FREE WILL, NEUROSCIENCE AND PSYCHOSYNTHESIS

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Naturally, people keep talking about freedom, but without even knowing its specific qualities. Freedom should assert itself in human beings as a consequence of the elevation of consciousness. The intense search for freedom shows that potentially the spirit tends to rise, but no one has taught it to make good use of that treasure.
(from: *Cuore*, nr. 85)

On the meaning of Free Will

Free will, that is, the ability to make decisions and therefore to do or not do something, is considered a particularly complex topic, so much so that the empiricist philosopher David Hume defined it as one of the most controversial metaphysical issues, and more recently the philosopher Robert Nozick called it the most stubborn of problems.

Before beginning to address this topic, I consider it useful to draw attention to the definition of free will.

Among the technicalspecialist philosophical definitions in the *Nuovo De Mauro* dictionary we find: "the faculty attributed to human beings to determine themselves, freely deciding to do or not do something." And in the *Treccani* dictionary we read: "expression used to indicate human freedom, whose acts are not determined by superior forces (of a supernatural or natural kind), but derive from one's autonomous choices."
Also from *Treccani*, but from the dictionary of philosophy, we have: "the ability to choose freely, in acting and in judging. The expression, used to indicate the freedom of human will, first arose in the field of theological speculation…".

Furthermore, given the growing relevance it is acquiring, the initial part of the definition found in the online dictionary Wikipedia is also reported: "a philosophical and theological concept according to which every person has the power to decide the aims of their actions and thoughts, typically pursued through will, in the sense that their possibility of choice originates in the person themselves and not in extrernal forces."

From the definitions above, it emerges naturally and clearly that free will is closely linked to two themes strongly related to the field of psychosynthesis: will and freedom.

Generally, most of us experience being able to make decisions consciously and freely, and therefore believe we experience free will. However, such a feeling is not proof that free will actually exists. Indeed, initially, due to the belief that the world is deterministic in nature, it is a widespread opinion in both scientific and philosophical fields that free will is an illusion. This view is clearly expressed, for example, by Francis Crick, a prestigious molecular biologist who, together with James Watson, identified the structure of DNA. In "*La scienza e l'anima. Un'ipotesi sulla coscienza*" (Rizzoli, 1994), he states: "… The astonishing hypothesis is that 'you', your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact nothing more than the behavior of a vast assembly of nerve cells and their associated molecules… You are nothing but a pack of neurons."

From the world of neuroscience

In the last fifty years, thanks to research in the field of neuroscience, new and diverse stimuli have also arrived regarding the topic of free will, which on the one hand seem to reinforce the reductionist view of a large part of the scientific world, while on the other hand opening the way to further spaces for reflection and investigation. Everything began with the experiments of the neurophysiologist Benjamin Libet carried out at the end of the 1970s, as described in his popular science book !*Mind Time – Il fattore temporale della coscienza!* (Raffaello Cortina, 2006), whose results profoundly challenged the prevailing beliefs about the nature of conscious action and subjective freedom.

Libet's experiments aimed to find relationships as precise as possible between conscious experience—particularly the intention to perform an action, even a simple one (such as the minimal act of flexing a finger)—and the activation of brain areas. These experiments, which can be considered pioneering in the study of consciousness, were carried out by measuring electrical potentials in the brain of awake patients with electrodes placed on the skull. In particular, they measured the neural activity that precedes a voluntary act before the movement occurs, called the R*eadiness potential* (or Bereitschaftspotential), known since 1965, and which appears associated with the beginning of a movement.

Libet's experiments can be divided into two phases:

- identification of the relationship between conscious perception of sensory (tactile) stimuli and their neural correlates;
- identification of the relationship between conscious intention (the subject's will) to perform movements and the activation of specific neuronal groups.

From the experiments it emerged that our brain is ready for a voluntary action about half a second before we become conscious and aware of it. Thus, it was initially concluded that the conscious intention to act did not seem to be the cause of the action, but the results suggested that it was the subject's brain that prepared itself for movement before the person actually intended to perform it. In summary, this led to the obvious consequence of a reduction in our possibility of free will.

Libet himself, in order to preserve the existence of free will, hypothesized the possibility of choice by potentially stopping the action within the temporal interval (about 150 milliseconds) that precedes its execution. He stated: "…the conscious will still selects which initiatives may proceed toward an action or which to veto and stop; the existence of free will remains nonetheless just as

good and a better scientific option than its negation by deterministic theory."

In the last twenty years, Libet's experiments have been confirmed and further developed by various research groups using refined diagnostic tools such as functional magnetic resonance imaging (fMR)1 and the more common electroencephalogram. Among these research groups, that of Patrick Haggard has more specifically carried out experiments to examine the timing of both conscious and preconscious processes relative to the brain activity that precedes action.

Also of particular interest are the experiments of the group led by John-Dylan Haynes, who in 2007, together with Chun Siong Soon, Marcel Brass, and Hans-Jochen Heinze, showed the possibility of predicting an action with an accuracy of 60%. In particular, in the experiments of this group, where subjects chose both the moment and the type of action to perform (raising the right or left index finger to press the corresponding button), it emerged that the preparation of the action occurs in the frontopolar cortex of the brain a full seven seconds before the conscious decision.

This activity is so far in advance that, through the processing of the acquired brain activity data, it is even possible to predict it before the subject becomes aware of it. However, it should be noted that although the prediction accuracy is statistically significant—i.e., higher than a purely random result (50%)—it is still only marginally better than chance.

An interesting hypothesis that diverged from the ordinary interpretations of Libet's results and is particularly compatible with the existence of free will came around 2010 from Aaron Schurger. Observing that in Libet's experiments and subsequent ones, subjects received no external cues to perform the movement but acted spontaneously at random moments, he assumed that the *readiness potential* was the result of random fluctuations, intervening only to save us from indecision. Therefore, it would not be an indicator of the brain's preparation to act.

Although Schurger's hypothesis and the related stochastic model initially seemed to be confirmed by experiments on primates, results from recent years, carried out by Schurger himself together with Haggard, have not produced any evidence supporting this model, but have instead further confirmed the traditional interpretation of the *readiness potential* already present in Libet's studies.

Despite the results from neuroscience, a not insignificant part of the scientific community still considers the negation of free will premature, given that the available evidence is considered insufficient.

Indeed, the conception of a complex and layered action—such as planning a trip or buying a car—is quite different from the simple choice of moving a finger. And regarding this, Libet himself states: " … Since the problem is of fundamental importance for our view of who we are, a claim that our free will is illusory should be based on fairly direct evidence. Such evidence is not available."

The philosopher Alexander Batthyany, referring to the research results mentioned above, also points out that the action required of subjects in the experiments corresponds more to a task to be executed than to a voluntary and/or deliberate action, or a choice made according to reason. In fact, although the act is consciously triggered, it is perceived as a passive experience and so simple that it requires no particular attention in its execution, making it particularly prone to becoming an automatism.

Some reflections from a psychosynthetic perspective

All things considered, at least so far, research in neuroscience on the topic of free will does not seem to have brought us either definitive or clear answers, making the reflections of thinkers and psychologists of the last century still relevant and of interest—among them, of course, Roberto Assagioli, who dealt intensely, both explicitly and implicitly, with this topic, not only within psychosynthesis but even more broadly in his life path.

According to the psychologist Erich Fromm, human beings believe they want freedom, but in reality they greatly fear it, because it forces them to make decisions, and decisions involve risks ("Fuga dalla libertà", Mondadori 2022). It follows that prerequisites for exercising freedom are courage and the deployment of acts of will, a theme to which Roberto Assagioli, near the end of his embodied life, dedicated the writing of a specific text: "L'atto di libertà" (Astrolabio, 1977), originally published in the United States in 1973.

Allegorically, one could imagine will as an energy radiated by the "Ego" that translates its actions, and it is one of the key themes within psychosynthesis, where it is represented as one of the seven psychological functions, the one closest to the "Ego" and its direct expression. It follows, obviously, that it is strongly linked to the principle of free will, since within this context it is its use that allows one to govern the other six psychological functions.

As reported in the introduction by Cathrine Ann Lombard to the text "Libertà in prigione" (Edizioni Istituto di Psicosintesi), a prerequisite for free actions in Assagioli's view is the knowledge of what acts within us and what truly moves in us: " … true freedom requires that we accept and enter into relationship with our limits through an incessant and attentive control of our thoughts and actions … The paradox is that true freedom has little to do with our ability to do what we desire, nor is it dependent on the physical circumstances we face or that persist at a particular moment. Freedom and its strength lie in each person's ability to choose a clear and defined inner attitude."

Indeed, both Assagioli—arrested by the fascist regime for pacifist and internationalist activities in August 1940—and Aurobindo (Satprem, "L'avventura della coscienza", Edizioni Mediterranee, 2004) experienced a state of inner freedom during their imprisonment, that is, in a condition of limitation on the physical plane.

On this experience of authentic –or - inner—freedom, Assagioli states ("Libertà in prigione", Edizioni Istituto di Psicosintesi):
" … I understood that I was free to assume one among many attitudes toward this situation, that I could give it the value I wanted, and that it was up to me to decide how to use it. I could rebel inwardly and curse; or I could passively resign myself and vegetate; I could abandon myself to an unhealthy attitude of selfpity and assume the role of martyr; I could face the situation with a sporting attitude and with a sense of humor, considering it an interesting experience.

I could transform this period into a phase of rest, into an opportunity to reflect both on my personal situation—considering the life lived up to that point—and on scientific and philosophical problems; or I could take advantage of the situation to do some kind of psychological training; finally, I could make it a spiritual retreat.
I had the clear perception that the attitude I would take was entirely my decision: that it was up to me to choose one or many among these attitudes and activities; that this choice would have certain effects, which I could foresee and for which I was fully responsible. I had no doubts about this essential freedom and about this faculty and the privileges and responsibilities that derived from it."

One could say that various levels of freedom can be understood, or that the principle of freedom can manifest and operate on different planes. In this regard, according to the vision of a biopsychospiritual human structure, the higher one rises in the hierarchical levels of the structures, the more the principle of freedom can be exercised, and clearly the physical plane is the one in which the manifestation of freedom is most constrained.

Conclusion

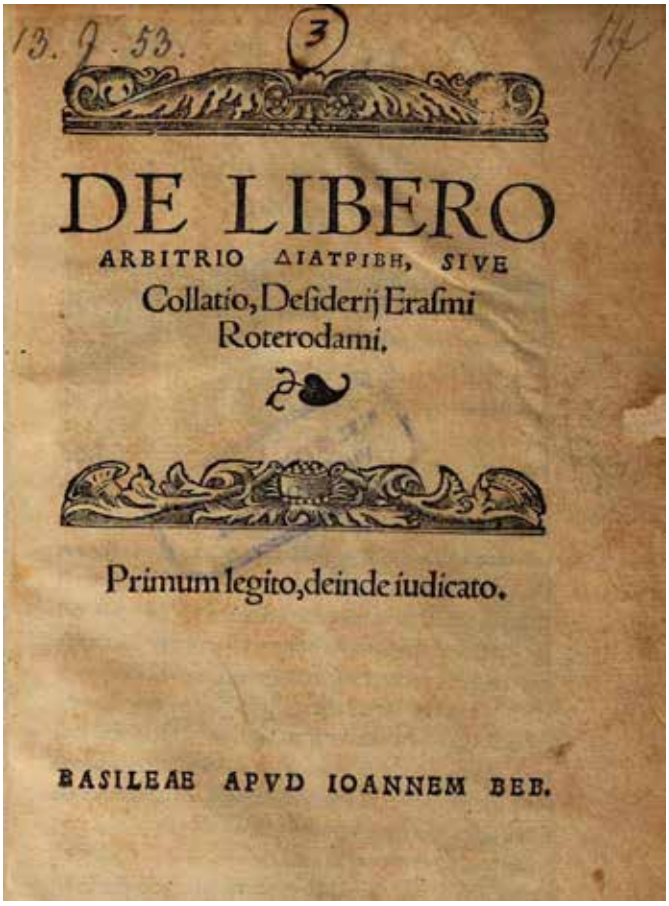
It is not easy to conclude a short article centered on such a complex topic and at the same time one that concerns the foundational and ontological part of what a human being is. Sri Aurobindo, a mystic as well as one of the sharpest intellects of the last century, speaks of it in this

way (*Destiny and Free Will*, Aurobindo Ashram Press, 2010): " … the problem of free will or determinism is the most intricate of all metaphysical problems and no one has ever been able to solve it, and this for a good reason: that destiny and will exist, and somewhere free will also exists; the difficulty is how to reach it and make it effective."

Some interesting clues that may stimulate further reflection and investigation come from the theoretical physicist Ulf Danielsson, who in his recent scientific essay "*The World Itself. Consciousness and the Whole in Physics"* (Einaudi, 2023) devotes particular attention to the theme of free will, so much so that he titles the final chapter "Does Free Will Exist?".
He suggests that to explore the phenomena of life and consciousness, closely related to the topic of free will, one should abandon a dualistic vision and try to go beyond the limits imposed by our intellect. In particular, he states: " … the determinist claims that everything, including the choices one makes, is in principle determined because one can imagine a being that knows everything. The defender of free will, instead, maintains that in principle one could have made a different choice from the one actually made. But the possibility of having been able or not to choose differently is irrelevant.

It is paradoxical that both free will and determinism are based on dualism ….

For free will to be truly free, or determinism completely determined and not free, a universal validity is necessary. From the point of view I support, these two opinions are equally naive and impossible, because both are based on an unattainable omniscient perspective and on an obsolete dualism."



Note

1. fMR is able to measure the level of oxygenation in different parts of the brain.