

David Beswick: **Curiosity** is a creative process maintaining and resolving conceptual conflicts. These conflicts arise from the discrepancy between new external information and our existent cognitive map.

searching a design method for teaching

Creativity is an asset shared by all human beings, with about **90%** of children born with a high creative ability.

Immanuel Kant: He also advanced that realized knowledge is undoubtedly rational.

But its genesis is dual, rather than rational or intuitive.

Science fractions the real into discrete units and turns them static, just like in cinematography, whose sense of movement is the unreal juxtaposition of static frames (Henri Bergson)

Critical Analysis and Creativity

I believe the understanding of human thinking models (both rational and intuitive) is essential in order to compare them with critical analysis and the creative process.

Creativity is thinking up new things. Innovation is doing new things (Theodore Levitt)

Women Think in a Different Way

Human Thinking Thinking is a rational, intimate, and subjective psychic process aimed at learning, understanding, considering, and reasoning on objects and events.

Women joined the workforce and the world of higher education **contributing** a way of thinking which is radically different from men's.

Thoughts are any products generated by our mind.

Neurological research demonstrated that men's and women's **brains are not the same**. In order to perform certain intellectual tasks, they do not use the same areas of the brain, though they achieve the same level of performance.

Considering their origin, thoughts can be sorted into **rational or intuitive**.

Greater gender equity will allow formalization of female thinking processes thus generating a greater diversity of ways of thinking and intellectual abilities in the field of knowledge.

Rational thinking is any conscious intellectual activity that can be controlled and shaped into ideas.

Teaching Critical Analysis and Developing Creativity

Intuition is any subconscious or unconscious intellectual activity occurring as sudden thoughts in our conscience.

A design method is taught to enable chronological order and critical analysis as a basis for rational control of the project-related process.

Science has not established how or when intuition switches to rationality, but our thoughts are the result of the interaction of these two intellectual forces.

That leads to build a great "rational scanner" to control creative development .

Rational Thinking and Intuition

Descartes developed **systematic doubt**, which in turn led to systematic rationalism.

But no academic criteria are set about organizing the creative process as such.

Immanuel Kant merged empiric (intuitive) and rational (analytical) thinking.

Design is learnt focusing on the individuality of the student and future designer, which is the starting point to structure his/her design method.

Nowadays, **as thinking is molded and taught** on the basis of Descartes' ideas – a systematic and meticulously rational order.

Each designer creates their own aesthetic paths and finds creative triggers in different sources.

Intuition has continued to develop on its own in a disorganized and scarcely academic way, laterally, to use De Bono's words, **but also thanks to academic interest**.

How could we find a common method when something so intimate is involved?

This situation is analogous to that of a professional tennis player – one arm bigger than the other. But as a tennis player needs both arms to play, we need both aspects of thinking to develop.

Conclusions

Little is known about our brain mechanisms, let alone how we create.

Hints, suggestions, insinuations, femininity, speed seem to be the most visible features of intuition and creativity.

Critical Analysis and Creativity

I consider both divergent and convergent design methods, associated with intuition and rationality respectively, to be equally no more than expressions of the designer's work.

Interaction between reason and intuition (the switching between them) seems to be one of the doors of creation.

It is known that designers "create" at different moments of their projects.

But how can we reflect them on a formal academic method? What will we be able to offer to future generations in 40 years' time?

Creative processes in science and art are completely different. Design is halfway through.

we need research with active or retired professionals.

It is generally accepted that intuition is closely connected with creativity and that critical analysis is associated with reason, though not always, as in the most rigorous analysis we always apply some intuition to approach it. Even in the freest project, we instantly analyze in a non-controlled way everything we create.

I also believe consulting with and inviting philosophers, psychologists, and neurologists (disciplines that study these topics) is important in order to expand our knowledge.

I am inviting ICSID authorities, interested academic institutions and independent designers to start this research project.

We should strike a balance between the two feet we walk on in our becoming professional the intuitive foot and the rational foot.

method to teaching