JUXTAPOSING 2 CONTRADICTORY VIEWS OF FREUD : THE APOTHEOSIS OF LOGIC ; THE UNDERMINING OF THE EPISTEMOLOGICAL VALIDITY OF LOGIC: FREUD REJECTS ARISTOTELIAN LOGIC AS THE CRITERIA TO ASSESS THE 'TRUTHS' OF PSYCHOANALYSIS AND THUS BECOMES A PRECURSOR TO QUANTUM MECHANICS AND MATHEMATICS LIKE WISE ABANDONMENT OF ARISTOTELIAN LOGIC AS AN EPISTEMIC CONDITION OF 'TRUTH' IN CERTAIN SITUATIONS

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Freud is a difficult thinker not so much for the complexity of his ideas but because he offers in some cases contradictory ideas or viewpoint. This project will examine the ways Freud saw rationality or Aristotelian logic in regard to the psychoanalytic enterprise. It will be seen that there are at least two contradictory strands running through Freud's work and thinking on the subject of rationality. It will be shown one strand regards rationality or logic as the privileged method of 'truth'. Freud when expounding this strand almost worships Aristotelian logic and rationality. In places he see Aristotelian logic and rationality as the highest products of the human mind. Products to which humanity must submit even in a dictatorial manner if humanity wants to discover 'truth'. Running counter to this apotheosis of rationality or Aristotelian logic is an antithetical position. In this counter strand Freud disparages philosophies use of Aristotelian logic and rationality. Freud, as we shall see, in places goes so far as to argue that rather than being rational or Aristotelian logical psychoanalysis is irrational. According to Freud, in this strand, illogicality or inconsistency in psychoanalysis does not preclude its findings from being 'true' Freud goes so far as to claim that contradictions in psychoanalysis are no hindrance to its project and that placing to much emphasis on contradictions is philosophy overreaching its epistemology or in other words placing to much importance upon the law of non-contradiction. I will show in this project that this irrational strand to Freud's thought is in fact supported by contemporary findings and theories in mathematics and quantum mechanics. In this regard this essay will argue that Freud in fact anticipated the future course of science in arguing that contradictions and the law of non-contradiction are not epistemic conditions of 'truth' in science and psychoanalysis.

The enlightenment enshrined reason, as a tool to for 'truth, as well as science as a discipline to discover 'truth'. Science became, with the enlightenment, materialistic and, based upon Newtonian physics, deterministic. Science was conceived as being built upon empirical evidence and being rational. Now being rational meant that it gave a consistent contradictory free account of reality. The method for this rationality and science was Aristotelian logic. Dean has pointed out that, since at least Aristotle and right up until modern times, Aristotelian logic has been regarded as being an epistemic condition of truth.¹ In philosophy as well as science consistency has been regarded as a criteria of 'truth'. The world Freud was born into held these notions about science. Now though Freud was a child of his times he in effect transcend his Zeitgeist by radically bringing the irrational into science. Freud in facts over throws Aristotelian logic as a valid tool to understand the mind. In Freud's view of science illogicality does not preclude something from being true. It will be shown that although Freud regarded reason or Aristotelian logic as the foundation of science he nevertheless believed that if Aristotelian logic contradicted experience then Aristotelian logic could be abandoned. Aristotelian logic is useful but if Aristotelian logic points to the illogicality of what is nevertheless an empirical fact then Aristotelian logic is to be discarded as an epistemic condition of 'truth. In this regard Freud is an empiricist. It is with this idea of the abandonment of Aristotelian logic as an epistemic condition of 'truth' that Freud transcends his times. It is in this regard that Freud is a precursor to eventual findings in modern physics and mathematics, where paradox and self-contradictions don't preclude something from being 'true'.

¹ C, Dean Aristotelian logic as an epistemic condition of truth the grand narrative of Western philosophy, Gamahucher Press 2003.

Freud as we shall see overturns the West's preoccupation with Aristotelian logic being an epistemic condition of 'truth'

Zaretsky notes that enlightenment thinkers believed that that reason could discover universally valid rational conclusions. As he states "[f]or the enlightenment, autonomy meant the ability to rise above "merely" private, sensory, and passive or receptive propensities of the mind in order to reach universally valid rational conclusions."² Now what was meant by rational is consistent non contradictory conclusions in agreement with Aristotelian logic. Freud in fact argues, in places that Aristotelian logic, is not the right tool to be used to investigate the mind. In this regard Freud transcends his time by undermining the whole enlightenment faith in Aristotelian logic and reason.

From Aristotle to the Stoics to Medieval philosophy through the Renaissance to Frege and modern times, philosophers have been logico-centric in their endeavors to formulate principles of valid argument.³ Again from Aristotle to the Stoics to Medieval philosophy through the Renaissance to modern times the laws of Aristotelian logic have been the tools by which 'science' has investigated reality.⁴ One strand of Freud we will see believes this enlightenment notion. Beginning with Bacon, philosophers have tried to lay out the method of science, the principles by which scientific arguments were framed and the principles upon which reality was investigated. Prior to quantum mechanics, those laws were comprised of Aristotelian logic. Thus we see that at least since Aristotle the laws of logic have been regarded as

² E, Zaretsky, *Secrets of the Soul*, A, Knopf, 2004, p.17.

³ See W. Kneale & M. Kneale, *The Development of Logic*, Oxford, 1978.

⁴ In modern times the investigation of reality has involved the use of other logics because Aristotelian logic was found not to be adequate. Such logics are quantum logic in quantum mechanics and inutitionist logic in mathematics.

being epistemic principles in regard to what is a valid argument and in regard to how reality is to be investigated. It is in terms of these laws of Aristotelian logic that principles of inference, as well as other logics or rationalities are accessed.

In modern times, as Kneale points out, philosophers such as "… Boole and Frege, like Leibniz before them, presented logic as a system of principles which allow for valid inference in all kinds of subject-matter … also the greatest logicians of modern times have taken … as the central theme … the classifying and articulating the principles of formally valid inference."⁵ According to Frege the laws of logic were not the laws of nature, but the laws of the laws of nature.⁶ In this regard Aristotelian logic is regarded as the science of sciences–a view Kneale claims Frege advocated. Now though there have been advances in principles of inference, in syllogistic logic, symbolic logic, and predicative logic, all the arguments used to support these logics cannot violate the laws of Aristotelian logic. There are non-Aristotelian logics but the arguments which support these logics are framed in terms of the laws of Aristotelian logic. Now one stand of Freud subscribes to this logic-centric view of 'truth' where the laws of Aristotelian logic are the criteria of what is 'true' and the arbitrators of 'truth.

Freud conceived of science as a construction that answered all questions and left no question unanswered. Freud referred to this all encompassing world view as a Weltanschauung. As Freud states " ... a Weltanschauung is an intellectual construction which solves all problems of our existence uniformly on the basis of one

⁵ W. Kneale & M. Kneale, op. cit., p.739.

⁶ ibid., p.739.

overriding hypothesis, which, accordingly leaves no question unanswered and in which everything that interests us finds its fixed place."⁷ Science according to Freud was this world view or Weltanschauung. This world view of science meant that humans had to submit to the 'truth' as reveled by science. As science was the paradigm which gave man access to 'truth'. Science dissolved illusions and was focused upon the real external world. Freud claimed that "[a] Weltanschauung erected upon science has, apart from its emphasis on the real external world, mainly negative straits, such as submission to the truth and rejection of illusions."⁸ For Freud scientific thinking is a correspondence with reality.⁹ Freud believed this as he states in 1933: "scientific thinking does not differ in its nature from the normal activity of thought [but] it carefully avoids individual factors and effective influences ... its endeavor to arrive at correspondence with reality – that is to say with what exists outside us and independently of us ... This correspondence with the real external world we call "truth"."¹⁰ Now Freud in tune with the enlightenments notions of science and reasoning believed that these two together represented the highest strengths possessed by humans. For Freud " [r]eason and Science, [were] the highest strength possessed by man."¹¹ Science and reason gave man the ability to find 'truth' and dispel error or illusion. Science and reason allowed man to find 'truths' that in effect corresponded to what was real in the external world.

Freud was an empiricist. Freud believed that science was based upon observation of the external world. Psychoanalysis being, a science, had to solve its problems step by

⁷ S. Freud, 'The Question of a Weltanschauung', in *New Introductory Lectures on Psychoanalysis*, Penguin, 1991, p.193.

⁸ ibid, p.219.

⁹ ibid,., p.206.

¹⁰ ibid,., pp. 206-207.

¹¹ S. Freud, 'Dreams and Occultism', in *New Introductory Lectures on Psychoanalysis*, Penguin, 1991, p.63.

step by observation and work out its findings piecemeal likewise based upon observation In 1925 Freud sums this up when he states " [p]sychoanalysis ... [being] a science based upon observation has no alternative but to work out its finding piecemeal and to solve its problems step by step."¹² Freud is categorical though that psychoanalysis being based upon observation has not the luxury of philosophy with its foundation of logical principles. Philosophy can rely upon Aristotelian logic to give it unassailable 'truth' but psychoanalysis did not have this tool to rely upon As Freud states in 1914 "... the later [empirical investigation] will not envy speculation [philosophy] its privilege of having a smooth, logically unassailable foundation ..."¹³

Now even though Freud is an empiricist and values observation above reason or Aristotelian logic he nevertheless did value reason or logic highly. As we saw above Freud considered science and reason as being the two highest achievements of humanity. In a certain degree Freud talks about the apotheosis of reason. In other places Freud has such a high regard for reason that he maintains that we must submit ourselves to its dictatorship or tyranny. Reason by giving humanity access to 'truth' had to be submitted to regardless of what the 'truths' were. Freud saw the future and hope humanity as being the scientific spirit as exemplified by reason. And as such science and reason was in the future to exert a dictatorship upon the mental life of humanity. As Freud states, in his 1933 work *The Question of a Weltanschauung*, "[o]ur best hope for the future is that intellect – the scientific spirit – may in the process of time establish a dictatorship in the mental life of man"¹⁴ Here it is clear that

¹²S. Freud, An Autobiographical Study, The Standard Edition of the Complete Psychological Works of Sigmund Freud, trans J. Strachey, Vol. XX, Hogarth Press, 1973, p.58.

¹³ S. Freud, 'On Narcissism', in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, trans J. Strachey, Vol. 14.Vintage Hogarth Press, 2001, p.77.

¹⁴ S. Freud, 'The Question of a Weltanschauung', in *New Introductory Lectures on Psychoanalysis*, Penguin, 1991, p.208.

apart from his empiricism Freud believed that humanity had to submit to the dictates of reason; because reason was the tool to access the 'truths which corresponded to external reality. In the same work Freud goes onto claim that it is by reason that unifying influence can be achieved for humanity. Reason has the power to unify humanity. As Freud states "[o]n the other hand intellect – or let us call it by the name that is familiar to us, reason – is among the powers which we may most expect to exercise a unifying influence on men ..."¹⁵ Here we see Freud arguing for the apotheosis of reason or Aristotelian logic. Reason or Aristotelian logic are elevated to the heights of a divinity. It is through reason and science that humanity can be unified by reason and science giving humanity access to THE 'truth' For this access humanity must submit to what can be a tyranny brought about by the dictatorship which reason and science impose upon humanity as the price of wanting the 'truth' According to Freud any one who rejects the findings of reason and science is foolish and shows logical weakness. In 1933 Freud makes the statement that "[i]f a usually sensible patient rejects some particular suggestion on specially foolish grounds, this [is] logical weakness ...¹⁶ Here Freud saying that if anyone questions or denies the 'truth's of reason or logic this person exhibits poor thinking and as such demonstrates his/her foolishness. Here we see Freud submitting humanity to the dictates of reason such that any dissent from reason means mental weakness. The final word on believing in something contrary to reason is stated by Freud in 1927. Here Freud clearly outlines his rationalistic strand. In his 1923 work Freud states that even though philosophy can try and convince someone of what is in fact logically absurd i.e. some religious point of view any sensible man will just reject absurdity as contrary to reason. As Freud claims "[a] man who is not influenced by the artifices of philosophy

¹⁵ ibid, p. 207.

¹⁶Ibid, p.206.

... in such a man's view the admission that something is absurd or contrary to reason leaves no more to be said."¹⁷

This takes us to the point of Freud's rationalistic strand. Reason is to be the criteria of 'truth' Reason is the means to access the 'truths of external reality. The tools for this 'truth' are to be the logical principles i.e. the law of non-contradiction. As such any idea or point of view which is absurd, or contradictory, or paradoxical is to be rejected. Freud adopts this strand because of his apotheosis reason. In this regard Freud is heir to the rationalism of the enlightenment. Even though he places empirical facts above the criteria of the logical principles of reason he nevertheless still maintains contradictory that any thing which is absurd or contradictory must be rejected.

Now it must be point out that running parallel to this rationalism of Freud is a counter, or contradictory strand, or irrationalism. In this irrational strand Freud it will be seen under values the epistemology of philosophy. In the under valuing of the epistemology of the logical principles Freud argues in places that absurdity or contradiction does not mean that the findings of psychoanalysis have to be rejected. Freud in his irrationalistic strand in fact argues philosophy is wrong in making absurdity a criteria for the rejection of psychoanalysis. Even though as we have seen above Freud claiming that humans must submit to the dictates of reason he nevertheless believes that in regard to psychoanalysis reason has to give ground to the facts of experience. In this regard Freud, though aware of the epistemological

¹⁷ S. Freud, 'The Future of an Illusion', in *Civilization, Society and Religion Group Psychology, Civilization and its Discontents, and other works, Penguin,* 1985, p.210.

shortcomings and flaws of psychoanalysis, rejects epistemological assessment of psychoanalysis. His rejection of epistemological criteria it will be seen is a precursor to what was to become a leading idea in the evolution of quantum mechanics and assessments of mathematics.

Epistemologically some argue that a casual-deterministic approach to psychoanalysis places it either in a paradox or contradiction. The presence of these paradoxes, or contradictions thus make it untenable and thus not a science. In regard to Freud's notion of psychic-determinism Rycroft notes that it "... [places] psychoanalysis in a contradiction, viz. that of maintaining both that conscious processes are determined by unconscious ones and that making unconscious processes conscious increased the individual's freedom of choice and action."¹⁸ This contradiction Rycroft claims make the notion of an agent, or ego initiating defenses, or introjection impossible.¹⁹ The idea that the notion of an unconscious leads psychoanalysis into contradiction was voiced by critics of Freud. Freud was also aware of this contradiction but nevertheless rejected it as he claimed that philosophers overvalued epistemology and principles of logic.

Freud was aware of the epistemological problems of psychoanalysis; as he states in 1925 philosophers " could not conceive of such an absurdity as the "unconscious mental" this idiosyncrasy of the philosophers could only be discarded with a shrug."²⁰

¹⁸ C. Rycroft, A critical Dictionary of Psychoanalysis 2 ed., Penguin, 1995, p.101.

¹⁹ ibid., pp.4-5.

²⁰ S. Freud, An Autobiographical Study, The Standard Edition of the Complete Psychological Works of Sigmund Freud, trans J. Strachey, Vol. XX, Hogarth Press, 1973, p.31

In this regard, though Freud was brought up in an enlightenment rationalist view of science, he is here transcending the rationalist Zeitgeist and arguing that though psychoanalysis is irrational it can still be true and valid. Similarly in 1933 Freud states " [a] person of an epistemological bent might find it tempting to follow the paths –the sophists – by which the anarchists succeed in enticing such conclusions from science [i.e. its self-abrogation]. All I can say is the anarchist theory sounds wonderfully superior so long as it relates to opinions about abstract things: but it breaks down with its first step into practical life"²¹ Nevertheless Freud states "Indeed it seems to us so much a matter of course to equate them in this way that any contradiction of the idea [the unconscious] strikes us as obvious non-sense. Yet psychoanalysis cannot avoid raising this contradiction; it cannot accept the identity of the conscious and the mental."²² Thus Freud was aware that philosophers criticized psychoanalysis for its self-contradiction but nevertheless Freud rejected such criticism.

Freud regarded philosophies critique of psychoanalysis as being irrelevant to the 'truth status of its claims. This view of philosophy Freud maintained through out his writing career. In 1916 Freud attacked philosophy for its arrogant condemnation of the intellectual shortcomings of psychoanalysis. At this time Freud rejected philosophies condemnation of psychoanalysis. Freud in his 1916 work *Difficulties and First Approaches* went so far as to claim " [w]e have nothing to expect from philosophy except that it will once again haughtingly point out to us the intellectual

²¹ S. Freud, "A Weltanshauung", in *New Introductory Lectures on Psychoanalysis*, Penguin, 1991, pp..212-213.

²² S. Freud, "Introduction", in *Introductory Lectures on Psychoanalysis*, Penguin, 1982, p.46.

inferiority of the object of our study.²³ Here Freud is pointing out that time and time again philosophy kept pointing out that psychoanalysis was lacking in intellectual rigor. Philosophy with its emphasis on logical analysis kept discovering the flaws in the arguments of psychoanalysis . From a philosophical perspective psychoanalysis was illogical because it was self-contradictory. Nevertheless even though according to philosophers psychoanalysis, because the concept of the unconscious was illogical, was untenable Freud claimed that psychoanalysis nevertheless asserted its existence. As Freud states, in his 1940 work *An Outline of Psycho-Analysis*, " [t]he majority of philosophers, however, as well as many other people … declare that the idea of something psychical being unconscious is self contradictory But this is precisely what psycho-analysis is obliged to assert and this is its second fundamental hypothesis."²⁴

Freud in his turn critiqued philosophy for its heavy reliance on Aristotelian logic at the exclusion of empirical facts. According to Freud it was the facts of experience that determined the 'truth value of a theory not in effect the criteria of Aristotelian logic. It was to experience that Freud turned for the criteria of 'truth' and if this empirical substantiation of a theory went against Aristotelian logic then Aristotelian logic had to be given up. In 1925 Freud criticized philosophers for condemning psychoanalysis solely on epistemological grounds with out recourse to the empirical facts. Freud claimed that philosophers where ignorant of the pathological facts of psychoanalysis which led psychoanalysis to infer the unconscious- an unconscious which philosophers said could not exist because the concept was self-contradictory. In Freud's 1925 work *An Autobiographical Study* he states that it was "[e]xperience

²³ S. Freud, 'Difficulties and First Approaches', in *Introductory Lectures on Psychoanalysis*, Penguin, 1982, p.127.

²⁴ S. Freud, 'An Outline of Psycho-Analysis', *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, trans J. Strachey, Vol. XX111, Hogarth Press, 1973, p.158 (141-209)

(gained from pathological material, of which the philosophers were ignorant) of the frequency and power of impulses of which one knew nothing directly, and whose existence had to be inferred like some fact in the external world left no alternative open."²⁵

According to Freud philosophy put to much reliance on Aristotelian logic. Philosophy in effect over-valued the epistemological worth of logical principles. Freud believed that philosophy because of its over-reliance on Aristotelian logic and its belief in the epistemic worth of Aristotelian logic in fact goes astray. Freud in his 1933 work *The Question of a Weltanschauung* states that philosophy "... goes astray in its method by over-estimating the epistemological value of our logical operations ..."²⁶ Here we see Freud condemning philosophies critique of psychoanalysis through a misplaced over-valuation of the epistemological worth of the logical principles. As we saw above Freud though valuing reason or Aristotelian logic nevertheless placed more importance on the empirical rather than the rational in ascertaining the 'truth' of an idea. In effect Freud abandons Aristotelian logic if it goes against experience.

Freud in a 1924 letter i.e. a letter to Le Disque Vert' makes an interesting admission about the psychoanalytic enterprise. In this letter Freud admits that psychoanalysis is riddled with contradictions and by doing so mirrors similar claims by his

²⁵ S. Freud, An Autobiographical Study, The Standard Edition of the Complete Psychological Works of Sigmund Freud, trans J. Strachey, Vol. XX, Hogarth Press, 1973, pp.31-32.

²⁶ S. Freud, 'The Question of a Weltanschauung', in *New Introductory Lectures on Psychoanalysis*, Penguin, 1991, p.196.

contemporary the quantum theorist Heisenberg. In the Letter to Le Disque Vert Freud states "... one should not mind meeting with contradiction on every side provided one has worked sincerely"²⁷ Heisenberg likewise notes that "the strangest experience of those years was that the paradoxes of quantum theory did not disappear during this process of clarification; on the contrary they have become even more marked and exciting."²⁸ As we will see below quantum mechanics did not see contradiction, or illogicality as being a hindrance to something being 'true'. In a similar view Freud's admission of the contradictions in psychoanalysis did not stop him from claiming psychoanalysis nevertheless did make 'truth claims. As we saw above Freud was aware that based upon epistemology the self-contradictory nature or self-abrogation of psychoanalysis could be demonstrated. Nevertheless Freud believed that epistemology broke down as an epistemic condition of 'truth when confronted with empirical facts. As Freud states "All I can say is the anarchist theory [sciences selfabrogation] sounds wonderfully superior so long as it relates to opinions about abstract things: but it breaks down with its first step into practical life."29 In this regard Freud is a precursor of what was to follow in quantum mechanics, as instigated by Heisenberg, later on into the 20th contrary.

Now Freud shrugging of philosophers' claims that psychoanalysis cannot be a science, because it is absurd, or irrational was correct. Freud in arguing that contradictions or paradox don't invalidate psychoanalysis from being a science or

²⁷ S. Freud, 'Letter to Le Disque Vert', *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, trans J. Strachey, Vol. X1X,Hogarth Press, 1973, p.290.

 ²⁸ F. Selleri, *Quantum Paradoxes and Physical Reality*, Kluer Academic Publishers, 1990, p.v111.
²⁹ S. Freud, "A Question of a Weltanshauung", in *New Introductory Lectures on Psychoanalysis*, Penguin, 1991, pp..212-213.

generating 'truths' was consistent with what was to become a leading idea in quantum mechanics and views about mathematics. Some philosophers and scientists still call those scientific paradigms which are riddled with contradiction and paradox a science. Mathematics the foundation of science is it self riddled with selfcontradiction. Nevertheless, like Freud, mathematicians don't see illogicality as invalidating some 'truth claims of mathematics.

In mathematics paradox goes right to the heart of it. In 1930 the mathematician Hilbert began a program to prove that mathematics was consistent. With the discovery of such mathematical paradoxes as the Burli-Forti paradox, Russell's paradox, Cantor's paradox and Skolem's paradox by early 1930's as Bunch notes, Hilbert's program did not succeed such that "disagreement about how to eliminate contradictions were replaced by discussions of how to live with contradictions in mathematics."³⁰ Attempts to avoid the paradoxes led to other paradoxical notions but most mathematicians rejected these notions.³¹ Thus the present situation is that mathematics cannot be formulated, except in axiomatic theory, without contradictions without the loss of useful results. With regard to axiomatic theory, this cannot be proven to be consistent with the result that paradoxes can occur at any time. As Bunch states:

"None of them [paradoxes] has been resolved by thinking the way mathematicians thought until the end of the nineteenth century. To get around them requires some reformulation of mathematics. Most reformulations except for axiomatic set theory, results in the loss of

³⁰ B. Bunch, *Mathematical Fallacies and Paradoxes, Dover*, 1982, p.140. ³¹ ibid., p.136.

mathematical ideas and results that have proven to be extremely useful. Axiomatic set theory explicitly eliminates the known paradoxes, but cannot be shown to be consistent. Therefore, other paradoxes can occur at any time."³²

With all these paradoxes and inconsistencies Bunch notes that it is "... amazing that mathematics works so well."³³ Since the mathematical way of looking at the world generates contradictory results from that of science,³⁴ such as the mathematical notion of the continuum, and quantum mechanical concept of quanta. As Bunch notes "... the discoveries of quantum theory or the special theory of relativity were all made through extensive use of mathematics that was built on the concept of the continuum...that mathematical way of looking at the world and the scientific way of looking at the world produced contradictory results."³⁵ . In other words the mathematical tools used by quantum mechanics have a different ontological foundation i.e. a continuum from the ontological foundation of quantum mechanics i.e. discreet or quantum states. Nevertheless quantum mechanics can generate 'truth's even though its ontology contradicts the ontology of the tools it uses. Here we see Freud's irrationalism born out in that even though mathematics is epistemologically unsound because of its contradictions and paradoxes it nevertheless does generate 'truths'. Similarly Quantum mechanics being irrational likewise generates 'truths'

Heisenberg noted that "the strangest experience of those years was that the paradoxes of quantum theory did not disappear during this process of clarification; on

³² ibid., p.139.

³³ ibid., p.209.

³⁴ ibid., p.210.

³⁵ ibid., pp.209-10.

the contrary they have become even more marked and exciting."³⁶. As we saw above Freud similarly noted that psychoanalysis was full of contradictions. In regard to quantum mechanics Now even though no experiment has contradicted quantum theory predictions and quantum theory is the most successful that has ever existed. Nevertheless one paradox namely the Einstien-Prodolsky-Rosen paradox may require for its resolution the complete abandonment of quantum theory because the paradox in effect declares that the theory is wrong. ³⁷ This is similar the those critics of psychoanalysis arguing that because it is irrational it has to be abandoned because it is epistemologically invalid. Here again Freud, like quantum theories, in the face of paradox and contradiction believed that nevertheless psychoanalysis still generated 'truths'. Eberhard notes the solving of some quantum paradoxes is not decided by a method, or epistemology but " [the] ideas [relating] to one's philosophical view of the world." ³⁸

Eberhard's claim that the presence of paradoxes is not decided by epistemology or method but by one's philosophy captures Freud's ideas about contradiction at the heart of psychoanalysis. Freud transcended the rationalist criteria of his time by making the irrational as a means to truth. By claiming that psychoanalysis was still valid even though it was paradoxical and self-contradictory he anticipated future findings in physics and mathematics and transcended the narrow limitations of the very rationalism he was a child of. Freud's transcendence of his times rationalism meant that for Freud though psychoanalysis was not rationally, and was in effect irrational, justified it is nevertheless justified as being an instrument of science. This

³⁶ F. Selleri, *Quantum Paradoxes and Physical Reality*, Kluer Academic Publishers, 1990, p.v111. ³⁷ ibid, p.v111.

³⁸ P. Eberhard, "The EPR Paradox, Roots and Ramifications", in W. Schommers (ed) *Quantum Theory* and Pictures of Reality, Spinger-Verlag, 1989, p.85.

is captured nicely in Freud's provocative statement about it possible non successful cure of psychic disease. As he states " even if psychoanalysis showed itself as unsuccessful in every other form of nervous and psychical disease as it does in delusion it would still remain completely justified as an instrument of scientific research it is true that in that case we should not be in a position to practice it."³⁹

Thus as we saw the enlightenment enshrined reason, as a tool to understand, as well as science as a discipline to discover 'truth'. Science became, with the enlightenment, materialistic and, based upon Newtonian physics, and deterministic. Science was conceived as being built upon empirical evidence and being rational. Now being rational meant that it gave a consistent contradictory free account of reality. In philosophy as well as science consistency has been regarded as a criteria of 'truth'. The world Freud was born into held these notions about science. Now though Freud was a child of his times he in effect transcend his Zeitgeist by radically bringing the irrational into science. Freud in facts over throws Aristotelian logic as a valid tool to understand the mind. In Freud's view of science illogicality does not preclude something from being true It is with this idea that Freud transcends his times and is a precursor to eventual findings in modern physics and mathematics. Even though Freud's contemporaries and modern scholars criticized psychoanalysis for being paradoxical and self-contradictions, claims Freud acknowledged to be 'true', Freud nevertheless argues that this illogicality does not invalidate psychoanalysis. This is because Freud puts more emphasis on empirical facts than Aristotelian logic or reason for he thought philosophy over-valued the logical principles –principles which must

³⁹ S, Freud, 'Psychoanalysis and Psychiatry', in *Introductory Lectures on Psychoanalysis*, Penguin, 1982, p.295.

be abandoned in the face of empirical facts. We saw that there are two contradictory strands to Freud's views. One strand upholds reason or logic as the tool for science and 'truth' generation. In this strand there is an apotheosis of reason by Freud and a demand that mankind submit to the dictatorship, or tyranny of logic, or reason. Nevertheless in a counter vein Freud advocates that in light of empirical 'truths' reason, or logic must be abandoned. In the face of contradiction, or paradox Freud argued that psychoanalysis was still a valid 'truth generator. Freud in this irrationalistic strand claims that philosopher over-values epistemology and logical principles. Even though psychoanalysis is full of contradiction, acknowledged by Freud, Aristotelian logic must be abandoned as a criteria of 'truth', or theory evaluation for psychoanalysis, because psychoanalysis nevertheless did generate 'truths'; even though it was irrational.

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