

Review Essay

Sigmund Freud — “The Cocaine Papers”, a personal appraisal[☆]

This brief review is both a response to a kind invitation made by the editors and an attempt to pay a personal debt. The latter refers to the fact that this collection of rather unknown papers, written by Freud when he was a young neurologist, came to my hands coincidentally in a moment when my own career was at a crossroad. For the young medical student and teaching assistant of neurophysiology that I was in the 1980s, the ‘cocaine papers’ (as named by their English editor — R. Byck [1974], Meridian Books), as well as his first papers on aphasia and neurophysiology (“Aphasia” and “Gehirn”, both from 1888; see Solms and Saling (eds.) [1990]. *A Moment of Transition*, Karnac Books), functioned as a bridge between the traditional reasoning of the biomedical sciences and something beyond, the behavioural and social dimensions of drug consumption and the subtleness of the human soul.

The first paper of this series is “Über Coca”, published in 1884. In this period, cocaine was becoming more popular in the European scientific milieu, after being purified by A. Niemann in 1860. Most studies involving cocaine before the Freudian at-

tempts had been carried out on experimental animals, but he took the decision neither to use animals nor to limit his analyses to clinical descriptions of a series of patients. Instead, he decided to use himself as his own guinea pig, and to explore his sensations and thoughts under the effect of cocaine, besides reviewing in detail the historical accounts and previous scientific findings.

Freud was particularly impressed by the clinical findings of T. Aschenbrandt and W. H. Bentley, who used cocaine for a variety of debilitating medical conditions such as asthenia secondary to tuberculosis and other chronic diseases, dyspepsia, and, principally as a powerful medicine against morphine-addiction. The motivation of Freud was here strongly personal, a desperate attempt to treat a friend he admired the most, the brilliant researcher E. von Fleischl, who became addicted to morphine he used as an analgesic for an excruciating pain.

Ironically, the deep interest of Freud in the use of cocaine as a medicine against morphine-addiction and other major psychiatric illnesses (e.g. neurasthenia, melancholy) led him away from the “discovery” made by Koller. Freud correctly identified the properties of cocaine as a local anaesthetic, briefly mentioned in his first paper on cocaine (the aforementioned “Über Coca”, reprinted with “Addenda” in February 1885) but did not explore this finding. Immediately after, a fel-

[☆] In this issue we have invited contributors to review earlier publications that have been an influence on their own work.

low researcher, C. Koller, described the utility of cocaine as a local anaesthetic to be employed in ophthalmic (and other minor) surgeries. This is the surgery that Freud's father, Jakob underwent shortly after Koller's discovery — then considered a breakthrough. The son would never forget the lost opportunity.

The two next "cocaine papers" ("Contribution to the knowledge of the effect of cocaine" and "On the general effect of cocaine", both from 1885) went beyond the idea to use just his subjectivity to study the effects of cocaine. Although still keeping a detailed registration of his sensations during the experimentation, Freud introduced in the first of these papers the use of a dynamometer to establish a comparison between the subjective and objective aspects of the feelings of well-being and renewed strength. With a dynamometer, he demonstrated that cocaine had no direct impact upon the muscles but rather a strong influence upon the sensation of increased muscle power. The second of these papers is basically a description of the uses of cocaine in the treatment of psychiatric conditions.

His last paper on cocaine, published 2 years later ("Craving for and fear of cocaine"), represents a turning point. Not so optimistic as before about Fleischl's prognosis and under attack by critics of the uses of cocaine as a medicine, such as L. Lewin and A. Erlenmeyer, Freud became extremely cautious. Without endorsing Erlenmeyer's position, saying cocaine was "the third scourge of mankind [after alcohol and morphine]", Freud tried to establish a balance between the properties of cocaine as a medicine and the harms associated to its use, saying that cocaine could be particularly dangerous for people addicted to morphine. In this sense, this paper represented a second personal and scientific defeat. After losing the chance to

help his father, he implicitly admitted he could not help Fleischl. In this paper Freud concluded that the use of cocaine as a medicine (especially of injectable cocaine) should be postponed to a future where psychiatrists would have a sound understanding of human nature, and a deep comprehension of how cocaine interacts with persons of different organic and psychological constitution.

One of the main traits of Freud's personality was to learn and even to profit from his own limitations and mistakes, permanently redefining his points of view and concepts, or in the words of the English poet W. Auden: "... he went his way down among the lost people like Dante". The harsh path Freud crossed in the 3 years between 1884 and 1887, paved by two major defeats, taught him and us fundamental lessons. His first defeat has no special meaning for us — his readers, in the 21st century — since cocaine analogues have become a standard drug and are currently used as local anaesthetics. His second defeat still has a deep meaning for current researchers and practitioners in the field of drug consumption. The quest for new medicines to ease pain and suffering is still our quest, the blindness we frequently incur while searching for "magic bullets" is our renewed challenge.

The cocaine papers and other papers written in the same period represent different attempts made by the young Freud to open new paths in the understanding of the human soul. Profiting from his accumulated empirical experience and theoretical efforts, but also deeply touched by his defeats (later re-evaluated by him in the analysis of his own dreams) he became the founder of a new discipline — psychoanalysis.

In a remark from 1895, Freud gave a testimony of his intellectual and moral courage [even if we do not accept his conclusions]: "I had been the first to recommend the use of

cocaine, in 1885, and this recommendation had brought serious reproaches on me. The misuse of that drug had hastened the death of a dear friend of mine”.

Far from the moral crusade of Erlenmeyer, but also far from his own naivety, this bitter Freud of 1895 is our spiritual contemporary, one that knows there are no magical bullets and no substances that are just good or bad, irrespective of human nature.

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