Suppressing Psychoanalysis: (Un)Changing Ideas of Pleasure in Twentieth-Century Addiction Research

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Abstract
While many scholars note the traces of psychoanalytic theories in current addiction research, these legacies are often framed as pre- or pseudoscientific precursors or remnants to the “scientific” explorations of the mid- to late-twentieth century. By tracing the theories of the first psychoanalyst to fully theorize addiction, Sandor Rado, and the ways in which his understanding of pleasure was adopted, rejected, or modified, we can better understand not only how psychoanalytic thinking remains in use, but also the ways in which it is consciously or unconsciously forgotten even as it is invoked. Rado’s theory of addiction as resulting from a “pharmacogenic pleasure-effect” was rejected, I believe, due to an understanding of “pleasure” as standing in for the disparaged elements of psychoanalysis. Rejecting “pleasure,” whether by searching in the brain for a locus of “positive reinforcement” or casting older theories as overly emphasizing the role of euphoria, was a way of rejecting the disputed aspects of the discipline while reworking its ideas. In addition, I suggest that tracing these processes over the twentieth century shows a narrowing of the locus of the cause for addiction from society to self; the oft-invoked teleological narrative that defines progress by shrinking focus does not have room for psychoanalysis. In order to fully understand the impact of how we speak about the current opioid crisis, we must explore the history of the languages we have used to talk about addiction—especially those that have been suppressed, those still present but not always acknowledged.

Biography
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“I am convinced that you are exercising a strong and beneficial influence, and I don’t know whether you are more necessary in U.S.A. or Berlin. The old phalanx is shrinking more and more...It is to be hoped that new people will step into the gaps.”

Sigmund Freud to Sandor Rado
November 22, 1932

I. Introduction: Influence and Gaps

Sandor Rado, it has been said, “managed one of the more unusual disappearing acts in psychoanalytic history.” Though he made many contributions to the theory of psychoanalysis—through his editorship of important journals, his shaping of American psychoanalysts’ views on homosexuality, and his popularization of the Berlin model of psychoanalytic education in New York—Rado remains outside of its history. To this date, there exists no biography of the man.

One of Rado’s most enduring accomplishments was his work on addiction. While Sigmund Freud mentioned addiction in passing, noting the importance of oral fixation to later habits of drinking and smoking, it was Rado’s 1926 paper on the “Psychic Effects of Intoxicants” that created the first systematic treatment of addiction within psychoanalysis. Many of his theories live on, but the impact of his work is often ignored.

While other authors have made claims about the legacies of psychoanalytic thinking in current debates about addiction, this paper will seek to document moments of erasure and revision of these theories in the second half of the twentieth century. My aim is to show not only how

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4 The one book-length study of Rado is not a biography, but a collection of resources: an oral history, his correspondence with Sigmund Freud, and an overview of his theories. See Tomlinson, “Heresy,” 1325.
psychoanalytic thinking remains in use, but also the ways in which it is consciously or unconsciously forgotten even as it is evoked.

There are many ways one could explore the current traces of psychoanalytic thought. However, by focusing on the works of one person, Sandor Rado, and the ways in which one concept, pleasure, was used and forgotten over time, we can gain a more concrete understanding of the influences of and reaction to psychoanalysis in addiction research. This paper is not an attempt to restore Rado's legacy or a plea to return to older understandings of "pleasure" but an argument about the complex reception of psychoanalytic theory over time.

When not written by practitioners, histories of addiction research generally consign psychoanalysis to a short "precursor" section or disparage its theories. In Discovering Addiction, Nancy Campbell adroitly investigates the "laboratory logics" guiding human and animal experimentation in addiction research and the "construction" of addiction as an object of study. However, Campbell shies away from a deeper understanding of the effect psychoanalysis has had on this research. The first chapter explores early inquiries into addiction that helped frame the "opium problem," including psychoanalysis. Psychoanalysis is, according to Campbell, "no longer considered scientific (and disdained by many scientists)" and "has just about disappeared from drug historians' gaze and might be considered unworthy of attention in a book like this." To explain the inclusion of this short section, Campbell argued that psychoanalytic theory, "in its day," received much attention. Furthermore, "the legacy of psychoanalysis lingers," not in language but in "common structures of belief between now-discredited pseudoscience and neurobehavioral and genetic accounts." These include the repetition of unintelligible acts with negative consequences, a psychopathological mechanism, and a lack of control.\(^6\) Note the way Campbell describes psychoanalysis—as a "now-discredited pseudoscience" that was important "in

“its day” but is now practically unworthy of the historian’s time. While Campbell chose not to ignore psychoanalysis, it is clear that she, like the scientists she cites, disdains these theories. Her argument focuses instead on the “remnants” of psychoanalytic thought as precursors to the “science” of addiction research. The chapter’s subtitle is, tellingly, “Protoscientific Concepts of Addiction.”

Other accounts ignore psychoanalysis completely. Caroline Jean Acker’s *Creating the American Junkie* focuses on psychiatry writ large, not psychoanalysis, in its exploration of the ways in which psychiatrists and psychologists constructed the addicted subject as deviant. Her chapter on “the junkie as psychopath” focused on a specific lineage of psychiatric thought that emphasized addiction the result of a “psychopathic character.” The main proponent of this view was Lawrence Kolb, a psychiatrist working with the U.S. Public Health Service, who sought to distinguish psychopaths from those addicted through medical treatment. Likewise, David Courtwright’s extensive *Dark Paradise*, which recounts the history of American uses of and beliefs about opiates, focuses on the work of Kolb and his psychopathic model. These accounts largely ignore the distinct and heterogeneous psychoanalytic work on addiction and reify the assumption that psychiatry unilaterally viewed addiction as merely a moral failing. Even at the time, psychoanalysts were careful to distinguish themselves from such a view. In 1933, Rado wrote, “In psychiatry, the idea was promulgated that a certain type of ‘uninhibited,’ ‘weak-willed’ or ‘psychopathic’ individual happens to develop a passion for using these drugs.” This line of thinking, Rado argued, was like “groping in the dark.”

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7 Ibid., 21.
Daniel Yalisove, a psychoanalyst, collected and edited a volume of essential papers on addiction written by other practitioners. In the introduction, he briefly covers the history of the field. Yalisove’s narrative is one of “widening scope.” He identifies two major themes: psychoanalytic views on addiction have been influenced by the broader evolution of psychoanalytic theory, and psychoanalysts have suggested modifications in technique to treat addiction since the early stages of the field. Despite the age of these papers, Yalisove wrote that many have “guided [his] clinical work in the addiction field.” As a practitioner, however, Yalisove is not attentive to the broader influence of these theories.

By looking at the history of theories of addiction through the work of a psychoanalyst, we avoid the pitfalls of labeling the work as “now-discredited.” And by tracking his work over time and within and across disciplinary boundaries, we can get a better grasp of the way these theories have been suppressed, ignored, contested, reworked, and forgotten. In addition, I suggest that tracing these processes through the twentieth century shows a narrowing of the locus of the cause of addiction from society to self: as the external causes of addiction were brought into the mind they did not disappear but were suppressed, still present but not always acknowledged.

Despite arguments to the contrary, psychoanalysis is not dead. Louis Menand, in his article “Why Freud Survives,” argued that the image of Freud in the popular imagination was transformed from scientist to “poet of the mind.” Poets, unlike scientists, cannot be refuted: “Freud and his concepts, now converted into metaphors,” thus “joined the legion of the undead.” Two months prior, the same magazine featured a story on the opioid crisis by Margaret Talbot titled “The Addicts Next Door.” In the article, Talbot quoted a professor who studies addiction explaining why opioids are the “ultimate escape drugs”: “Boredom and a sense of uselessness and

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inadequacy—these are human failings that lead you to just want to withdraw. On heroin, you curl up in a corner and blank out the world. It’s an extremely seductive drug for dead-end towns, because it makes the world’s problems go away.”13 Here, in the pages of the same magazine drawn from the same summer, Freud and the opioid crisis sit side by side. In order to fully understand the impact of how we speak about the current opioid crisis—what that professor means, for instance, when she says that heroin is “seductive” or that it “makes the world’s problems go away”—we must explore the history of these metaphors, this science.

In his first paper on addiction, Rado divided the psychic effects of intoxicants into two groups: “pleasure derived” and “help rendered.”14 This division will also serve as the organizational structure of this paper. While Rado attempted to describe the full-body pleasure induced by drugs, addiction researchers instead favor James Olds’ stimulation experiments, which localized pleasure in the brain of a laboratory rat. And while Rado argued that a key aspect of addiction was an attempt to shield the self from the damages of reality, the now-popular “self-medication hypothesis,” advanced by Edward Khantzian, introduced this idea of drugs as relieving suffering as something new. This is, I believe, due to an understanding of “pleasure” as standing in for the disparaged elements of psychoanalysis. Rejecting “pleasure,” whether by searching in the brain for a locus of “positive reinforcement” or casting older theories as overly emphasizing the role of euphoria, was a way of rejecting the disputed aspects of the discipline of psychoanalysis while reworking its ideas. Rado was a major influence on these themes of self-help and pleasure; however, his contributions became gaps filled by other researchers both inside and outside of psychoanalysis.

II. “Pleasure derived”: The Pharmacotoxic Orgasm and the Pleasure Center

Let us back up and start with some key terms. Psychoanalysis, a school of psychiatric thought most commonly associated with the work of Sigmund Freud, has changed dramatically since its first iterations in the years around 1900.¹⁵ It is, at its core, a theory of mind.¹⁶ “We assume that mental life,” Freud wrote, “is the function of an apparatus to which we ascribe the characteristics of being extended in space and of being made up of several pieces—which we imagine, therefore, as being like a telescope or microscope or something of the sort.” The three parts of this apparatus are the id, the ego, and the superego. The id is the most basic, comprising our instincts. The ego, which serves as the intermediary between the id and the real world, controls self-preservation in the face of reality. The superego, the result of parental influence, attempts to limit the impact of satisfaction on behavior.¹⁷ The libido is an instinct that seeks to establish and preserve unities. It is in opposition to the destructive instinct, which seeks to undo and destroy such unities.¹⁸ Psychoanalysis also argues that the mind has conscious and unconscious portions. Suppressed processes, while outside the understanding of other sciences and outside the immediate awareness of individuals, are still present in the mind. It is the job of psychoanalysis to bring them to the surface.¹⁹

Before psychoanalysis, the dominant frameworks of understanding addiction were based on the principles of degeneration and neurasthenia. These ideas arose around 1870 with the inebriety movement, which transformed the perception of addiction from being a vice to being a disease with an underlying mental causation. Degeneration was a theory suggesting that a precipitating factor could cause a successive deviation in physical and mental constitution over

¹⁷ Ibid., 28–30.
¹⁸ Ibid., 31–32.
¹⁹ Ibid., 38–41.
generations through an interplay of hereditary and environment. This Lamarckian-influenced idea suggested that vice could be passed on, where it would be compounded over time. Neurasthenia, a nervous weakness, was likewise inherited, but it was caused by “modern civilization.” Those with weak nerves were disposed to a variety of mental and physical illnesses. These two theories emphasized the relationship between environment and heredity. In this context, addiction was still a moral failing but one caused by predisposition, spreading blame out over all of society. Rapid changes in American life around the turn of the twentieth century were thus implicated in the individual behaviors of its citizens.

Early psychoanalytic theories of addiction focused on the ego and libido; while earlier studies had focused on the libido, Rado turned greater attention to the ego. In both cases, however, the focus was on pleasure. “The erotic nature” of the euphoria caused by morphia or the ecstasy caused by opium, Rado wrote, “is immediately obvious.” This connection had been identified as early as 1908 by Karl Abraham, a German psychoanalyst. No longer was society to blame. As Rado argued, psychoanalytic study of the problem of addiction “begins with the recognition of the fact that not the toxic agent, but the impulse to use it, makes an addict of a given individual.” This impulse was individual and based, according to Rado, on the “pharmacogenic pleasure-effect.” Psychiatrists, meanwhile, continued to debate whether the personalities of those addicted were normal or psychopathic.

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20 Courtwright, Dark Paradise, 123–25.
22 Neurasthenia was reintroduced by physician George Miller Beard in the late nineteenth century. On its causes, see George M. Beard, American Nervousness: Its Causes and Consequences, a Supplement to Nervous Exhaustion (Neurasthenia) (New York: G. P. Putnam’s Sons, 1881), vi.
23 Courtwright, Dark Paradise, 124–25.
27 Courtwright, Dark Paradise, 126.
Psychoanalysts in the early twentieth century focused their attention on pleasure to understand the behavior of those addicted to drugs. By the end of the century, however, pleasure would be located not in the ego or libido but in specific neural circuits. While psychoanalysis helped direct attention to the study of pleasure as a means of understanding addiction, the change from pleasure principle to pleasure center helped erase this influence from addiction researchers’ sense of history.

Sandor Rado and Metaerotism

Sandor Rado published three major publications on addiction. In the first paper, Rado laid out his framework for understanding the “morbid craving”: that of orgasm.\(^{28}\) “The distinctive characteristic of genital orgasm, which makes it rank high as a gratification *sui generis*, must be held to lie simply in the fact that the feeling of well-being succeeding on orgasm quickly loses its originally local character and…becomes diffused through the entire organism with the utmost intensity.” Rado noted that the euphoric state of intoxication follows this same process of diffusion.\(^{29}\)

Expanding on Freud’s analysis of the erotogenic oral zone, Rado argued that the “exciting process in oral erotism,” or in eating more generally, follows this same pattern, leading to an “alimentary orgasm.” For Rado, a “morbid craving” was an alimentary fixation. A drug provided a new form of alimentary orgasm, a “pharmacotoxic orgasm,” that “far surpasses [the alimentary orgasm] in pleasurable characteristics.” The discovery of these euphoric substances had “played a trick on biology,”\(^{30}\) a “short-circuiting” of the sexual apparatus Rado termed “metaerotism.”\(^{31}\) In short, Rado suggested that the pleasure derived from a drug was an intense form of orgasm that led a patient to abandon other means of gratification, whether in food or sex.

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28 According to Google’s Ngram Viewer, “morbid craving” was a nineteenth-century term that by this time was already declining in popularity. See https://books.google.com/ngrams.
30 Ibid., 408–12.
31 Ibid., 402–03.
As Rado continued to work on problems of addiction, his theory expanded into a narcissistic disorder he called “pharmacothymia,” or “the illness characterized by the craving for drugs.” Narcissism, whether a normal life-sustaining mechanism or a pathological overabundance of self-love, was used to further explicate the impulse to use a drug. This pharmacothymia has three steps. The first is “tense depression,” a specific reaction to frustration. The second is “pharmacogenic elation,” which relieves the depression and returns the ego to its infantile narcissistic or self-gratifying structure. However, the depression returns as the effects of the drug wear off and is in fact heightened by the contrast to the former high. This sets into motion a cycle of self-maintenance via the artificial means of the drug, during which an individual’s entire mode of life is recentered around a “pharmacothymic regime” that has no interest in reality. The pleasurable elation is a key element of the development of addiction: “The drug addictions are seen to be psychically determined, artificially induced illnesses; they can exist because drugs exist; and they are brought into being for psychic reasons.”

In a third paper, Rado developed his theory further, but pleasure remained central. Rado built his theory of addiction around the concept of pleasure—pleasure that not only provided its own specific kind of “orgasmic” gratification but that also relieved pain. This second result, and the pharmacothymic theory that surrounded it, will be explained in more detail below. Here it is enough to note the centrality of pleasure in Rado’s theoretical framework. This pleasure was

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32 Rado, “The Psychoanalysis of Pharmacothymia,” 3. Rado explained this term by pointing to the Greek root “farmakon,” which was used to mean both “magical substance” and “drug.” Combined with “thymos,” Greek for “state of mind,” the term “pharmacothymia” is a mental condition in which a person craves both a drug and a magical substance that will bring about elation. Rado believed this dual meaning aptly characterized the illness. See Rado, “The Psychoanalysis of Pharmacothymia,” 8.


35 Ibid., 2. As we shall see, however, the initial depression is essential.

sensual, overwhelming, and diffuse. It was, by its nature, difficult to pin down—this would help sow the seeds for its own undoing.

*James Olds and the Septal Area*

Three decades after Rado’s first paper on addiction was published, James Olds and Peter Milner located pleasure in the septal area of a rat’s brain. Following the principles of behaviorism and studies on electrical stimulation of the brain, Olds and Milner implanted electrodes attached to a lever in a Skinner box into the brains of rats. When the rats pushed the lever, they received a shock. Olds and Milner placed the electrodes in various regions of the brain, trained the rats in the apparatus, and then tallied the number of times the rats pushed the lever.

While the rat’s behavior was mentioned briefly, the bulk of the attention was trained on the rat’s brain. “After testing, the animal was sacrificed. Its brain was frozen, sectioned, stained, and examined microscopically to determine which structure of the brain had been stimulated.” In this manner, Olds and Milner could literally look inside the rat’s brain. And what did they find? The highest scores, meaning the highest rates of positive reinforcement, were grouped in the septal area, located beneath the corpus callosum and between the two lateral ventricles—that is, at the midline of the brain buried beneath the frontal cortex. “Thus the electrical stimulus in the septal area has an effect which is apparently equivalent to that of a conventional primary reward.” Moreover, the results indicated the a system of structures that “may provide the locus for the reward phenomenon.”

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37 For more on this discovery, see Otniel D. Dror, “Cold War ‘Super-Pleasure’: Insatiability, Self-Stimulation, and the Postwar Brain,” *OSIRIS* 31 (2016): 227–49.
40 Olds and Milner, “Positive Reinforcement Produced by Electrical Stimulation,” 421.
41 Ibid., 426.
Two years later, Olds published an article in *Scientific American* titled “Pleasure Centers in the Brain.” Its subtitle read, “Rats can be made to gratify the drives of hunger, thirst and sex by self-stimulation of their brains with electricity. It appears that motivation, like sensation, has local centers in the brain.” Whereas the previous article couched the discovery in reserved language, here Olds became bombastic: “Up to three years ago the notion that the emotions had specific seats in the brain might have been dismissed as naive—akin perhaps to medieval anatomy or phrenology. But recent research has brought a surprising turn of affairs. The brain does seem to have definite loci of pleasure and pain.” In addition to this sensational language, I want to emphasize the intense adjectival emphasis on precision—these sites were “local,” “specific,” and “definite.” In the laboratory, pleasure was found.

The behavior of Olds’ rats reads strikingly like psychoanalytic and popular depictions of addiction. After their discovery of the “reinforcing structures” inside the brain, Olds went on to subdivide this locus. “We have looked to see whether some parts of the ‘reward system’ of the brain are specialized; that is, there may be one part for the hunger drive, another for the sex drive, etc.” Olds’ focus on hunger led him to observe many behaviors reminiscent of those observed by Rado. “Hungry rats ran faster to reach an electric stimulator than they did to reach food. Indeed, a hungry animal often ignored available food in favor of the pleasure of stimulating itself electrically.” Compare that with Rado’s conclusion after labeling the effect of drugs a new form of alimentary orgasm: “We understand first of all from the psychological side why most morbid cravings are accompanied by great emaciation and by the neglect of the function of nutrition.”

Rado even referred to the action of injected morphine as a “short circuit” of the normal sexual

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43 Ibid., 116.
44 Ibid. 114–16.
The images Olds provided of rats pressing the lever over two thousand times per hour for twenty-four straight hours cannot help but bring to mind the single-minded determination of addiction.

In a biographical memoir written about Olds after his death, the connection between this discovery and addiction is made explicit at the start. “Many of us feel that his discovery of the ‘reward’ system in the brain is the most important single discovery yet made in the field concerned with brain substrates of behavior. In retrospect, this discovery led to a much-increased understanding of the brain bases and mechanisms of substance abuse and addiction.” This quote is telling. The biographer, Richard F. Thompson, was a behavioral neuroscientist. The use of “us” paints Olds as a potential “father” of modern addiction and neuroscience research. It also indicates that, at the time of the discovery, Olds was not invoked in discussions of addiction. As Nancy Campbell noted, Olds’ studies were resurrected by addiction researchers in the late 1960s. Finally, Thompson was clear to specify Olds’ importance in understanding the “brain bases and mechanisms” of addiction. Olds studied brains, not minds.

There is No Pleasure without Pain: Historical Legacies and Erasures

Rado and Olds both attempted to locate pleasure to understand the repetition of certain behaviors. Nancy Campbell, however, noted that today addiction researchers credit behaviorism and James Olds as their intellectual forefathers, not Freud or Rado. In Addiction Psychiatry: Current Diagnosis and Treatment, Norman Miller wrote in his “Brief History of Addiction Psychiatry” that “The ‘biological basis’ has replaced the ‘psychological explanation’ for addictive

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46 Ibid., 402.
48 Campbell, Discovering Addiction, 241n12.
49 Ibid.
use of alcohol and drugs.” While both Rado and Olds studied pleasure, the influence of the latter has subsumed that of the former.

This was certainly due in part to the active repression of psychoanalysis. In introducing the turn to animal models in addiction research, Campbell argued that, “Lacking a common language for thinking about desire for drugs, pharmacologists designed laboratory logics that enabled them to study desire without turning to the contested vocabulary of psychoanalysis.” For Campbell, the repression of psychoanalytic theories was essential to understanding the turn to animal studies and the construction of “scientific” addiction research.

Broader changes in models of mind during the twentieth century also led to a shift in the ways in which addiction was theorized. In his analysis of computers and the Cold War, Paul N. Edwards identified the rise of a “cyborg discourse,” a change in theories of brain function that were co-constructed with new computer research, that included the shift toward cognitive psychology and cybernetics. The previous hydraulic model, employed by men such as Freud and Rado, envisioned the brain as a series of pipes through which pressure was released. Behaviorism was a mechanistic theory, but one based on machines and not on the new information processors. As the advanced technology of World War II brought humans and machines closer together, the mind began to be theorized as a computer where internal processes played a key role. Psychoanalysis, and later behaviorism, were left behind. Today, this process

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52 Ibid., 28.
54 Part of the reason for Rado’s failure in trying to create a new model of psychoanalysis was, in part, due to his replacement of Freud’s model with an “equally mechanistic, hydraulic theoretical apparatus.” See Nathan M. Kravis, “Heresy: Sandor Rado and the Psychoanalytic Movement,” *International Journal of Psycho-Analysis* 78 (1997): 197. This new model of psychoanalysis will be discussed in depth below.
continues. Studies of DNA, also called the genetic code, have increasingly been factored in to theories of addiction.56

Olds’ work, unlike Rado’s theories, also provided hope for treatment. Psychoanalytic treatment of addiction was known to be extremely difficult. Speaking to the International Psychoanalytic Association in 1959, Herbert Rosenfeld suggested that addiction was intractable because “the analyst has not only to deal with a psychologically determined state but is confronted with the combination of a mental state and the intoxication and confusion caused by drugs.” This, he argued, explained the lack of papers on addiction during the 1940s and 1950s.57

 Meanwhile, Olds’ work was quickly connected to possible advances in the treatment of mental illness. In 1956, Olds and his collaborators published a paper in *Science* in which this technique of self-stimulation was tested as a method of screening different tranquilizing drugs.58 Using electrodes implanted in different parts of the brain, the specific action of a drug could be ascertained.59 The next year, an article in the *Science News-Letter*, distributed by the non-profit group Society for Science & the Public,60 heralded the discovery as a “possible key to some


57 Herbert A. Rosenfeld, “On Drug Addiction,” *International Journal of Psycho-Analysis* 41 (1960): 467. It is interesting, however, to speculate as to whether behaviorist research also took attention away from psychoanalysis in this period. Rado second and third papers appeared in 1933 and 1957, respectively. The third was published the year after Olds’ discovery, which it cited as “confirmation” of the theory of narcotic bondage. Rado, “Narcotic Bondage,” 168.


varieties of mental illness.” Olds published more such studies the following year, stating, “It seems that certain behavior disorders might be benefited if ‘reward’ or ‘pleasure’ systems of the brain could be selectively controlled by use of pharmacological agent.”

Beyond repression, changing models of mind, and possible treatment, however, the ways in which the two researchers discussed pleasure might also help explain the uptake of Olds over Rado. Rado’s articles foreground pleasure. As we have seen, “pleasure derived” was one of the two psychic effects of intoxicating drugs. As we will see shortly, the other effect of intoxicants was also intimately tied to pleasure. The first article published by Olds, however, was titled “Positive Reinforcement Produced by Electrical Stimulation of Septal Area and Other Regions of Rat Brain”; the word “pleasure” does not appear once in the body of the article. Instead, Olds couched the discovery in the language of behaviorism, substituting for pleasure words such as “reward” and “positive reinforcement.” An abstract of his work published the next year in Science likewise lacked the word “pleasure,” as did the study on using stimulation to test the effects of tranquilizing drugs, published in Science in August of 1956. Only with the publication of the article in Scientific American titled “Pleasure Centers in the Brain”—which hit newsstands just two months later, in October of 1956—did Olds dispense with the “scientific” behaviorist language for a lexicon of pleasure. Here Olds also explicitly referenced sex.

This, I believe, is not a coincidence. One might argue that Scientific American, as a popular science magazine, must have had a looser language convention than scientific journals such as Science or the Journal of Comparative and Physiological Psychology. Even if this were the

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61 “Mental Illness Key May Be in ‘Reward Centers,’” The Science News-Letter 71, no. 6 (February 9, 1957): 83.
63 Olds and Milner, “Positive Reinforcement Produced by Electrical Stimulation.”
65 Olds, Killam, and Bach-y-Rita, “Self-Stimulation of the Brain Used as a Screening Method for Tranquilizing Drugs.”
66 Olds, “Pleasure Centers in the Brain.”
case, the embracing of “pleasure” in this more public-facing forum and its complete disavowal in scientific literature would indicate a strong aversion to its connotations within the scientific community. However, the paper published by Olds in *Science* in 1958 uses “pleasure” twice—once, for instance, in the quote above on “reward” or “pleasure” systems, which indicates that pleasure had become an acceptable synonym for reward.67

I argue that Olds, whether consciously or unconsciously, avoided the language of “pleasure” in his early studies on electrical stimulation as part of a broader critique of psychoanalysis. Sexuality was central to Freud’s elaboration of psychoanalysis. This emphasis—or, as some argued, an overemphasis—on sex was also the site of much of criticism.68 We can see psychoanalysis stripping itself of the language of pleasure around this time. Ronald Fairbairn, for instance, explicitly replaced the term “pleasure-seeking” with “object-seeking” in the 1940s.69 Only after Olds’ study, method, and conclusions were accepted, and as they spread into the popular consciousness, could he adopt the language of the “pleasure center.” The “pleasure center” thus seemingly arose as separate from earlier investigations into the role of pleasure in addiction and was more palatable than Rado’s theory of orgasm. And while scientists, including Olds himself, still criticized this language, it caught on and followed him throughout his life and beyond.70

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70 In 1980, psychologist Roy Wise used recent findings on dopamine receptors to rehabilitate the “pleasure center” label. Wise also credited Olds with the term “pleasure center” and cited the *Scientific American* article as its origination. This paper—which described pathways in the brain that translated sensory inputs into “hedonic messages we experience as pleasure, euphoria, or ‘yummyness’”—is itself an example of Olds invoked as a historical forefather. As we will see, “hedonic messages” would become the center of Rado’s theory of drug addiction. Roy A. Wise, “The dopamine synapse and the notions of ‘pleasure centers’ in the brain,” *Trends in Neurosciences* 3, no. 4 (April 1980): 91–95. Olds’ obituary in *The New York Times* included the word “pleasure” in the headline, and his biographical memoir for the National Academy of Sciences, quoted above, included “pleasure” in the second line. Interestingly, both place the word in
III. “Help rendered”: Psychoanalytic (Mal)Adaptation

We have shown that, as the role of pleasure was researched by different disciplines, the language of science was used to legitimize the field of addiction research. This process, however, did not just occur in interdisciplinary contests. By comparing Rado’s theory to recent work on a hypothesis of self-medication within psychoanalysis, it will be argued that ridding the field of “pleasure” was a method by which psychoanalysts could also rhetorically demonstrate “progress” while adopting earlier theories.

Rado, like Freud before him, explicitly attempted to make his theories “scientific.” However, Rado did so not by rejecting pleasure but by embracing it. This led, in part, to the rejection of his attempted refinement of psychoanalytic theory.

*Sandor Rado’s “Protective Shield”*

The other function of drugs, according to Rado, was that they provided help to those in distress. This help took one of two forms: the drugs could have an analgesic effect or a stimulating effect. Analgesics provided the body with a protective inner shield against the stimuli of pain. Rado also postulated that this artificial shield, in limiting incessant internal stimuli, could explain the hypnotic and sedating effects of this class of drugs as well. Stimulants, Rado argued, acted via an “alternation of stimulating and paralysing influences.” These drugs produce positive tensions while dampening negative tensions, allowing the mind to draw on resources normally unavailable due to the limits of the conscience.\(^\text{71}\)

In a later paper, Rado refined his thinking from a “psycho-analytic theory of morbid cravings” to a theory of “narcotic bondage” based on “adaptational psychodynamics.” In this

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system, dependence was defined as “a malignant form of miscarried repair artificially induced by the patient himself.” This “malignant form” was the result of a failure in the normal processes of development. In most cases, a child learns that his early belief in omnipotence is invalid. This “tested self” then acquires a more “realistic” form of self-government. If this transition is impeded, attempts will be made to strengthen this “tested self” using elements of the earlier omnipotent self, resulting in regression and a collapse of realistic expectations about the world. In other words, most children learn that there are limits to their understanding of and control over the world around them. For those who, by virtue of neglect or bad luck, do not go through this process, the only recourse is returning again to these fantasies, inhibiting any further development.

This later theory is almost identical to Rado’s earlier work—the main difference, however, is the language and framework of adaptational psychodynamics. Rado used his theories of addiction to argue for a more experimental or “scientific” psychoanalysis. In contrast to his early stance, Rado went on to critique Freud’s influence on the field and to incorporate biochemical understandings into his work. Adaptational psychodynamics viewed the organism as “a biological system operating under hedonic control.” Rado’s theory of the addictive quality of drugs was translated into a biological framework: drugs were addictive, he argued, because of their biochemical effects. Drugs act as a “short-cut” to ordinary methods of self-regulation.

As part of the evidence marshalled for this adaptational psychodynamic view of addiction, Rado cited the recent research on the brain’s pleasure center. Olds’ study, Rado argued, “unexpectedly confirm[ed] our own hedonic theory.” As we saw above, however, this directionality was not widely adopted—it is not Rado’s theory later researchers point to, but Olds’ brain loci.

72 Rado, “Narcotic Bondage,” 165.
73 Campbell, Discovering Addiction, 22–23.
75 Ibid., 168.
Although moving with the general tide away from Freud, Rado’s adaptational psychodynamics was derided. In a scathing review of Rado’s collected papers, Edward Glover excoriated Rado’s conceptual scheme, questioning how it was “new” and its use of terms such as “behavior” and “psychoanalysis.” Part of this review is worth quoting in full:

Apparently fascinated by the attempts of neurologists to explain cerebral functions with the help of a special set of analogies, metaphorical expressions, terms, concepts, and working hypotheses; equally apparently fired with the ambition to create a new psychobiological functional science of behavior the terms of which will be, as far as he can make them, congruent with those of neurology or for that matter biochemistry or any other branch of biology, he has entered the field of freudian metapsychology armed with the latest psychobiological model of Occam’s safety razor. With this instrument he scythes down lustily the basic concepts and many of the central tenets of psychoanalysis.  

Rado’s theory, Glover concluded, was not new and, while strikingly similar to psychoanalysis, had challenged or buried so many of its theories that it ceased to be connected to the field at all.  

Later thinkers attributed the rejection of Rado’s theories to his personality and, like Glover, to his rejection of psychoanalysis. As a reviewer of the published volume on Rado wrote, “In the end no one survives Rado's grim crusade for ‘science’ in psychoanalysis. The field is strewn with corpses and Rado is left standing quite alone.” The reviewer goes on to note that the “scientific” basis of this theory was also not stable.  

I suggest that there is another reason for the rejection of Rado’s theories and framework. Note in the review quoted above that Glover viewed Rado as hostile to psychoanalysis. I do not think it is an accident that Glover described this shredding of psychoanalytic doctrine as “lustful.” Rado was defined by desire—the desire to create a new branch of psychoanalysis, the desire to learn from biological studies about the brain, and, perhaps most important, by desire itself. Adaptational psychodynamics was based squarely on a notion of hedonic control, a pursuit of

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77 Ibid., 257–58.
pleasure and an avoidance of pain.\textsuperscript{79} Rado replaced Freud’s theories with ideas that were tied just as inextricably to both hydraulic models of the mind and to pleasure. To talk about Rado’s theories was to talk about pleasure, especially as his most-cited works, the first article on addiction and an article on melancholia published two years later, both rely heavily on the concept of the “alimentary orgasm.”\textsuperscript{80} This quest on behalf of desire, perhaps ironically, ended up causing Rado a lot of pain; by fervently attacking psychoanalysis and attempting to impose his own system, Rado “committed intellectual suicide in stubbornly and grandiosely casting them in the terms of his self-contained idiolect.”\textsuperscript{81}

While Rado’s theories on drug addiction highlighted the help they provided, the framing of this help—as the removal of pain through the tool of pleasure—overshadowed this innovation. Rado was “effectively written out of psychoanalytic history,” even as his theories were rewritten.\textsuperscript{82}

Edward Khantzian’s “Human Process”

In 1999, Edward Khantzian collected thirty-six of his previously published papers into a monograph titled \textit{Treating Addiction as a Human Process}. In the book’s introduction, Khantzian traced his own history. His “psychodynamic perspective,” he wrote, “takes into account that the mind and the person form a complex system in which there are psychological structures and functions that organize or regulate our internal life…and our adaptation to external reality.” He briefly identified the influence of Freud but concentrated instead on the source of his inspiration: his patients.\textsuperscript{83}

\textsuperscript{79} Rado, “Narcotic Bondage,” 167.
\textsuperscript{81} Kravis, “Heresy,” 197.
\textsuperscript{82} Roazen and Swerdloff, \textit{Heresy}, vii.
Through his observations, Khantzian hypothesized that addiction was not self-destructive but a form of self-care. The apparent disregard for well-being was a “reflexion [sic] of defects in self-care functions as a result of failures to adopt and internalize these functions from the caring parents in early and subsequent phases of development.” Part of this impaired self-care was realized in a lack of perception of danger that could be observed in other areas of the patient’s life.\(^{84}\) The second part of Khantzian’s “self-medication hypothesis” stated that people choose drugs based on the feelings with which they struggle; from his observation of patients, Khantzian argued that a “self-selection” process leads an individual to a particular drug. Opiates, for instance, were sought out by overly aggressive patients as a way to moderate their rage.\(^{85}\)

As Khantzian noted, the second part of his hypothesis was a reformulation of an earlier concept by Herbert Wieder and Eugene Kaplan: the “drug-of-choice phenomena.” Explicitly following Rado’s declaration that addiction “begins with the recognition of the fact that not the toxic agent, but the impulse to use it, makes an addict,” Wieder and Kaplan had studied adolescents addicted to a variety of drugs. They argued that the choice of drug was the driving force behind drug use, where the substance became a “corrective” or “prosthesis” to correct for abnormal development. Wieder and Kaplan noted that the subjective state desired by those addicted to drugs was not euphoria, but an intoxication that leads to a “chemically reduced regressive ego state” that differs based on the drug. A patient wished to return to a specific phase of childhood development to solve a conflict that occurred there, affecting the choice of drug. For example, LSD fulfills the fantasies of unity and reunion, while opiates fulfill the fantasies of omnipotence and self-sufficiency.\(^{86}\)


What Khantzian did not note, however, was that the first portion of his hypothesis was also based on previous work—including that of Rado. I do not wish to argue that Khantzian does not deserve recognition for his hypothesis, which brought together older scholarship in combination with an enduring sympathy for his patients. Certainly, the praise of Khantzian’s hypothesis by other psychiatrists deserves to be taken at face value.\textsuperscript{87} However, attending to the ways Rado and Khantzian situate their self-help observations is instructive.

Rado tied his theory directly to Freud. In describing the analgesic effects of certain drugs, Rado began by outlining Freud’s theory of pain.\textsuperscript{88} Elaborating on this point in a later article, Rado argued that drugs can be used by someone in distress to “influence his emotional life.”\textsuperscript{89} Khantzian, however, cites Rado and Freud as two of his three examples of theorists who “until recently” had “stressed the pleasurable effects of drug use to explain the compelling nature of addiction.”\textsuperscript{90}

While Rado did subsume his two effects of drugs, the prevention of pain and the giving of pleasure, into one entity called the “pharmacogenic pleasure-effect,” it is clear that pleasure is not the only driving force. As previously mentioned, Rado’s cycle of addiction had multiple components: one, the “tense depression”; two, the relief of this pain by the drug; and three, the

\textsuperscript{87} For instance, the sixth chapter the 2012 textbook \textit{Perspectives on Addiction} begins as follows: “During the 1970s and 1980s, Dr. Ed Khantzian did much to humanize addiction. His 1999 classic, \textit{Treating Addiction as a Human Process}, gave the field its heart, and this chapter is the heart of this book.” Margaret Fetting, “Self-Medication, Psychoanalytic, and Psychodynamic Theories,” in \textit{Perspectives on Addiction: An Integrative Treatment Model with Clinical Case Studies} (Thousand Oaks, Calif.: SAGE Publications, Inc., 2012), 93–110.

\textsuperscript{88} Here Rado cites Freud’s \textit{Beyond the Pleasure Principle}. As explained by Rado, Freud theorized bodily pain as a breakdown of an internal shield that normally keeps stimuli from the from reaching the brain. This pain, even though it comes from outside the body, is perceived as a continuous stream of internal signals and is interpreted as coming from inside the body. As such, it is not susceptible to other defenses the body has from pain, those that are the second line of defense against external pain. In a physical sense, then, analgesic drugs remove the sensation of pain by creating an artificial shield inside the body to stop these sensations. Now, if one thinks about the concept of projection (applying interior feelings to external objects) as a way to deal with psychic pain as if it were external, then the mind naturally uses its regular defenses (those overridden above) to treat mental distress. In this way, analgesics strengthen the defense mechanisms of the body and the mind. Rado, “The Psychic Effects of Intoxicants,” 397–98.

\textsuperscript{89} Rado, “The Psychoanalysis of Pharmacothymia,” 4.

\textsuperscript{90} Khantzian, “The Ego, the Self and Opiate Addiction,” 189.
return of depression. While pleasure drives the cycle, as the drug both relieves pain and provides elation, the pleasure alone would not subject a person to addiction. The tense depression, an abnormal response to life’s frustrations that is both painful and expresses a marked intolerance for pain, “sensitizes” the patient for the next step and an addiction. This response is an aberration in an individual’s self-regard resulting from bad luck or adversity.91

Khantzian acknowledged that Rado “appreciated underlying factors of depression, tension and anxiety,” but argued that he placed “particular emphasis” on the “euphoric-pleasurable aspects of drug use.”92 “Pleasure”—as a metonym for the “pleasure principle” and, more broadly, for the derided overemphasis on sex in psychoanalysis—is here used as a straw man to refute the practice wholesale while still borrowing from its theories. In this way, Khantzian, who also labeled himself within the psychodynamic field, could distance himself from Rado and his outmoded ideas about the role of pleasure in addiction.

Other practitioners also enacted this refutation. In a paper about depression and smoking, in which he evaluated and critiqued the self-medication hypothesis, Dr. Richard Glass wrote, “The notion of ‘self-medication’ is one of the most intuitively appealing theories about drug abuse. According to this hypothesis, drug abuse begins as a partially successful attempt to assuage painful feelings. This does not mean seeking ‘pleasure’ from the use of drugs. Rather, individuals predisposed by biological or psychological vulnerabilities find that drug effects corresponding to their particular problems are powerfully reinforcing.”93 Note not only the specific rejection of “pleasure” as an explanatory framework for addiction but also the behaviorist language that closes the quote.

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92 Khantzian, “The Ego, the Self and Opiate Addiction,” 189.
Psychoanalytic language, however, remained. In an article published in *The New York Times*, and referenced by Glass as an example of the “considerable support” behind the self-medication hypothesis, Khantzian and Rado were placed almost side by side. Immediately following a section on Dr. Khantzian’s work is a quote from an advertising executive who became addicted to crack cocaine: The first hit, he said, “was like an orgasm.” The article, however, was a report on recent advances in the biological approach to understanding and treating addiction; the psychiatrist who treated the executive explained his addiction in terms of dopamine levels. Here Khantzian’s work was understood as a complement to advances in the study of possible biological and genetic bases of addiction. This article also indicates the messiness and slippage across the neat disciplinary boundaries drawn so far in this paper.

While this rhetorical rejection of “pleasure” is perhaps most starkly indicated by the response to Rado’s first portion of the pharmacogenic pleasure-effect, pleasure itself, showing that the other half of this effect was rejected in part by subsuming it under euphoria illustrates the ways in which psychoanalytic thought was rewritten even by those who claimed to follow in Freud’s footsteps.

**IV. Conclusion: The Suppression of Psychoanalysis**

In *Discovering Addiction*, Nancy Campbell wrote, “Today, the powerful drive to repeat seemingly irrational acts is couched in the *unassailably naturalized* neurobiological and behavioral vocabularies of putative ‘pleasure genes’—not in terms of Freud’s pleasure principle. Drug users now enjoy endorphin rushes, which require no recourse to the concept of libido. Operant

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conditioning explains repetition but not, perhaps, compulsion.”96 I emphasize pieces of this statement to highlight the dangers of severing the ties between current research and historical theories. This language negates any possible influence from psychoanalysis, even though the text immediately following, quoted in the introduction, lists common structures of belief between psychoanalysis and current addiction research. Furthermore, these statements explicitly paint psychoanalysis as “protoscientific” and “false” in contrast to neuroscience, a “truthful” and “natural” science. Rado certainly believed his theories, and the chronic brain disease model, the current theory of addiction that “replaced” the psychological model, is anything but “unassailable,” as recent events illustrate.97

Read between the lines, however, this passage also provides important lessons. One, by linking the pleasure principle to new research on pleasure genes, we see, in fact, a strong continuity from psychoanalytic thinking to current research. Pleasure—no matter what noun, structure, or theory it is linked to—has been a key area of study for addiction researchers for the last century. Opioid use disorder is, to this day, termed a “disease of desire” (or, for some, a “biology of desire”).98 Instead of cutting the link between these theories, connecting them allows us to see how psychoanalytic thought helped open a channel of research that continues today. Second, we can see enacted here the reified primacy of Olds over Rado—Campbell ended the passage by arguing that operant conditioning explains repetition, placing Olds and his lineage alongside neurobiology as the current understanding of addiction. This pairing was made explicit at the beginning of the quoted passage, where “unassailably naturalized” modifies both

97 Siva Sundaram, “Brain Diseases in the Courtroom: Addiction and Insanity at the Intersection of Medicine and Criminal Justice,” this volume.
neurobiological and behavioral vocabularies. Third, we can observe in the language of “pleasure genes” and “endorphin rushes” a narrowing of cause for addiction to the level of molecules.

This third point merits further discussion. As we have observed, the cause of addiction has been localized over the century to the microscopic scale inside individual brains. Early theories of neurasthenia and degeneration, it may be recalled, emphasized the causal effect of society at large on an individual’s addiction. The source of addiction was internalized into the self from the environment through psychoanalysis, which posited that abnormal development was a major factor in developing an addiction. This self was still, however, in a network of relationships—namely, with the parents and the drug itself.

When Olds looked inside a rat’s brain and measured the points at which stimulation occurred, attention shifted to the brain. Olds’ work, unlike that of Rado, fit into a constricted locus of pleasure. This belief was shared by contemporary researchers. In 1970, The New York Times published a story about Jose Delgado, who studied electrical stimulation in cats and monkeys around the time Olds was doing his work on rats. “Pleasure is not in the skin being caressed or in a full stomach,” Delgado told the reporter. “It is somewhere inside the cranial vault.”99 Rado, whose theory started precisely from the observation that pleasure was derived from a full stomach, was almost explicitly left of out this lineage. Recent research on receptors and genes has shrunken the scope even further to a level invisible to the eye. Yalisove’s emphasis on a “widening scope” of psychoanalytic research on addiction thus does not fit into this teleological narrative that requires an increase in complexity and specificity to count as progress. As Campbell noted, however,

addiction research could not shake the moral implications that overlapped with these medical understandings and blurred their boundaries.\textsuperscript{100}

This process has far-reaching consequences. Addiction is complex, but this microscopic focus often neglects that which does not fall under its lens. For instance, the entry for opioid use disorder in the newest edition of the Diagnostic and Statistical Manual of Mental Disorders, published in 2013, states that risk for the disorder “can be related to individual, family, peer, and social environmental factors.” However, it goes on to specify that “within these domains, genetic factors play a particularly important role both directly and indirectly.”\textsuperscript{101} While Freud likened the mind’s structure to that of a telescope or a microscope, today only the latter comes to mind when one thinks about addiction research.

As is clear from the Yalisove volume, psychoanalytic work on addiction continues. This work acknowledges its own past and is often done in concert with other support services, including medication-assisted treatment. A more accurate term for today’s framework of addiction research might be, for instance, a “biopsychosocial approach.”\textsuperscript{102} However, simplified models have cultural purchase and affect the way the public sees those with substance use disorders. For instance, physicians have pushed for the rephrasing of addiction from “mental illness” to “brain disease”\textsuperscript{103} to fight stigma around addiction and, perhaps, to grant authority over its study to the “hard” sciences.

\textsuperscript{100} Campbell, Discovering Addiction, 221–23.
\textsuperscript{103} For more on the chronic brain disease model, especially the effects of language and responses to common criticisms of the model (some of which are repeated in the present paper), see Nora D. Volkow, “What Does It Mean When We Call Addiction a Brain Disorder?” Scientific American, March 23, 2018, https://blogs.scientificamerican.com/observations/what-does-it-mean-when-we-call-addiction-a-brain-disorder/.
Psychoanalysis lives on. Converted from science into metaphors, psychoanalysis has been suppressed, appearing in language most often as Freudian slips—such as the advertising executive’s description of his first use of crack cocaine as an “orgasm,” translated by his psychiatrist into levels of dopamine. Freud’s treatment for suppressed thoughts was the talking cure: By making the subconscious memory conscious, the patient can deal with the resulting emotions and be rid of the pathogenic effects. Here, in speaking about the psychoanalytic theories still present in current addiction research, the hope is to bring about an abreaction, a cathartic release of the still-current refutation of the legacies of psychoanalysis. This is not to further rid the field of its dependence on psychoanalysis, but to shed light on the influence of psychoanalysis and to fill in the gaps in our memory of the history of addiction research.

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