection" can be, from the evolutionary point of view, an impasse that leads to the end of human existence as species.

Second reason is that when we try to achieve perfection we cannot create any specpure colour because we always deal with a narrower wave lenght, based on how the light source interacts with the environment. Apart from that, the newest brain researches have proved that there is a special distributed neural network (branched in many parts of the brain) for colour perception that is constantly decoding and guarding the two brain evaluating processes (primarily it is not about what and how the eye perceives, it is a mere gateway for these processes). In part it is the constancy of the colour spectrum (wave length of the respective colour) and in part the extent of deviation in the wave length itself in terms of records of colours of the outside world saved in memory. Based on this knowledge we can understand and explain such a differing psychic phenomena as colour vision without a direct impact on our eye (only in imagination) but also the fact that even when it is very dim we perceive leaves on trees as green, although for the eye they do not look like that. The reason is that the leaves are ready to be "evergreen" (unless their inner structure is changed which causes that they interact with the light source in a different way). You just need to use "a modified ocular" in an ordinary darkness and the leaves are perceived as green by the human eye again.

Seeing that the CA Technique seeks to make use of association links of colours and objects (picture, video, sound, written word that a person reads..), it is preferable to make use of the widest wave length possible for particular colours for stimulation of these association links. Surely you understand that it hardly possible that the learning and storing of information happens in the exact same manner in every person while developing the lexical aspect of language. It has been proven that no brain works identically and it is also understandable that the conditions of the outside world, during interaction with which the learning is realized, are so variable (in their diversity, changeability, time span of the causation, frequency, and so on) that it is not even possible for a brain record to be identical. Impulse object is thus employed for a spectrum of general lexical meanings (but it is not just one interpretation) and non-homogenous colour (rather its whole spectrum) is kept for a record of the whole range of individual variability of associations in time and space.

The shape of „simulated sphere“ instead of square (Lüscher):

This replacement has been done because branches of science like astronomy, physics, chemistry, biology and other proved that in a realistically displayable and perceivable space, where a lot of dynamic movement takes place and changes and interactions, there is very strongly represented natural the shape of a round bolide. These are various „imprecise spheres“. Not two dimensional surfaces but three dimensional bodies. From the point of view of evolutionary development principles of time, energy and space (respecting association triad TES) I thus presuppose that CA Technique and OKAV Method should respect this rule of law as well if it has to stimulate and map psychic processes tied to neural brain system and the shape itself should provoke the least possible number of perception defences.

There is also an indispensable "little thing", that is the fact that various sports and amusing games, where movement and space are a primary component of gaming environment, also make use of advantages and acceptability of a sphere. A game, as a principle of a human activity, is on one hand in reality very often and in an emotionally positive manner accepted and used throughout whole life, and on the other hand it is an activity in which the realized and controlled rational processes do not fundamentally prevail. What prevails is "a holistic, integrated submersion into the game." The character of the stimulating material itself in CA as well as instructions for scanning should preferably evoke and make use of these specifics. The described aspect is then offered also on the splash screen. People who passed through the scanning regardless of age often gave notice of or described the aspect of the game (instead of an exercise exam, that is a classic test which the technique CA is not and does not aspire to be) themselves.

Remote data scan (on-line sensor)

For CA Technique there were some changes to the Lüscher colour test. The principal aim of the proposed and now routinely used version of the on-line sensor was to change and adjust the perception field while entering and choosing the combined colour associations in such a way that the „scanning mask“

- would eliminate perception defences in the best possible way
- if possible not to evoke any spatial perception stereotypes
- and as regards shape and colour "surface" it should come from and imitate natural empiricism rather than human creations

How do we achieve that in an on-line sensor:

- non-homogenous colour surface
- The shape of a "simulated sphere"
- Spheres arranged into a shape of a circle
- Object in the middle of the circle

Non-homogenous colour surface, the shape a "simulated sphere":

The description is above in the CA Technique chapter.

The spheres are organized into the shape of circle:

This replacement was chosen so that the familiar perception kinetic ophthalmogyric stereotype was not enforced (it forms when reading and writing). It is not possible to make use of any single culturally demographic environment from Europe, America, Asia, Africa and so on, that is according to the type of writing (symbolic, pictorial) or according to a areal procedure from top left to right down but not even the opposite procedure which is used e.g. in Hebrew. This placement can lead only to an imitation of displaying time on clocks that is in gradual rotation to right. But rotation to right is one of the universal and nearly one hundred percent one of the present "natural movements" of the material world. (see Richard P. Feynman: The Character of Physical Law, MIT Press 1989). We suppose that it should not create an unnatural perception-kinetic requirement that would initiate an increase in number of defence mechanisms.

Moreover, a full circle does not have its "stable spatial beginning" in perception. This is and has to be chosen by the client with his first choice. For expressing the influence of this mechanism there is an inner control mechanism set in the Sensor that records the choice of preferential spectrum of colours (initial and final selection of colours) that psychometrically traces the share of occurrence of preferential colour spectrums selected by a "continuous clock hand-like stereotype."

The shape of a circle remains schematically present even after the performed selection and after "disappearance" of the coloured spheres so that this primarily perceived shape prevents at least partly an easy formation of shapes not stored in the computing memory.

Sequencing of the coloured spheres into a circle is organized in such a manner that it preferably does not coherently copy the most frequent and common preferential sequencing of colours in population that is neither at the beginning nor at the end of such succession. Also there do not occur colours side-by-side that record, during the selection of colour triads itself, a statistically speaking strongly increased occurrence (colour triad red, yellow, purple; and colour triad brown, grey, black). Thus the principle of "simplicity and spatially kinetic relief" is not supported, not even in the deciding phase of the selection and not while selecting with movement of the mouse or a finger on a touch screen.

During the scanning, there is a turn of the whole circle of colours - a turn of 90° to right - after certain number of impulse objects. It happens to disturb and not to support the spatially lasting record (of the sequence of coloured spheres in the computing memory) that is being formed. Since the response latency is continuously monitored during all the scanning operations, it is possible to evaluate (after sufficient recordings) if there is not any association pause and changes of the response latency to the following stimulating object during the turning which would corrupt the information about the "association pauses" for various objects.

Object in the middle of the circle:

Spatially speaking there is an effort to make the stimulating object the imaginary perception middle (dominant) from which there would be a similar distance to individual colours than it would be in the case of the former type of displaying. That should weaken the tendency to use the principle of "perceptive simplicity and spatially kinetic relief by a differing closeness" in the deciding phase of the selection and when selecting with a move of the mouse or a touch on the screen.

If we thought about which direction the process displays when an individual record is formed of a stimulating object and about the connection of colours in brain, then it would be mostly continuous storing of records of many details (colours) into one general middle (stimulating object). Given that the Technique and the Method is of a projective nature and strives to map and respect individual differences of processes inside the individual, which the individual then uses for interaction and communication with the world (the whole model of communicational consciousness is thus conceived), the process of projection will an exactly opposite spatial direction. That is from the middle (stimulating object) variably into the environment (colours).

According to the spirit of this point of view both the choices of colour scales are conceived (the initial and the final one). The initial one is closer to the conception of what the interaction of the outside world and me consist of and how it works and the final one then is closer to the conception of how and in which way I for myself respond to the interaction of the world because it is put together after the stimulation runs through all the stimulating objects of the selected scanning module. When we preserve this spatial consistency for both selections and the colour associations, we can presuppose that in the outcome there will be the process of how and from which "I learn" captured as well as the process of what we project (produce and use) from what we learned.

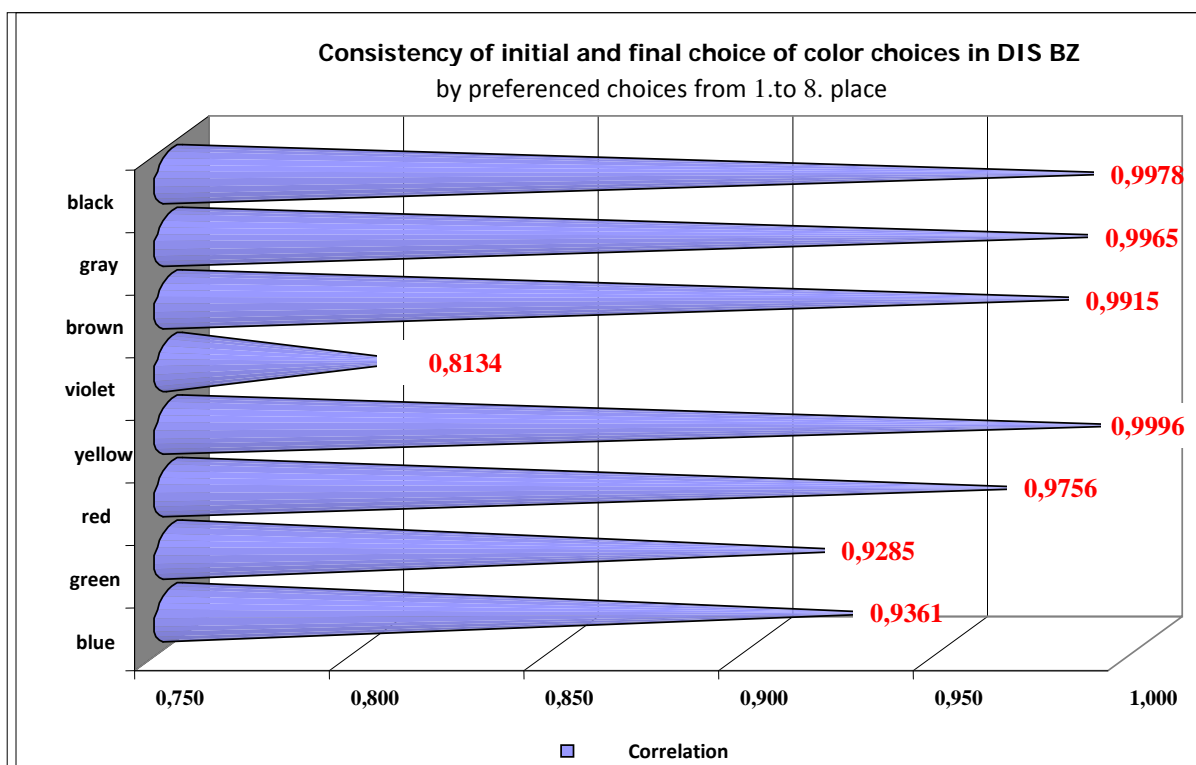
Validity performed on OKAV Model

Preferential colour spectrum consistency

In September 2005 an innovated form of "impulse field" for on-line Sensor by DAPS was released. This is used for utilizing the CA Technique (colour associations). The fundamental adjustments to the previously used "scanning mask" regarded the spatial placement of colour spectrum into a circle, simulated 3D display of colours in a shape of a sphere, utilisation of a large range of tones in every wave length of each colour and placing the stimulating word (object) into the middle of the circle of colours.

All the adjustment had a common denominator - to reduce the incidence of both conscious and unconscious perceptual defences that influence the fluency and authenticity of brain association processes and thus to increase the predicating capacity of the outputs.

To the date of 10th August 2006 this new mask had been used to scan 13 795 individual protocols in age of 3 to 68 years. There were 6 636 female subjects and 7 159 male subjects, which makes it a ratio of 48,1 to 51,9 percent. The majority of the sample was in age of 10 to 19 (roughly 75% of respondents) so to be precise it shows a consistency of preferential scales of children and teenagers in the Czech Republic (demographically speaking all the regions were represented, the highest number of subjects comes from Moravskoslezský and Ústecký region).



In the chart you can see that 8 colours used for selecting the preferential scales constitute about four qualitative groups. The highest consistency of distribution is displayed by four colours in this order - Yellow, Black, Grey, Brown. Red colour constitutes its own independent qualitative group. Third qualitative group consists of two colours in this order - Blue, Green and the fourth qualitative group with largest difference is again just one colour and that is colour Purple.

That means we can state that the proposed interacting, object communicational model of human consciousness will display the highest consistency and stability in a constant INTERACTIVITY (nonspecific colour yellow) between parts of the OUTSIDE materialized (colour black) and non-materialized (colour grey) WORLD and the whole input somatosensory subsystem of an INDIVIDUAL (colour brown).

Another, still very consistent and stable element of the proposed interacting model of human consciousness, then forms an emotionally ENERGETIC subsystem (colour red), which together with the somatic subsystem (colour brown) forms the existential basis of human autonomy with respect to the outside environment.

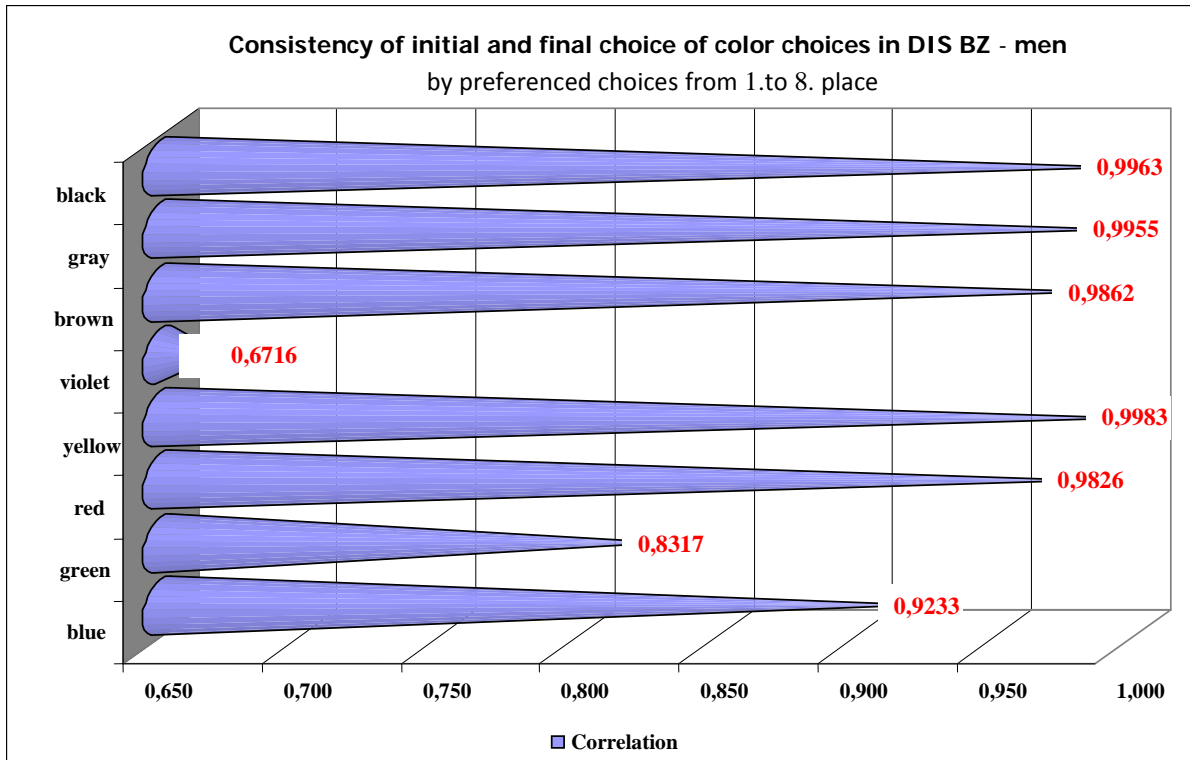
Qualitatively less consistent and less stable parts of the proposed model of human consciousness form together subsystems SOCIAL (colour blue) and MENTAL (colour green), which are of an overlapping type and enable individual existential autonomy of a person to defend, connect and develop in terms of small social groups (as regards relationships and intellect).

The last, the least consistent and the least stable part of the interacting model of consciousness is marked by the colour purple, which is the second nonspecific colour of the proposed model and represents ASSOCIATIONAL PROCESSES or interacting informational flow inside the individual consciousness of a person.

From the measured results we can deduce a sort of stabilization scale of human consciousness which looks like this:

1. a constant interacting CONTACT between the outside and the inside world
2. supported by a stable ENERGETIC economy of the human organism
3. enabling the best possible quality and stability in enforcing the RELATIONAL MENTAL level of an individual in social GROUPS
4. preservation of DIVERSITY, variability and indecision and instability of inner ASSOCIATIONAL PROCESSES of an individual.

If the proposed model is to have a general applicability, the basic line should not differ with respect to gender. Let us look at this distribution from the point of view of both genders.

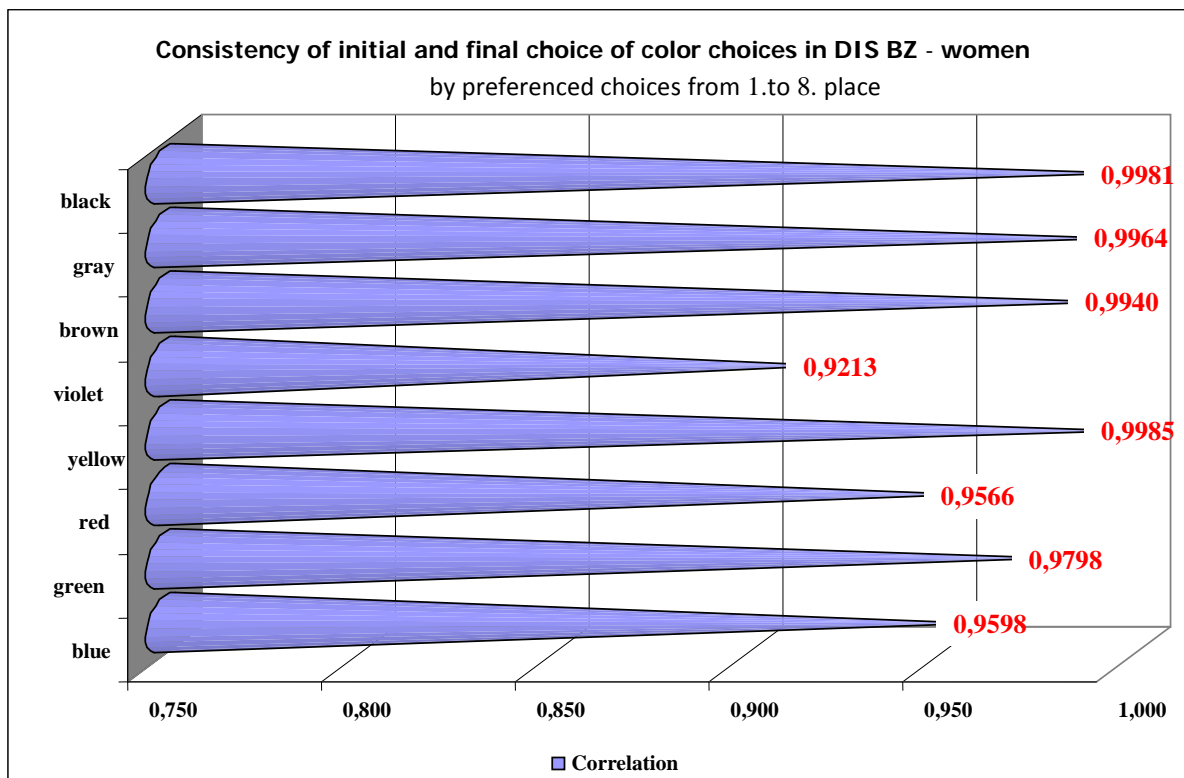


In case of male gender there are no distinct differences in the first qualitative group of three colours - Yellow, Black, Grey as far as the measured values are considered. There is also no shift in the order of measured colours.

But the second consistent group was formed from two colours, a representative of the somatic subsystem (colour brown) and of the energetic subsystem (colour red). Subsystems assuring the existential autonomy of a person connected in a much more tellingly. As far as the measured values go the order of stability remains the same.

The third qualitative group of colours, however, "fell apart." Colour Blue (social subsystem) remained on roughly the same qualitative level, but there was a distinct qualitative drop in colour Green (mental subsystem). Also here the order remains the same as far as measured values go, identical with the proposed model.

Colour purple displayed the lowest consistency of all (association processes), as in the whole sample, but with even a larger qualitative drop.



In case of female gender the measured values display generally smaller qualitative differences in the consistency of selections with all the colours used (all values with correlation measured above 0,9). We can thus state that colour scales in women are internally "firmer," more consistent and unambiguously qualitatively more compact than in the case of men but also generally in comparison with the general model of human consciousness. They differ from the values of the whole sample as well as from the measured consistency of selections in male gender. Qualitatively this order of colours arises - Yellow, Black, Grey, Brown, Green, Red and Purple.

The first four elements of the interactive model of human consciousness are thus identical in measured values and order (in general - the total, in male and female as well) and so they guarantee the validity of the basic premise or the axis of constant CONTACT between the outside and inside world. The position of the last element remains the same from the point of view of gender as well. This least stable element of consciousness is the variability of association processes.

Between the genders there are basic differences apparent in three internal elements of the model of consciousness. Male gender displays gradually dropping consistency from the energetic subsystem (colour red) to social subsystem (colour blue) and all the way to the mental subsystem (colour green). Female gender displays consistency from the mental subsystem (colour green) through social subsystem (colour blue) and all the way to the energetic subsystem (colour red).

Presupposed internal integrity of consciousness (see principles of functional definition of consciousness) thus differs for male and female variant. Integrity of men is situated on the colour combination 312 (red-blue-green), integrity of women's variant is situated on the colour combination 213 (green-blue-red). Just so, "by accident" as it were they create a complementary mirror phenomena with coupling colour blue (1), that is the social subsystem. To put it very simply we can say the following. Do you want a consistent and meaningful model of human consciousness and quality of life? Connect the specifics of male and female variant of integrity of consciousness through social links into an interactional complex and you have everything you need.

If we analyse the differences between genders on the basis of the largest measured differences then men (boys) and women (girls) differ the most in the selection of colour scales in colour Green (mental subsystem) and then even more distinctively in colour Purple (association processes), where the difference in the measured correlations makes 0,2497 detrimental to men (boys), that is qualitatively distinctively decreased consistency and increased variability of association-information brain flows (processes).

In light of the proposed and tested object communication model of consciousness, both colours are discussed that partake in "monitoring" the internal space of human consciousness. Colour green is a dominant colour for mental subsystem which also belongs to a pair with social subsystem (colour blue is dominant). They form the overlapping subsystems of consciousness for interaction with external world, structuring the consciousness, cognitive (learning) and integral stabilization functions. It is especially significant for using internal speech, for processes of formal (group) learning and for the overall quality of life self-realization. Colour Purple is a colour nonspecific and it represents "system debugging" of ongoing association flows in the whole integrated complex of consciousness, indeed only in its internal individualized part.

From the "technical" point of view we can state that the key colours with respect to gender are 1,5,2 for men (blue, purple, green) with an integrative variant of colour triad 312; and 1,5,3 for women (blue, purple and red) with integrative variant of colour triad 213.

From the measured differences it follows that association brain processes of men (boys) in the consciousness are:

- markedly more individualized, especially in the area of harmony accord of the whole internal integrity of consciousness (ease, fluency, integrity, unification of association-information flows the consciousness),
- where this individualization is to be qualitatively and differentially manifested the most in the area of mental and speech-intellectual performance and in the overall self-realization in terms of formalized (group) processes of learning and education.

If we compare this finding with empirical data and the ordinary life reality not only in the Czech Republic but also in Europe, we cannot overlook e. g.. such facts as:

- much higher and long-term representation of male gender in the field of heuristics (discoveries, patents, inventions) and in superior results of learning,
- but also much higher and long-term representation of male gender on the level of defects above mentioned processes (speech and pronunciation defects, specific education disorders),
- or in much higher representation of male gender in the generally degrading and resigning strategy for self-realization (homeless people, gamblers, property and aggressive offences, alcoholism and so on).

In conclusion we may say that the consistency of preferential colour scales reflects:

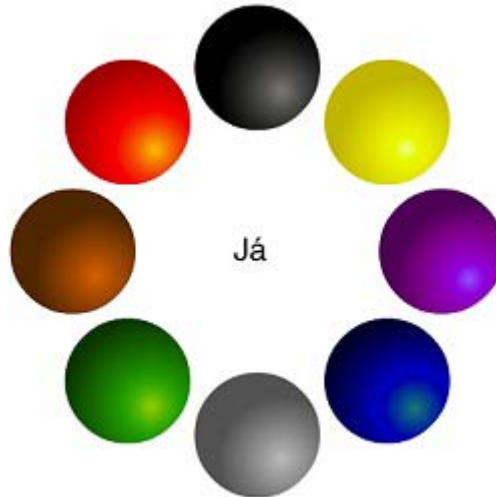
- on one hand the overall interacting educational (evolutional) processes that take place generically in human brain = general model
- specificity of both genders on the other hand = variants of internal integrity of consciousness.

If it is experimentally proved that neural networks for colours are neurobiologically transcultural then the whole proposed object communication model of human consciousness can be widely available for differential diagnostics of psychic (brain) processes, regardless of territorial differences.

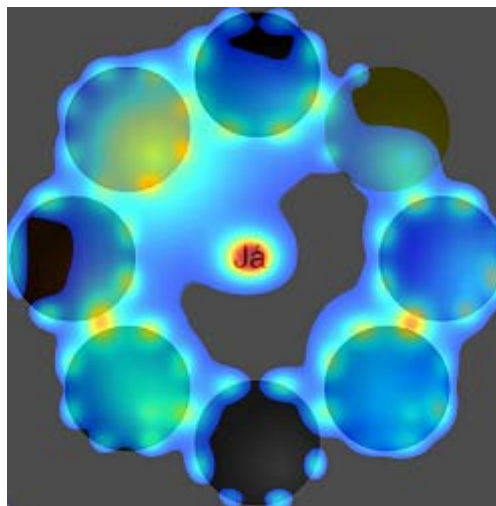
Visual strategy for verbal object I

We had an analysis of the on-line Sensor done from the perspective of visual strategy. For the analysis we used 3M Visual Attention Service tool, <http://www.3M.com/VAS>. This tool predicates following an algorithm results of eye camera scanning (85-90% accuracy in comparison with eye camera). Validation study of the tool is available on the webpage of the provider of the tool.

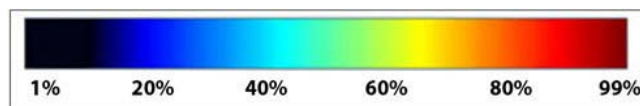
Analysed picture:



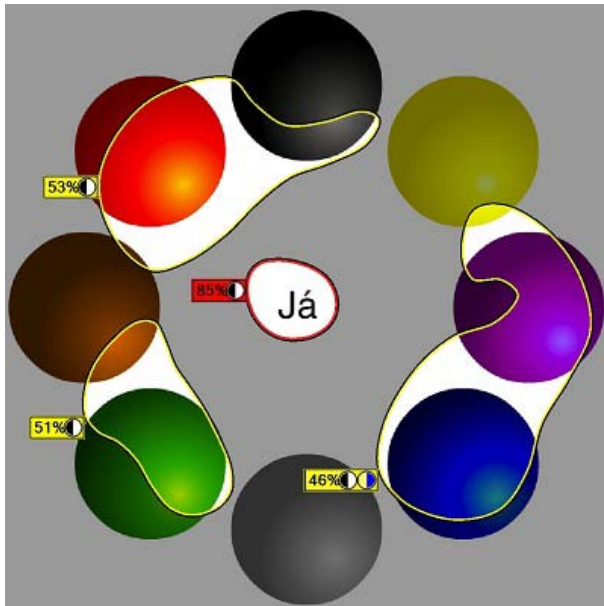
Distribution of attention in the first 3-5 seconds (heat map):



Probability that a viewer will fixate areas in the first 3-5 seconds:

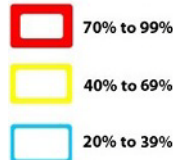


Probabilistic map of where the eye contact ends up in the first 3-5 seconds:



3M Visual Attention Service - Results Legend

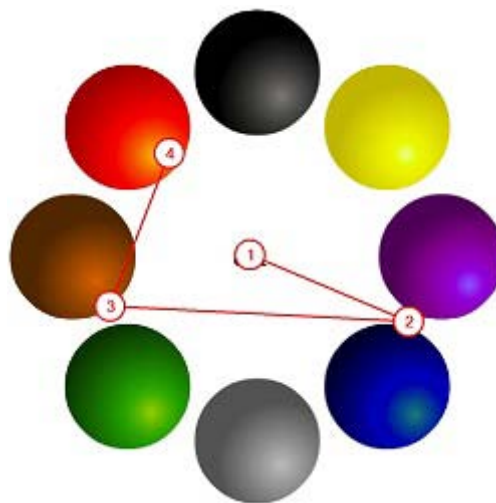
Probability of visual fixation within the first 3-5 seconds:



Visual features that contribute the most to visual saliency:



The most frequent way while watching the picture:



For comparison we determined selections for word object Me from the DAP Services a.s. database:

- Time of data collection: database DAP Services a.s. 2007 to 2011
- Form of data collection: Internet sensor DAP Services a.s.
- Age: 6 to 20 years old, basic and secondary schools in the Czech Republic, 3000 people in each age category
- Number of pupils: 225 000; population years 2007/2011, each year 45 000 people
- Number according to gender: male 112 050 (49,8%), female 112 950 (50,2%)

Determined frequency of selected triads:

1. 432 – 11,9%
2. 435 – 10,1%
3. 431 – 9,8%
10. 512 – 3,2%
31. 156 – 0,9%

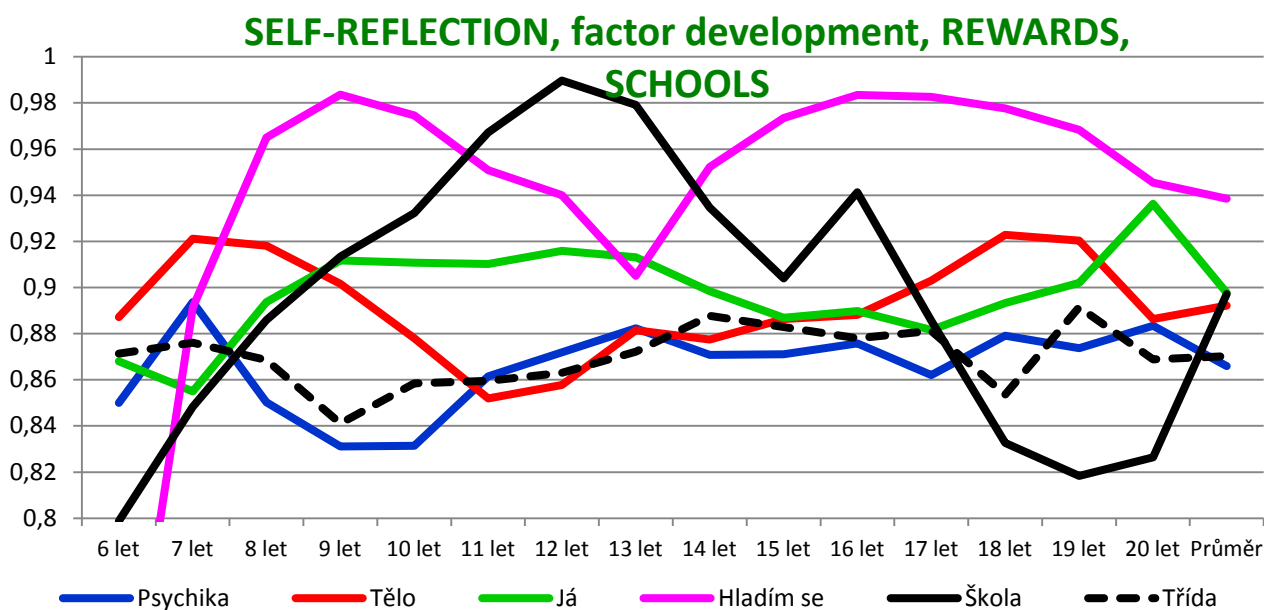
Basic description, Self-conception, Rewards and Schools

Data structure description:

- Time of data collection: database DAP Services a.s. 2007 to 2011
- Form of data collection: on-line Sensor DAP Services a.s.
- Age: 6 to 20 years old, basic and secondary schools in the Czech Republic, 3000 people in each age category
- Number according to gender: male 112 050 (49,8%), female 112 950 (50,2%)

Considering that younger and older age categories were scanned with word modules with a different overall number of words, the summary frequency of colour-word reactions was (an aggregate number of selections, a CA a profile) translated with a share coefficient to an utterly identical number in each age category. To calculate the tightness of the relationship RKQ function was used (square power of Pearson's correlation coefficient) for optimization of regress models and kinds of distribution of partical qualitative parameters.

Results:



Interpretative results:

The most stable and the highest average of correlation tightness measured during the whole measured age stage was displayed by the word-object "I stroke myself" that had been in the previous particular age analyses verified in the sense that it globally substitutes extensive brain neurobiological correlate that is called "compensation system" (see František Koukolík and his several books on brain - František Koukolík: *Sociální mozek (Social brain)*, Praha, Karolinum 2006; František Koukolík: *Já (O vztahu mozku, vědomí a sebeuvědomování)*, Praha, Karolinum 2003, [ISBN 80-246-0736-0](https://www.isbn.cz/ISBN/80-246-0736-0)). As a complementing and culminating information we present the fact that during the measured age span of adults (21 to 65 years) the highest correlation tightness was measured again on the average value of 0,9445, where it settles around the 20th year of age.

The first finding then is the fact that a person as a living creature is evolutionary and vitally the most adherent to the intensity and quality of functionality of neural brain system of compensation. S(he) is thus not primarily a social creature but rather a creature that is evolutionary dependent on

experiencing and feeling a level of compensation and its incorporation into the integral whole of Self-realization (Body + Psyche + Me). This finding is probably what is behind the current trend of economically developed countries, where the core topic of inter-departmental learning becomes the area of "experience of quality of life" and not just "simple existence and living".

The second fundamental finding is the fact that during the whole observed age period the psyche proves to be the least individually corresponding (the least variable, the least determined). The psyche is at the same time markedly connected to the functionality of a smaller social group - a school class. Formative influence of a school class on psyche thus takes on the period of pre-school age, where the strongest formative group is the family and especially the siblings (detailed and deeper, previous particular analyses of pre-school age). This really only emphasises the importance of the fact that humans are unambiguously evolutionary dependent socially collective creatures. Adults then assume a similar sort of operation e.g. co-workers, department, team and so on. (particular analyses of working environment).

Third important finding is the fact that during the observed period there is a gradual growth in the formative influence of school, which is the biggest social group with a clear culmination between 11 and 14 years of age. After that it constantly drops except for the age of 16, which covers the time of entering a secondary school. But this interruption of a gradual drop is at the same time caused by the measured sample which does not include a well-balanced population percent occurrence of teenagers, who do not continue further in the educational process. Average values of correlation then clearly show a three-dimensional, evolutionary qualitative need for a preview. System of neural cerebral compensation; system of Selfhood of somatic type in terms of large institutionalized complexes; psychic system in terms of social groups of smaller type. All the three parts are developed at around 20 years of age to constitute the adult integrity of a human Consciousness.

The three mentioned tentative holistic facts can be summarized into these conclusions:

- We can confirm the need for joint quantitative and qualitative approach when we "measure" humans
- We can confirm the need to approach the "measuring" of a human in accordance with the evolutionary theory
- We can confirm the need to respect a person as a social creature with a strong socially-determined tie to neural brain correlates of "compensation" and the theory attachment
- It is advantageous to make use of dynamic model with spatio-temporal anchorage, which currently defines theories of implicitly-explicit interactions and ties
- It is necessary to approach "measuring" of people in a holistic and integrative way without a dual split into a physical and psychic plane of existence.
- It is necessary to respect evolutionary formative and interaction influences of all types and sizes of social groups on the quality of psychic dimension of life.

The Technique of colour word associations and the method of object communication analysis of consciousness analysis enables us to respect all the three basic statements.

Another no less relevant finding is the fact that during the observed age period the "compensation system" displays two differing phases (correlation maxim) with a distinctive split in the age of 13 (correlation minimum), which is preceded with respect to age by the individualized variable pre-school period.

We can follow these above mentioned findings up in application with the relationship between school and compulsory school attendance. The first question then concerns the suitability of beginning or entering school.

The measured data indicate that the 6 years old population as a whole does not have the system of compensation associatively incorporated into the three basic elements of human integrity yet (Body

+ Psyche + Me), so it is not yet ready to its synchronous employment. This strong associational synchronicity happens no sooner than in the age of seven. It has been determined with a deeper and more detailed analysis that this phenomena is caused by a fundamental difference between boys and girls. Girls approach this "point of association integration maturity" in six years of age, whereas boys get there no sooner than when they are nearly 8. This finding should lead to a shift in determining the age for entering school that should be 7 years of chronological age disregarding gender or it should be distinguished according to the gender - 6 years for girls and 7 for boys. In principle, we are discussing the well know, traditional effect of faster growing up of girls as a whole as well as the effect of a sudden and fast qualitative change in behaviour, thinking and feeling of children during the very first few months between the sixth and seventh year of age. But both are underestimated in practice and in theory as well. In our educational system we make use of this effect when we postpone school attendance. Only with the liberalization of the rules of educational system in respect of who decides about the actual entry of the child into school (parents + school director) it became possible to carry out the above mentioned reality in practice. It is evident from the data of the constantly growing number of postponements of school attendance as years go by.

The first period of growing up and integrating the system of compensation into its culmination in the age of 9 it is from the point of view of the educational system noticeably tied with the quality of Selfhood of the physical type as well as with individualization of psyche.

Age analysis of word-object I WRITE depending on age and gender from 6 to 16 years

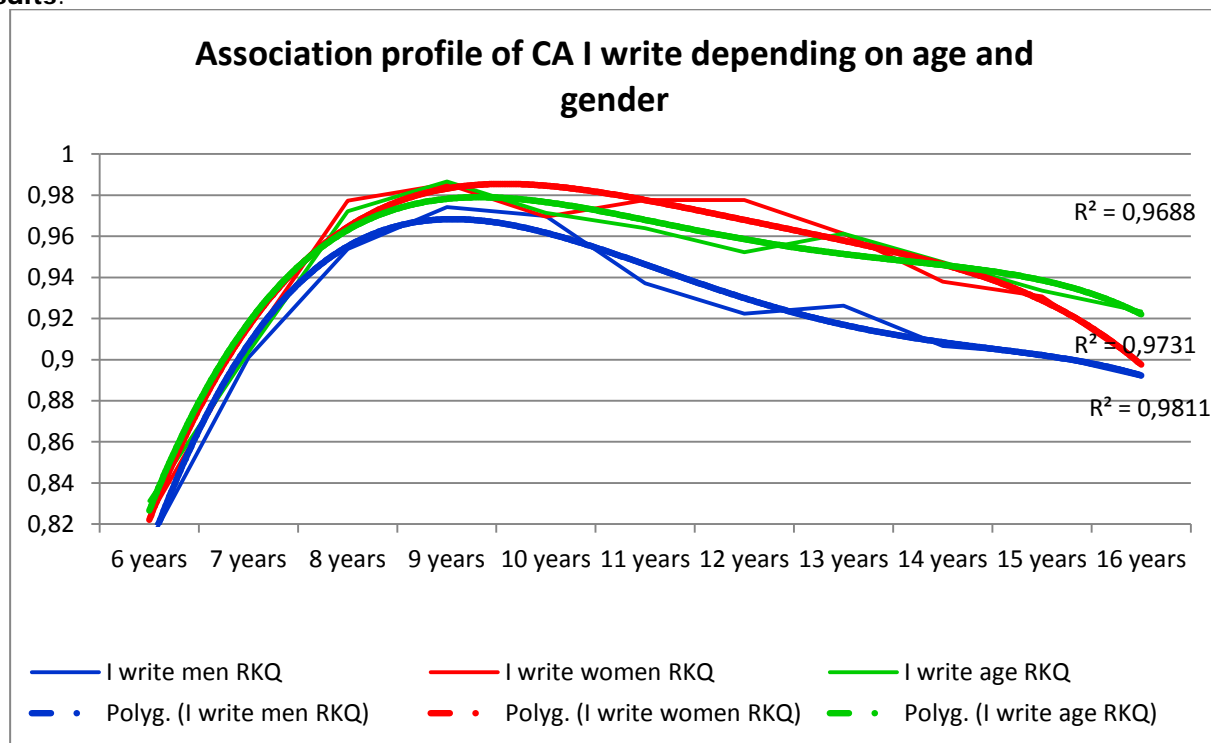
Data structure description:

- Time of data collection: database DAP Services a.s. 2007 to 2011
- Form of data collection: On-line Sensor DAP Services a.s.
- Age: 6 to 16 years
- Numbers, according to gender: male 38 500 (50%), female 38 500 (50%), in sum 77 000
- Age/years: male 3 500, female 3 500, year in sum 7000

Calculations:

For calculations the RKQ function was used (square power of Pearson's correlation coefficient), which is more accurate and screens out the fact that Pearson's coefficient overestimates slightly; in addition it enables us to use interlay of trend + regression curve that identifies quality of reliability measured and of interlining tie-lines of trend $R^2 =$ Reliability.

Results:



Interpretative conclusions:

1. Measuring

Associational tightness of the whole CA profile for the phrase I WRITE is gradually increasing from 6 years of age to the maximum in 9 years regardless of the gender of pupils. Then it starts dropping again (individualization) and in 10 years of age the trend is completely matching with girls and boys on the level of correlation determination of 0,960 which is high enough. What follows is a stabilization of the level of determination with girls, whereas it gradually decreases with boys. Interlining tie-lines of the trend of polynomial type display a reliability of a very high quality. Measuring can thus be considered accurate and statistically conclusive.

2. Description of the phenomena

The general skill of writing during the course of school attendance on a basic school displays several qualitatively evolutionary periods.

The first qualitative period relates to preschool years to the age of seven when differing level of individual presuppositions is being gradually coordinated with respect to gender. We can say that in the age of 7 the semantic and implementation value in consciousness of pupils is coordinated in population on the same qualitative and high-end level enough so that quite mature and conscious writing habits can be formed.

The second period from the age of 7 years of age is characteristic by a rapid growth in these writing habits culminating around the age of 9, while the pace and the overall quality is "set by girls." It is thus possible to empirically state that evaluative and grading "standards of writing habits" should until the end of third class respect the higher variability of written outcome in boys and that is not only in time but also in quality.

The third period concerns the age of 10 years (approx. fourth class of a basic school). There is a second concordant trend in the consciousness of the whole population both with respect to age and to gender. We can thus empirically state that in the age of 10 years the group process of written habits (with respect to values and realization) is finished and it shifts into the stage of formation of standard writing skills.

The fourth period starts with 10th year of age and displays a distinct difference with respect to gender. Girls are already capable to not only use the formed level of writing skills but also to keep it in time.. It is different with boys. Writing skills are further individualized. Evaluative and grading "standards of writing habits" (speed and form) should be tolerated and taken into consideration in the course of further school attendance, because the usability of an independent recording of the sum of curriculum in various subjects depends on these. Girls' writing skills are individualized after leaving basic school and the same stands for boys but by this time the school standard of writing is no longer evaluated. It is used only in graphologic analyses in adult age and the schematic trend of further age individualization in adult life confirms its validity and possibility.

Construct validity of processes of SHAME and GUILT

We performed a test of two hypotheses (special diagnostic constructs) of Lawrence E. Shapiro that were published in "Emotional intelligence and the child's development", Portál 1998, page 65 that concern the issue of shame and guilt.

Data structure description:

- Time of data collection: database DAP Services a.s. 2007 to 2008
- Form of data collection: on-line sensor DAP Services a.s.
- Age: 8 to 65 years
- Numbers: 8 to 19 years 25 000, 20 to 65 20 000, in sum 45 000

Both processes are in the above mentioned book identified only for childhood age. We took the liberty of extending the experimental testing of hypotheses also to age groups of adults because both processes occur similarly with adults in common empiricism.

SHAME – validated by the word-object I AM ASHAMED

In the book Shame is defined as „A kind of extreme embarrassment, which occurs when children feel that they did not act in compliance with other people's expectations."

L.E. Shapiro assumes and experimentally demonstrates that the starting point of manifestation of the psychic process known as SHAME (How to raise a child with a high EQ, Lawrence E. Shapiro, /in Czech/ Portál, 1998, ISBN: 8071782386, 9788071782384), is a confrontation between the child's behaviour in reality and the known or expected quality of behaviour, the value of which was "established by other people."

He therefore assumes that the child must be able to recognize and realize its own behaviour (quality self-reflection) and has to be capable of recognizing and realizing the criteria established by a "group of people from the outside world" (quality assessment). From the developmental point of view, Shame is connected to an age at which the child is capable of realizing and evaluating differences between various types of human behaviour. At this stage we will not contest such a statement in order to keep an already complex subject relatively understandable.

In a diagnostic-interventional system Colours of Life (further on DIS CA) for determining realized and conscious criteria of "inner autonomous world" there are primarily defined colours green and red;

they are interconnected to create an associational pair. Keywords for measuring the quality of such externally set rules are word-objects: I may and I may not within the social subsystem of consciousness. Such a complex and already integrated self-reflective evaluation (mode + meaning of behaviour) should be "automatically included" into the overall self-reflection (Selfhood), represented in the DIS CA system by measuring of the central reference word object ME.

If such self-reflective assessment truly occurs in the integrated consciousness of a child (evaluating one's behaviour through externally set norms) and provokes or doesn't provoke the process of shame, such a "dynamic associational stereotype" should be measurable through the use of DIS CA. In case we wished to diagnostically differentiate whether the process of shame is manifested mostly physically or mostly mentally, we would have to test the hypothesis using two more central reference word-objects: My body and My psyche. For this purpose we only use the word-object: Me.

Word-object: ME (the central reference object of inner identity and integrity of consciousness = conscious mental construct of all four basic subsystems of consciousness), should correlate with the word-object: I am ashamed (topical word-object for measuring the shaming process), on the level of a group phenomenon establishment (L.E. Shapiro predicts that it is a process common to all children).

The qualitatively numerical boundary of correlation, which must be measured within the DIS CA subsystem in order to predict that the phenomenon is truly related to a group and species (occurs in all children), was standardized on a large sample of children and adults (see description in the introduction) to +0.650 for all used word-objects. If the measured value of object correlation does not reach this numerical boundary, the process is individualized (true in a number of individuals) rather than group and species related (employed by the population or an age group as a whole).

The actual correlation colour-associational profiles that was measured by DIS CA subsystem between the objects Me and I am ashamed was +0.6571 for the adult population and +0.7192 for children. Both values fulfil the criterion; the children's results show a tighter correlation of higher quality.

Shame was identified by the DIS CA system as a group phenomenon occurring both in children and adults. We can therefore assume that man (regardless of age) incorporates the process of shame into the self-reflective evaluation and that this process may be taken into account whenever groups are considered as an intervening variable.

From the executed testing of Shame hypotheses of L.E. Shapiro (see the above-mentioned publication) by using the CA Technique, tells us that the phenomenon is in fact associational measurable.

GUILT - validated by the word-object My guilt

In the mentioned publication Guilt is described as follows: "It occurs when children do not fulfil their own internal norms of behaviour."

L.E. Shapiro assumes that the starting point of the manifestation of this mental process that is called GUILT is a confrontation between the child's behaviour in reality and the known or expected quality of behaviour, the norms of which are "established by the child itself."

He therefore works with the assumption that the child must be capable to recognize and realize its own behaviour (quality self-reflection) and capable to recognize and realize the values which it establishes on its own (quality introspection).

In DIS CA system for determining the identified and realized "internal autonomous world" norms there are primarily colour green and colour red defined that are interconnected in an associational pair. The keywords for measuring the quality of such internally defined rules are word-objects: I can and I cannot – in the mental subsystem. These are connected to word-objects: I want and I don't want – in the energetic subsystem of consciousness. This complex and already integrated self-reflective introspection should be "automatically incorporated" into the overall self-reflection (Selfhood), represented in the DIS CA by the central reference word-object ME.

If such self-reflective assessment truly occurs in the integrated consciousness of a child during an actual ongoing action (evaluating one's behaviour through internally set norms) and provokes or doesn't provoke the process of guilt, such a "dynamic associational stereotype" should be measurable through the DIS CA method.

Word-object: Me (the central reference object of inner identity and integrity of consciousness = conscious mental construct of all four basic subsystems of consciousness), should correlate with the word-object: My guilt (topical word-object for expressing the process of guilt), on the level of an individual phenomenon establishment. L.E. Shapiro predicts that it is a process common to all children.

The qualitatively numerical boundary of correlation, which must be measured within the DIS CA model in order to predict that the phenomenon is truly an individually specific phenomena, was standardized (see the sample of analysis of word-object I am ashamed) to below +0.200.

DIS CA system was used to measure the actual correlation of colour-associational profiles between the objects Me and My guilt: the result for the adult population was +0.0306, for children it was +0.1018. Both values fulfill the criteria. In children and adults guilt was thus identified as a measurable phenomenon which is individually specific.

Guilt as an individual phenomenon was identified by DIS CA as occurring individually both in children and adults. It can therefore be assumed that man (regardless of age) incorporates the process of guilt into the self-reflective evaluation and that this process may be taken into account whenever an individual is considered as strictly a individual intervening variable.

The executed test of hypotheses of guilt of L.E. Shapiro (see the above-mentioned publication) by using the CA Technique, tells us that the phenomenon is in fact measurable in association.

Summary chart:

Process	Correlation Me - children	Correlation Me - adults	Variable type
SHAME	+0,7192	+0,6571	group
GUILT	+0,1018	+0,0306	Individual

Similarly it is possible to psychometrically construct and validate any other word-objects, which are commonly used in scanning via colour-word association technique and which have in the DAP Services a.s. a large enough quantity of colour triple combination data.

Based on that it is also possible to construct semantic factors (sets of word-objects focused on a specific area of an individual's or a group's behaviour), which show a sufficiently high internal measurement correlation (reliability above 0.95). This feature was subsequently used to create various specific products (stress potential, adaptation potential, etc.).

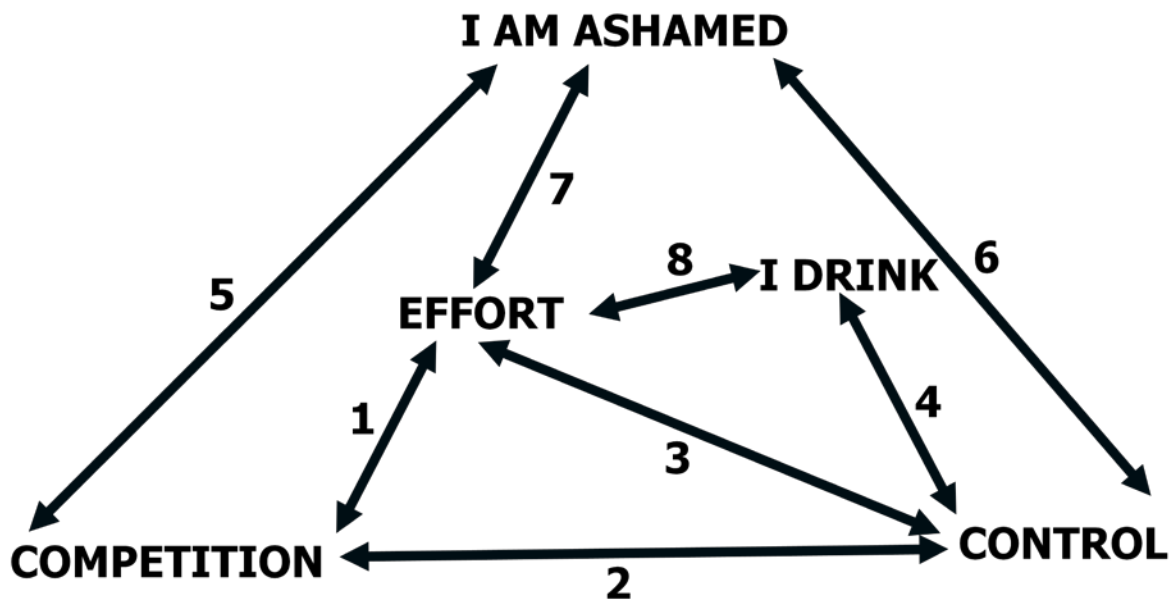
Trends in conceptual network structures of human consciousness

Data structure description:

- Time of data collection: database DAP Services a.s. 2007 to 2011
- Form of data collection: Internet sensor DAP Services a.s.
- Age: Adult population
- Numbers: 36 000 scans, 87 objects of scanning

Based on the recent analyses of a sample of adult male and female we have compiled a potentiality for measuring and displaying trends in network structures of human consciousness into six basic categories. The whole concept of network trends stand on the observation that the measured CA profiles correlation coefficient of used keywords is in fact in the mathematically existing values to be found only in a very small number of stimulations regardless of gender, and that concerns these words - Effort, Control, Competition, I am ashamed, Risk and I drink. No other words used and analyzed with sufficient color triples in our database show a distributive Gaussian arrangement according to the significance and they also cross the measurable border of correlations +1,0.

Another finding is the fact that network ties of consciousness of 6 keywords differ according to gender, while the basis of differences rests on the finding that male and female consciousness has a different pattern of binding specifically for Risk object.



RISK has its own structure of relationships

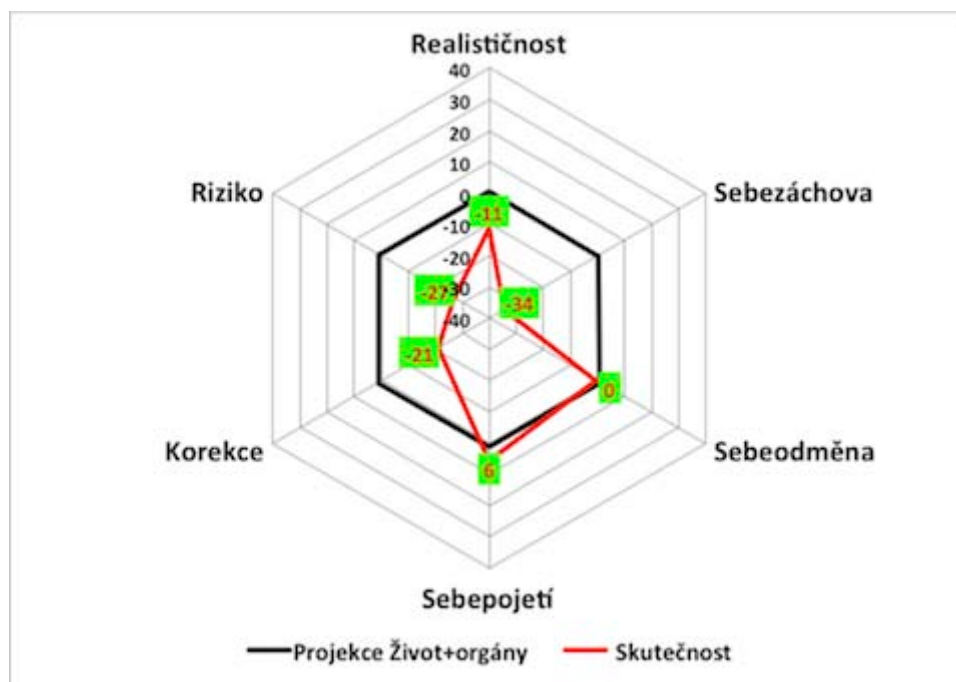
Six meaningful and measureable elements of human consciousness:

1. Realistic nature - the element is composed of a general profile of three keywords Effort + Control + Competition, which showed real range measurements as well as to the distribution of statistically significant correlations into areas of normal Gauss distribution curve and the highest correlation values with respect to one another at the same time.

2. Self-preservation - the element consists of a general profile of the three keywords - Loneliness + My fear + My pain, which showed the highest activity of stress self-defence activity and a high correlation with respect to one another.
3. Self-reward - the element consists of the general profile of three keywords - I stroke myself + Success + I drink. The first two keywords showed the highest brain association correlation measurable with feelings of pleasure, happiness and feelings of pleasure. The third key word is assigned to them to represent the real measurability. At the same time all three show a sufficiently high correlation with respect to one another.
4. Self-reflection - the element consists of the general profile of three keywords Me + My body + My psyche. From early childhood they show a strong autonomous independence in consciousness and form the basic unit of central concepts to express the nature of specifically human consciousness, while showing a sufficiently high correlation with respect to one another.
5. Correction - this element consists of the general profile of two keywords - I am ashamed + My guilt. It shows specifically human correction mechanisms of group (I am ashamed) and individual type (My guilt) + the keyword self-management.
6. Risk - this element is formed by only one profile - of the keyword Risk, which firstly showed a range of actually measurable scale of correlations, while it is generally accepted as permanently present interventional value in the environment throughout the development process of evolution of human consciousness and secondly it showed its specific network structure of correlation, which is completely different from five other measurable keywords.

These six items formed by aggregated CA profiles I correlated with CA profiles summary platform of used keywords (CA life) + CA profiles summary platform of key words describing only bodily organs. The results are used as "standard measuring norm of correlation" to the assembled radar chart for measuring group trends. To measure the individuals I tentatively set the "measuring norm of correlation" (reduced) to minus 0.1500 because I am not able to create a mathematically precise norm for individuals with my analytic tools just yet.

Sample real measurements of the group trend in the word Reality:



- Interaction balance Reality in our consciousness rests on the quality and quantity of processes of self-reward (kinds of genotype and phenotype).

- What we present to the outside world as "objective fact" in an interactive and transcending way is a merely individualized image of our self-reflection that we create in the inner reality of our consciousness on the basis of how strong self-preserving mechanisms for management and correction of the external environmental risks do we have.

Conclusion:

The measured result documents the well know description of reality defined by Mr. C.G. Jung that in a strictly psychological concept, any kind of reality is a purely subjective creation of human consciousness and not a record of objective reality. On another level, the measured result corresponds with the findings of D. Dennett on the use of language as a self-presenting cognitive and interactive tool of evolutionary development of man and his consciousness. In addition, to draw attention to the fact that the measured result corresponds with the fact that was brought to physics by Mr A. Einstein, that any measured object must include the reality of the observer, as an element relativizing the relationship between the subject and object.

Validation of Influence factor

Special needs of man that are reflected into the quality and strategy of association choices

Influence requirement

We all want to be influential, the more the better. And we also need to assert ourselves, what we are and how we are, in the way that suits us, in the way that we know and how we understand it. Simply our way. If it is successful in agreement with others (parents, siblings, friends, teachers, co-workers) and in valued activities (subjects, hobbies, free amusement, family responsibilities, work), then we have no reason to protest, fear, distrust and subsequently deceive or misrepresent, conceal, crosscheck without a reason, fight in rage, fall prey to depression, or to feel all alone. To put it simply, just be existentially threatened in our concept of influence. Whether we manage to defend our concept of influence in our life or not, is connected to two subsidiary processes:

1. Quality of evaluation and acceptance

Not only do we want to be influential and be valued by the others as much as possible, we also desire and need to be evaluated by others. And especially from those we love, admire and need and we want them to accept us as much as possible. But the evaluation that we want can, unfortunately, only be affirmative, laudatory, positive. Everything else is against us. Any kind of criticism, reproof or negative review hurt us. We feel it is unjust, humiliating, punitive and deliberately harmful to us. . And we just want to avoid that. When there are too many negative reviews in our lives, we succumb to the deception that different kinds of revenge are what should be done, what the other side deserves. Just revenge. And if we cannot get back at "those strong" then we choose at least those weaker or where it appears the easiest to us.

2. quality of protection and defence

Who would not know a lot of situations, about which (s)he know (s)he cannot handle them. That are beyond his power, even if he really wants to cope with them, endure, conquer and prevail. After all, the winners are famous, admired, powerful and rich. We usually know that about ourselves, but we try to keep it a secret from others. At the most, we confide in the closest and best friends where we can be sure they will not do a dirty trick on us or that they will not reveal it to to anybody. And so we try to prevent those let downs in advance - we simply long to ensure victory. We do that in an honest way with preparation, training, hard work, but also unfairly with secret agreement, slander, intrigues - or, when the situation occurs we defend ourselves. We are making excuses, apologize, explain, we are raging, we give reasons why it is not possible, we attack others, or write them off and in various ways remove them from our life. However, we mainly deceive ourselves.

Data structure description:

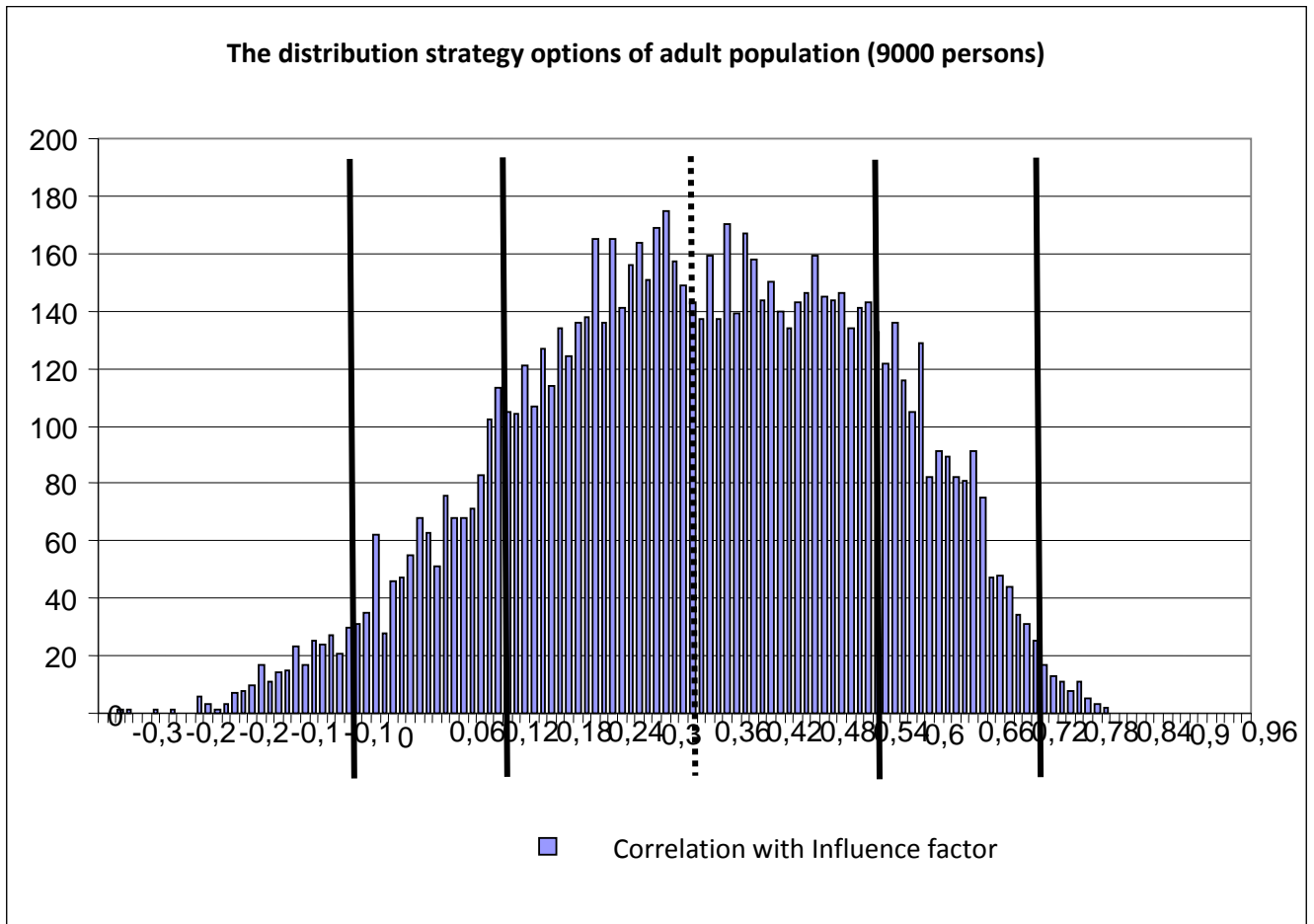
- Time of data collection: database DAP Services a.s. 2006 to 2008
- Form of data collection: Internet sensor DAP Services a.s.
- Age: 20 years and more
- Numbers: 9 000 scans, slightly more women - 53%

Conclusions of background analysis:

1. adult population that hypothetically tries to influence the colour-association choice by an imaginary differentiation into "good and bad" displays a disrupted realization-association continuity of consciousness with three word-objects Risk - My mistakes - I am ashamed.
2. adult population uses both with intentional and unintentional application of the above mentioned needs six colour triplets (ie 10.7% of 56 possible) so that they can hide from the world "behind a curtain of illusions" about the expected positive colours. The nature fortunately does not know any such illusion of good and bad colours so it does not apply anything as such. When analyzing men and women separately, then specifically a further 2 more show with women and 3 with men.
3. More detailed analysis then showed the following connections:
 - underlying associative mechanisms, that are very well "hidden" away from the threatening outside world, are a priori self-defence in combination with big ambitions
 - reference group that these mechanisms follow is My family (disruption of mother's role - "protection of a certain relationship" and the role of the father - "a wise mentor and coach")
 - reference formative process, to which these mechanisms are linked is Upbringing (narrowing to form of the "pressure of duties and performance without understanding the meaning")
 - reference-condition, to which these mechanisms are linked, is existential threat by rivals

The newly measured "Influence factor"

On the basis of these findings we have compiled a new semantic factor of eight key word-objects that are commonly used (Risk, I am ashamed, My mistakes, Effort, My fault, My Family, Education, Competition) and created a comprehensive colour association profile of all the options available to these words in the database of adult images. Thus, we set a hypothetical association profile of 56 color triple combinations, according to which we have examined the above-mentioned random sample of adult individuals. And here are the results obtained. Average correlation = 0.3700, deviation = 0.2006.



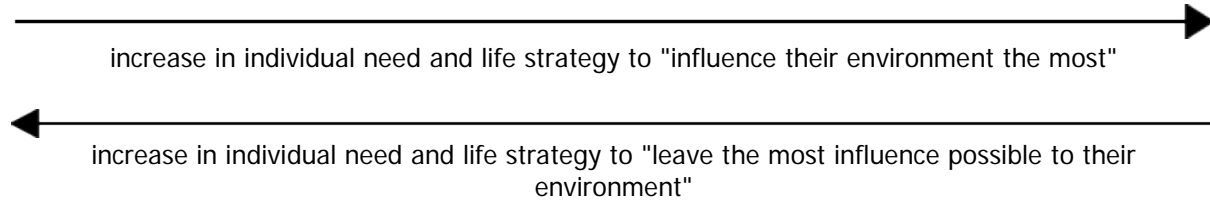
The measured result of the layout is very satisfying even though the resulting curve is slightly flattened to count on the very high correlations (above +0,800). And four vertical solid lines in the charts are marked border $+ / - 1$ and 2 sigma (deviations) from the average (which is marked with dotted line). The actual average measured value lies in the low correlation zone (+0,3700), so we can conclude that the created factor measures purely individual human need of influence and its resolution is very good (range of measured values), which provides probabilistic differential measurements.

Based on the results we can draw a qualitative range of the need of influence or the strategy of influencing colour-word association technique when scanning with CA Technique and use and express it in a completely standard way with adult population. The range varies from a highly independent and individualized strategy of selection on one side (and negative correlation with the influence factor) to extremely deliberate and unified strategy for association selections on the other (high correlation with the influence factor). The highest frequency (65.8% significance) has spread in the common wide average with interval correlation from 0.1695 to 0.5707.

Given that the whole object-communication model of consciousness has been designed and constructed as a sum of constant dynamic interactions with their surroundings, let us ask what will such a measuring bring us for practice.

The real qualitative benefit will be that every man will be identifiable by his scanning of colour-word associations in the respect of how small or large need to influence their surroundings do they have, and vice versa - how small or large need of influence does his environment express toward him.

That is in which interactions is the person is "accustomed to live long-term." Let us illustrate this interaction simply with two opposing interacting forces:



In the chart we can see that we have a small group of adults. It can be said that they have such an individualized and negligible need for themselves that they completely leave the influence to their social environment (frequency in the chart at the far left). Such a life situation may or may not be what they want. If they prefer it so it then they are not trying to change the situation and from the point of view of the environment "nothing happens" as well. They have their influence centred into a highly specific area that is not that common among people and the environment simply just does not know, does not perceive it or it tolerates it or even appreciates it (that the better variant). And otherwise they are simply "totally good, and resigning or submissive people". You often do not even notice them. Let us denote such a measured result as an "invisible strategy".

What is worse it when such a "balance of power of influence" does not suit them. Their defences and attempts to turn the tables fail completely. From the original, highly formative and accepted influence (as described in point three of the background analysis) it shift into an interactingly deforming and life-deteriorating influence. In empirical practice, these are the people with severe functional disorders of social harmony in the sense of loneliness and isolation. Let us describe the measured result as "self-destruction strategy."

Another group of adults (frequency in the chart between strong lines on the left) has a slightly larger frequency and also expresses somehow larger need of their individual influence on the social environment. Still, the interactional influence on the environment massively prevails. And again, as in the first case, such a life situation may and may not suit them. If it suits them then they live their life, have their own private fancies and often special interests that do not provoke anyone, but also do not interest a body. Let us call it the "inconspicuous strategy".

Otherwise, when the individual resists such a situation and experiences the influence of the environment as highly restrictive and harmful but he is not able to reverse the ratio of power, there is a growing long-term life discontent with no way out and no actual solution. Let us denote this phenomenon as a "strategy of suffering." In empirical practice, these are people with a variety of bizarre and prolonged life problems that bring them psychological and physical suffering, pain and distress, which they are not able to deal with alone. They hide it and at the same time they are not able to receive any well-intended help and interest from their environment. Among them we find most of the chronic "clients and patients."

Absolutely largest part of adults forms a group (the centre area of the chart between the two inner solid lines), who seek to ensure that their influence and needs are in balance with the needs and influences of their environment. As the measured correlation slowly rises with factor of influence, so their individual needs to have and gain influence rise. We can hypothetically split them into two groups, where one is passive in its acquisition (left of the dashed line) and the other active (right of the dashed line).

And as we still remain faithful to the law that they their life situation might and might not suit them, let us denote those who are happier with their life (not just the most passive ones) in such a way that they profess and practice the "strategy of a selected option." They live mainly in conformity with themselves and their ideas about the need to influence, they do not claim something more than what they feel belongs to them and their environment perceives them as easygoing, tolerant and

acceptable. To put it simply, one could say that they are people who know "their range of possibilities," and they can claim it in the way of quality life.

Apart from that there is in this area a large group of people whose life situations do not suit them for various reasons and they feel that their balance of influence of Me - the environment is not well-balanced. Utterly most frequently they see this imbalance in unsatisfactory conditions, which are directed against them. Let us denote them in such a way that they apply the "strategy of limited options." It is a big army of everyday regular life-discontented people, who perceive the world around them and it sees always from the worse perspective. Their one of the most frequent phrases is IF ONLY.... But oops! When the environment meets them halfway and fulfils the conditions to their level of proclaimed, no lasting satisfaction is achieved. Very soon another IF comes up and the carousel of feelings of dissatisfaction, inappropriate conditions, missed opportunities and "rule of influence of others" is here again.

Now we have swung completely to the right side of the chart between two strong lines. Here we can find a smaller group of people in number that has a much higher individual need of influence it naturally wants to assert it in its area. These are people who are strongly convinced of their ideas and the qualities and they feel they can and should give something to their environment. They are trying to reach the highest social positions and individual recognition. Often they can be supportive to their environment and offer an example of where can you get at work and socially speaking. Even here, however, hold that among them there are those who reach their influence simply by what they really are and what they can do for others. Let us call them the people who use the "strategies of authentic influence." Their strong life aspect is that their environment does not envy them and does not feel their influence is at its expense.

The second group would like such a position, recognition and influence as well but they simply do not have what it takes and unfortunately they will never have it. And so they try to hide their "small handicap" away. And that something are generally regarded and accepted values, generally useful and socially preferred activities or positions. They are just looking for their "place in the influence-sun" where they can shield by formally applicable rules and regulations. And so as to appear to their environment in such a way they have to start "playing their game of social desirability, acceptability, and necessity." They simply imitate that role. And it does not matter if it's a calculated game or a game largely unsuspected. Let us say that they apply what is called the "strategy of formal influence."

The last group of people (in the rightmost chart after the second solid line) there are those whose need of influence is so powerful that they are able to do anything for it. They just need to have a high influence always and everywhere, whether they have what it takes or not, whether the conditions are whatever they are, in business, professional and social positions. The central motive of their knowledge is their high cost, which they cannot renounce and they cannot be realistic about it. Let us denote this group of people with respect to their life conception of influence as the "strategy of total power." And since they are very serious about this effort, they are very well visible for their environment. And he, who has the power, has the truth. And he who is right, he should be listened to and nobody should want him to listen to the environment.

Even here, however, the rule that one can do better and another one worse, applies. That is why a numerically small group of them generates that cannot take any open confrontation of influence with the environment. They always hide away from it or avoid it, and so they are left with nothing else but with the furious and desperate defence for so long until they fall prey to the "strategy sickness of influence."

Gradually we have therefore defined in the adult population the essential nature of the ten different life strategies, which can be reflected and can be with help of evaluation procedures "read" from the selected manner of colour association selections and are accurately measured by the influence of experimentally generated factor of influence.

Summary chart of the character of association selections

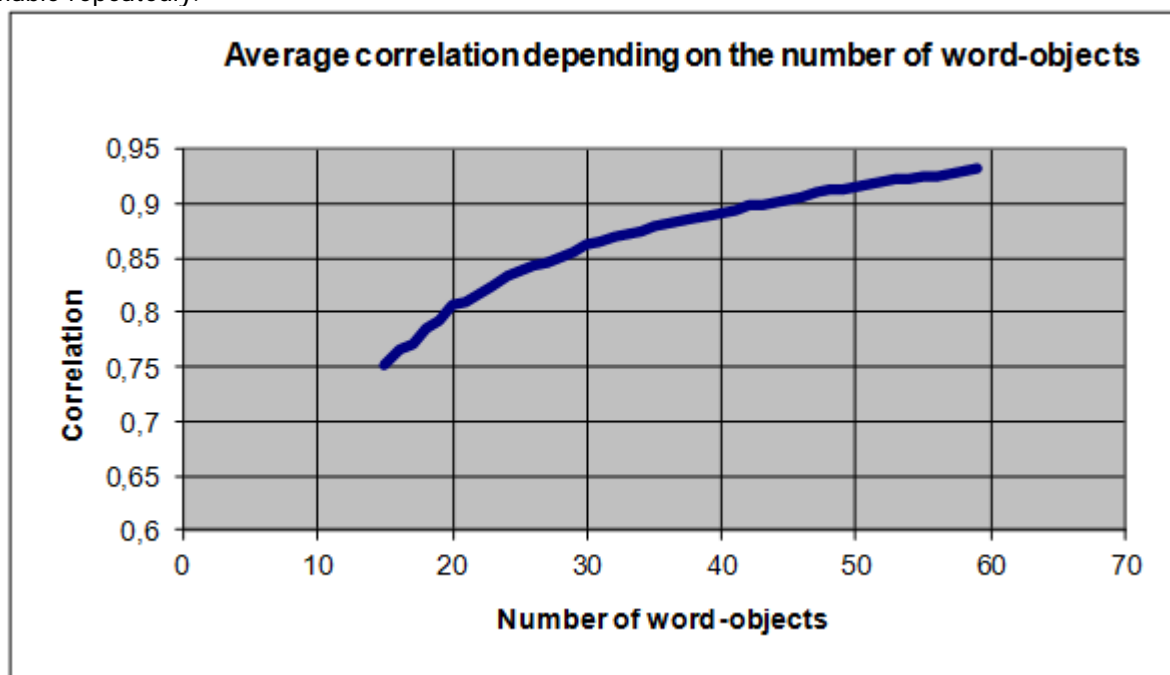
	1. zone	2. zone	3. zone	4. zone	May zone
Structure of selection	ruined	disorderly	flexible	orderly	rigid
personal influence	Very low	low	normal	higher	The highest
environmental influence	highest	higher	weakened	low	Very low
Style of selection	disintegrative	weakened	alternative	styled	manipulative

But beware, because of the didactic viewpoint we have not applied any other dimensions of human consciousness when discussing strategies. That is the degree of ethics, ways of dealing with the rules, stress dispositions, adaptability, constructive types of behaviours, shared social climate and the tendency to life imitating activities. These phenomena in a scan we measured independently.

Validation process of the influence the number of word-objects used in the sensor

Performed analytical-statistic study (see its technical description) allows us to predict several facts, which are reflected in current practice in the use of colour association technique (CA Technique) and in measuring the quality of the potential of human consciousness.

With an increasing number of word-object used, the value of the measured result for individuals and groups continually refines. If we only use a word module that include 40 word-objects, the resulting value will be so mathematically precise that it can safely be regarded as intrinsically valid and verifiable repeatedly.



By simulating the intervening influence of each word-object used in other than one of the basic number of 15 (it includes the word object decision model -TEMS - 9 objects; central objects - 4 word-objects and two word-objects related to independent neuron brain networks for speech, I think and I speak), clearly demonstrates the fact that different word-objects have different intervention significance for the development of measuring of the quality of the association processes of human consciousness. They are thus able to influence the accuracy of the result differently. Two basic trends have been measured.

Word-objects with significant influence and word-objects with minimal impact on the resulting accuracy of the measured correlation values. In current practice, it is necessary to safely maintain their proportional representation in the sensor for sake of accuracy and validity of the result. In this way we supported the determination of the stated number of words of the sensor the most. Given that we now know influence their intervention impact accurately and measurably known, this condition can be automatically fulfilled by a computer which checks it and balances it.

The third result that is usable and useful in practice that the study has brought us is that when we conduct a repeated scanning of an individual or groups with an identical word module in a different time, it is possible to consider the measured differences in values as qualitative change in the consciousness of the given subject in context and in terms of their interacting function in life. Thus it is possible to perform a shared empirical feedback with the scanned subjects and a check-up of situations, event, experiences and behaviour that took place in the meantime to objectify this interventional influence as much as possible. It is then able to actively create a platform of conscious

correcting communication and to contribute to the process of self-knowledge of one's quality of life. This premise is defined as one of the main objectives in the use of word-colour association techniques and the object-communicational model of consciousness.

The above mentioned findings and predictions support the previously validated mathematical and statistical evidence that the relatively "fixed point" of human consciousness, regardless of age and sex, is placed on the axis of the three word association objects: Me - Time - Change, which illustrates two trends of human consciousness. The ability to change over time and the ability to adapt in time.

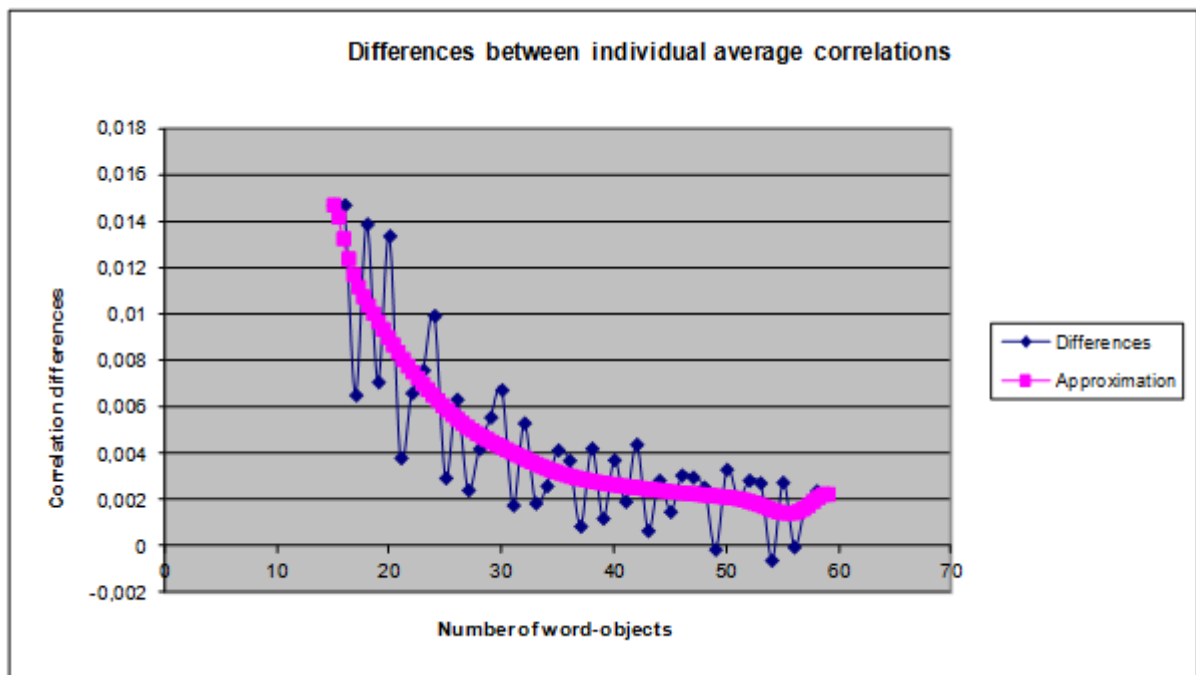
Measurement Description

Data structure description:

- Time of data collection: database DAP Services a.s. 2006 to 2009
- Form of data collection: Internet sensor DAP Services a.s.
- Age: children of 6 to 14 years
- Numbers: 14 195 profiles, each profile must include the choices of the selected 59 words (words from common word-objects used for school evaluation).

We have chosen the basic group of 15 words, which contains a complete set of word-objects from the TEMS factor (9 words) + one word-object from the following factors: Self-conception of ME, Sociopathomix, Internal losses, Family environment, Learning processes and Free activities. Now we have correlated this group with the colour-word association individual profiles. In the next step, we added another word from the Self-conception of ME factor to the basic group of words and again performed a correlation with the word-colour association profiles of individuals. Gradually, we added some additional words (we gradually encompassed all factors) until we reached the final number of 59 word-objects.

We put the resulting values into a chart and observed the change in the average correlation depending on the number of words in the word group.

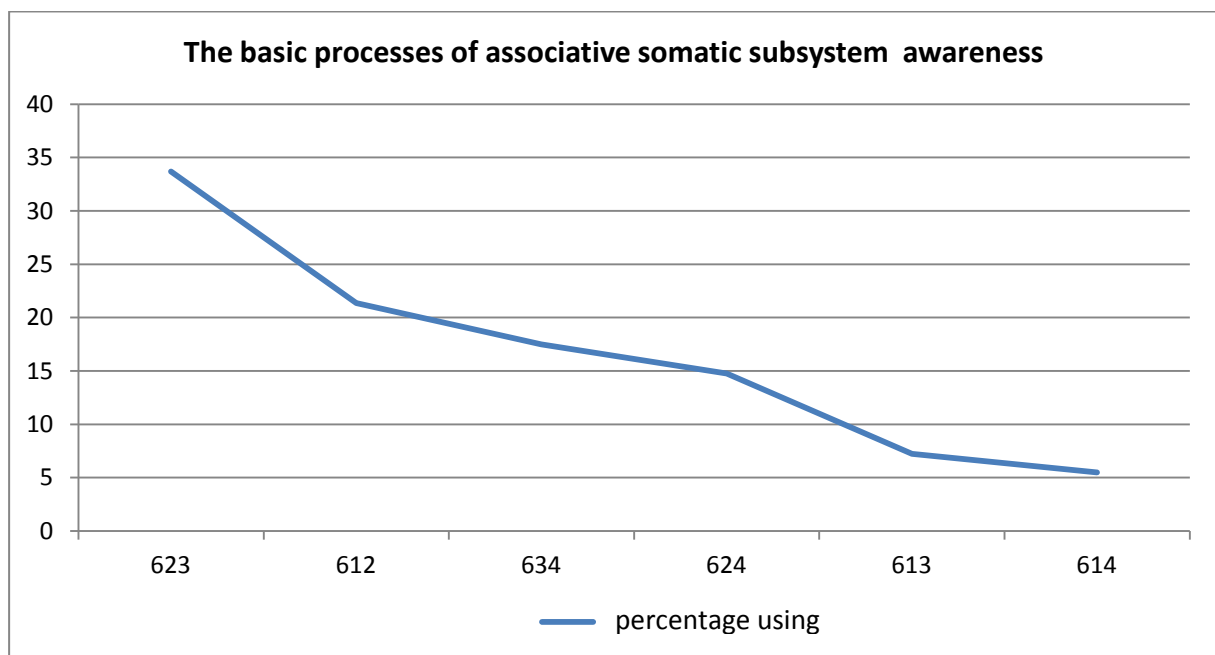


Association processes and the semantic network in the somatic subsystem of consciousness

Data structure description:

- Time of data collection: database DAP Services a.s. 2009 to 2011
- Form of data collection: Internet sensor DAP Services a.s.
- Age: 21 to 65 years
- Numbers: 38 244 profiles, gender ratio 1:2 in favour of women, each profile must include the choices of the selected 59 words
- To remove any influence of unevenness of the sample in terms of gender, a mathematical balancing of quantity of Association selections was carried out.

If we consider specifically the association processes of only the somatic subsystem of consciousness as a whole (so far no links to the semantic structure of associations in integrative, cognitive, communicational line of consciousness), then we will have enough information if we look at the chart of six types of processes (somatized constructive types of behaviour) with their participative representation.



Partial conclusions:

Significantly strongest of the association processes of adults represented as far as the count goes to count adults is the somatized auto-regulation (paint triple combination 623, in the interpretative OKAV model the co-operation of energetic and mental subsystem, thus the link between the autonomous and the over-reaching inner part of the reality of consciousness). In participation the least represented by the association process is the somatized participation (colour triple combination 614, in the interpretative OKAV model of the interaction of social subsystem of consciousness and interaction with the environment that is the connections between the over-reaching part of the internal reality of consciousness and the outside world).

We could therefore say that somatic awareness subsystem in adults assert as such much more vehemently than at the "entrance" to the interaction of consciousness and at the same time it handles the processes within the consciousness in the form of co-stimulation of interactions stimulations -

structuring - the social bond, where the highest proportion of participation lies in the connectivity have the mentalizing processes including emotivity and social maturation (Koukolík František, Humanity: Neural Correlates, Galén, 2010 ISBN: 807262654X, 9788072626540, published in Czech as Lidství: Neuronální korelaty). On the other hand, a much lower share of activity is reported "on the exit" of interactions from consciousness, into the outside world around, while the lowest share in the connectivity is born by the processes of direct social ties to the environment (see Koukolík, Sociální mozek (Social Brain), 2006). In terms of spatio-temporal point of view, the criteria for possible interactions of consciousness it is quite easy to realize that the quantity and speed will always be dominated by those that take place in a small, bounded and limited space (inside our brain) than those that occur in a large, indeterminate and variable space (in the external existential environment) and are dependent on a direct interactional social bond.

Let us look at how many and which word-objects are statistically significantly involved in these processes in the semantic structure of consciousness. Overall, 9 word-objects is thus involved in the network connectivity, which makes only 9.7% of all 93 analyzed word-objects of the sample. The somatic subsystem itself summarily covers 20.5% of all processes in the whole base of associational connectivity of consciousness. It can be thus assumed that the semantic significance is narrowly concentrated in objects that are highly relevant to the "entry interaction" into the consciousness, to the interactions within the consciousness and only partly on the "interaction output" of consciousness.

Central objects are word notions My body, I am stroking myself. In terms of persons and groups it is the object Men*. In terms of ensuring the livelihood these are the objects I eat, I sleep, Nature, Property, Weather. The last statistically highly significant object is of a very spatially bounded nature and a "known" word notion Home.

Perhaps the reader finds it a little surprising that there is not a number of word-concepts, which are traditionally considered to be existentially and developmentally very important. Some of them are placed only as statistically significant. There is a total of 14 (15.1% of 93 analyzed word-concepts) and here's their list: Me, My psyche, Time, World, Dad, Effort, I Drink, People, Energy, Mom, Delight, I feel, Sex, My Defense.

If you add the previous list of these semantic objects, then it looks like this:

- Central objects: My body, I stroke myself, Me, My psyche, Time, Energy. (that are 6 out of 8 objects that have been detected in previous analyses as the central objects of consciousness. The only missing objects are Change and Risk).
- Persons and groups: Men, Dad, People, Mom.
- existential certainty: I eat, I sleep, Nature, Property, Weather, I drink, Effort, I feel, Delight, Sex, My defense.
- Existential spacer: Home, World.

Let's look at whether the statistically significantly scoring objects of semantic network structures of the consciousness cover the principal starting point of the OKAV model as well as regards the regularity of the association processes, the anchoring triad TES (Time – Energy – Space). All three requirements are met, the space is represented on one hand as individually-defined and on the other hand as generally unbounded spatial object. Another starting point is the integrity of the OKAV model of consciousness, which provides representation of all three basic semantic objects I - My body - My psyche. This requirement is fully met, too. We would clearly identify the defined principle of interactivity and the request Me - Not-me (internal and external reality), the principle of tangible and intangible nature of the external existential environment, metabolically energetic and existentially regenerative basis of substantiality (I eat - I drink - I sleep), connectivity of sensational components of brain rewarding system (I stroke, Delight, I feel) as well as three basic principles of evolutionary expansion - replication - self-preservation.

It can be concluded that somatic subsystem of consciousness generally covers the basic processes of consciousness. It is also based on the neuronal network connectivity as well as on principally semantic life value in a sufficiently wide variability and thus also satisfies the condition regarding the measurability of holistic consciousness defined by A. Damasio (Spinoza Search : joy, sorrow and emotional brain, Antonio Damasio, Dybbuk, 2004 ISBN: 8090300197, 9788090300194), where it is necessary to take into account the presence of both basic components of human consciousness Feeling - Position Based on these findings it can be assumed that somatic subsystem of consciousness is based humanly (the default) on the above described experientially semantic network OKAV model.

Analysis of the word-object Family and the confirmation by statistical functions

We had the validation of correlation numbers over the word-object family prepared. The analysis was performed by an independent statistician Mgr. Ernest Páleník.

Data structure description:

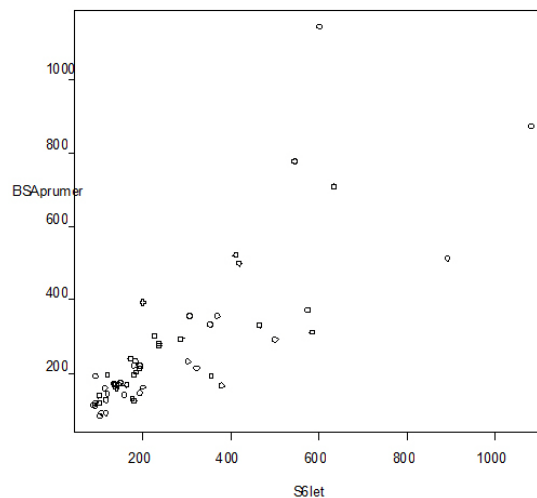
- Time of data collection: database DAP Services a.s. 2007 to 2011
- Form of data collection: Internet sensor DAP Services a.s.
- Age: 6 to 19 years, basic and secondary schools in the Czech Republic, each age group 3 000 people
- Numbers: 210 000; population years 2007/2011

Report by Ernest Páleník

TEST WITH A LINEAR MODEL

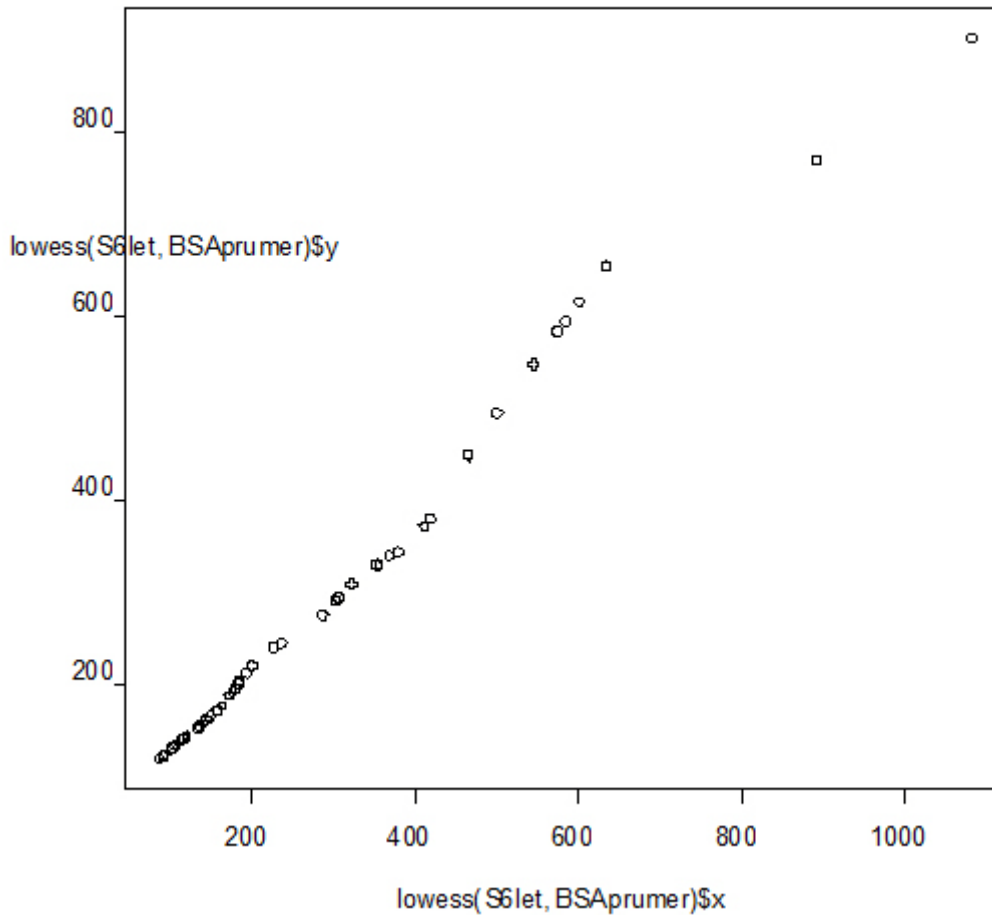
```
> dat <- read.delim("rodina_bsa.txt")
> attach(dat)
> names(dat)
 [1] "S6years"      "S7years"      "S8years"      "S9years"      "S10years"     "S11years"
 [7] "S12years"     "S13years"     "S14years"     "S15years"     "S16years"     "S17years"
[13] "S18years"     "S19years"     "BSAAverage"
```

Plot(S6years, BSAAverage)



This placement of points indicates applicability of linear trend. The points are concentrated in the bottom part, in the upper part there are some distant values. So we will use lowess compensatory parametric curve.

Plot(lowess(S6years,BSAaverage))



We will calculate linear model:

```
> l1 <- lm(BSAaverage ~ S6years)
> summary(l1)
```

```
Call:
lm(formula = BSAaverage ~ S6years)
```

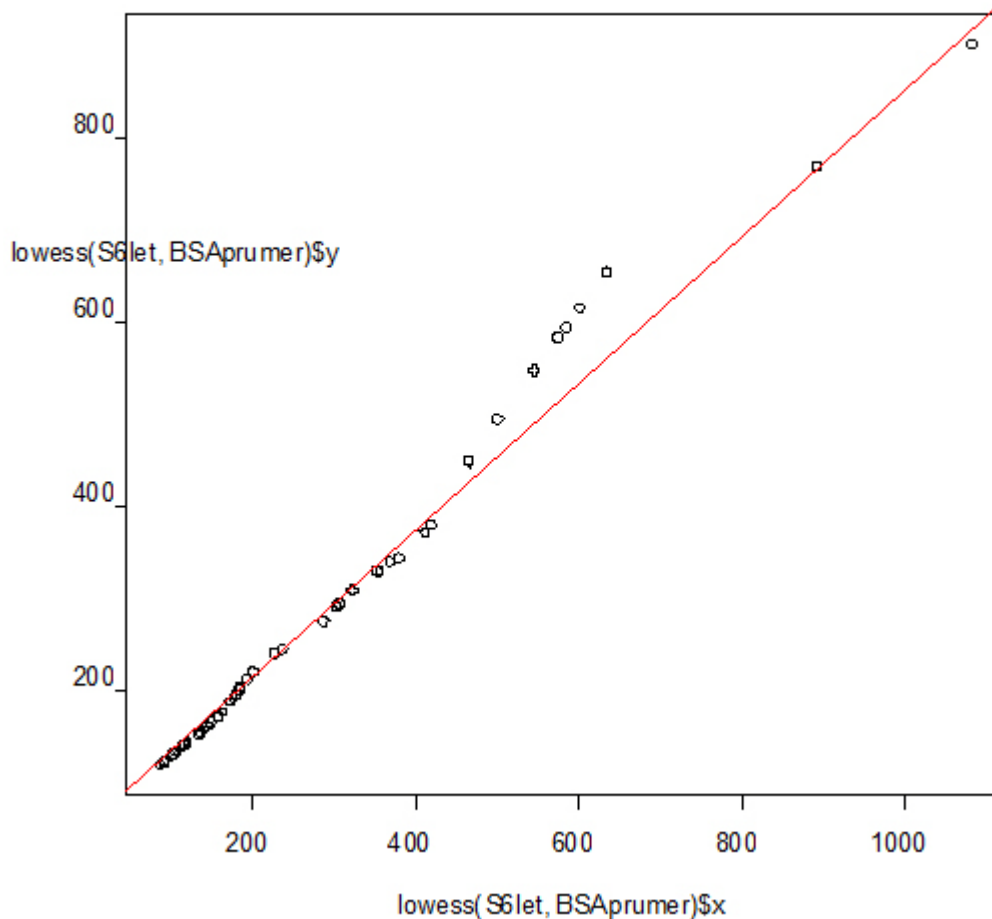
```
Residuals:
    Min       1Q   Median       3Q      Max
-251.24  -54.25   -0.66    25.19   611.63
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  55.12355    27.36130     2.015  0.0489 *
        S6years      0.79409    0.08136     9.760  1.6e-13 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 123.8 on 54 degrees of freedom
Multiple R-squared:  0.6382,    Adjusted R-squared:  0.6315
F-statistic: 95.27 on 1 and 54 DF,  p-value: 1.602e-13
```

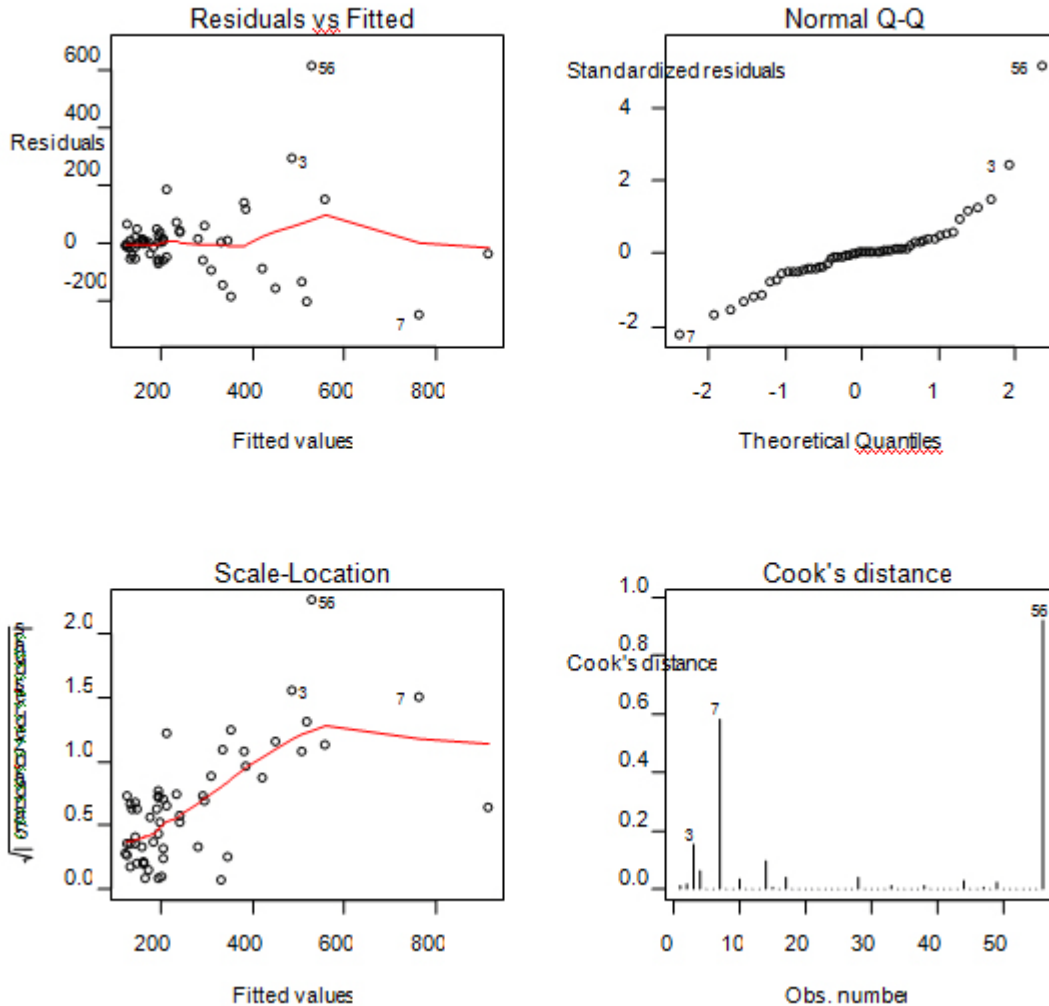
The model is quite good. According to the coefficient determination it explains 63,82 percents of variability. The model as a whole is valid according to ANOVA test. F statistics is significant, so we run a trend line through the points in the previous chart:

```
abline(l1,col="red")
```



It looks good. We just make an analysis of the residuals, because it is presupposed when you use a linear model that the residuals are commonly distributed (second chart), that the predicted values versus the residuals (the first chart) do not display distinct trend and the dispersion of the residuals should be constant.

```
>par(mfrow=c(2,2))
>plot(l1, which=1:4)
```



The analysis of residuals shows better results than the Poisson model, only three scans are extreme, we identify and exclude them in the next model (the second and fourth chart)

```
>BSAAverage[3]
[1] 777
>BSAAverage[7]
[1] 513
>BSAAverage[56]
[1] 1144
> l2 <- lm(BSAAverage ~ S6years, subset=-c(3,7,56), data=dat)
>summary(l2)

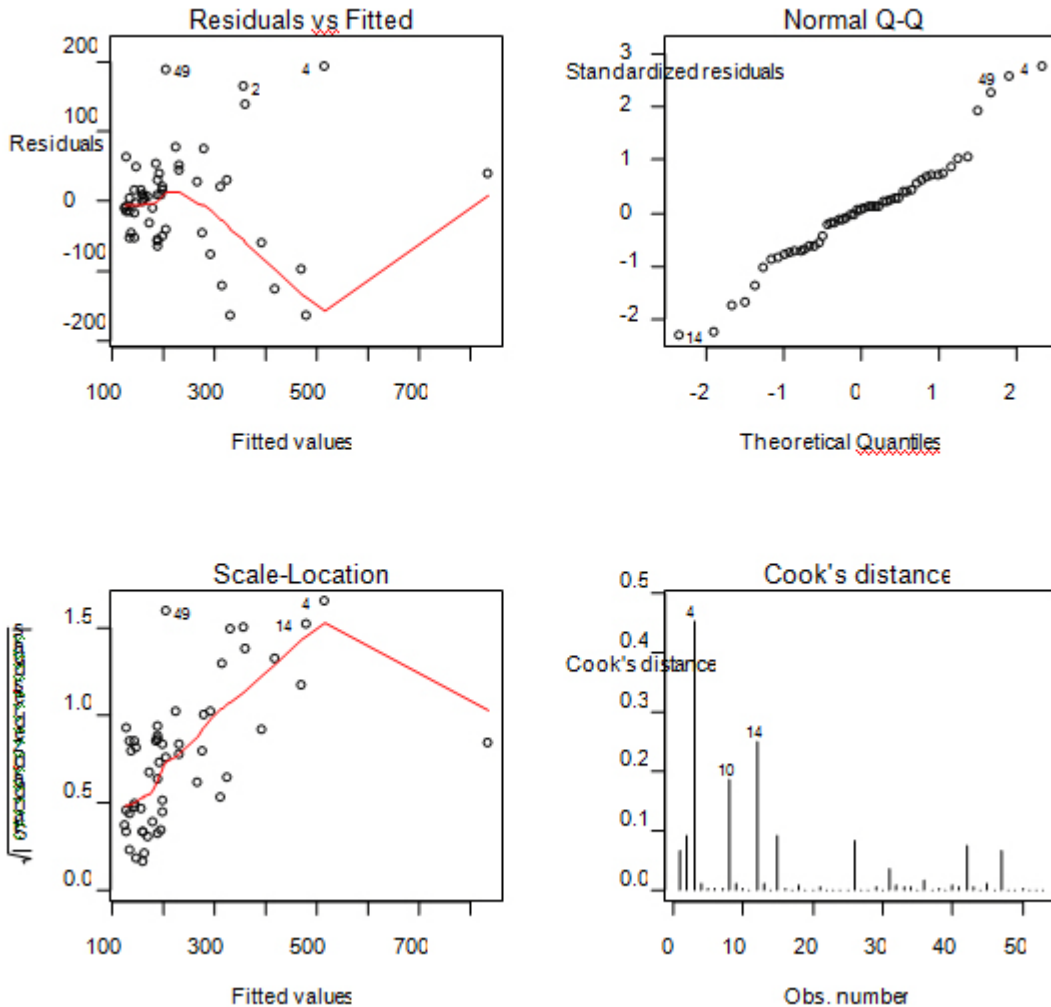
Call:
lm(formula = BSAAverage ~ S6years, data = dat, subset = -c(3, 7, 56))

Residuals:
    Min       1Q   Median       3Q      Max
-165.656  -46.910    3.708   30.454  194.044

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  63.1935    17.4152   3.629 0.000659 ***
S6years      0.7110    0.0574  12.386 < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 75.02 on 51 degrees of freedom
 Multiple R-squared: 0.7505, Adjusted R-squared: 0.7456
 F-statistic: 153.4 on 1 and 51 DF, p-value: < 2.2e-16

```
>par(mfrow=c(2,2))
>plot(l2, which=1:4)
```



The model as a whole is significant, the standard error of the model was reduced from 123.8 to 75.02, the share of explained variability increased from 63.82% to 75.05%, the remote values observed 4, 10 and 14 are under a Cook distance. The trend in dispersive diagram has increased estimated values versus residuals.

The overall conclusion:

CA method basically does not need even linear regression. Correlation measures the mutual relationship of two variables. The larger the correlation coefficient is the tighter the relationship. Regression analysis assumes that one of the variables is dependent - explained and the second one independent - explanatory. And in this case it is difficult to say, which is dependent and which independent. Thus we get the mirror results. This is quite common in psychology. In the regression analysis such a model is good, that explains the most of variability, has the least standard error of a model and is a significant model as a whole, and the regression coefficient is also significant. The

coefficient of determination of R-squared is actually enhanced by r from the correlation analysis squared. It then has also its adjusted form, in case you have two or more-factor regression analysis. Each regression model is a certain simplification of reality, and it is the coefficient of determination - it is denoted as a small d - that tells how many percent of variability the model explains. Because the regression formula goes as follows:

$y = k \cdot x + a$ the y that are the predicted values, these are the values of the regression line, k is in fact a regression coefficient, a is a constant. We can say even that y = explained variability + unexplained variability. The explained one is given by the regression formula.

To determine the tightness of the relationship of two variables is, therefore, sufficient just the correlation coefficient.

Temporal stability of CA profiles

Continuous monitoring of CA profiles and their temporal stability (reliability)

Data structure description:

- Gender: female
- Age: 32 years during the first scan
- Education: university, bachelor's degree
- Status: married for the first time, about 2 months before the first scan
- Children: none
- Employment status: self-employed in medical sphere
- Residence: her own flat 2+1, in a city
- During the monitoring with no serious illness or leave sickness, just with the common cold, she had fluctuating degrees of work strain
- Form of data collection: Internet sensor DAP Services a.s.
- Measurements performed on a calibrated word module for adults (108 words).

Comparison of individual measurements:

CA profile	17. 6. 2009	11. 10th 2009	18. 10th 2009	1. 11. 2009	10th 1. 2010	30. May 2010
17. 6. 2009	x	0,91769	0,87715	0,85821	0,69130	0,49304
11. 10th 2009	0,91769	X	0,95059	0,95550	0,79707	0,55664
18. 10th 2009	0,87715	0,95059	x	0,94510	0,80406	0,57148
1. 11. 2009	0,85821	0,95550	0,94510	x	0,86404	0,66196
10th 1. 2010	0,69130	0,79707	0,80406	0,86404	x	0,88766
30. May 2010	0,49304	0,55664	0,57148	0,66196	0,88766	x

In general, the correlation value of 0.85 is considered to be sufficiently stable to support the interpretation of the measured phenomenon, in this case, the individual depth profile of the attitudes of the individual (in the table the values are marked blue).

If there was not a longer time period than 3 months between two profiles, the measured correlation usually meets this most general boundary. If the time between the scanning is no longer than one calendar month, the measured correlations are always above 0.90 and more. It is also possible to watch the gradual decrease in the correlation of the first measured CA profile right to the value of 0.49 with the last CA profile in course of one year. This supports the basic hypothesis of the proposed OKAV model that not only respects, but directly assumes interactive modification potential of human consciousness in time.

Let us now take advantage of the definition of time by Jaroslav Pernica: "Time can be defined as a certain way of the internal structure of information. It will flow in such a set of information, where each piece of information contains all the "previous" information. The set must therefore have a certain pyramid structure" (Source: <http://vlada.bloguje.cz/830359-definice-casu.php>).

If we assume that each key word (its semantic meaning) is encoded in a long-term semantic memory of man and that colour association triple combination bears its implementing (narrative) memory component, then the repeated correlative comparison of an achieved colour profile for the same keywords (calibrated modules) by the same man, it will show us the changes in the internal structural arrangement of the information.

In case that the correlation will achieve the sufficient boundary of "invariability" (general boundary correlation 0.85), we can say that the internal structuring of information has not changed much in time. And vice versa, the more the correlation value decreases, the more the internal structuring of information changes.. This change will occur, e.g. in a hierarchical or preferential arrangement in life values that are structurally stored in memory with the given keyword.

In case of our performed measuring, during which no significant external changes were recorded in the life of the observed woman (see basic life data) so it can be stated that:

- a) a) a calendar month is in case of an adult a very short time period for significant and externally noticeable changes to happen in his individual structuring of information (CA correlation profiles are above the limit of 0.90 and more).
- b) b) During the three calendar months' period, there is a gradual change of internal structuring of information (values), but it can still be considered sufficiently stable and comparable (CA correlation profiles move around 0.85 boundary).
- c) c) any other time increase between the measurements shows a relatively smooth and continuous decreasing value of the correlation profiles of CA, thus unambiguously identifying changes in individual and team structuring of information, which means a qualitative transformation, e.g. hierarchy of life values and the related feelings and attitudes. The images are from May 2009 and 30. May 2010 the value went to the level of 0,493. Within one year, then there was a clear qualitative change in the internal structuring of information.

Since that probably is not a structural change induced by external environmental conditions, there must have been a change caused by the internal and consciously noticed initiative of the measured individual, that is stemming from her emotional plane, and inevitably it will be reflected on the plane of observable behaviour.

Further measurements over a different calibrated word module (reliability):

The measurement was repeatedly performed on a calibrated word module for Energy of adults (35 word objects) within three months with the same woman from the preceding description.

CA profile	12.11.09	23.11.09	1.12.09	29.12.09	10.1.10	13.1.10	25.1.10	17.3.10	Average
26.10.09	0,79650	0,77964	<i>0,88074</i>	0,84004	0,80162	0,75154	0,73849	0,78691	0,79694
12.11.09	x	<i>0,94094</i>	<i>0,87975</i>	<i>0,93689</i>	0,83434	0,84467	0,81113	<i>0,93951</i>	0,88389
23.11.09	<i>0,94094</i>	x	<i>0,87150</i>	<i>0,92810</i>	<i>0,89563</i>	0,77924	0,74596	<i>0,91197</i>	0,85540
1.12.09	<i>0,87975</i>	<i>0,87150</i>	x	<i>0,92642</i>	0,83567	0,79428	0,77268	<i>0,86916</i>	0,83964
29.12.09	<i>0,93689</i>	<i>0,92810</i>	<i>0,92642</i>	x	<i>0,92459</i>	<i>0,86465</i>	<i>0,85473</i>	<i>0,93195</i>	0,89398
10.1.10	0,83434	<i>0,89563</i>	0,83567	<i>0,92459</i>	x	0,84695	0,82378	<i>0,88429</i>	0,85167
13.1.10	0,84467	0,77924	0,79428	<i>0,86465</i>	0,84695	x	<i>0,97041</i>	<i>0,95868</i>	0,96455
25.1.10	0,81113	0,74596	0,77268	<i>0,85473</i>	0,82378	<i>0,97041</i>	x	<i>0,92778</i>	0,86944
17.3.10	<i>0,93951</i>	<i>0,91197</i>	<i>0,86916</i>	<i>0,93195</i>	<i>0,88429</i>	<i>0,95868</i>	<i>0,92778</i>	x	
Average		<i>0,86029</i>	<i>0,87733</i>	<i>0,90786</i>	<i>0,85837</i>	0,81356	0,81674	<i>0,90128</i>	<i>0,86220</i>

In general, the correlation value of 0.85 is considered to be sufficiently stable to support the interpretation of the measured phenomenon, in this case, the individual energetic profile of the attitudes of the individual (in the table the values are marked in blue).

- 19 values out of 36 (52,8%) above boundary 0,85, from which 11 values (30,6%) are above 0,900.
- 17 values below 0,85 boundary, while the lowest measured correlation 0,739 achieved correlation of profiles in 26. 10th 2009 and 25. 1. 2010.
- Between values 0,800 to 0,739 there are 9 measurements (25%).
- The most cohesive result was achieved by profiles from 29. 12. 2009 (average with all other profiles 0,90786) and 17. 3. 2010 (average with all other profiles 0,90128). The overall average of all measurements of individual profiles among themselves amounted to 0.86, while the lowest average profile showed a CA of 26th 10th 2009, and that is 0,79694, which was the first measurement.

Simulation of the relationship of My job object and Age

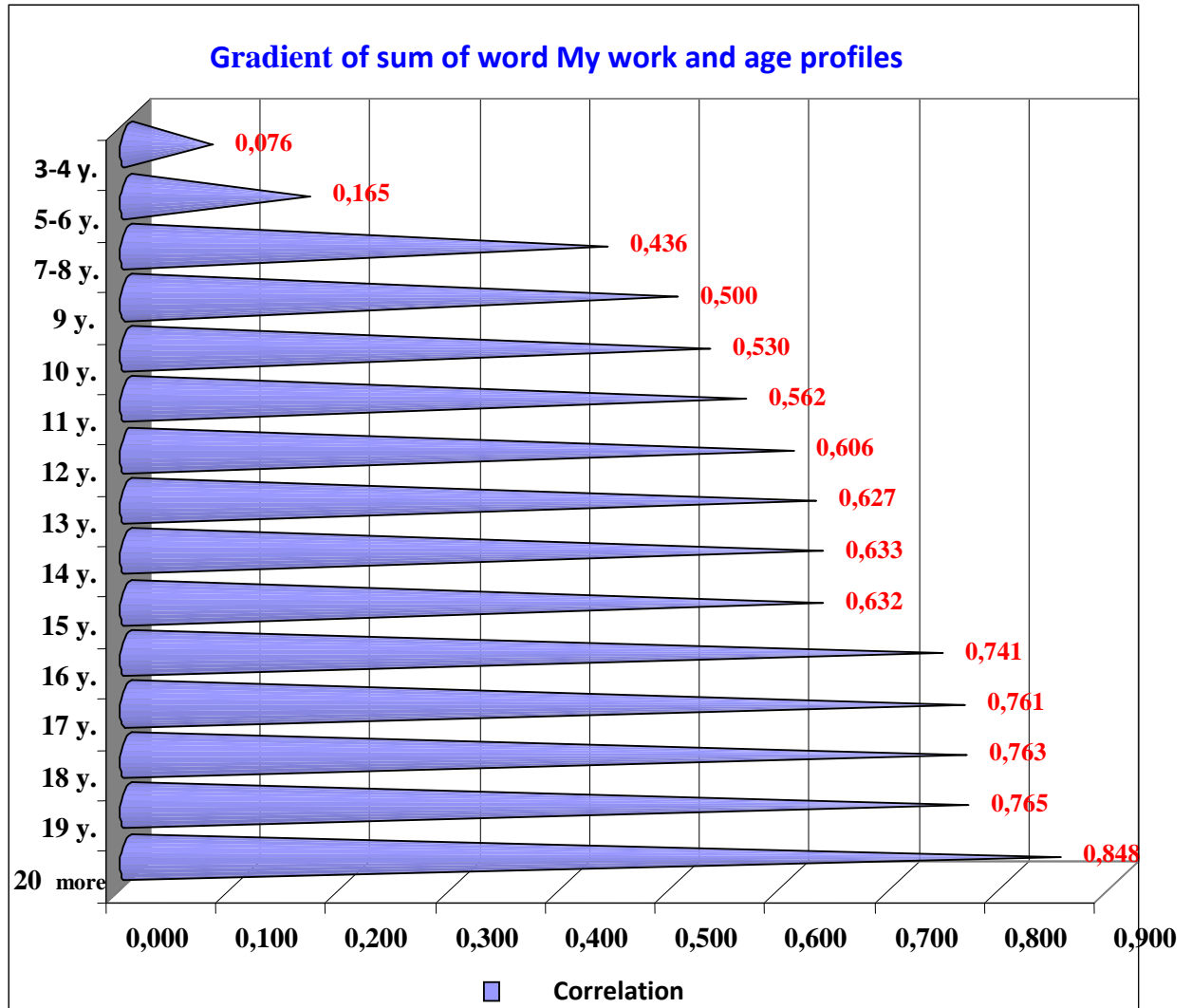
Data structure description:

- Number of profiles: 24107
- Age: 20 years and more
- Form of data collection: on-line sensor DAPS
- Period of data collection: DAPS database 2005 to 2006

The summed colour association profile (for My job object) was correlated in adult population with associational colour profiles of individual age categories that are used as measured "population standard", i.e. the customariness of associational occurrence of colour triads in terms of age.

It is also a demonstration that the DIS CA can map association brain processes differentially by age, so it can also be fully usable with respect to age (unlimited, as well as e.g. EEG, EKG...) and useful.

My job object chart:



If we make just a rough interpretation according to retaining group norms (see correlations as a teaching tool chart), then we see the following trends:

1. In terms of age, we need to get to the "automated association pattern My work" gradually and smoothly. In early age the colour association profile of consciousness does not resemble this "work" one, not a bit.
2. The lower limit of the group boundary "ordinariness" the object My work consciousness of children gets only when they are 12 years, when it bridges over the boundary +0.600 and up to 15 years increases only slightly. Thus only when they are 12 years of age the children begin to perceive work as a normal part of people's lives and only then can they fully understand it when for example an adult rejects them and says "I do not have time now, I have to work."
3. In 16 years, there is another qualitative leap increase which persists until about 19 years. Most adolescents therefore take work (especially the future one) quite seriously into account in their consciousness and they realize its relevance not only for themselves but also for the group (family, work team)

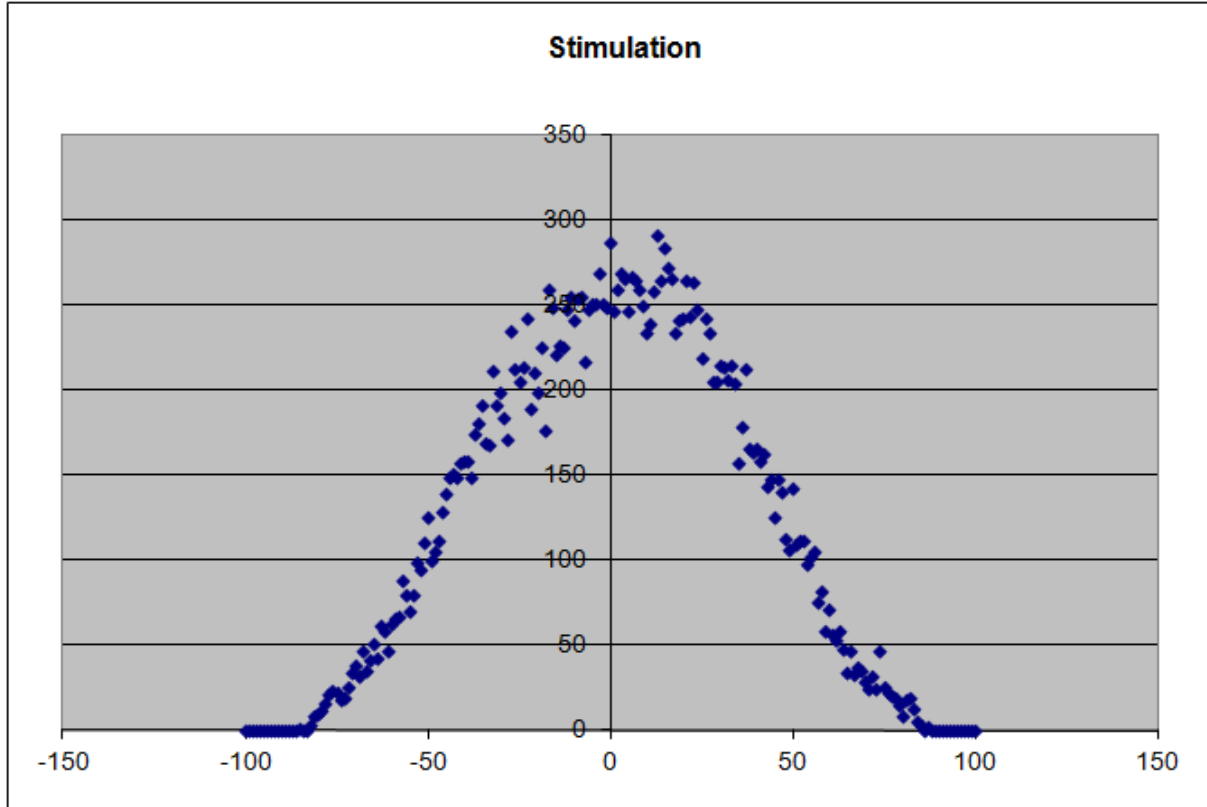
4. Only when they are twenty do they overcome the correlation of "magic group norm" +0.800 and become a permanent part of human life in the Czech Republic. With respect to age thus the word object My work follows the de facto boundary of finishing the secondary education, which among other things correspond, both with what the educational systems in developed countries are trying to do (high school level of education and training for future employment), but mainly with the fact that the spectrum of professions changes evolutionary strongly (shift away from manual trades) and the complexity of job itself, of work procedures and use of work equipment and tools.

One can therefore conclude that firstly, the measurement of summed association profiles is a very useful and desirable tool and secondly, that it meets the initial criterion of DIS-CA that colour association profile (content and structure of consciousness) is interactively linked to the empirical experience of life, that is the common reality of life and its measurement by CA may reflect the qualitative difference of individuals and groups.

Reliability sample of Stimulation item

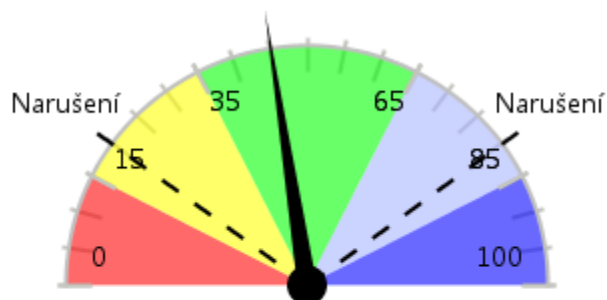
Data structure description:

- Number of profiles: 24107
- Age: 20 years and more
- Form of data collection: Internet sensor DAP Services a.s.
- Time of data collection: database DAP Services a.s. 2006 to 2008
- Gender: in the sample there is nearly twice as much women than men



Average = 0,786891188
 dispersion = 33,01983581

Specific measurement of an item in the profile of attitudes formation:



- | | | |
|--------------------------|--------------------------|---------------------------|
| ■ Nevysílá podněty | ■ Pasivně nabízí podněty | ■ Vysílá do okolí podněty |
| ■ Aktivně vysílá podněty | ■ Silně vysílá podněty | |

Parallel research

Antonio Damasio

Antonio Damasio(1944) carries out measuring on the neuronal basis, which is a purely physiological technique. His basic finding of measuring the emotional basis (based on the energy of consciousness) is mainly that the emotional basis is "holistic" and contains also intellectual, physical and social elements in terms of a stance. To put it simply, it is not only the intellect that partakes in how we react but there are other systems that should be taken into consideration and the measuring of which e.g. by questionnaire methods is simply not possible. We can consider this as a parallel to the OKAV method - an Object-communicational analysis of consciousness that evaluates colour-word associations. The OKAV method not only respects this, but it directly requires that we work with our consciousness in such a way.

Martin Lindstrom

Martin Lindstrom(1970) comes from Denmark and he stands on the borderline between science and marketing. He calls his theory neuromarketing and it links together marketing a neuroscience. While marketing and advertising concern the brain and its stimulation primarily to induce the desired reaction, neuroscience is concerned with how the human brain controls perception, consciousness and behaviour. Lidstrom and his neuromarketingem is trying to show a direct path between the "seen" and the "lived a" without mediating the critical or conscious, to which end he employed findings of purely physiological processes. In this respect there is a similarity with colour-word associations that strive for the same - to display the original idea - original association without any rational correction. While the technique of colour-word association works with stimulations and colours placed in the on-line sensors, Lindstrom has, more than once in his research, used equipment that maps areas of brain - e.g. fMRI scanner and a certain form of electroencephalograph SST, which observes the rapid brain waves in real time. This technique he chose e.g. for his 2004 research on smokers.

Links

1. <http://www.barvyzivota.cz>
2. <http://www.camethod.com>
3. Pernica Jaroslav, Time definition: <http://vlada.bloguje.cz/830359-definice-casu.php>
4. Martin Kreidl, Metody měření reliability a validity: <http://www.socioweb.cz/index.php?disp=teorie&shw=153&lst=106>
5. On-line sensor analysis (eye movement): <http://www.3M.com/VAS>
6. Validation study 3M VAS:
http://solutions.3m.com/3MContentRetrievalAPI/BlobServlet?lmd=1272291661000&locale=en_WW&assetType=MMM_Image&assetId=1258566024761&blobAttribute=ImageFile
7. JUNG, Carl Gustav. *Výbor z díla*. 1. vyd. Brno : Nakladatelství Tomáše Janečka, 1997 2004, sv. 1-7. [ISBN 80-85880-11-3](https://www.isbn-international.org/number/80-85880-11-3)
8. Richard P. Feynman: *O povaze fyzikálních zákonů*, Aurora 2001
9. František Koukolík: *Sociální mozek*. Praha, Karolinum 2006
10. František Koukolík: *Já (O vztahu mozku, vědomí a sebeuvědomování)*, Praha, Karolinum 2003, [ISBN 80-246-0736-0](https://www.isbn-international.org/number/80-246-0736-0)
11. Emoční inteligence dítěte a její rozvoj, Lawrence E. Shapiro, Portál, 1998, ISBN:8071782386, 9788071782384
12. Lidství: neuronální koreláty, František Koukolík, Galén, 2010 ISBN:807262654X, 9788072626540
13. Hledání Spinozy: radost, strast a citový mozek, Antonio Damasio, Dybbuk, 2004 ISBN:8090300197, 9788090300194

DAP Services a.s. works constantly on the further development of diagnostics and diagnostic tools. Please, beware of the fact that all the changes in the form of scanning, of the measuring tools or end product might take place at anytime.

Print, copying or translating or any other kind of use of this work or of its part without a written agreement of DAP Services a.s. is not permitted.

All the property laws concerning this work stem from the regulations of the authorial law and is exercised by DAP Services a.s. exclusively.
This work is subject to alterations.

Published by: DAP Services a.s.

© DAP Services a.s. 2012