

## **Addictions**

### **the three types of medicine**

#### **OVERVIEW**

This talk will be about the three types of medicine: physical or biological, psychological, and spiritual, as applied to addictology, a new interdisciplinary science. Viewing medicine from this perspective will allow us to deepen our understanding of medicine of the person by means of new scientific discoveries, notably in neurotheology, and the neuroscience of spirituality. From there will flow new perspectives for the future of medicine.

#### **INTRODUCTION**

Your speaker has been a medical academic and pioneer, living a life made up of discoveries, adventures, and passions.

In fact, addictions are at the crossroads of humanity in all its dimensions. They have features that link all sciences and are universal to all branches of science. The population of addicts is neglected by the medical profession: the patients are poor; the medicine is poor. And more recently, we are witnessing the phenomenon of generalized addiction, via the internet; cyberaddiction. (picture)

Addiction poses questions about the meaning of life, about destruction of self or autodestruction. How is it possible to 'like' this illness? And what has science to say about it? For we need to move on from making a moral judgement ('the alcoholics, the drug addicts') to making a clinical judgement (addictive illness, the person who is suffering).

Your speaker has had a personal journey into the territory of various vulnerable populations (Salvation Army, and Centre Saint Martin for addiction at the CHUV hospital in Lausanne). He has developed interdisciplinary research programs at the university chaplaincy (Anthropos). He has developed a clinic for complex disease. This approach has enabled him to move on from addictology to a new interdisciplinary science, that of neurotheology (neurosciences of spirituality). (Pictures 1, 2, 3)

#### **DEFINITIONS**

- **Addiction:** disturbance of mental state and of behaviour, with loss of control of consumption and automatization, despite negative consequences.
- **Type:** classification, arrangement of things, which guarantees stability and permits an understandable classification. Types can co-exist.

- **Spirituality:** Search for connection and meaning, for oneself, for the universe. Natural and universal need common to all human beings; can express itself in a religious or secular manner.
- **Religion:** institutional and cultural response to the great Mediators, within a historical and dogmatic tradition: more or less spiritual (mystical).
- **Mental/psychological health:** the World Health Organization (WHO) defines health as a state of complete well-being; physical, psychological, and social. In 1948, the communist bloc refused to add spiritual. We had to wait until 2005 and the WHO Declaration of Bangkok to add the spiritual dimension.

## ADDICTION : THE THREE TYPES OF MEDICINE

- **Three types, Plato :** Plato is the founder of western philosophy. For him, the universe is the work of a Creator, the Soul of the world. Its nature is Goodness and Beauty. Henceforth, human nature consists of three types: the body, the soul and the *noûs* (the divine in man, cf the Myth of the Cavern). There is an element of the Divine in Mankind.
- **Three types, Blaise Pascal :** mathematician and thinker, Blaise Pascal (1623-1662) describes in his *Pensées* (Thoughts) three types in man, immeasurable and hierarchical types: the physical type (salesmen, the military), the type of the mind (scholars, artists) and the charitable type (the saints).
- **Three types, Teilhard de Chardin :** Jesuit priest, palaeontologist (1881-1955), he moves from a vision of the *Cosmos* to that of a *Cosmogogenesis*. For him, the universe goes from the Alpha (nothingness) to the Omega (the Cosmic Christ). The deployment of the universe passes via organogenesis, then via psychogenesis, to finish in noogenesis (*noûs*).

## THE BIOLOGICAL TYPE

The biological type has a strong legitimacy in medicine and in psychiatry. In addictology, the animal models are very pertinent. We already know the effect of psycho-active substances on the brain. In the '90's, the first studies on the genetics of alcoholism generated controversy (Blum and dopamine). Since then, the idea no longer courts opposition. Further, more advanced research has shown the effect of alcohol, of drugs and of addictive behaviours on neurons and on their plasticity, from an epigenetic perspective. Family studies have emerged which have re-enforced these hypotheses. In addition, stress and anxiety play an important pre-disposing role.

One of the most important discoveries of the 20<sup>th</sup> century in neurosciences has been that of neuronal plasticity (*neurons who fire together wire together*). Neuronal plasticity explains the automatization of addictions and the addictive memory. The influence of reward on the brain has become all-powerful: what then has happened to free will?

Nowadays the study of connectome and of transcriptome corroborate these hypotheses. (3 pictures)

## THE PSYCHOLOGICAL TYPE

The psychological type has been investigated by the disciplines of psychology, psychoanalysis and the cognitive neurosciences. Addiction has been classified as a mental and behavioural illness by psychiatry (DSM 5, 2013). It can be accompanied by primary, secondary or circular psychiatric co-morbidities.

The psychology of development has shown that humans are characterized by secure or insecure development, by reason of random experiences of trauma or caring behaviour. The aim of psychotraumatology, an interdisciplinary science, is to show the damage to relationship and to meaning dating back to the childhood of the person in question.

Such affected people present with deficits in sympathy, empathy, and compassion. This results in a handicap both in social situations and when making relationships, which needs specific psychotherapeutic approaches, including the motivational approach in the field of addictions. Animal models are very explicit (3 images of attachment and trauma).

Psychotraumatology shows that traumas experienced in childhood have psychobiological sequellae in the adult. This epidemiology is very impressive in addicts (about 60-80% of whom have experienced trauma). The traumas have an impact on memory with serious psycho-social consequences, necessitating

psychotherapy targeting the way they think about things and the regulation of emotions. The treatment organized in phases has been developed between Boston and Lausanne (image).

In effect, on the therapeutic level, the name of the game is restoration of care as a resource for the patient and keeping them in treatment by making it accessible. Helped by a personalized coach, the empowerment of the patient will permit them to rehabilitate themselves in society (image of empathy and sympathy).

The World Happiness Report (WHO 2015) contains an important chapter on the neurosciences of happiness. This establishes that happiness depends on four factors: - sustained positive emotions, - the healing of negative emotions, - empathy, altruism, pro-social behaviour, - full awareness, being totally attentive to one's emotions.

## THE SPIRITUAL TYPE

The spiritual type can be approached from the angle of relationships between spirituality and religion and between spirituality and health. In the field of addictions, it is important to mention the contribution of the Alcoholics Anonymous movement, which is a spiritual and non-religious movement. Its founders, a patient (Bill) and his doctor (Dr Bob), both alcoholics, wrote the 'Twelve Steps' using automatic writing while in a modified conscious state. The success of AA is evidenced by the millions of patients in recovery all over the world. In 1935, Carl Gustav Jung applauded their movement while remembering the alchemists' formula (Spiritus contra spiritum).

Apart from Jung, psychoanalysis has not taken much notice of addiction and spirituality. We should nonetheless recall the correspondence between Freud and Pastor Pfister (1909-1939) and the writings of the German theologian Eugen Drewermann (his' theology of healing'). Elsewhere, a medical sociologist (Aaron Antonovsky) developed the concept of coherence and of salutogenesis (self-healing) and a neurologist (Viktor Frankl) developed the concept of existential emptiness and of civilization's neurosis.

The relationships between faith and science have, by the way, never been simple. The philosopher Ian Barbour established a classification consisting of four incremental conditions; - conflict, -independence, - dialogue - and integration.

In the clinical arena, dialogue is established between the psychiatric care givers and the hospital chaplains; one such takes place in Lausanne, with a methodology based around case presentations and theoretical and clinical contributions. Current issues concern a person's identity when with care-givers and the risk of 'psychologisation', reframed within a spiritual context. A particular situation arose with the presence of a catholic exorcist in the group, necessitating a specific approach; the 'Clinic for Evil', requiring collaboration between the disciplines of psychopathology and demonology (3 pictures; AA, Reud/Pfister, Jung/Drewermann).

Let us return to Aaron Antonovsky; deported to Auschwitz, he observes the life in the camp as a medical sociologist. He deduces that humans have a need for coherence; this is founded on three axes. 1) Confidence in our fundamental ability to understand the world; 2) confidence that we have the necessary resources (in this world or not....) to cope with life's difficulties; 3) confidence that what happens has meaning. The coherence is the foundation of salutogenesis (elements that will promote health in the patient's future) and the promotion of health.

As for Viktor Frankl, also deported to Auschwitz, he notes that humanity has need of meaning. There isn't only a sexual unconscious, as Freud meant it, but also a spiritual unconscious. If this is repressed, it will contribute to a whole civilization's neurosis, a noogenic (noûs) neurosis marked by the *existential void*, whose symptoms are depression, aggression, and addiction. He goes on to found logotherapy (therapy through the senses), whose foundations are distance from oneself and going beyond oneself.

Scientific research into the spiritual type is undertaken by the disciplines of psychology of religion (William James), ethology and the study of virtual attachment as well as by the neurosciences of spirituality. These define themselves as *neurotheology*, a new interdisciplinary science allying neurobiology, psychology, and theology. Progress in this field was given a boost by the advent of functional neuro-imaging, by genetics and by the study of cerebral circuits implicated in meditation and in prayer. (For example, the AA's prayer for serenity).

In neurotheology, one needs to draw a distinction between the *brain* (infinitely complex matter) and the *mind* (spirit, metaphor for the highest level of the psyche, responsive conscience).

Genetic research is done in twins, or into the genetics of spiritual sensibility (VAMT2, *God's gene....*). Certain areas of the brain are active during meditation, prayer and extasy. (2 images).

Other facets of research concern the *enthoegenic* drugs (ayahuasca, ibogaine). Encouraging results have been obtained in the field of post-traumatic stress disorder. The imagery obtained during modified consciousness looks promising. The dialogue '*psy and spi*' is gradually becoming more established. All of this is converging on a medicine of the person based on new foundations.

Let us also mention the concept of type 2 change (Watzlawick): contrary to type 1 change, which maintains the system's homeostasis, type 2 change induces a change in the system and a change in *type*. Taking the example of a dream, spirituality would be the stage of *waking up*. (picture illumination).

Recent work in functional neuro-imaging on *illumination* has shown ever higher levels of psychological functioning; - a basic level, biological (instinctive awareness) three psychological levels (habitual response, intentional decision-making, creative imagination); two spiritual levels (reactive conscience, transformational conscience).

As far as the 'supernatural' is concerned there seems to be an important difference between brain activity associated with contemplation (meditation etc.) where one sees an increase in frontal and parietal lobe activity; if one looks at more esoteric activity (shamanism, mediums) one sees a decrease in frontal and parietal lobe activity...

On the subject of entheogenic drugs, we should realise that psycholytic and psychedelic drugs are making a remarkable comeback in scientific medicine and permit us to entertain some interesting therapeutic possibilities.

### THREE TYPES OF MEDICINE

So, it would seem perfectly legitimate to mention three types of medicine. One, somatic, molecular, and cellular; one psychological, cognitive and emotional; and one spiritual, made up of wisdom and of compassion. These three types can perfectly well be integrated, along the lines of Tibetan medicine.

Together with John Calvin, we can say that faith is a vision of things which cannot be seen, and with Albert Schweitzer that happiness is the only thing which doubles if one shares it. As for Paul Tournier he taught us that faith give us vision of a purpose, a meaning to life and a meaning for all things, including illness, including disability, including death. Vision of a medicine involving the ultimate doctor patient relationship.

Neurotheology reveals the cerebral circuits of spirituality: is God a creation of the brain? Or, on the contrary, does the human brain allow a dialogue with God and the Universe? In common with the field of mathematics, this question sits in the category of the unanswerable.... For each person, it is about an ethical choice, freely taken, compelling. For Thomas Aquinas, there is no truth without liberty!

Maurice Zundel, the great Swiss mystic affirmed; 'God is not an invention but a discovery.'

For the third time, the university of Lausanne is running a course entitled 'health, medicine and spirituality'. It is an indication that we are moving towards a medicine of the Spirit, we are moving from a bio-medical medicine towards a medicine of the person.

In scientific humility, fellowship, and generosity, we are moving towards an integrated version of the three types of medicine.

Honorary professor Jacques Besson.

Faculty of biology and medicine, University of Lausanne.

Centre Hospitalier Universitaire Vaudois (CHUV) – the university hospital of the canton of Vaud