Critical Hermeneutics, *8*(2), 2024
Biannual International Journal of Philosophy
http://ojs.unica.it/index.php/ecch/index
ISSN 2533-1825 (on line); DOI 10.13125/CH/6234

Received: 28/05/2024
Accepted: 25/09/2024
Published: 2/12/2024

'Bisexuality' in the Origins of Psychoanalysis

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Abstract
Many authors have examined texts by Freud that belong to the 'pre-history' of psychoanalysis. They deal with anatomy, physiology and neuropathology and date from the period from 1876 to 1886. In this article we examine some of these texts and point to some consequences of the study of this beginning of Freudian psychoanalytic thought.
Keywords: bisexuality, psychoanalysis, Freud

1. Introduction

Many authors have examined texts by Freud that belong to the 'pre-history' of psychoanalysis. They deal with anatomy, physiology and neuropathology and date from the period from 1876 to 1886 when Freud worked in the laboratories of Brücke and Meynert, both in Vienna, while others are from his time as a resident with Charcot at the Salpêtrière Hospital in Paris.

In this article we examine some of these texts and point to some consequences of the study of this beginning of Freudian psychoanalytic thought. We do not intend to see in these texts a 'preview of the work to come' (Longé 2021: 12). It is not our intention or purpose to carry out this type of interpretation. Our focus on Freud's initial production is rather to show the presence of a Darwinian bias that remained present in his mature theory, not only in the theme but also in the method, especially in the search for a phylogenetic origin of the human psyche.

In the course of his first histological research, in Brücke's laboratory, Freud was mainly interested in the phylogenetic aspect of development. He first turned to ontogeny, which is not unrelated to his future psychological investigations. But he first needed to discover the means of understanding the first archaic (phylogenetic) functions that, despite being deeply concealed, remain in place[1]. To this end, we will begin with 'Observations on the Configuration and Finer Structure of the Lobulated Organs of the Eel described as Testicles', written in 1877, with emphasis on observations on hermaphroditism.

2. Initial studies

In his autobiography, Freud mentions the importance of Darwinian theory at the beginning of his studies, even before attending university:

> […] the theories of Darwin, which were then of topical interest, strongly attracted me, for they held out hopes of an extraordinary advance in our understanding of the world; and it was hearing Goethe's beautiful essay on Nature read aloud at a popular lecture by Professor Carl Bruhl just before I left school that decided me to become a medical student (Freud 1925: 8).

In the first years of his medical course, Freud joined the laboratory of Carl Claus, a recently hired professor at the University of Vienna, responsible for teaching zoology and comparative anatomy. Freud studied the sex of eels during two periods in Trieste, reaching

[1] Jones, E. *La vie et l'oeuvre de Sigmund Freud*. Trans. Anne Berman. Paris: PUF, 1970. By comparing sections of the nervous system of fetuses taken at different levels, it is possible to directly observe the path and connections of the nerve pathways, but one can only make hypotheses for a mature person. We discovered that the oldest structures persist and never disappear, but they become increasingly complex in the course of development. It is in this context that Freud begins to study the brains of fetuses of cats and dogs, and then the embryos of human babies.

conclusions different to those of Dr. Szymon Syrski, director of the natural history museum in Trieste.

Eel reproduction was a question that had intrigued naturalists at least since Aristotle[2]. In a presentation made in 1874, entitled 'On the reproductive organs of the eels', Syrski noted, 'after a simple macroscopic study, the existence of an early sexual differentiation attested by the existence of a lobular organ in the abdominal cavity, distinct from the ovary in eels of medium and small size' (Longé 2021: 29). Syrski supposes that there is an early differentiation of a male reproductive organ from which the distinction between the sexes of eels occurs. Carl Claus had already suggested there was a primary hermaphroditism and a late sexual separation, which therefore contradicted an early differentiation proposed by Syrski.

Freud dissected and made histological sections from more or less 400 samples of eels that were sent from Trieste during the spawning period. However, he does not reach any histological conclusions about the lobular organ at this stage of eel evolution as he wrote in an 1876 letter to Eduard Silberstein:

> The aim is to initially prove that some particularities are sexual differences, and the only person who can do this is the anatomist; he dissects them and discovers both testicles and ovaries. The difference between the two organs is that under a *microscope*, the testicles reveal the sperm, and the eggs in the ovaries can already be seen with the naked eye. Some time ago, a Triestine zoologist discovered, at least that's what he said, testicles in eels, thus identifying male eels, but without knowing what a microscope is and, therefore, without giving an exact description. When studying them in vain in an

[2] See Aristóteles, *História dos animais*, livro IV 538a.

> attempt to find these males, I discovered that all the eels he dissected belonged to the weaker sex (Freud apud. Longé 2021: 30).

A year after this period devoted to the study of eels, Freud began attending the Brücke physiology laboratory, where he studied the central nervous system of immature river lampreys (Petromyzon Planeri) and later the fibres and nerve cells of crayfish (28). Although the change of object of study and subsequent choices focused on the central nervous system of lampreys and the cells and nerve fibres of crayfish, the period he spent in Carl Claus's laboratory was also of great importance[3].

However, the idea of 'psychic hermaphroditism' would only be formulated in 1897, in correspondence with Fliess, who authored a theory on bisexuality: 'In the introduction to his monograph, Fliess, after proclaiming that the existence of both, male and female periods, went on to develop the theme of constitutional bisexuality' (Kris 1954: 38).

> The dominant sex of person, that which is the more strongly developed, has repressed the mental representation of the subordinate sex in the unconscious. Therefore, the nucleus of the unconscious (that is to say, the repressed) is, in each

[3] Longé comments that Paul Flechsig, a pupil of Theodor Meynert, in whose laboratory Freud had also worked, used 'a methodology that integrated the development of the central nervous system from Schwann cells. Flechsig observed a progressive myelination of the nerve fibre sprouts throughout the maturation process: from the embryo of the foetus to the newborn, he observed a neurobiological prematurity compared to adult fibres. This progression led to the investigation of a comparative method between the different stages of development within the same species, thus allowing a description that would not involve damage to the neural apparatus, which in turn could reach full maturity. This methodology presupposes an unmitigated Darwinism that will undoubtedly influence the young Freud's choice of path.

> human being, that side of him wich belongs to the opposite sex. (Fliess apud Kris 1954: 39)

Although Freud initially considered that these ideas could contribute to the theory of neurosis, he began to question whether individual sexuality would not be determined by the genitals and therefore be explained exclusively by biological and not psychological factors. As Richard Simanke explains, Freud attempts to 'relate psychological formulations with the neural and physiological basis [...] throughout the process of elaborating the Project for a Scientific Psychology and in the reformulations that lead to Chapter VII of 1900' (Simanke 2023: 34).

3. Nascent sexuality

Freud wondered for some time about the possible relationship between the organic and the psychic, 'there are only *glimpses* of the organic background – in connection with the erotogenic zones and bisexuality'. (Freud 1901/1954: 327) In the manuscript sent to Fliess together with this letter, entitled 'On Hysteria', Freud prepares the ground for an analysis that will later be detailed.

'Dreams and Hysteria', later entitled 'Fragments of an Analysis of a Case of Hysteria', the famous 'Dora Case Study', focuses on 'psychology, the use of dreams and some peculiarities of unconscious mental activity' (*Ib*.). In the afterword to the 'Dora Case Study', Freud makes a summary and highlights that the work is incomplete as only the therapeutic psychoanalytic technique has a strictly psychological status. The problem is that the theoretical analysis itself suggests an organic foundation of neurosis which, however, cannot yet be proven. Freud considers it likely that inapprehensible chemical changes would ultimately explain the changes in erogenous zones and the consequent 'predisposition towards bisexuality' (Freud 1901/1986: 114).

Throughout *Three Essays on the Theory of Sexuality*, bisexuality is mentioned as an organic or biological aspect (anatomical hermaphroditism), a psychic or sociological phenomenon, or even as an example or counterpoint to other theories then in force (and which psychoanalysis intends to unauthorize). Freud already has the concept of drive[4], which changes the way he conceives the relationship between the somatic and the psychic.

In the first Essay, Freud builds an argument about bisexuality around the idea of inversion:

> A fresh contradiction of popular views is involved in the considerations put forward by Lydston [1889], Kiernan [1888] and Chevalier [1893] in an endeavour to account for the possibility of sexual inversion. It is popularly believed that a human being is either a man or a woman. Science, however, knows of cases in which the sexual characters are obscured, and in which it is consequently difficult to determine the sex. This arises in the first instance in the field of anatomy. The genitals of the individuals concerned combine male and female characteristics. (This condition is known as hermaphroditism.) In rare cases both kinds of sexual apparatus are found side by side fully developed (true hermaphroditism); but far more frequently both sets of organs are found in an atrophied condition.

[4] By an 'instinct' is provisionally to be understood the psychical representative of an endosomatic, continuously flowing source of stimulation, as contrasted with a 'stimulus', which is set up by single excitations coming from without. The concept of instinct is thus one of those lying on the frontier between the mental and the physical. The simplest and likeliest assumption as to the nature of instincts would seem to be that in itself an instinct is without quality, and, so far as mental life is concerned, is only to be regarded as a measure of the demand made upon the mind for work. (Freud, 1905/1986, p. 168)

> The importance of these abnormalities lies in the unexpected fact that they facilitate our understanding of normal development. For it appears that a certain degree of anatomical hermaphroditism occurs normally. In every normal male or female individual, traces are found of the apparatus of the opposite sex. These either persist without function as rudimentary organs or become modified and take on other functions. These long-familiar facts of anatomy lead us to suppose that an originally bisexual physical disposition has, in the course of evolution, become modified into a unisexual one, leaving behind only a few traces of the sex that has become atrophied (Freud 1905/1986: 141).

As we can see, Freud does not resort to anatomical explanations to account for the psyche: there are no 'psychic centres' located in the brain, as neurophysiologists thought: 'Nevertheless, two things emerge from these discussions. In the first place, a bisexual disposition is somehow concerned in, inversion, though we do not know in what that disposition consists, beyond anatomical structure. And secondly, we have to deal with disturbances that affect the sexual instinct in the course of its development' (143).

4. Natural ideas

When treating hermaphroditism as being potentiality part of the reproductive system and containing rudimentary structures devoid of function, Freud adopts the Darwinian idea of rudiments, elaborated in the context of the theory of evolution. As we know, natural selection involves the conservation of variations, or, if we prefer, favourable modifications, and the destruction of useless or harmful variations. This hypothesis is based on the idea that species undergo a large number of modifications or variations after having branched out from a

common original species. 'An extraordinary amount of modification implies an unusually large and long-continued amount of variability, which has continually been accumulated by natural selection for the benefit of the species' (Darwin 1859/1985: 191). But there are also modifications that have been transmitted over time and that lack function or utility for the species, but when shown to be innocuous or non-harmful they appear as rudiments of organs or limbs, evidence of parts or functions existing in ancestors. As Jonathan Howard explains,

> true relics of the organism's past that have been reduced in response to contingent changes through evolutionary time to the point where, while they remain in evidence by their counterparts, they have no purpose in the organism's life (Howard 1982: 93).

Let's see the concept and some examples of homology according to Darwin:

> We have seen that the members of the same class, independently of their habits of life, resemble each other in the general plan of their organization. This resemblance is often expressed by the term 'unity of type'; or by saying that the several parts and organs in the different species of the class are homologous. […] What can be more curious than that the hand of a man, formed for grasping, that of a mole for digging, the leg of the horse, the paddle of the porpoise, and the wing of the bat, should all be constructed on the same pattern, and should include similar bones, in the same relative positions? […] Geoffroy St. Hilaire has strongly insisted on the high importance of relative position or connection in homologous parts; they may differ to almost any extent in form and

> size, and yet remain connected together in the same invariable order (Darwin 1859/1958: 415).

And:

> The bones of a limb might be shortened and widened to any extent, and become gradually enveloped in thick membrane, so as to serve as a fin; […] If we suppose that an ancient progenitor – the archetype as it may be called – of all mammals, had its limbs constructed on the existing general pattern, for whatever for whatever purpose they served, we can at once perceive the plain signification of the homologous construction of the limbs throughout the whole class' (416).

Homology highlights a non-existent connection between the different species, and, therefore, a long and complex process of descent in which the different parts or organs modify and develop into each other. In this process there are also those that retract and may remain as organs, or rudimentary parts, which for Darwin are 'Organs or parts […] bearing the plain stamp of inutility' and that we find very frequently in nature, as in rudimentary breasts in male mammals, which can even 'retain their potentiality', and there are records of such breasts that secrete milk (428, 429).

Commenting on the analogous variations and the process of reversion of characters to those of their ancestors, Darwin states:

> I can see no more abstract improbability in a tendency to produce any character been inherited for an endless number of generations, than in quietly useless or rudimentary organs being, as we all know them to be inherited. Indeed, we may sometimes observe a mere tendency to produce a rudiment

> inherited; for instance in the common snapdragon (Antirrhinum) a rudiment of a fifth stamen so often appears, that this plant must have an inherited the tendency to produce it. As all the species of the same genus are supposed, on my theory to have descended from a common parent it might be expected that they would occasionally vary in an analogous manner; so that a variety of one species would resemble, in some of its characters another species, this other species being, on my view, only a well-marked and permanent variety (197).

These rudimentary organs or parts may be as important as physiologically active organs or parts. In Darwin's words, they 'serve as a clue for its derivation', like letters maintained in a written word although they are no longer pronounced (432).

If we consider the way Darwin thinks about sexuality, it is obvious that it is subject to the process of natural selection. Like other variations that species undergo, sexuality is the result of structural modifications, in this case, which affect mainly the 'reproductive system, [which] is eminently [more] susceptible in the conditions of life' (173). In addition, for Darwin,

> the male and female sexual elements seem to be affected before that union takes place is to form a new being. In the case of 'sporting' plants, the bud in its earlier condition, does not apparently differ essentially from an ovule, its alone affected. But why, because the reproductive system is disturbed, this or that part should vary more or less, we are profoundly ignorant. Nevertheless, we can here and there dimly catch a faint ray of light and we may feel sure that there

> must be some cause for each deviation of structure however slight (174).

Now, would not the idea of potential bisexuality, or hermaphroditism, in Freud, constitute an *idea analogous* to the tendency of transmission from a common progenitor? That is, would not the original hermaphroditism or 'bisexual predisposition', which is later inhibited to give way to rudimentary organs, without function, or to organs or parts that could take on other functions, contain the same conception of a progenitor species that varies and leaves rudiments of what did not vary?

In the first chapter of *The Descent of Man* (1872), Darwin mentions that the reproductive system offers several rudimentary structures that can differ considerably. What interests him is the case in which an efficient part in one sex appears to be only rudimentary in the other sex:

> I shall have to recur to these rudiments, and shall shew that their presence generally depends merely on inheritance, that is, on parts acquired by one sex having been partially transmitted to the other. […] It is well known that in the males of all mammals, including man, rudimentary mammae exist. These in several instances have become well developed, and have yielded a copious supply of milk. Their essential identity in the two sexes is likewise shewn by their occasional sympathetic enlargement in both during an attack of the measles. The *vesicula prostatica*, which has been observed in many male mammals, is now universally acknowledged to be the homologue of the female uterus, together with the connected passage. […] The homological construction of the whole frame in the members of the same class is intelligible, if we

> admit their descent from a common progenitor […] (Darwin, 1872/2004: 41–42).

We can thus see that both rudiments and homologous parts or organs reinforce the Darwinian argument that what remains to be done is to deduce the existence of living beings from a common progenitor for all species. Even though this 'progenitor' is a conjecture, Darwin's theory of evolution finds in these signs support in natural elements, or if we prefer, in natural studies/theories that show the affinities between different species.

In any case, his argument is cautious, restricting itself to hypotheses. In Chapter 4 of *The Origin of Species*, on 'Natural Selection', Darwin creates a diagram that helps to present the idea of the origin of species belonging to a common genus, located in a determined region: 'these species are supposed to resemble each other in unequal degrees, or even:

> Let (A) be a common, widely-diffused, and varying species, belonging to a genus large in its own country [...] The variations are supposed to be extremely slight, but of the most diversified nature (Darwin 1859/1985: 159).

in addition, commenting on the diagram, he explains that 'As all the modified descendants from a common and widely-diffused species, belonging to a large genus, will tend to partake of the same advantages which made their parent successful in life' (163).

We can say that when Freud adopts the idea of the presence of rudiments of the sexual cells of one sex in the other, of the homology between the organs and an original potential for bisexuality, he is clearly appropriating the theory and conjectural method of Darwin. In

'The Transformations of Puberty', in *Three Essays on the theory of Sexuality*, considerations on homology are linked to those on bisexuality:

> Since I have become acquainted with the consideration of bisexuality (through W. Fliess), I have regarded it as the decisive factor, and without taking bisexuality into account I think it would scarcely be able possible to arrive at an understanding of the sexual manifestations that are actually to be observed in men and women (Freud 1905/1986: 220).

And, a little further on: 'The leading erotogenic zone in female children is located at the clitoris, and is thus homologous to the masculine genital zone at the glans penis' (*Ib*.).
Years later, in 1915, Freud proposed a development of the idea of original bisexuality by commenting that we have a mixture of masculine and feminine characteristics, and in a note he said how essential a clear understanding of the terms masculine and feminine is, not only for general or lay opinion but above all for science and its different aspects: biological, psychoanalytic and sociological:

> 'Masculine' and 'feminine' are used sometimes in the sense of activity and passivity, sometimes in a biological sense, and sometimes again in a sociological sense. The first of these meanings is the essential one, and the most serviceable in psycho-analysis. When, for instance, libido was described in the text above as being 'masculine', the word was being used in this sense, for an instinct is always active even when it has a passive aim in view. […] The observation shows that in human beings pure masculinity or femininity is not to be found either in a psychological or a biological sense. Every individual on the contrary displays a mixture of the character-

> traits belonging to his own and to the opposite sex; and he shows a combination of activity and passivity whether or not these last character-traits tally with his biological ones. (Freud 1915/1986: 219–220 footnote).

Fifteen years later, in *Civilization and its Discontents*, we find this other note on bisexuality, in a more mature formulation:

> Man is an animal organism with (like others) an unmistakably bisexual disposition. The individual corresponds to a fusion of two symmetrical halves, of which, according to some investigators, one is purely mal and the other female. It is equally possible that each half was originally hermaphrodite. Sex is a biological fact which, although it is of extraordinary importance in mental life, is hard to grasp psychologically. We are accustomed to say that every human being displays both male and female instinctual impulses, needs ant attributes; but though anatomy, it is true, can point out the characteristic of maleness and femaleness, a view which is by no means universally confirmed in animal kingdom. The theory of bisexuality is still surrounded by many obscurities and we cannot but feel it as a serious impediment in psychoanalysis that it has not yet found any link with the theory of the instincts (Freud 1930/1981: 106).

In this excerpt it is clear that once again Freud resorts to the foundations of natural theory, initially stating that we are unequivocally bisexual animals and that this could well indicate that both the female and male parts would be potentially and originally hermaphrodite, and therefore each of them would be potentially bisexual. However, if these assumptions were better defined in the field of biology and natural

sciences, in the field of psychoanalysis the terrain of sexuality, despite being based on that of biology, in his view remains more uncertain and shifting. This is because the categories of masculine and feminine become pallid and even empty when compared to those of activity and passivity, although previously Freud himself may have hastily associated the masculine with activity and the feminine with passivity. An association like this is not confirmed in biology, and Freud concludes that, for psychoanalysis this idea is more of a hindrance than a help as we have no information about the connections between drives and bisexuality.

However, in one of his final texts, 'Analysis Terminable and Interminable' (1937), we can see a shift and a resolution for questions of masculinity and femininity at the interface between the psychic and the biological. He says that perhaps the most important thing regarding analysis and sexuality is the feminine issue, in the form of penis envy or a male protest against passivity, thus rejecting femininity. At the end of the text, femininity is placed as a very curious condition: as a ' underlying bedrock', that is, femininity represents a biological plane to which it is not known whether it can be analytically transposed (Freud 1937/1981: 252).

If before 1937 we see the utilization and a Freudian appropriation of the conjectural methodology adopted by Darwin, through the assumption of a bisexual origin as a potentiality that can be observed through rudiments and homologous organs or parts present in both sexes, it seems that now Freud assumes that although psychic processes are based on physical and biological processes, the latter present themselves as a limit in clinical analysis. That is, the rejection of femininity, or in other terms an anatomical differentiation between the sexes, or even a differentiation between genders (in more contemporary language), is where the psyche ends and thus the possibilities of analysis.

But, if in 'Terminable and Interminable Analysis' Freud supposes a biological limit to the analytical process, in 'Constructions in Analysis', also from 1937, this aspect does not need to be taken into consideration.

The importance of a psychoanalytic process is also '"a construction" when one lays before the subject of the analysis a piece of his early history that he has forgotten' (Freud 1937/1981: 261). But, as Freud states from the beginning of his theory, what was forgotten was not lost, but became repressed, and all work of psychoanalytic construction is in fact a reconstruction, like the work of the archaeologist who reconstructs 'the walls of the building from foundations that have remained standing, [...] reconstructs the mural decorations and paintings from the remains found in the débris' (259). In this way the analyst can extract conclusions through 'fragments of memories, from the associations and from the behaviour of the subject of the analysis (*Ib*.). In other words, even if there is a biological limit for the psychoanalyst, they can rely on the same conjectural method in their individual investigative work based on the evidence left by each person.

If psychoanalytic theory also develops from conjectures, these in turn presuppose a biological support that is also based on conjectures, as we saw in the example of his Trieste studies on bisexuality vs. male monosexuality originating in eels. If we look to Binoche, 'the fictitious reconstruction of the origin has an original legitimation. This is because it is authorized to fill gaps between the facts, and is not therefore authorized to extend in the absence of facts' (Binoche 2019: 115), we see that for psychoanalysis the important element is the psychic facts, even though Freud had doubts about 'the nature of the psychical' until the last moments of his life and always stated that 'Psychology too is also a natural science' and then asked himself, 'what else can it be?' (Freud 1938/1940/1981: 282) Although the psychical is based on the corporeal, and the question remains about what exactly the

unconscious processes are and how far they reach, analysis only develops through psychic representations.

According to Longé, the permanence of the Darwinian implication in Freud's critical apparatus is evidently due to his training, where it can be seen that he was also a zealous and combative practitioner as an experimenter and observer of reality.

Although Freud disagreed with Fliess's theory of bisexuality, proposed in 1901, as we saw just above, a few years earlier he had presented in Letter 52, of December 1896, an economic assumption that 'there would be a surplus of masculine release', in a purely male being, in the periods of childhood (around eight years) and puberty (between 14 and 15 years), in which he assumed sexual boundaries. This excess would generate pleasure as a consequence, a perversion; on the other hand, 'in a purely feminine being', the excess would generate displeasure, thus leading to a predilection of 'true females' for defensive neuroses. This assumption would serve to elucidate a decision between neurosis and perversion, in which Freud bases himself on the (psychic) bisexuality inherent, according to him, in all human beings.

If a psychic bisexuality can only be a conjecture, it is based on facts that show rudiments and homologies of parts or organs that show a bisexuality or a potential somatic hermaphroditism, present in all human beings.

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