

The falsiable truth

Popperian thought and the unfalsifiability of Freudian psychoanalysis

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Not the truth in whose possession any man is, or think he is, but the honest effort he has made to find out the truth, is what constitutes the worth of a man. For it is not through the possession but through the inquiry after truth that his powers

*expand, and in this alone consists his ever growing
perfection. Possession makes calm, lazy, proud.
Lessing (Eine Duplik)*

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“How do you know? What is the source of your assertion?¹” The problem of knowledge changes completely the way of reasoning after understanding Popper’s point of view, and the previous questions, that normally justified our knowledge, become meaningless or, simply, without useful answer. “What are the best sources of knowledge, the most reliable ones, those which will not lead us into errors, and those to which we can and must turn, in case of doubt, as the last court of appeal?²” And: “How can we hope to detect and eliminate errors?³” It is with these questions that Popper tries to eliminate common sense and the trust in any type of source of knowledge when, “none has authority” in scientific judgement. It is with these questions that Popper creates a huge gap between what is science and what is pseudoscience. Astrological, Marxist and Freudian theory, in fact, are not able to answer these questions in the same way that Newton’s and Einstein’s ones do. Popper through the aforementioned ideas, causes a revolution in our judgement and in our decision making processes, he changes the perspective on how we decide what is true and what is false, above all he changes the concept of “true” and “false” in themselves. He clarifies the requirements of science and consequently he condemns the pseudosciences: “Psychology, *qua* science of the self and its experiences, was almost non-existent, *pace* Freud. [...] As a philosophical thesis it was clearly wrong, even though irrefutable.⁴”

Popper’s digression has to be considered as an elegant theorisation of the scientific reasoning system that was born with Galileo Galilei; theorisation that considers observation and experimental methodology the best way to obtain knowledge. “The best way” does not mean a perfect one. All scientific theories are susceptible to alterations and revolutions and the whole scientific reasoning system contains the paradoxical possibility of modifying and also of destroying itself. This flexibility, characteristic only of

¹ K.Popper, *Conjectures and refutations*, London, Routledge & K. Paul, 1969, pag.25.

² K. Popper, *Ob. cit*

³ K.Popper, *Op.cit.*

⁴ K.Popper, *Unended quest: an intellectual autobiography*, London: Fontana, 1976, pag.187.

scientific thought, is the best reason to accept it, at least a time when a new system will be able to give us a better explanation of the world, superseding the Gallileian and Popperian scientific method.

Thomas Kuhn analysed how changes occur in scientific thought, the complex processes that permit the difficult passage from an old theory to a new one, an interesting description of the evolution of falsifiable theories.

The logic of scientific development

The development of science is not due to the accumulation of individual discoveries and inventions. Research is a “strenuous and devoted attempt to force nature into conceptual boxes supplied by professional education.”⁵ Kuhn calls these “conceptual boxes” *paradigms*, and a *paradigm* is an accepted model or pattern. Scientists who shared the same paradigms share the same rules and standards for scientific practice, and this commitment is prerequisite for the genesis and continuation of a particular research tradition. The dynamics of this system are due to the fact that research under the same paradigm is, by itself, a way of inducing paradigm change. In fact, the discovery of anomalies under a paradigm’s set of rules forces scientists to find another solution or to leave something unexplained. From these doubts is born the necessity to find another theory, a new paradigm, better than competitors in solving the problem that the previous one was not able to do. Then, paradigms gain their status because they are more successful in giving explanations of the events. The success of a paradigm is, in the beginning, largely a promise of success which can be realised through selected and still incomplete examples. Normal science consists of the actualisation of that promise by increasing the extent of the match between those facts and the paradigm’s prediction.

An interesting example of the development of a new *paradigm* is the overturning of Copernicus’ Gravitational theory by Einstein’s Theory of Relativity. Einstein’s theory, in fact, covers the gaps of Copernicus’ one, as we will see later, and it does this with the same completeness and elegance.

It is quite easy to notice Kuhn’s theory is not applicable to psychoanalysis and this fact could confirm Popper’s idea that it cannot be a scientific theory. The paradigm of Psychoanalysis, in fact, does not permit the birth of anomalies because it is able to give explanations for everything. It is not structured to give us falsifiable predictions.

Two different theories: Einstein, Freud

Not all the theories, all the explanations of the world's phenomena follow the same rules and obey the same principles. They often present distinct structures and are born and develop according to alternative processes. For this reason Popper analyses some theories that, even if all of them pretend to be scientific, show different characteristics in the explanation of events. In particular, Marx, Adler and Freud's theories are, according to Popper, qualitatively different from the Newton's and Einstein's ones. It was the summer of 1919 when Popper began to have doubts about how scientific the theories of Marxism, psychoanalysis and the Adler's individual psychology theory were. Popper studied these three theories and asked himself: "Why are they so different from physical theories, from Newton's theory, and especially from the theory of relativity.⁶" Moreover, he observed that during those years few people believed in Einstein's ideas while a lot of people admired those of Marx, Adler and Freud. They were impressed by a number of points common to these theories, and especially by their apparent explanatory power. These theories appeared to be able to explain practically everything that happened within the field to which they referred. Psychoanalysis, for example, starting from any past experience, was able to demonstrate any behaviour, in any environmental conditions. Popper's "revolution" consists of the logical demonstration that we do not have to consider irrefutability as a virtue; on the contrary, irrefutability is the condition that forces us to refuse the considered theory, because it is not scientific. "Every 'good' scientific theory is a prohibition: it forbids certain things to happen⁷". Only refutability permits change, the improvement of Science, and the revolutions which Kuhn spoke about. Newton's Universal Gravitational Theory, for example, was not able to explain Mercury's perihelion. Mercury was situated, according to observations, in a position that would have been forbidden by Newton's hypothesis. The anomaly of Mercury became a refutation of Newton's theories when it became clear that a rival theory, the Einstein's one, was actually closer to the truth about Mercury⁸. The Universal Gravitational paradigm, as it is called by Kuhn, changed because of the inexplicability of certain events from Newton's assumptions. The observations of the facts presented a dissonance with their predictions. Einstein restores the equilibrium between theory and the observations thanks to the Theory of Relativity. In this theory he claims that the gap was due to the fact that the light received a deviation as a result of gravitational force. He explains that this deviation is perceived only observing Mercury because of its proximity with the Sun, and that consequently the greater gravitational force is different from the other planets.

⁵ T. Kuhn, *Structure of scientific revolutions*, Chicago: University of Chicago Press, 1970, pag.5.

⁶ K. Popper, *Conjectures and refutations*, London, Routledge & K. Paul, 1969, pag.34

⁷ K. Popper, *Conjectures and refutations*, London, Routledge & K. Paul, 1969 Pag. 36.

⁸ Antony O'Hear, *Karl Popper*, London; Boston: Routledge & Kegan Paul, 1980 pag104.

This improvement of scientific knowledge, due to Einstein's new theory, was permitted because Newton's one was falsifiable. Einstein's theses are falsifiable as well and so, before being accepted, they had to demonstrate, experimentally, their validity. If gravitational force is able to attract the light in the same way that objects do, the apparent position of a star will change according to the movement of the Sun, for example⁹. In particular, during eclipses (so as not to be disturbed from the Sun's light), it should have been easy to observe a wrong, apparent position of a star considered, because of the deviation that the Sun's gravitational force produces on a star.

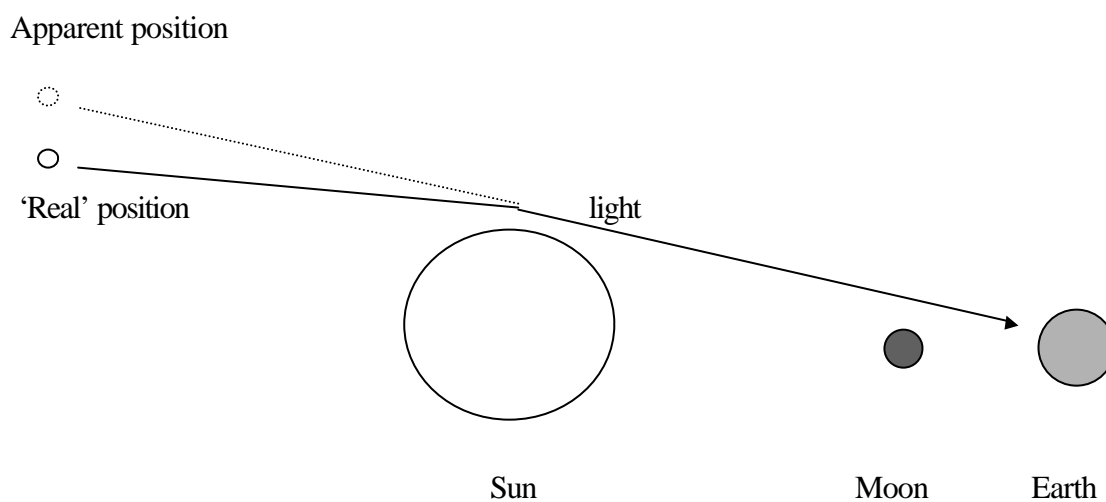


Figure 1.

Einstein's theory is falsifiable because if it had not been able to demonstrate the previous hypothesis, we would have been forced to consider our assumptions needless and to look for another, improved, paradigm. "There are not ultimate source of knowledge. Every source, every suggestion is welcome; and every source, every suggestion, is open to critical examinations."¹⁰ Einstein's hypotheses is perfectly confirmed by this experiment and nobody has been able to falsify his theory until now in any of its aspects. This does not mean that it is a perfect theory, but only that it is the best one, at the moment, and according to a scientific point of view.

In conclusion, the diversity between scientific theories and psychoanalysis consists of a qualitatively different 'critical examination' of the events. Psychoanalysis lacks the possibility of making a clear, verifiable, and observable, *deduction* in the same way that physics does. It gives only descriptions and

⁹ A. Einstein, L. Enfield, *The evolution of physics*, London: Cambridge University Press, 1938.

explanations of individuals' behaviour after they have already happened, and it does this following *inductive*, intuitive and unverifiable reasoning.

Induction & deduction

In the preface of 'The Evolution of Physics' Einstein compares the scientist to a careful reader of a perfect crime novel. If this reader follows all the clues given by the author he will be able to reach the solution before the end of the book. We can affirm that the reader who does not skip any page of the book, and who declares the solution before knowing it, is following a deductive inference. *Deduction* is a logical reasoning that permits us to obtain true conclusions starting from true premises. While inductive inferences pass from particular statements to universal statements, inductive inferences consider firstly the universal statements and consequently the logical conclusions that they imply. The passage from general to particular allows us the truth of my sentence to be maintained. "All human beings are mortal; Socrates is a human being, thereby Socrates is mortal". This assertion could be represented graphically in this way:

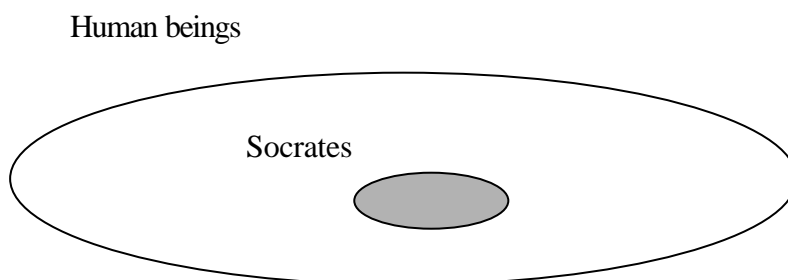
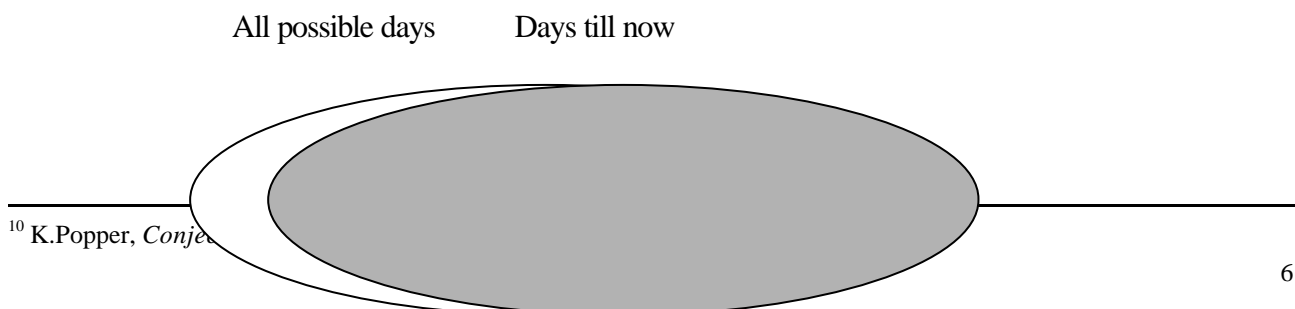


Figure 2.

What is true for "Human beings" (universal statement) must be true also for "Socrates" (particular statement), because "Socrates" is a subset of "Human beings".

On the contrary, the truth is not preserved in the case of *induction*. As an example of *induction* we can consider the following well-known sentence by Hume: "Will the Sun rise tomorrow?" The fact that the Sun has always risen until now does not logically imply it will always rise. Graphically:



¹⁰ K. Popper, *Conjectures*

Figure 3.

Saying that “*Tomorrow the Sun will rise*” means to extend our knowledge to the white part of the Venn diagram “*All possible days*” (figure 3), when we really know only the grey part of the graph, that is what has always happened.

Now we can also consider the following sentence: ‘*If the boy studies, he will pass the exam*’.

This sentence, which represent our hypothesis, can be written in the following manner:

1. if P (the boy studies) then Q (he will pass the exam)
2. $P \Rightarrow Q$ (where ‘ \Rightarrow ’ means ‘implies’): the fact that the boy studies implies that he will pass the exam.

Now we consider the value of the truth of this assertion (“T” means True; “Q” means False):

P	Q	$P \Rightarrow Q$
T	T	T
T	F	F
F	T	T
F	F	T

Figure 4.

This table means that my sentence, my hypothesis, is false only when the boy had studied, but he was not able to reach his goal. My simple sentence, as a scientific hypothesis, is falsifiable because it follows a deductive method. I start from an hypothesis, my sentence ($P \Rightarrow Q$), then, I consider the value of P (my premise): if $P \Rightarrow Q$ is true and P is also true, then Q must be true as well. Otherwise it means that my hypotheses is wrong. If I find that Q is false (the boy did not pass the exam) I will be able to falsify the ‘assumption’.

Only by following this reasoning can I demonstrate, logically, that my hypothesis must be considered true. Any other inference has to be considered logically false, where for “false” I mean a reasoning that could be either true and false. In fact, if I know that the conclusion Q (‘he will pass the

exam') is true, I will not be able to infer anything about the premise P, even if I suppose that $P \Rightarrow Q$ is true. In fact, looking at the table, P can be either true or false when Q and $P \Rightarrow Q$ are both true. This means that the condition 'to pass the exam' does not mean that the boy has studied. It indicates, ultimately, that I have no possibility of affirming that my hypothesis is really true. The boy could have been only particularly lucky or he could have copied from somebody etc. In my sentence, in fact, I have not considered explicitly what would have happened in a case in which the boy has not studied. This aspect was simply not considered in my sentence. Then, I can not make a deduction about this condition, but only induction, that, how we have seen before, it can be right or wrong. The boy that passed the exam ($Q=$ True) could have really studied ($P=$ True) or not ($P=$ False), but my sentence will remain correct ($P \Rightarrow Q=$ True) anyway.

How can I demonstrate that my induction is true? Unfortunately I cannot. In the case of deduction the observable variable 'to pass the exam' (Q) confirms or refutes my sentence ($P \Rightarrow Q$) when I already know that the boy has studied ($P=$ True); but in the case of induction I do not have observable variables that can verify the truthfulness of my hypothesis.

It is extremely common, in everyday life situations, to extend partial information to general knowledge, but in this case I only make conjectures and suppositions. Inferences that, even if they normally permit us to solve the problems, are not precise enough for logical assumptions. Science, in fact, can not base itself on opinions and likely truth; it requires an objective knowledge and universal formal rules: and inside these rules it has its strength and its weakness.

Freud and the development of psychoanalysis

It is difficult not to remain fascinated with Freud's thought and its spectacular explanation of mind. For years, and also now, the fascination of this theory overshadowed the question of its validity. It seems a shame to renounce at all the explanations of our dreams, to discover that we can not justify our childish behaviour with the excuse of a 'Oedipus complex' or to accept that, maybe, girls have never desired to have a penis. So, even if a lot of people criticised psychoanalysis, few of them were able to do so from outside the Freudian perspective, renouncing completely concepts such as the unconscious, force, regression, etc. They often only tried to improve the description of human behaviour, providing new explanations, new evidence from the events, the behaviour and the clinical observations. Psychologists such as Anna Freud, Melanie Klein, Donald Winnicott and Margaret Mahler have never asked themselves about the validity of the Freudian method and according to Popper's point of view their theory present exactly the same problems that Freudian conceptualisation does: they are not falsifiable, they do not permit

deductive explanations of what they speak about. For this reason I am going to consider only some aspects of Freud's concepts, neglecting all the contribution that post-Freudians gave to the development of contemporary psychoanalysis.

Sigmund Freud was born in Freiburg (Moravia) in 1856. In 1873 he began medical studies at Vienna University and between 1877 and 1898 he carried out his first neurological research studying the cells in the nervous system of simple animals, such as the *Pretromyzon* (a prehistoric little fish).

At the beginning of his theorisation, then, Freud remained in a scientific, medical and biological dimension. He tried to explain psychological processes through the particular characteristics and configurations of nervous cells and according to medical observations and methodologies. He was to give up this attempt relatively early, above all because of the complexity that it would have required. The "*Project of a psychology*" (1895) can probably be considered as being on the border between biological and medical ideas and dynamic and psychoanalytic ones. In this book, in fact, he still tries to describe the mind as a machine. He claims that the three different kind of neurones, their organisation and the processes under which they are organised (the primary and the secondary processes, the reflex arc, etc.) permit us to explain every aspect of the mind. "All the things in the right place, with the cogs well organised. [...] It seemed as if this machines (the mind) would have been able to move on its own soon¹¹". In the *Project*, he often uses a terminology taken from Medicine, Biology, Physics and from the Darwin's evolution theory. From Physics he also takes concepts such as the *Principle of Energy Conservation, repulsion, attraction*. He applies these concepts to the mind's functioning, to give a more credible and apparently scientific explanation of his assumptions. But, already in this text, he refrains from medical observations in most of his theorisation. For example, when he explains the *Principle of Inertia*, claiming the necessity for the body to discharge the endogenous energy, he is not keen on giving physiological indications to demonstrate it; he is not keen on structuring his theory in a way that would allow us to falsify it anymore. This unusual mixture of sciences and pseudosciences, as Popper calls them, is probably the most interesting aspect of the *Project* for this essay. Freud knew perfectly that the endogenous energy is something that is scientifically observed and proved, but he derived from it concepts, such as *Principle of Inertia* and the *Reflex arc*, that can only be considered as clever and intuitive personal opinion. The neurones communicate among themselves through chemical messages, through the ordinate movement of the ions. It does not mean that this energy has to be discharges in particular situations and according to Freud's principles.

¹¹ A. Aparo, M. Casonato, M. Vigorelli, *Modelli genetico-evolutivi in psicoanalisi*, il Mulino, 1989, pag.68

The same kind of discussion can be applied to another concept, derived from Physics and formulated in the Project: the *Principle of constancy*. Freud claims that an organism must have a constant level of excitement. To obtain this, it utilises two distinct, connected processes: the *Primary Function* and the *Secondary Function*. Because of the distinction between the endogenous stimuli (continuous) and the exogenous stimuli (discrete), the Primary Function must eliminate the stimulation through a discharge, while the Secondary Function has to preserve the right quantity of energy necessary for specific actions. These two principles are the ones that permit Freud to overcome the neurophysiological perspective with a new, metapsychological, theory.

Also in this case the possible questions are many. How can I prove, for example, that an organism needs a constant level of energy when this kind of energy is not properly specified?

With “*The Interpretation of dreams*” (1899), Freud abandons completely the physical and physiological aspect of his theory, leaving all the connections with the rational interpretations of mental events. He begins to give explanations of the mental phenomena exclusively through psychic models and representations. In this text he affirms that “the unconscious is the real psychic entity”. Mysterious and unknown, it always appears partially to the conscience, but it can be analysed through dreams, free associations, neurosis, etc. *Unconscious, Preconscious, Conscious* are, in “The interpretation of dreams”, the three components of the psychic apparatus, ideally situated between the sensorial apparatus and the motor apparatus. The *Representation of desire* provides the “energy” that moves the whole system, energy that, if it does not find any appeasement will give life to the dreams, and in extreme cases, to neurosis. Dreams, then, are the phenomena of the unconscious desires: desires that can appear explicitly or in symbolic form.

The role of the psychotherapist is to recognise and to interpret the patients’ dreams and symbol in order to discover, together, the “real”, unconscious and unsatisfied desire. During the therapy, the patient becomes conscious of it, and this fact, called *catharsis*, should be enough to make him able to manage it, and then to cure his symptoms.

The first instance of psychotherapeutic analysis was conducted by Breuer and it represents probably the most famous case of hysteria: Anna O. . This woman is considered as the first clinical example in Freud’s and Breuer’s book “*Studies of Hysteria*”, in the 1895. Freud moves away from the psychotherapeutic ideas of his époque fairly early, furnishing the most original contribution in the use of the method of free associations instead of the hypnosis that Charcot was applying at the University of Salpêtrière in Paris. The main difference between these two techniques was the consciousness of the patient. Freudian psychoanalytic theory requires the patient to be aware and to listen to their own words

and to those of the psychotherapist. Freud wrote, in a letter to Fliess of the 6th December 1896: “Our psychic mechanism is formed by a stratification process, and the present material, in mnemonic traces, is sometimes submitted to a new systematisation, according to recent events, in the same way that a task is done again”.

If we cannot discuss in this essay all the implications that this supposition implies, we will consider that, thanks to the previous hypothesis, the psychotherapist can reassemble all the mnemonic traces. He is able to combine them where they are separated from one another, as in the instance of hysteria. In particular, during a psychoanalytic session, psychotherapist leads the patient to a process called *regression*. Like a time machine, regression permits the patient to go back to the time when the traumatic events happened, to live them again and to modify the memory’s traces. Freud describes this concept very well in the “Introduction of Psychoanalysis”, where he uses the following metaphor.

The development of a child can be compared to a troupe walking. During this mission some of the soldiers remain garrisoned at each important stage according to the importance and the difficulties ascribed at the place. So, the troupe’s individuals become less and less numerous during the route. In particular situations, if too many soldiers are forced to remain in specific stages, the troupe will be too weak to face unexpected difficulties. In these cases it could be necessary to go back, not to the closest stage, but to the most “garrisoned”, looking for some help from the soldiers left there previously. The individual that for any reason is forced to return to a past stage will never reach an adult status and he will present peculiar symptoms according to the stage in which he has had to return. In this metaphor the stages that the troupe crosses represent the evolutive phases that a child crosses during his growth, while the garrisons represent the energy of fixation. Regression would permit the patient to go back in the past for taking the energy left during his “journey”, and then to return into the present with enough power to face the actual difficulties. The psychotherapist’s task is to lead the patient during this return to the past, to cover again the same stages in order to understand the reasons for and the uselessness of so much energy being left.

The descriptions of these stages of the development process are really interesting. In the *Compendium* (1938), Freud divides it into *Pregenital* and *Genital organisations*. *Pregenital* organisation concerns the first two years of the child’s development and, in particular, the *Oral phase* during the first year and the *Anal* during the second. *Genital phases* includes the *Phallic* (5-6 years), with the *Oedipus complex*, the *Latency period* (from 6 to 12-14) and the *Genital phase* the adult status. Each of these phases present difficulties and problems that the child has to overcome; each of them require a lot of effort and a “garrison”. According to the Freudian assumptions the problems in a particular phase present particular symptoms, symptoms that permit the psychotherapist to understand where he has to take the

patient to during the regressive process. As it often happens, Freud does not give any precise descriptions of them. For example, talking about Dora's case, in "*An analysis fragment*" (?) (1901), he claims: "That kind of childhood can cause, in the maturity period, two different behaviour as regards sexual needs: a complete relaxation to sexual behaviour, close to perversion, or a complete repudiation of the sexuality in a situation of neurosis".

After 1920, Freud made numerous modifications to his conceptual model. The psychic apparatus is now divided into *Ego*, *Id* and *Super-Ego* ("*The ego and the id*", 1922) and the force are grouped in *Eros* (life force) and *Thanatos* (death force). The first pulsione works to preserve the individual and the species, while the second pushes the individual to destroy himself and his species, trying to bring him into a situation of annulment of any internal tension ("*Beyond the pleasure principle*", 1920).

At this point Freudian thought becomes really unclear and often paradoxical. The idea of *Thanatos* for example goes against Darwin's theorisations that he has always accepted, with the concept of defence and with the Secondary principle, supposed to maintain the right quantity of energy for life. It is fascinating that Freud was able to create, with his theorisation, a completely parallel world, in which also the contradictions seem to have the right role, the right position to give sense to the whole conceptualisation.

Popper and psychoanalysis

Waismann says, "If there is no possible way to determine whether a statement is true then the statement has no meaning whatsoever."¹² Popper claims "[...] all the statements of empirical science must be capable of being finally decided, [...] they must be 'conclusely decidable'¹³". Freud affirmed that a lady (as in the case of Dora), who suffered a traumatic sexual experience during her childhood, could present behaviour close to perversion or to the repudiation of sex in the adult age, and we can say that this sentence is not finally decided at all. Matching these assertions, it results that Popper and Waismann consider Freud's statements, like the one above, totally meaningless. Why is it so meaningless? Let us now consider the phrase about the lady from a logical perspective; Freud says that a traumatic experience in the past (we will call it "P"), presents specific behaviour in the future (we will call it "Q"). In particular, someone who suffers these events could present two types of behaviour: perversion or repudiation of sex. Since the total relaxation of sexual behaviour (perversion) is the opposite of its repudiation, we can call the

¹² K. Popper, *The logic of scientific discovering*, Hutchinson of London, 1959, pag. 40.

¹³ K. Popper, *op. cit*

first “Q” and the second “ $\neg Q$ ”, where “ \neg ” means “not”. According to Logical Language, Freud’s sentence can be written such as “ $(P \Rightarrow Q \text{ or } P \Rightarrow \neg Q)$ ” and it presents the following Truth Table:

P	Q	$P \Rightarrow Q$	$\neg Q$	$P \Rightarrow \neg Q$	$(P \Rightarrow Q \text{ or } P \Rightarrow \neg Q)$
T	T	T	F	F	T
T	F	F	T	T	T
F	T	T	F	T	T
F	F	T	T	T	T

Figure 5.

Looking at the table, we clearly see that Freud’s sentence is a *tautology*. In fact, we can see in the figure 5, “P” (“a lady that suffered traumatic experience”) and “Q” (“she could manifest perverse behaviour”) can present different values of truth, but the whole sentence “ $(P \Rightarrow Q \text{ or } P \Rightarrow \neg Q)$ ” (“a lady who suffered traumatic experience could manifest perverse behaviour or total rejection of sex”) is always true. Since a tautology is always true, in spite of all the possible combinations of the value “T” and “F” of the sentences “P” and “Q”, it does not bring us any information. This does not mean that all of the Freud’s assumptions are tautological. The example was only an instance to show a reasoning that in Freudian theorisation we are allowed, while in the scientific field it is absolutely forbidden. In the same way, it is not true that, outside a logical perspective, the previous sentence does not bring us any information. Freud’s message is clear. Traumatic experiences can have permanent effects on children, negative effects that can prevent them from leading a normal and happy life. People like Dora can manifest the aforementioned two opposite symptoms, but they can rarely have common behaviour. But some inferences, even if they often are intuitively easy to understand and accept, cannot be considered in the same way under a scientific or logical perspective. This consideration requires us to separate the way in which science and common sense, constitute reasoning.

Contrary to human beings, Science does not need to deal with every phenomenon in order always to reach a conclusion in a short time, when each thought represents a cost for brain and for body as well. Science would not permit us to decide if a man is guilty or innocent, or to trust our friends, or simply to decide what is for dinner tonight. Science deals with phenomena that are observable and repetitive,

phenomena that are an irreducible part of the events that happen, but regarding these phenomena, science can reach a verifiable and falsifiable truth.

The logic of scientific research can be roughly represented in the following way:

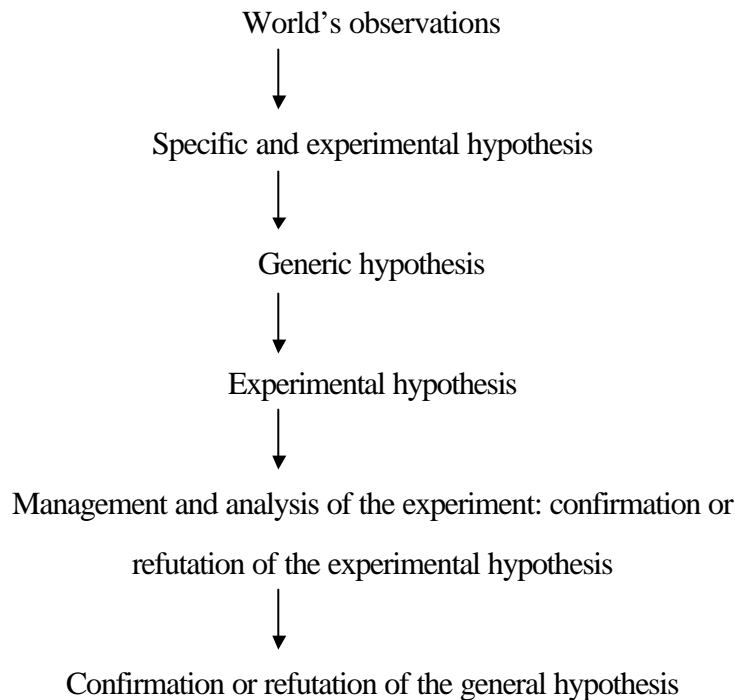


Figure 6.

Freud, in his theorisation, made the mistake of remaining inside common sense, taking into consideration events that are not observable (unconscious, dreams, etc.), not repetitive (lapses, mistakes, etc.). Science simply does not care about these events: not maintaining aspects and definitions that common sense gives us. The success of Freud's theory is permitted by its proximity to people's thoughts and feelings, by its fascinating idea in giving us a comprehensible explanation of our mysterious mind. Maybe he is right: the problem is that we have not, and we will never have, the scientific means to know this.

Some critical considerations

Before considering all the contributions that Freud gave in the knowledge of the human mind, I would like to make a last criticism on the limits of his ideas.

Why, for example, should we believe in Freud's assumptions? Because they are able to explain thoughts, dreams, individual and social behaviour: because they give explanation of our fears and desires;

all this through a simple and elegant theory, through a few intuitive and comprehensible concepts. Moreover Freud gives us the possibility of verifying his theory by ourselves. Everybody can analyse their dream and appreciate their unconscious desires, everybody can feel their vital erotic energetic impulsion (Life Force) when are in front of a person feels attracted, and they can recognise an abnormal dread a traumatic childish experience. Which is, for example, the traumatic experience that has caused in a child a phobia of cats? What do cats represent for the child? This child could have had a cat that suddenly disappeared. Maybe he projected himself in this cat and he thinks that his father killed it in the same way that he is waiting to kill him. Probably cats represents his mother's pubic hair, something that he cannot touch otherwise he will be emasculated by the father (of course). We can make many of these conjectures. The life of this child is full of events, incidents, dreams, desires, fears, etc., in which we can find a perfect explanation of his phobia. But, which one is the right one? How can I know it?

People do not ask this type of questions in the same way that Popper did. People believe in Freud's theory because it can really give us all the explanation we need, and for this reason I think psychoanalysis probably could be compared more to a religion than to a science. We can construct some examples of these possible comparisons. Firstly we can claim that mind, under a Freudian perspective, is not more observable than God. Moreover, they are both unknowable by definition and they show themselves in a similar way, through dreams, images, sensations. They both speak directly to people, giving explanations for any event, and ambiguous proof of their validity: miracles and clinical results, apparitions and clinical observation. Psychotherapists, like priests, are the ones who preside over a ritual in which all the rules have to be followed carefully (e.g. in the mass, psychoanalytic scenario). Alone, he embodies knowledge and power; "undisputed" power that is recognised by patients and followers. Psychoanalysis and religion are fascinating in their infinite knowledge and for this reason are followed and admired. They do not have any proofs to be accepted: people believe in them or not. The main difference is that, while religions do not pretend to be science, the role of psychoanalysis is not so well defined. It makes some effort to estimate therapy results and to have medical prove of the theory, and even if these results often are contradictory it is possible that psychoanalytic therapies have positive effects, statistically prove, on patients. The problem is that, if Freudian therapy really works we will need to find reasons, to find a scientific theory able to give us falsifiable explanation of it.

Two more considerations have to be made before the conclusion of this essay. The first is that Freudian thought contributed enormously in understanding human beings more than much scientific research did. His ideas have changed the way to look at the mind and they have suggested studies and theorisation that improved scientific knowledge and maybe people's well-being.

The second consideration regards Popper and his elegant theorisation of scientific requirements. Popper claims that all theories, to be scientific, must be refutable. But is this theory refutable? And if it is not, why should we accept it? To refuse Popper's theory I should need a scientific theory that is not refutable. But in this case it would not be scientific either. The possibility remains that Popper's theory is not scientific: in this case it does not have to obey its rule and could be accepted. Summing-up, if it is true we will not be able to falsify it, if it is false, we will be able to do that and Popper's theory must be considered true. It seems we are inside a paradox: the only way to escape from this paradox is to rewrite the problem in this way: is it true that all theories must be falsifiable? And this could be a title for another essay.

Bibliography

K. Popper, *Conjectures and refutations*, London, Routledge & K. Paul, 1969

K. Popper, *Unended quest: an intellectual autobiography*, London: Fontana, 1976

K. Popper, *The logic of scientific discovering*, Hutchinson of London, 1959

T. Kuhn, *Structure of scientific revolutions*, Chicago: University of Chicago Press, 1970

Antony O'Hear, *Karl Popper*, London; Boston: Routledge & Kegan Paul, 1980

A. Einstein, L. Enfield, *The evolution of physics*, London: Cambridge University Press, 1938

A. Aparo, M. Casonato, M. Vigorelli, *Modelli genetico-evolutivi in psicoanalisi*, il Mulino, Bologna 1989

F. Cioffi, *Freud: Modern Judgment*, McMillan, London 1973.

