

Consciousness Quotient (CQ) & CQ Inventory (CQI)©

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SUMMARY

I present a **new concept** to be used in researching the consciousness experience: **the consciousness quotient**, along with a psychological and anthropological perspective that allows the measurement of the consciousness quotient.

Six factors describing the conscious experience are introduced:

physical, emotional, mental (cognitive), spiritual, social-relational and self-consciousness. The new perspective has a cognitive base: to be conscious means to have access to information. The one that has access is the Self (or the ego the “I”).

A new assessment instrument is presented: CQ Inventory (CQI), composed of 62 items. A **study on 2474 persons** confirmed its psychometric characteristics, offering some correlations between the CQ and some socio-demographic and anthropological personal data.



The CQ Inventory can be used in psychology and the medical field, along with the therapy field. The development of consciousness due to therapy or personal development methods can be objectified using this instrument.

Content

1. Introduction to the Consciousness Quotient. The quest for measurable qualities of the conscious experience
2. The Consciousness Quotient Scale
3. Preliminary Testing & Main Study
4. Scale Validation: Internal Consistency and Principal Component Analysis
5. Results. Correlation. Discussions
6. Conclusions
7. Items of the Consciousness Quotient Scale
8. Selective References
9. Appendix 1. Internal Consistency
10. Appendix 2. Principal Component Analysis

Introduction to the Consciousness Quotient. The quest for measurable qualities of the conscious experience

My researches concerning consciousness started in 1998, with EEG research with yoga meditation and kundalini trance states.

Between 1998-2003 I have studied all the available theories and research in order to be up-to-date with the latest discoveries in the science of consciousness. To mention some of the important representatives I have studied during that time: Tart, Chalmers, Wilber, Searle, Baars, Krick, Koch, Ornstein, Lilly, Grof, Hilgard, Dennett, Engler, Coan, Jackendorf, Forman, Flanagan, Stapp, Globus, Velmans, Lycan, Cohen, Amit, Lockwood, Penrose.

Though I found many perspectives, I could not discover one dealing with the issue of measuring the consciousness levels and its changes. The only assessment instrument that seems to offer some perspective was “Self-Consciousness Scale” (Fenigstein, 1975).

MY PERSPECTIVE?

My research was supported a lot by my experiences in the transpersonal psychology movement. I founded Romanian Association for Transpersonal Psychology in 2002 and since 2002 I get in touch with a lot of people and perspectives in consciousness research all over the world.


The main goal of my research was to find some conceptual measurable qualities of the consciousness experience, *other than from biology or physics* (brainwaves, blood distribution, eye movements etc.)

!! EVALUATION OF C.Q. IS BASED ON SUBJECTIVE CONSCIOUSNESS EXPERIENCE !!

☺ I leave to philosophers and neuropsychologists the task of debating about the nature of consciousness, or about the *qualia*, I focus on conscious experience itself

In a few sentences, the main premises are these:

1. To be conscious is equivalent to having access to information.
2. The one who is accessing the information is the Self / Ego / “I” / Spirit / Atman / Knower etc.
3. Access does not necessarily mean to consciously understand. Processing information is a complex cognitive ability, that can be either conscious or unconscious.
4. The level of consciousness is directly proportional to the amount of information that can be accessed simultaneously.



* I use the terms “being conscious” and “being aware” with a general similar meanings: access to information. I know some researchers have made specific separations between the meanings of the two terms, but from my point of view difference is that awareness is more applied to a limited now-here moment, while consciousness refers to a general ability.

SO, WHAT IS C.Q?

I have defined the Consciousness Quotient as the level of consciousness (or the level of being conscious) that is experienced in the morning, ½-1 hour after we woke up, after a refreshing sleep, without being exposed to any significant stimulus (coffee, TV, radio, music, talking etc.)

In other words, the consciousness quotient is the general level of being conscious / aware throughout a day, in regular life conditions. Of course, this level of being conscious can change, and we have some good available models that explain this (Charles Tart's model is for me a very valid one, for example).

HIGHER / LOWER CQ?

I consider the main mechanism of all the states of consciousness to be the expansion / contraction of the consciousness field.

Some of us have a larger level of consciousness, described by a higher CQ, that is: they can access plenty of information.

Some of us have a lower CQ, and can access less information. And of course, areas where we can access information can differ in different states, but overall, the general CQ is the same.



HIGHER / LOWER CQ?

In some moments we are more conscious about our feelings, but less of our thoughts or our own being.

Our CQ shows only the degree of what we are able to access simultaneously.

In a regular state, increases in consciousness of one field (e.g. emotional field) can only be obtained “stealing” consciousness resources from one side (e.g. social-relational field) and offer more consciousness to another field of life (e.g. emotional).

In a way, it is similar to attention: we cannot focus on more than a few elements.



HIGHER / LOWER CQ?

A higher CQ than the average means a person can access simultaneously a larger amount of information, while a lower CQ means that person can access a lower amount of information.

Hence, the one with a higher CQ will usually have a larger perspective, if the information is processed and understood.

If one person enters for one hour a mystic trance state, perhaps he/she will access much more information during that state.

But from my perspective and using CQ theory, his/her Consciousness Quotient is only what will remain after the peak experience vanished.

If the state is „habitualized”, and persists months after the peak experience, we can assume that it is possible to have a higher CQ.

The Consciousness Quotient Scale

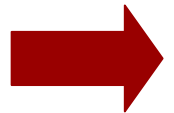
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I have identified 6 dimensions of the conscious experience, that forms the

Consciousness Quotient:

- Physical
- Emotional
- Mental (cognitive)
- Spiritual
- Social-relational
- Self-consciousness.

These six dimensions have become the main six factors of the Consciousness Quotient Inventory, the instrument I have developed in order to measure the experience of being conscious.



The Consciousness Quotient Scale

In order to describe other facets of the conscious experience, I have built other 9 secondary factors. 34 of the 62 items of the Scale contribute to the secondary factors.

The first seven of the secondary factors presented below have items inspired and adapted after some international scales:

„Self-Consciousness Scale” (Fenigstein, 1975)

Mindfulness Attention and Awareness Scale-MAAS (Brown and Ryan, 2003)

Psychological Well-Being Scales (Ryff, 1995).

24 items are adapted from these scales.



The 9 secondary factors of the Consciousness Quotient are:

- Internal State Awareness:
- Self-Reflectiveness:
- Mindfulness:
- Autonomy:
- Personal Growth:
- Positive Relations with Others:
- Purpose in Life:
- Verbal Expression:
- Openness toward now experiences:

Population and sample

The CQI instrument was developed and verified through 2 studies, two in preliminary stage on 150 persons, and one large study on 2474 persons.

Sample Description and characteristics gathered:

Gender: Masculine 18%; Feminine 82%

Age: 16-24 years 22%; 25-34 years 38%; 35-44 years 26%; 45-54 years 11%; over 55 years: 3%

Education: University education 90%

Marital status: Married 40%; Consensual union 16%; Single 44%

Monthly net income: 71% over medium salary

Social status: AB 77%

Body Type: Endomorph 40%; Mesomorph 37%; Ectomorph 23%

Body-Mass Index: Underweight 12%; Normal weight 59%; Overweight 21%; Obese 8%

Filter question - Spiritual techniques: 55% of the subjects are doing religious / spiritual / personal development / self-knowledge techniques, and 34% of the subjects are doing this techniques at least once a week.

Important notice: **The sample is characterized by a strong heterogeneousness**, due to this large predominance of the "premium" subjects. It is important to notice that this reduced variability in status / education / income has reduced also the variability of the answers, which also affected correlations data.

Results for Consciousness Quotient

The general CQ score was calculated using percentile 50. Data obtained by the sample of 2474 persons are below (100 is maximum)

| | |
|-------------------------------------|-----------|
| Consciousness Quotient | 56 |
| • Physical Consciousness | 60 |
| • Emotional Consciousness | 57 |
| • Mental (Cognitive) Consciousness | 54 |
| • Spiritual Consciousness | 57 |
| • Social – Relational Consciousness | 52 |
| • Self-Consciousness | 59 |

Scale Validation: Internal Consistency and Principal Component Analysis

In order to examine the factor structure of CQI, a principal components analysis with varimax rotation was performed.

Kaiser-Meyer-Olkin indicator was .930, which indicated that the factor analysis is recommended.

Data results shows that 15 factors explain 56% of the total variance.

All the 6 primary factors of the CQI were confirmed to be correct, and showed high loadings.

Scale Validation: Internal Consistency and Principal Component Analysis

Cronbach's Alpha for preliminary studies and main study are presented below:

| | Preliminary Study | <i>Main study</i> |
|-------------------------------------|--------------------------|--------------------------|
| BCQI | .920 | .924 |
| • Physical Consciousness | .164 | .698 |
| • Emotional Consciousness | .773 | .681 |
| • Mental (Cognitive) Consciousness | .827 | .680 |
| • Spiritual Consciousness | .760 | .841 |
| • Social – Relational Consciousness | .846 | .824 |
| • Self-Consciousness | .859 | .782 |

Scale Validation: Internal Consistency and Principal Component Analysis

Cronbach's Alpha for preliminary studies and main study are presented below:

| Secondary Factor | Cronbach's Alpha |
|---------------------------------|-------------------------|
| Internal State Awareness | .656 |
| <u>Self-Reflectiveness</u> | .759 |
| Mindfulness | .313 |
| Autonomy | .501 |
| Personal Growth | .604 |
| Positive Relations with Others | .727 |
| Purpose in Life | .566 |
| Verbal Expression | .693 |
| Openness toward new experiences | .691 |

Results and interpretation

Gender

In order to check if there are any differences between men and women I have used T statistical test and the independent t-test. The differences between the mean vales have a low values (-2.58) and a low significance. So, I can say there was no difference between CQ for men and women..

Weight and Height

None of the above variables correlates significantly with the CQ variables, the general CQ and the primary and secondary factors.

Body-Mass Index

There is no correlation between BMI and CQ score and factors.

Results and interpretation

Body Type

There are no significant correlations between body type and CQ.

Age

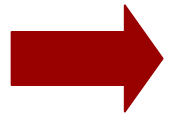
There are no significant correlations between age and CQ descriptors.

Income

There are no significant correlations between the six levels of income and CQ.
Pearson's correlation is $r=.043$.

Marital Status, Education, Social Status

There are no significant correlations between CQ and any of the these above variables.



Results and interpretation

Practicing Spiritual techniques & Frequency of practice

From the 2474 participants, 1373 persons (55%) declared they practice some transformational techniques on a regular basis. There are no significant correlations between practicing spiritual techniques and the frequency of practicing these techniques and CQ descriptors.

Notice: Although I presumed there will be a correlation, the results showed no correlations. I have grouped the techniques they have declared to be using at least once a week in the following top 3, using a word count of their open answers:

27%: prayer, church, religious

19%: meditation, yoga

18%: reading, book, lecture, courses

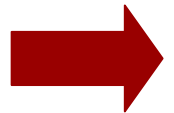
It seems that in order to produce significant changes in consciousness, all the above techniques must be practiced more than a few times a week. I expect to get significant correlations from studies on monks or on people in retreats.

Conclusions

Introducing the Consciousness Quotient in the scientific field I think will be a long term process. I expect that my perspective will be proven as valid by future studies, especially as the cognitive psychology viewpoint seems to embrace new perspectives.

The CQI instrument seems to have good methodological indicators. It has passed the core statistical tests.

From the secondary factors, only "mindfulness" seems to behave erratically and needs some more studies to see if its items must be kept or eliminated from the Scale. I estimate that some studies on monks, especially Buddhist monks might provide some answers to that, as mindfulness is a term inspired from Buddhist knowledge.



Conclusions

I hope that in time, CQI will develop. Perhaps some items will be eliminated, and others will appear. It is in our human nature to develop further scientific knowledge.

I invite you to use the CQI on various populations. My hope is that in time, The Consciousness Quotient concept and the CQI will be as spread as the IQ term and IQ tests.

Please correspond with me by email so that we can share intentions regarding CQI

My email: ovidiu@brazdau.ro

THANK YOU!