PSYCHOANALYSIS AS THE IDIOSYNCRATIC SCIENCE OF THE INDIVIDUAL SUBJECT

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The author examines the scientific status of psychoanalysis from a new angle. Two questions guide the inquiry: what a science is and what psychoanalysis is the science of. If it is supposed to be a global science of mind, where *mind* is shared by and generalizable over the population of human individuals, its status as science is vulnerable to challenge. The challenge can be circumvented by reconceptualizing psychoanalysis as a set of local theories (metatheoretically linked) applicable to idiosyncratic cases. Every patient is a new world, whose laws it is the task of the analyst to establish and apply.

In this article I want to take up the old question of the scientific status of psychoanalysis. The literature on this question is vast, and I do not intend to try to do justice to it. But having spent the better part of my professional life thinking about what science is and what kinds of science there are, I have come to some perhaps unorthodox conclusions on the topic, which provide a new line of defense against the criticisms of old enemies like Karl Popper and Adolf Grünbaum, and even perhaps against the helpful suggestions of new friends like Mark Solms.

It's hard to resist the cliché "With friends like these, who needs enemies?" because if psychoanalysis is a science at all, it is surely a science of mind, and Solms (2001) claims that because of internal disputes about method, it can no longer call itself this, offering instead what he calls *neuropsychoanalysis* as a way of restoring that honorific status. I think that Solms concedes too much and that if restoration is needed, there is another way of approaching it, much closer to the actual tradition of psychoanalysis but attending, as psychoanalytic theory (as distinct from psychoanalytic practice) too often does not, to the radically individual character of the psychoanalytic transaction—a transaction involving two individuals, to be sure, but directed primarily to the condition of just one of them.

What is psychoanalysis the science of? I make a distinction between the natural sciences and the human sciences in terms of their objects: on the one hand, things that

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would have been as they are whether or not human agents had been involved in their making, which I count as "natural," and on the other, things that are as they are only because human agents are or were involved in their making, which I count as "human." The latter include laws and theories, institutions, and works of art or literature, and so forth—and the human agents themselves as products of culture. Psychoanalysis, if a science at all, will be among the human sciences. The latter are methodologically sciences in a strict sense, but they deal for the most part with objects that, in contrast to the objects of the natural sciences, are backed by no realist hypothesis (their status is intentional or, as I put it, cointentional) and are interconnected by relations of implicature rather than causality. That implicative relations are sustained and even necessitated at some level by causal (neurological) ones that fall under the scope of the natural sciences may be assumed, but this assumption makes no difference in practice to the work of the human sciences, because of the order of magnitude of the gap that separates the one domain from the other. Freud (1895/1954) wildly underestimated this separation in the Project for a Scientific Psychology, and in spite of spectacular developments in neuroscience, it remains unbridged.

If psychoanalysis is supposed to be a science of mind, where mind is taken to be something shared by and generalizable over the population of human individuals, then its status as science is vulnerable to the well-known challenges of Popper (1963) and Grünbaum (1993). A possible way of circumventing these challenges, however, is to drop the generalizability claim and reconceptualize psychoanalysis not as a global theory to which particular cases are relevant but as a set of local theories applicable seriatim to particular-and idiosyncratic-cases. Each of these will be a science whose explanatory relations are internal to the account of the particular case, following the principle that science is "the explanation of nature in its own terms": The explanandum will be the symptom that brought the patient into analysis in the first place, the explanans will draw its material mainly from the unconscious. That the unconscious exists, and that it yields evidence of its workings reluctantly, as it were, in dream fragments, parapraxes, and the like, may be taken as second-order or metascientific psychoanalytic propositions, but just how these workings determine the symptomatology in a particular case may differ radically from patient to patient and will be conditioned by cultural, linguistic, and interpersonal factors whose profile may be-in fact, almost certainly will be-unique in each case.

Every new patient, in other words, is a new world, whose laws it is the task of the analyst to establish and apply. No generalization from one case to another can be assumed a priori (this assumption is, in my view, the great weakness of *The Interpretation of Dreams*). No doubt clinical experience will give indications of possible strategies, but in exploring them the analyst will be working as a philosopher of science rather than as an experimental scientist. His or her scientific work, properly speaking, will build from the ground up—one reason analysis is a lengthy and at first tentative process—and will be testable in the end only against the evidence in the particular case. There is no reason, however, that the testing should not be as rigorous here as in any other science. I develop these thoughts further below.

The psychoanalytic transaction is essentially personal. Louis Althusser is right, I think, when he says,

You have to have passed that way, you have to have done it live, because it's a matter of an absolutely irreducible concrete experience. You can't understand from the outside what you have to have lived through in order to know what it's about. (Althusser, 1996, p. 29)

Althusser, as a good Marxist, had to be suspicious of the individual: "So I'll tell you my story," he says, "—not a personal one in an individual sense but personal in the intellectual sense of the term" (Althusser, 1996, p. 21). I, on the contrary, happily unconstrained by such ideological considerations, insist not only on the individual but also on the *radically idiosyncratic* status of the individual. Psychoanalysis from this perspective is not *one* science of *the* mind, but *many* sciences, each of *a* mind.

I don't know who invented the expression "physics envy," but it is beautifully apt. It is what the soft sciences are supposed to have for the hard ones—the feminine, if you like, for the masculine. "Supposed to have": Just as the number of women who actually want penises is probably smaller than Freud thought, so not that many social scientists (or as I prefer to say, human scientists) want, these days, to imitate the methods and formalisms of physics.

The question of whether anything can be a science if it doesn't imitate the methods and formalisms of physics tends to be answered stipulatively in the negative by philosophers of physics, but they can't easily deny the status of science to biology and medicine, for example, whose methods and formalisms are more complicated and somewhat softer. In fact, the term *science* has had historically a far wider range of usage than hard philosophers of science want to allow. As one who found his way into this arena through physics itself and its philosophy, I think I understand both sides of this argument, but I have to say that our scientific understanding of the world would be impoverished if we insisted on the kind of formal rigor that physics is supposed to exhibit. Another "supposed": Physics is the very paradigm of an exact science, but much of the understanding of the world that physicists rely on is far from exact. The assumption is that it could in principle be made so, but this challenge is often not taken up—and not at all to the detriment of physical understanding.

Let me insert here an autobiographical note, which can be interpreted freely as determinative of my present attitudes to science. Thanks to the peculiarities of the British university system and to an inopportune bout of appendicitis that had prevented me from taking some crucial examinations, I came up to my finals for the honors degree in physics with nothing in hand except ancillary mathematics. A failure in the finals, and 3 years' work would go up in smoke. The six 4-hour theoretical papers were all right, but they were followed by two 6-hour practicals. The first of these passed also without trauma, but in the second, the problem set was one that we all dreaded; it was not to perform any particular experiment but to do what we liked with the apparatus provided, using all of it and coming up with a relevant result. The trouble was that I couldn't think of anything to do with just the apparatus on my bench. Four hours or so into the six, sitting in despair while other candidates at other benches doing other problems busily fiddled and took notes, I began to see my university career dissolve before my eyes.

But my brain had obviously been working away at the unconscious level, because with about an hour to go I suddenly saw a possible configuration of the apparatus and a possible test that could be run with that configuration. The trouble then was that there wasn't time to do it. So I sat down and sketched out what I would have had to do if there had been time, and drew some curves to show in general how the variables might have been expected to come out if I had done it. And they passed me, with a pretty decent mark at that. The point of the story obviously is that the understanding I managed to convey to the examiners depended not at all on the exactitude or rigor of the discipline of physics; it depended on insight into a pattern of causal relations that I could plausibly think of as exhibited by the bit of the world I had to deal with at that moment. What is the bit of the world that the psychoanalyst has to deal with, and how plausible is it that he or she can do so with scientific understanding? It's tempting to equate the "bit of the world" in question with the patient and to suppose, first, that the patient's condition is a case of something more general, going by some diagnostic label, and, second, that observations of that condition across the population of patients aggregate into some generalization about human functioning. I think that gets things wrong in a quite important way, for psychiatric patients are a special kind of entity—they are human *subjects* and as such not "bits of the world" at all, not *objects*. What other medical specialties discover about parts of the body will in principle generalize across the class of patients; bodily parts and functions can be regarded, up to a point, as interchangeable. But the subject is not a separable part of the body, and subjects are not interchangeable—indeed there is no reason to suppose, a priori, that any one of them bears any close resemblance to any other.

I am not invoking here any notion of disembodied soul or anything of the sort. Subjects are robustly embodied, and there is no reason to think that their functioning is not undergirded by neurophysiology. That was the conviction with which Freud started out to write the *Project for a Scientific Psychology* (Freud, 1895/1954, p. 297 ff.), the text in which he laid claim to scientific status for the work on which he was about to embark. Like him, I begin from a thoroughly materialist standpoint. This is worth a brief detour, because materialism is much misunderstood. The term is so encrusted with unhappy connotations, having to do with greed and unbelief and repressive totalitarianism, that it would seem desirable to find an alternative designation for the position Freud originally took and that I still take. The trouble is that "materialism," once these encrustations have been pried away, expresses better than any other name I can think of the sense of insertion in and dependence on the physical world—the earth, food and water, the body, other bodies—that is the human condition and that we forget at the risk of worse misunderstandings.

Consider the origin of the term *mater*, the mother from whom we derive our substance; *matrix*, the womb from which we come and to which, if some psychoanalytic theory is to be believed, we wish impossibly to return; *materia*, the stuff of building, of houses and ships. Its Greek precursor, hyle, was defined by Aristotle with his customary elegance and precision: Matter, he says, is "that of which all things that are consist, the first from which they come to be, the last into which they are resolved" (Metaphysics 983b8). He means this in a grand cosmic sense, but it finds a homely echo in the funeral service, "dust to dust, ashes to ashes." As in that case, the concept is in no way reductive: We begin as dust and will end as dust, but that does not mean that everything in between has to be dust. Our dust can shape itself into forms of intelligence and beauty that, through cultural transmission, may transcend our individual deaths. There is no difficulty at all, it seems to me, in conceiving mind as emergent from matter. I may already have let the concept down by admitting the dust analogy: Aristotle doesn't equate his *hyle* with any of its humble forms; he doesn't give it sensory qualities at all: "that of which all things that are consist" whatever that is. I am reminded of a wise remark by the French biologist Jean Rostand: Asked whether he thought that mind came from matter he replied, "Of course—but I never pretended to know what matter was."

Here, then, we all materially are, with our bodies and particularly with our heads and their astonishing contents, the most complex natural systems in the universe as far as our present knowledge goes. If we are natural systems, why do we need human sciences? There are two related answers to this challenge. In one sense, everything, ourselves included, belongs to "nature"—we do not need supernatural assumptions in order to explain anything (or, put another way, when supernatural explanations are called in to

explain the otherwise inexplicable, they nearly always hinder true understanding). But in the first place, just as explaining the biological in purely physical terms becomes impossibly complex, so does explaining the human in biological or even neurophysiological terms. And in the second place the complexity that emerges once the brain (and especially the frontal cortex) starts to function has elements of a new kind, no longer physical but *intentional*, a term whose meaning will become clearer in what follows. Although I have no doubt that intentionality runs on a physical platform, it would be a mistake to think that the running of any software shares the physical status of the hardware on which it runs.

At all events each human head contains a hundred billion neurons, each dynamically connected to thousands of the others, performing what the computer people call floating operations at a prodigious speed. I was once present at a lecture by the Norwegian neurologist Svein Dahl when he showed a 4-minute film in which a simulated dopamine molecule, like a great floppy skeletal bat, docked at a postsynaptic receptor. After the film Dahl remarked that he wasn't sure whether what he had just shown was truth or fiction, but that he could attest to two facts about it: that in real time the episode would have lasted 80 picoseconds—that is, 80 trillionths of a second—and that it had taken him 2 hours on the central processing unit of a Cray supercomputer to work out its details. That billions of neurotransmitter molecules are zipping back and forth across synapses every billionth of a second in every human brain—in yours now, even as you read—offers some rough insight into the complexity of the operations on which thought depends. Some of these operations control the physical workings of the body, but by far the greater number control its psychological workings. I say the psychological workings of the body, rather than of the mind, quite deliberately, because again there seems to be no difficulty in conceiving of the mind as the psychological workings of the body, without in any way being committed to a mind-body identity theory. (Most people, we may say, "think with their heads," but musicians, painters, and sculptors think with their hands, dancers with their feet, and so on.) Some of these complexes of operations are smoothed over into conscious presentations, whether of states of mind or of the external world.

I will get to the states in a moment but want to stop briefly at the term *conscious*. It seems to have come as a revolutionary surprise to Freud's contemporaries that so much of their mental lives was taken by him to be unconscious, but in the light of the account just given it is consciousness that ought to be the surprise-of course we can't consciously follow the activity of all those neurotransmitters! It's simply out of the question. The best we can do is to make a 4-minute film out of 80 picoseconds' worth, or draw a diagram of a neuron and one or two of its thousands of synapses at a magnification of about a million. Now we have a conscious presentation of a *model* of a dopamine molecule or a neuron—but having that presentation involves billions of unconscious operations, understanding any one of which would take billions more, and so on. The smoothing-over is crucial: If we could, for example, follow the flux of light in this room as it actually varies, we would find everything flickering wildly, but our retinas and optic nerves are orders of magnitude too slow for that, and it all seems pretty peaceful on the surface. Something similar must be true of states of mind; if we could follow the surges actually involved in anger or joy, we would continually be on a rollercoaster ride beside which the conflicts and reversals and agitations we sometimes seem to experience would appear glacially slow.

No two central nervous systems, except in monozygotic twins or other multiples, are genetically identical, and the arborization of neural pathways that goes on in epigenetic development ensures that even in those cases the resulting structures are different. Add in sensory experience in its multiple registers, taking place continuously over the years of a lifetime at billions of hits per second and thus modifying with time the structure of the system (which in effect provides it with content, *instructs* it in the technical sense I give to instruction as the "structuring of the inner"), and it is clear that by the time the patient gets to the analyst's office, something of almost unimaginable complexity is in place. And that complexity is fully dynamic; it may in the case of a difficult patient be quite unstable, and an apparently trivial event or intervention may cause it to change direction suddenly or reduce it to chaos.

In view of all this there is something wonderfully naive in the six neurons of the *Project* that Freud (1895/1954) thought might form a sketch of an ego. Even he realized before long that the gulf between the neurons and the behavioral deficits of Viennese neurotics was too wide to be bridged, and we are nowhere near bridging it yet. Functional magnetic resonance imaging is exciting, to be sure, but the spatial and temporal resolving power that would be required to tease out what is going on in a mental episode of any complexity is still far out of reach. Even if we could manage that it would still not be clear what we were getting. Consider the results of the neuropsychoanalytic program offered by Mark Solms (2001). Neurobiology these days is almost as tough as physics, and the dream studies he cites certainly give striking results, as well as showing how prescient Freud was. However, I think that both Freud and the neurobiologists are in one important respect following a false trail. Freud suspected that dreams were the fulfillment of infantile wishes, the neurobiologists show that focal seizures produce repetitive nightmares, and so forth. But Freud couldn't say in advance what dreams and which wishes, and the neurologists don't know in advance the contents of the nightmares.

Without wanting to push the brain–computer comparison too far, let me propose the following analogy. Suppose I have a way of tracking activity in the circuits of computers and discover that in some states of the machines, there is a lot of activity in a particular region. It's a region where certain energetic exchanges occur. This is a hardware phenomenon. But suppose that when I look at the software that has been installed in different machines, it turns out that Machine A is using these circuits for word processing but Machine B is using them for playing card games—how am I going to generalize across the class of computers? Human individuals are not computers, but I want to maintain, in view of the complex pattern of instruction I just evoked, that they are potentially as different from one another as computers running totally different software.

It goes without saying that virtually all of the frantic activity of the central nervous system is unconscious—how could it be otherwise? Consciousness is a relatively slow affair, fast enough for perception, the detection of moving objects (the body and other things of comparable size) in the macroscopic space–time manifold, for thinking out strategies of pursuit or avoidance, for manipulation and speech, but lagging far behind the information-processing speed of the system. There *is* a science of intervention in this complex system, the science of psychopharmacology, whose strategy is to flood it with large molecules some of which may stimulate or inhibit various kinds of synaptic activity and produce gross changes in behavior or consciousness. The resources of this science are continually being refined through chemical ingenuity and clinical trials, and it is clearly one way to go, a good and generalizable medical way. But it doesn't get at the subject as such; it merely changes the subject's conditions of existence, for better or worse—terms whose very meanings are ambiguous under the circumstances.

Is it better, for example, for the subject to be relieved of psychic pain, at the cost of a lowering of general function, than to learn to cope with it and remain at a higher level? This is an old conundrum in moral philosophy—it is a version of John Stuart Mill's puzzle about whether it is better to be Socrates unhappy or a pig happy (actually that is a

conflation of two examples in Mill, but it makes the point more effective and memorable). Mill thought it was obviously better to be the unhappy Socrates, but there is no a priori answer to the question. Many therapists will write the prescription anyway. If they are conscientious, they will disclose the side effects of the medication, saying to Socrates, "Take this—it will turn you into a pig, but you'll be happy." But Socrates may wonder, though many patients won't, whether there isn't some other way to treat his unhappiness, some scientific way that will deal with him as he is, explain him to himself, not treat him as an object. Might there not be a science of the subject? That is in effect what psychoanalysis started out to be, though Freud didn't put it that way. He was still a scientist of the old school, dealing in general models, looking for generalizable structures. His science ran into the obvious difficulties of definition, replication, validation, and so forth, difficulties that have been pointed out again and again, and most notably by that most implacable foe of psychoanalysis as science, Adolf Grünbaum.

Grünbaum (1993) takes the straight philosophy-of-physics line and demolishes Freud with heavy artillery. Some years ago a lengthy abstract of his book *The Foundations of Psychoanalysis* was published in *The Behavioral and Brain Sciences* with commentary from a number of scholars. In my contribution (Caws, 1986) I suggested that perhaps psychoanalysis wasn't something built on a foundation by Freud, even though he thought it was—that it could best be thought of as a scaffolding that might enable other people to build something. If that view was right then—though I didn't put it quite like this at the time—it might be that everything Grünbaum said was completely brilliant and right, but that it was all also completely beside the point.

The crucial assumption on which Grünbaum was working can be well brought out by a consideration of his argument with Marshall Edelson about single-subject studies. Grünbaum is arguing against the view that psychoanalysis can be validated within the clinical setting—because there are no controls, because courses of treatment are long and have dubious outcomes, and so on. Edelson suggests that single-subject studies might be aggregated, each meeting some standard of internal validity. Grünbaum (1993) counters as follows:

Let us suppose, however, that the challenge of *internal* validity can be met by this design. In that event, there would still be the following question of *external* validity: How can the results from a single-subject investigation be warrantedly generalized to populations of other subjects? By way of reply, Edelson advocates "systematic replication of the single-subject study . . . with other subjects." And, as an elaboration, he offers pie in the sky: "With each replication, the subject . . . is [qualitatively] the same with the exception of one property or feature; properties of the subject . . . are considered then to be systematically varied" (p. 66). But it is *utterly chimerical* to predicate a research design on a situation in which two people differ *only* with respect to the property that the investigator *conjecturally* deems relevant to the outcome! (p. 242)

Notice here that Grünbaum doesn't object to Edelson's use of the term *property* but only to the relevance of the property to the outcome. But in the light of my discussion of the complexity of the subject, both of them seem hopelessly unrealistic here. Properties of objects are the stock in trade of the natural sciences, but is unhappiness a property of Socrates with respect to which he can be compared with other subjects? The whole idea of testing, comparing, measuring seems out of place in the therapeutic context.

Another well-known challenge to psychoanalysis as science comes from Karl Popper (1963) and again involves questions of testability, or more especially falsifiability. Popper insists that the boundary between science and pseudoscience is to be demarcated in terms

of the willingness of science to offer its conjectures to refutation, and he thinks that psychoanalysis cannot afford to do this—on the contrary that it regularly stacks its deck by building the outcome into the experiment:

'Clinical observations', like all other observations, are *interpretations in the light of theories;* and for this reason alone they are apt to seem to support those theories in the light of which they were interpreted. But real support can be obtained only from observations attempted as tests (by 'attempted refutations'); and for this purpose *criteria of refutation* have to be laid down beforehand: it must be agreed which observable situations, if actually observed, mean that the theory is refuted. But what kind of clinical responses would refute to the satisfaction of the analyst not merely a particular analytic diagnosis but psycho-analysis itself? (Popper, 1963, p. 38)

Here his falsification criterion seems quite unreasonably stringent, as can be seen by going back to the example of physics and asking, to borrow his own language, "But what kind of physical observations would refute to the satisfaction of the physicist not merely a particular physical explanation but physics itself?" So transformed, the criterion seems incoherent. What would it mean to "refute physics itself"? Surely it is on particular explanations that the success of any science rises and falls. A given psychoanalytic diagnosis, if my account is correct, will not necessarily look quite like any other. Even though metatheoretical categories may be appealed to-anxiety, obsession, and the restit will be just the idiosyncratic triggers uncovered by the analysis, whatever they are, that will reliably lead to the neurotic ideation or behavior, whatever *they* are. This connection can be tested, and repeatedly is, in the clinical setting. The picture is complicated, of course, by the fact that analytic intervention may actually modify the laws of the idiosyncratic world of the patient, or appear to do so (at a deeper level, even more fundamental laws may still be operating consistently), so that the failure of a particular prediction may in such a case not count against the theory-it may just mean that there has been a theoretical shift, and this may in turn be an indication that the analysis is beginning to be effective.

The science of physics is a science of the physical world as we know it; it is based on observations of that world. How is it based on them? Not, at any level above the primitive, on inductive generalizations from them but rather on their corroboration of the results of deductive inferences from conjectures about the unobservable features of the world. We might say that in relation to what is actually observed, the theoretical entities of physics play the role of something like an unconscious—they don't show on the surface, only their fairly massive consequences do. The inner structures of inert physical things, their hidden parts and motions, are as fine grained though usually not as complex as the neurological structures we were discussing earlier. We don't see them, but the surface patterns of observation, in the light of our freely constructed theories, conspire to persuade us that that's how the world is at bottom. Science, as I have said elsewhere, is among other things imagination controlled by evidence (Caws, 1996, p. 62)—the imagination of the theorist channeled and kept in check by the observations of the experimenter. It's taken us a long time—a few hundred years, or a few thousand, depending on how you read the history of science-to imagine this physical unconscious, and that is with unlimited access to fairly regular surface features.

Psychoanalysis is a science of a world, too, but not a physical or even a social world. It is, I want to claim, the science of the idiosyncratic subject. The challenge to the therapist is *to imagine the subject's unconscious*, but the therapist doesn't have hundreds of years, and the surface features are far from regular. The unconscious yields its data reluctantly,

we might say, in the form of neurotic symptoms but also of dreams, parapraxes, jokes, and the rest. How valid is the assumption that the subject is a world, complex enough to have its own science? Consider that if the subject is to apprehend any world, perceptual, conceptual, theoretical, or whatever, it has to have at its disposal the resources to make a representation of that world. Subjectivity, as the animation of structure, is as it were a scanner of a domain in which not only the complexity of the actual world but also that of any world possible for us must be able to be modeled. The finest details of the visual field are *made*, moment by moment—the moment here being the specious present, of the order of fractions of a second—by the neurological apparatus in response to what we call visual stimuli (though of course the stimuli aren't visual, the visual is what they generate). This is a causal theory of perception, but it's the only one that meets the specifications. The world of perception is begotten upon the world of thought by input from the environment—there isn't time here to go into the details, but as I sometimes put it we should not think of thought as degenerate perception, we should think of perception as especially vivid thought, the contents of which are determined by the world. It's continuous with all those other thoughts, the imaginative ones and the obsessive ones, the happy ones and the scary ones, that run our lives when we aren't attending to perceptual contents-and sometimes when we are.

What I'm suggesting here is that the world of the individual subject is unimaginably rich, not just in its neurological underpinnings but in its lived content as well—rich enough to warrant the conjecture that its very laws may be idiosyncratic, that it may be put together in a way that is quite unlike the way in which any other subject's world is put together. There is one remarkable anticipation of this richness in an unexpected source in the literature, namely in Book X of St. Augustine's *Confessions*, where he describes his memory,

which is like a great field or spacious palace, a storehouse for countless images of all kinds.... All this goes on inside me, in the vast cloisters of my memory. In it are the sky, the earth, and the sea, ready at my summons, together with everything I have ever perceived in them by my senses, except the things which I have forgotten. In it I meet myself as well. (Augustine, 397-401/1961, pp. 214-215)

There are hints elsewhere as well, notably in Husserl, with his idea that the world is contained in the ego rather than the ego in the world (Husserl, 1931/1960, p. 26).

This is a view of the situation that few subjects, perhaps, ever attain to. The psychoanalytic subject, the patient, in distress at some of the experienced surface features of her world—thoughts, behaviors, phobias, and so forth—wants an explanation of just those features that will allow intervention, on her own part or on the part of an attendant (a *therapon* or *therapaina* who will help things along), directed toward changing them. What would count as an explanation?

We can't expect here just the same structure, either as to explanation or as to confirmation, as we find in physics, but we can expect a family resemblance. I'll content myself with a couple of quick references. Wittgenstein (1966), in his lectures on aesthetics, speaking of *Jokes and Their Relation to the Unconscious*, says (or is made by his pupils to say):

Freud transforms the joke into a different form which is recognized by us as an expression of the chain of ideas which led us from one end to another of a joke. An entirely new account of a correct explanation. Not one agreeing with experience, but one accepted. (p. 18)

He speaks a little further on of psychoanalytic explanation as a matter of persuasion rather than of discovery, raising an issue that is also of prime concern to Grünbaum: If a patient comes to accept an explanation, in the form of an interpretation, does that make it valid? Or to put it another way (not envisaged by Grünbaum), might the patient's acceptance of an interpretation of no probative standing—let us come right out with it and call it untrue—come to form part of a true complex that could displace his or her neurosis on the way to amelioration if not cure?

In the matter of testing, something analogous to what I am proposing, though less radical, has been suggested by Clark Glymour (1982) in his essay "Freud, Kepler, and the Clinical Evidence." He points out that the connection between observation and theory—or between conjecture and refutation—is not as clear even in physics as we might think, and that under suitable assumptions Freud's theories now may be just as well confirmed as Kepler's when they were first proposed. The comparison is powerful because nobody doubts Kepler's secure place in the history of science. "I think," says Glymour (1982),

there is a rational strategy for testing important parts of psychoanalysis, a strategy that relies almost entirely on clinical evidence; moreover, I think this strategy is immanent in at least one of Freud's case studies, that of the Rat Man. (p. 14)

This strategy involves the usual distinction between theoretical and nontheoretical terms:

Some of the states of persons which Freud describes are of a kind that we might reasonably expect to be able to discriminate without making use of any psychoanalytic hypotheses; other states Freud discriminates only through the use of psychoanalytic theory applied to discernible states of the first kind. All unconscious states are of the second kind, that is, theoretical, and most conscious states and overt actions can reasonably be regarded as non-theoretical for psychoanalysis.

A Freudian application of the testing strategy I have described would, then, go roughly as follows: From non-theoretical states of a patient observed in a clinical setting, other states— whether themselves theoretical or non-theoretical—are inferred by using psychoanalytic hypotheses. Hypotheses which claim that these inferred states obtain only if other states obtain are then tested directly by independently determining, either by theoretical or non-theoretical means, whether the other states do in fact obtain. The hypotheses used in the theoretical determinations involved in such a test are themselves tested indirectly. The hypotheses of psychoanalytic theory will permit us to infer some states of affairs from others, and we can . . . effect a pincer strategy to attempt to determine independently whether the states of affairs related by a conditional or biconditional sentence obtain. (p. 19)

Glymour's claim is that Freud actually used a strategy of this kind, though implicitly rather than explicitly, in some of his cases, notably that of the Rat Man. But he does not go as far as to suggest that this would have been an adequate test if it had been confined to that case, whereas I am inclined to think that, because of the complexity of the situation (on which more below), a whole theory might be worked out and tested within the bounds of a single case. The theory would be psychoanalytic because it would involve the analysis of a psyche, and it would be a member of a family of psychoanalytic theories deriving their metatheoretical presuppositions from psychoanalysis in the broader sense. But refuting one of the particular theories would not refute the metatheory, any more than refuting a particular physical theory would refute physics.

Glymour (1982) conducts his analysis in terms of state of affairs, but I think it would be quite possible—and would fit in better with my general approach—to do it in terms of objects. A further word then about objects, the objects that compose our worlds, beginning

again from the situation of the conscious subject. The conscious part of the subject's life usually adds up, miraculously enough, to some sort of coherent story, though by now we can be sure that that is a result of a lot of frantic activity behind the scenes. For most of us there is only one such story, but it may be worth remarking in passing that there is plenty of room in the neurophysiological system to accommodate more than one consciousness, perhaps more than one fully developed subject. The condition that used to be called multiple personality disorder, that has been listed in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994) as dissociative identity disorder, and that I have suggested (Caws, 1994, p. 203) ought to be called multiple subjectivity disorder—if it is a disorder—is well enough attested to put this claim beyond dispute. I do not mean to suggest here that this is all one way, that we are at the mercy of mechanism; mental processes involve multiple feedback loops, reentrant circuits, as Gerald Edelman would say, and even at the highest or conscious level these may influence outcomes. So a touch on a small wheel may change the course of a large ship, though that is perhaps not the best metaphor, ships being trivially simple in comparison with brains.

Every consciousness, says Husserl (1931/1960), is consciousness of something. I have proposed elsewhere a corollary to this: Every consciousness is *someone's* consciousness. Let us call the something an object, and the someone a subject. It follows from Husserl's theorem and my extension of it that subject and object are correlative-no subject without an object, no object without a subject. It has been a familiar complaint in philosophy that we have become trapped in this subject-object opposition, and various thinkers have tried to get rid of it. Sartre (1936/1972), for example, thinks it should "definitely disappear from philosophical preoccupations" in favor of a pre-personal upsurge of absolute consciousness purged of the "I" (pp. 105–106). The trouble is that this absolute consciousness is inaccessible to and cannot be experienced by me, so it is hard to know quite what it is doing there. As soon as I put it in question, there I am over against it. The elimination of the subject-object split is in fact doomed to failure from the start; it is a structural feature of all human experience that it is relational in just this way. Not, again, that we are always conscious of the relation in question; we may have the experience of being one with the loved person, or even one with everything, as the Buddhist is supposed to have said to the seller of hot dogs ("Make me one with everything"). But even that "one with" betrays the duality I am insisting on-here is the one, there is the everything; I am a subject with objects, a subject with a world. But there is no point of view in my world from which I as a subject become an object, and if I am an object in someone else's world-why, obviously enough, my subjectivity is missing from that world.

To cut a long story short here I will say that the whole content of consciousness at any moment constitutes the *lifeworld* of the subject whose consciousness it is. The lifeworld is populated with objects. For purposes of argument I will now freeze it synchronically, even though it is actually in flux, emerging from its past, driving toward its future. The lifeworld is cumulative and contains far more than can be encompassed in any given moment of consciousness; many of its objects are not perceptually or even intentionally present to consciousness; not all are foveated, as it were, not all are even accessible. There used to be a sign at grade crossings on the French railroads—there are probably a few left, far from the TGV tracks—that said "Attention! Un train peut en cacher un autre." So objects in the lifeworld may hide other objects; a lot is going on of which we are unaware. It would be an interesting topic of argument to get clear about whether objects that are "out of consciousness" in the lifeworld belong to the unconscious properly speaking—whether objects of which we *cannot* be aware, short of analytic enlightenment, can properly be said to belong to the lifeworld before that enlightenment has taken effect—but

I will leave that question aside for the moment. What of the objects of whose presence we *are* aware?

Let me suggest a provisional classification of those objects, which may become more definite as the discussion proceeds. It is not difficult, I think, to distinguish in our lifeworlds—we could try it now, by looking around and within as I speak—between (a) perceptual objects (bodies, clothes, books, furniture, pictures, etc.); (b) perceptual objects with an intentional overlay (bodies seen as persons, clothes as signs of status or character, books as works of scholarship, furniture and pictures as works of craft or art, etc.); and (c) purely intentional objects (things remembered, imagined, hoped for, entertained as propositions, etc., such as yesterday or psychoanalysis or philosophy or gender or April or tomorrow).

I can't go into the whole theoretical apparatus here—I'm assuming that the distinction between perceptual on the one hand and intentional (in Brentano's sense) on the other is unproblematic—but you will recognize my earlier distinction between things that would be as they are independently of human interest and those constituted by that interest (noting if you like that *interest* can be construed, somewhat fancifully perhaps, as meaning that we "mix our being" with the thing in question—it becomes of human concern or importance).

This classification of objects will be recognized only by subjects already used to such cognitive distinctions. I want to pursue the question of how perceptual objects-natural or "found" ones (of which there aren't too many within range in our cultured and technological environment) and nonnatural or "made" ones (which however once made continue in being just as if they were natural)—come to be incorporated into our lifeworlds. I begin with what looks like a side issue that may, in the light of our common interest in psychoanalysis, turn eventually into a main one: namely, how subjects come to have objects at all. What follows is conjectural but seems worth putting forward. The basic hypothesis of Durkheim and Mauss's (1903/1963) Primitive Classification is that abstract classifications are preceded historically by concrete ones, that the structures of the body and of the clan provide the template for distinguishing natural objects from one anotherhence (to condense and possibly distort a long argument) the existence of totems (the recognition of the social group antedating the recognition of the animal associated with it) and of hierarchies, orientations, languages with gendered nouns, and the like. Primitive life is a life on the one hand of bodily functions and on the other of social interactions; the idea of impersonal names and categories is a late construction. Our acculturation begins with it, but they reached it if at all only after many generations.

Might we not take a hint from this and float a parallel hypothesis, an ontogenetic one to double the phylogeny of systems of classification, to the effect that the subject's first objects are similarly apprehended affectively rather than cognitively? This would fit well with the comparatively recent dominance of object-relations theories in psychoanalysis. According to this psychoanalytic school, what I have been calling the subject would be called the self, and what I have been calling the objects or *part-objects* or *self-objects*. The basic idea is that the self is essentially relational, much in the way in which the subject was said to be in my earlier account, and defines itself in terms of the others who are its objects. The important thing about these early objects is that they are of overwhelming significance to the subject—sources of satisfaction, of nourishment, of warmth, of frustration. The affects that accompany their recognition color the subject's life and will be transferred, as experience widens, onto other objects as well. The good or bad mother, the

good or bad breast, will help to determine future encounters with good or bad toys, siblings, coworkers, possessions, friends, politicians, and therapists.

CAWS

This seems like a not implausible account of the generation of a first population of objects in the lifeworld. As the object-relations theorists insist, "internal" objects correspond to real objects (in the first instance, caregivers) in the external world. As we have seen, the possibility of having such objects at all depends on the child's neurophysiological endowment, which provides a platform on which programs of object recognition and object constancy can be run. How did such a platform evolve? The account I have just sketched belongs in fact rather far up the evolutionary scale—it is essentially an account of how the consciousness of affect-laden objects begins, how they come to be incorporated into the lifeworld. It is a corollary of this account that in the first instance, no object that is not laden with affect gets incorporated into the lifeworld. But the awareness of affect must have been preceded by developmental stages in which life-sustaining or life-threatening situations were sought and avoided in patterns of stimulus and response unmediated by consciousness. Why should consciousness have emerged at all?

I assume that consciousness as such begins much lower down on the evolutionary scale, somewhere between automatic seeking and avoidance on the one hand and fullfledged subjective awareness on the other. (The behavior of infants is at first at about this level, though they climb out of it very rapidly, especially when they have acquired language—thus ceasing to be *infans*, "without the power of speech.") At some point the animal brain became capable of generating a sensorium, a spread of appearances of a physical world in which the organism could move and find sustenance, shelter, and a mate. In the language of neurophilosophy, the organism was located in a sensory space and in a motor space, and the coincidence of these was what was required for survival. All this assumes the prior and independent existence of a physical world, of which the organism and its environment, with its rewards and dangers, were integral parts. The showing up of objects in the sensorium must have preceded the attachment of interest to them (though their detachment from the sensory background as "objects" was no doubt in part a function of the organism's need). So we might say of the underlying physical world that it engenders its own appearances upon subjects without their conscious or intentional involvement but that in so doing it comes to provide a population of objects available for attention.

By the time the sensorium is fully functional, then, it will contain many objects that are not foci of immediate interest—they may be in the background as objects, detached in the way that the needed objects are, but not yet be distinguished from one another. With time and experience (and leisure) we may come to *take* an interest in them, *notice* them, attend to them. In this way whole classes of objects may, as I put it, be "incorporated by attention" into the lifeworld. But very early on (not that I mean to imply any sort of linear process here) the lifeworld will also prove to contain objects that are not available for attention, that are not in the sensory or the motor space, that are not perceptual. The first candidates for this status will be objects that were perceptual but are no longer-that are absent (but remembered). A classic case here is the fort-da game recounted by Freud, where Fort! can be translated roughly as "It's gone!" and Da! as "It's back!" (or "It's here!"). The spool that the child drops out of sight over the edge of his crib, crying "Fort!," no longer presents itself to his perception: It is perceptually absent, and yet intentionally present. Brentano's original term for the status of his paradigmatic intentional objectsthe golden mountain, the round square—was intentional inexistence: Such objects do not stand forth (the root meaning of exist) into our worlds perceptually, but they are objects over against our subjectivity nonetheless, entries in the inventory of our lifeworlds alongside the perceptual ones.

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The "Da!" of the *fort-da* game, spoken *after* the "Fort!," brings in a new element. The recovered spool is a perceptual object once more, but it isn't *just* a perceptual object, it's a perceptual object with an intentional overlay: the significance attached to it just because it has been lost and recovered, enjoying which (as reassurance about return of the absent mother) is the whole point of the game. It is thus the precursor of all tangible cultural objects. But it isn't yet a purely intentional object—how do they find their way into the lifeworld? They can't be "incorporated by attention" because they aren't there to be attended to. Even perceptual objects overlaid with intentionality are problematic beyond the cases of immediate affect we have so far encountered—the breast, the *fort-da* game. In the majority of cases it seems that the intentional overlay must be *learned;* subjects don't know immediately or intuitively that a mark is a sign, an object an artwork. This clearly is where shared culture comes in.

Objects in the lifeworld are, as I've already suggested, *relational*: relational just by being objects for subjects; relational in most cases by virtue of having distinguishable parts, and cases; relational by virtue of referring to other objects. The lifeworld in other words has structure, structure being defined as ensembles of relations, internal or external to objects. And the content of the lifeworld will therefore have been determined by instruction, "in-struction" being just the structuring of the inner. (The sense in which the lifeworld is to be considered "inner" will be left aside here, with the remark only that the usual contrast between "inner" and "outer" holds within the lifeworld, as do all intelligible contrasts.) I have distinguished elsewhere six varieties of instruction, which I call genetic, epigenetic, experiential, experimental, cultural, and autonomic; the particular case that is of interest here is the cultural, which accounts for by far the greater proportion of the objects in the lifeworlds of most people. Cultural instruction, once language is in place, rapidly populates the lifeworld not only by teaching (i.e., pointing out: "teach" derives from *deixis*, as does the "-dex" of the index finger) objects that are to be incorporated by attention from the riches of the perceptual field but also by seeding, as it were, the domain of the purely intentional.

This last is the most difficult and most rewarding domain to be appropriated by the subject—it is the domain of ideas freed from the *eidos*, the domain of the intellect, the choosing-out of complexes and elements of complexes for elaboration and enjoyment. The way into it is through my second class of objects—for language itself is perceptual with an intentional overlay, sounds coming to bear concepts. But one can't *point out* or *draw attention to* purely intentional objects. No doubt memory plays a role here—the object that is *not* perceptually here in the *fort*–*da* game suggests the possibility of an object that was never perceptually here, *could* never be, perhaps.

What I am calling the sensorium seems clearly to have evolved in order to make possible the internal representation of an external world—this marked the step to consciousness, the first step on the way to full subjectivity, an ascent I've described elsewhere. Making possible that representation (which comes to the perceiving subject as a presentation) also at the same time made possible the intending of quasi-sensory and eventually of nonsensory contents as well. The precursor of the purely intentional I take to be encountered in dreaming, particularly dreaming in utero, which I read as the layingdown of the architecture of the lifeworld, along with some of its eventual contents, perhaps in the form of archetypes—a topic that needs further development. And it is a relatively straightforward progression from there to the full panoply of nonperceptual cultural objects.

Each individual has a whole panoply of such objects (my claim is that cultural objects are distributed without remainder among the lifeworlds of knowing subjects, but that is

another, although related, argument, connecting up with—and clarifying—Freud's later work on the psychoanalysis of culture), and they come to be interrelated in ways that are always in detail, and may frequently be in broad outline, totally different from subject to subject. So the task of analysis is to work out the regularities in the dynamic relations between these objects, whether conscious or unconscious, in the individual case. They all have a component of intentionality—they comprise not only perceptual objects with intentional overlay (with "affective concomitants") but also purely intentional objects and, furthermore, purely intentional objects with second-order intentional overlay: a ramified and layered structure that offers plenty of scope for the theoretically inclined therapist.

The objects in question can be people, places, things, words, ideas, and so forth, with multiple overlays that can involve fear, anxiety, avoidance, compulsion, *jouissance*, and so on, in relations of metonymy, metaphor, displacement, and so forth. They may have their origins in perception but also in memory, dreams, language, and so on and may be colored by aggression, sexuality, other somatic conditions-enough for a whole science. But I repeat that although the metapsychology will always be in the background for the trained therapist, and although parallels and analogies will suggest themselves to the experienced one, there can be no assumption a priori of any similarity whatever between one patient and another. Dreams with identical content, should there ever be two such dreams, may have totally divergent significance (remember the word processing and the games in my earlier computer example) so that there can be no question of standard dream symbolism. Freud's willingness to provide this in The Interpretation of Dreams (Freud, 1900/1965, p. 385 ff.) represents, as I see it, a low point for him, a concession to popular taste or superstition; no responsible therapist, surely, would even think of offering an interpretation of a dream until a long acquaintance with the patient's world-memories, affect, other dreams-had prepared the ground for it.

Analysis is a long process; the unconscious yields its data reluctantly. The therapist has to wait and to catch it unawares, slowly building robust connections out of whole series of tentative ones, judging the right moment-not too soon, but not too late-at which to let patients into the self-awareness they need for an understanding of the complex structures they inhabit and animate and are. The structures are rich in associations that the subject may or may not be aware of but which can in principle be brought to awareness: Wo Es war, soll Ich werden. It may be said that all of this sounds like nothing but the old associationist psychology. Associationist psychology, like so many other discarded theories, contained a kernel of truth: Ideas really are associated with one another. But it made two important mistakes. The first was to think of the ideas that were to be associated with one another as existing in some way independently of and antecedently to their associations-to be entries in an ontology of ideas, as the *idéologues* of the late-18th and early-19th-century thought. (A legacy of this view is to be found in some recent theories of cultural evolution in the form of the doctrine of so-called *memes*.) The second mistake was to think of the laws of association as holding objectively, and in the same way for all subjects.

The position I am advocating holds, on the contrary, first, that intentional objects (some but not all of which are ideas in the old sense) are generated and sustained in and by each individual—even though they may be, and indeed probably for the most part are, learned from other individuals; and second, that the relations between them (some but not all of which are associations in the old sense) are idiosyncratic and do not hold across subjects—even though, particularly within a given cultural context, there may be similarities across subjects. Even these similarities, however, cannot be relied on to produce similar results in cases of neurosis, since the networks within which they are embedded

are so ramified that other links, conscious and unconscious, will exert feedback effects that complicate the situation in quite distinctive ways.

In a recent article, "On Not Psychoanalyzing Virginia Woolf," Peter Gay (2002) remarks,

If, then, Woolf vehemently rejected psychoanalysis, this attests to her deeply felt wish not to be boxed in, typecast, labeled. She knew herself to be as changeable as English weather; she vibrated to impressions and luxuriated in stimuli far beyond normal sensitivity. But she did not want to be identified as a *case*. (p. 73)

I find this serendipitously encountered observation apt for two reasons: first, because nobody would think of holding the changeability of English weather against the science of meteorology and, second, because no analysis of any idiosyncratic individual, and *a fortiori* of an individual as complex and creative as Virginia Woolf, is a "case" of anything, if that term is given its now common signification as an instance of some condition or syndrome repeated with only minor variations from one member to another of a population of patients. In its original meaning of "what befalls," there is no hint of this boxing and labeling; one case need bear no resemblance to any other. If Virginia Woolf was a "case" at all it was in the latter sense, and if that had been the sense in which the term was used in psychoanalysis, she need not have been concerned (if she was—Gay seems to be speculating rather than reporting) about being cast as a type. Freud, as Gay goes on to point out, knew that people like Woolf were special: "Unfortunately, before the problem of the creative artist, psychoanalysis must lay down its arms" (p. 74).

But of course Freud really didn't believe this for a minute; on the contrary he kept picking them up again: not only Dostoyevsky but Goethe, Jensen, Leonardo, Poe, not to mention the striking short essay on "creative writers and day-dreaming." The disavowal presumably had something to do with the complexity and idiosyncrasy of the case of genius and hence the anticipated difficulty of fitting it under a scientific generalization. My claim in this article is that he needn't have worried (as indeed in practice he didn't), because every case is complex and idiosyncratic, that of the ordinary neurotic nobody hardly less than that of the extraordinary neurotic novelist, so that the generalizations come within cases rather than between them. It is part of Freud's greatness to have believed from the very beginning that there *could* be a science of psychoanalysis. His instincts about it were, I have claimed, right on target at the time of the Project for a Scientific Psychology (1895/1954); it was just that he could not have known then the order of magnitude of the underlying neurophysiological complexity, and he did not have at hand the philosophical tools for dealing with the intentional objects it was capable of generating. Between the neurosciences and the human sciences we are now in a position to show how his science can take its place without apology among the other sciences.

References

Althusser, L. (1996). *Psychanalyse et sciences humaines: Deux conférences*. Paris: Le Livre de Poche. (Original work published 1963–1964)

Caws, P. (1986). The scaffolding of psychoanalysis. Behavioral and Brain Sciences, 9, 229-230.

Caws, P. (1994). Subjectivity, self-identity, and self-description: Conceptual and diagnostic prob-

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Augustine, Saint. (1961). Confessions (R. S. Pine-Coffin, Trans.). Harmondsworth, England: Penguin Books. (Original work, 397–401)

lems in autism, schizophrenia, borderline personality disorder, and the dissociative disorders. In J. Z. Sadler, O. P. Wiggins, & M. A. Schwartz (Eds.), *Philosophical perspectives on psychiatric diagnostic classification* (pp. 193–208). Baltimore: The Johns Hopkins University Press.

Caws, P. (1996). Ethics from experience. Boston: Jones and Bartlett.

- Durkheim, E., & Mauss, M. (1963). Primitive classification (R. Needham, Trans.). Chicago: University of Chicago Press. (Original work published 1903)
- Freud, S. (1954). Project for a scientific psychology (E. Mosbacher & J. Strachey, Trans.). In *The origins of psychoanalysis: Letters to Wilhelm Fliess* (pp. 347–445). New York: Basic Books. (Original work published 1895)
- Freud, S. (1965). *The interpretation of dreams* (J. Strachey, Trans.). New York: Avon Books. (Original work published 1900)
- Gay, P. (2002). On not psychoanalyzing Virginia Woolf. The American Scholar, 71, 71-75.
- Glymour, C. (1982). Freud, Kepler, and the clinical evidence. In R. Wollheim & J. Hopkins (Eds.), *Philosophical essays on Freud.* Cambridge, England: Cambridge University Press.
- Grünbaum, A. (1993). Validation in the clinical theory of psychoanalysis: A study in the philosophy of psychoanalysis. Madison, CT: International Universities Press.
- Husserl, E. (1960). *Cartesian meditations* (D. Cairns, Trans.). The Hague, the Netherlands: Martinus Nijhoff. (Original work published 1931)
- Popper, K. (1963). Conjectures and refutations. New York: Basic Books.
- Sartre, J.-P. (1972). La transcendance de l'ego: Esquisse d'une description phénoménologique. Paris: J. Vrin. (Original work published 1936)
- Solms, M. (2001, November). What is neuro-psychoanalysis? Keynote address presented at the meeting of the Association for the Psychoanalysis of Culture and Society, Rutgers University, New Brunswick, NJ.
- Wittgenstein, L. (1966). Lectures and conversations on aesthetics, psychology and religious belief (Compiled by Y. Smythies, R. Rhees, & J. Taylor). Oxford, England: Basil Blackwell.