Stop, look and listen

The gap dividing psychoanalysts and cognitive-behavioral therapists and researchers is wide and growing. But it needn't be this way: Freud himself dreamed of a day when it would be possible to make use of neurobiological insights to test psychoanalytic assumptions. Now that day is upon us

Yoram Yovell

ne-hundred years ago, in his essay "On the History of the Psycho-analytic Movement," Freud recalled advice he had received from his revered mentor, the neurologist Jean-Martin Charcot: "to look at the same things again and again, until they themselves begin to speak." To me, this beautiful piece of advice captures the magic as well as the complexity of the discipline of psychology.

It also contains the seeds of a dispute that is currently dividing the community of psychotherapists in Israel and abroad into two rival camps: the observers ("to look at the same things again and again") and the listeners ("until they themselves begin to speak").

In a somewhat simplistic overgeneralization, it might be said that proponents of the cognitive-behavioral approach in present-day clinical psychology ("the observers") have adopted Charcot's mode of scientific thinking. For them, the human mind is an object, something to be observed and studied in the most objective ways possible.

Resorting again to the same overgeneralization, it might be said that proponents of the psychoanalyticpsychodynamic approach ("the listeners") treat the human mind as a subject, to be listened to and understood. There is very little mutual observation going on between the two rival camps today, and hardly anyone is listening. That's a shame, but not a coincidence.

In Freud's consulting room, right above his famous couch, hung a copy of Pierre Brouillet's painting "A Clinical Lesson at the Salpêtrière." In the picture, Charcot is seen pointing at a contorted, semi-comatose young woman. Sitting opposite her are more than 20 physicians – all of them men, of course - who are observing the patient attentively.

But Freud realized that observation was not enough. To truly understand the "hysterical patient," it was necessary to listen to her. Observing her as an object misses her inner experience as a subject - her hopes, fears, desires, longings and memories. Prof. Stephen Heath, of Cambridge University, summed up the contrast between the mentor from Paris and his student from Vienna succinctly: "Charcot



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art criticism, many are unaware that psychoanalysis is not, and has never been, the dominant school in academic psychology.

William James, the depressive, brilliant, accomplished brother of the novelist Henry James, was one of the fathers of modern academic psychology. In his 1884 article "What Is an Emotion?" James asked a seemingly simple question: When a hiker in the woods encounters a bear and is frightened and runs away, does he run because he is frightened, or is he frightened because he runs? The intuitive (and psychoanalytic) answer is that the emotion of fear felt

Figure 1. The James-Lange model

model sees emotions not as side ef-fects but as causal agents of critical also to some of the basic tenets of fects but as causal agents of critical influence, both on physiological bodily processes and on thoughts and cognitions, just as Freud had assumed.

But James wasn't completely wrong: Physiological processes, on the one hand, and perceptual and cognitive processes, on the other hand, can indeed have an influence on emotions. Cognitive therapy and behavioral therapy exploit this influence beneficially, and with great success. But the primary influence works in the opposite direction: Emotions exercise an overwhelming effect on thoughts and perceptions, as well as on physiologiand several converging lines of experimental evidence now support its main conclusions

None of this helped Bowlby. His ideas and studies provoked the wrath of the two great mothers of psychoanalysis, Melanie Klein and Anna Freud. Klein was Bowlby's supervisor when he was a trainee at the Institute for Psychoanalysis in London. He was treating a boy of 3 at the time, and his supervisor's theories about the ties between the boy and his mother seemed to him unfounded. Klein insisted that the boy's behavior was due to unconscious fantasies he harbored toward his mother, whereas Bowlby thought - and said so, too - that the boy was reacting to real events that occurred between him and his mother.

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Klein responded in alienation and disapproval, and Bowlby became persona non grata at the institute. Anna Freud, too, treated the new theory with polite dismissal: "To assume a struggle for priority or first place between mother attachment and pleasure principle as if they were mental phenomena of the same order does not seem to me to apply."

What underlies this rejection? Perhaps it is the fear that scientific findings may challenge and refute beloved and familiar psychoanalytic theories. Strange as it may seem, there are still people in the psychoanalytic establishment who insist that scientific findings in general, and neuroscientific findings in particular, are of no relevance to psychoanalysis. Scientists, they say, deal with facts ("observers"), whereas psychoanalysts deal with meaning ("listeners"); these are two completely different, mutually

sees; Freud will hear.'

Initially Freud, too, leaned toward the side of observation: "The intention is to furnish a psychology that shall be a natural science: that is, to represent psychical processes as quantitatively determinate states of specifiable material particles" - it was with these surprising words that Freud, then 39, opened his 1895 essay "Project for a Scientific Psychology" (translation here and below from "The Standard Edition" of Freud's works, 1953).

Freud gradually moved away from biology, and concentrated on the mental phenomena themselves. As he learned firsthand, the scientific knowledge and technologies that existed in his time were not sufficient for a systematic exploration of the biology of the mental processes that interested him. This is why to this day psychoanalysis deals exclusively with mental phenomena.

Still, Freud never abandoned the hope that one day it would be possible to make use of neurobiological insights to test and develop psychoanalytic assumptions. As he wrote in his 1920 essay "Beyond the Plea-sure Principle": "The deficiencies in our [psychoanalytic] description would presumably vanish if we were already in a position to replace the psychological terms by physiological and chemical ones... Biology is truly a land of unlimited possibilities. We

processes as quantitatively determinate states of specifiable material particles,' he wrote.

> may expect it to give us the most surprising information, and we cannot guess what answers it will return in a few dozen years to the questions we have put to it. They may be of a kind which will blow away the whole of our artificial structure of hypotheses."

> This line of thought is anathema to some in the conservative psychoanalytic establishment. As we will see, the extremist "listeners" have tried with all their might to prevent an unavoidable rendezvous between psychoanalysis and the cognitive neurosciences. Nevertheless, the encounter is taking place, and it is beginning to fulfill Freud's prophecy and wishes.

A hiker meets a bear

What about the roots of the cognitive-behavioral approach? Because of the dominance of psychoanalysis in Western culture, and because of the profound influence it has had on major academic fields such as sociology, philosophy, and literary and



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tached to its mother is primal and inborn – in other words, the infant loves his mother because the infant loves his mother.

psychoanalytic theory. Freud hypoth-

esized that an infant's attachment to

his mother is the result of the food she

provides him with; in other words, the

infant loves his mother because she

feeds him (the "pleasure principle").

However, Bowlby came to be con-

vinced that the infant's need to be at-

This dispute may seem like academic hairsplitting, but it bears tremendous practical importance. If the

Figure 2. Panksepp's Psychobiological Model



by the hiker when he sees the bear causes him to run. But James thought otherwise: The hiker's emotion of fear is not a cause but a consequence - a consequence of physiological changes (adrenaline secretion, rapid pulse, etc.) that occur in the hiker's body when he spots the bear and begins to run. The emotion of fear is the perception of these physical changes.

Today, 130 years later, this theory, which was formulated independently by James and by the 19th-century Danish physician Carl Lange, is still influential in the world of academic and clinical psychology. Schematically, the James-Lange theory may be presented as follows (see Figure 1): Physiological processes cause perceptions and cognitions (thoughts), and these in turn give rise to emotions. It's a short step from here to the conclusion that emotions are only "side effects" - vivid but unimportant feelings, which are a result of bodily changes and thoughts, and not their cause. Therefore, the treatment for emotions gone haywire is to change cognitions (by cognitive therapy) or to decrease bodily arousal (by behavioral therapy).

However, in light of recent research by affective neuroscientist Jaak Panksepp and others, it is clear that the truth is more complex, and closer to what intuition suggested (Figure 2). The present-day psychobiological

How do we know this? A series of technological advances in recent years has made it possible to image the activity of the living human brain when the person to whom the brain belongs is experiencing fear, desire or longing, solving math problems, thinking about Mom, and so forth. It has also become possible to examine directly the electrical and chemical activity of specific neural pathways in the brain, and to modify that activity in various ways.

One would have expected that these new psychobiological advances would be of great interest to psychoanalysts ("the listeners"), in the same way that they are of interest to cognitive-behavioral therapists ("the observers"). However, the conservative post-Freudian psychoanalytic establishment has had a long tradition of animosity and disdain toward scientific insights that may be of relevance to psychoanalysis.

Pleasure principle

In the 1950s, 60s and 70s, the British psychoanalyst and psychiatrist John Bowlby developed attachment theory. It was based on ethological observations, animal experiments, population-based studies and Bowlby's experience with his own patients. Attachment theory is relevant not only

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infant's need to be close to its attachment figure is primary, and does not derive from the satisfaction of another need, then we must be very careful about separating infants from their mothers, even for relatively short periods of time. In light of Bowlby's findings, child-rearing practices in the Western world underwent substantial changes. Within a few years, attachment theory has become the standard approach in psychology for studying and understanding the early social development of infants and children,

exclusive pursuits, thus there is no connection between them, and there never will be.

This argument is not only fallacious but also destructive: An artificial separation between psychoanalysis, on the one side, and the brain sciences and experimental psychology, on the other, confines psychoanalysis to an intellectual ghetto, and hastens the process of its elimination from the psychological mainstream.

In the short run, though, this separation offers two advantages for those who are engaged in psychoanalysis. First, it exempts psychoanalysts from the need to test and verify, to the extent possible, their subjective theories with objective scientific tools. Second, it allows different and even contradictory schools in contemporary psychoanalysis to coexist under the same roof without one school overcoming and marginalizing another.

Given this deeply rooted bias, what was the fate of psychoanalysts who tried to use scientific tools to examine the validity of psychoanalytic theories? Bowlby wasn't the only one who was chastised. Psychiatrist and researcher Aaron Beck, the highly influential father of cognitive therapy, started out as a psychoanalyst. He wanted to use scientific tools to validate several basic psychoanalytical assumptions related to depression.

To his chagrin, the findings of his studies did not support the traditional theory. After some hesitation, Beck decided to publish his findings anyway. The reaction was swift: The prestigious American Psychoanalytic Institute rejected his membership application, on the grounds that "his mere desire to conduct scientific studies signaled that he'd been improperly analyzed." Beck, according to his own testimony, was deeply hurt, and the rest is history.

A treasure, nonetheless

By this point, it might seem as if psychoanalysis is no more than a collection of unvalidated, outdated theories. Nothing could be more mistaken: Psychoanalysis is a treasure. Over the years, psychoanalysis has fine-tuned a systematic and distinctive way to study human subjectivity. There is no other way to gain access to the revelations made to Freud by the "hysterical" patients he treated, or to understand their meaning. Sophisticated brain-scanners will be of no help here. What is needed is a relationship

cal processes.

WEEKEND

of trust, affection, commitment and attentiveness between two people.

The psychoanalytic consulting room is always a research laboratory as well, in which hidden layers and contents of the mind come to light, and where the laws by which the mind operates are revealed. It is an unusual laboratory, intimate and singular, and its findings are amenable to different and even conflicting interpretations. However, none of this can justify the closing of the unique window it opens to the depths of the psyche and to the subjective aspects of the great existential questions: what it means to be human and to live one's life. Moreover, on the basis of the systematic listening undertaken by Freud and his successors, they devised detailed models for the structure and functioning of the human mind.

Freud's last and best-known model for the human mind (Figure 3) describes it as being divided into a conscious part and an unconscious part, and as composed of three structures. In an oversimplification, it might be said that the id - the primeval and instinctual part of the mind - is inborn and unconscious. The ego develops during childhood and controls the movement of the body and the interface with the individual's surroundings. The superego is "implanted" in the mind, having been acquired in childhood during the process of socialization and education. The ego and the superego contain conscious and unconscious elements. The ego is activated by the id but can, with great effort, also inhibit its activity. The superego gradually becomes an autonomous agency that judges the ego – the voice of conscience and morality.

There are many problems with this model, but it possesses three important qualities that characterize every good model. First, it is verifiable and refutable. That is, it makes clear predictions that may be subjected to examination. Second, it puts things in order and is therefore useful, i.e., it takes a vast collection of observations and ideas, and distills them into several simpler hypotheses and principles. Third - and especially surprising when it is examined using methods different from those that were used to create it, it appears to be valid. Not in every detail, but in a general way.

How do we know this? Because psychoanalysis has already met with the brain sciences, and in the least likely of places: behind the Iron Curtain. In the 1950s, at the tail end of the Stalinist period, and during the Cold War period in the 1960s, the Soviet neurologist Alexander Romanovich Luria developed neuropsychology, the science that connects mental functions with brain mechanisms.

Luria constructed a detailed map, in which mental functions such as language, memory, perception, problemsolving and impulse control were ascribed to cerebral and neural systems. pressed psychoanalytic views that he did not dare utter publicly.

Mark Solms, a South African neuropsychologist and brain researcher who was trained as a psychoanalyst, has continued Luria's work with brain-damaged patients. As Solms demonstrated, Luria's model (Figure 4) actually superimposes the Freudian model (Figure 3) on the brain: The Freudian id is closely associated with the limbic system and the brainstem. These are the ancient, emotional, inborn, "instinctive" parts of the nervous system and the mind, which we share with other animals. These ancient structures activate the rest of the brain, and serve as the motivational engine of the mind ("drive"). The ego, and especially its percep-

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tual and linguistic functions, and its control over the body's movements, is associated with the rear half of the cerebral hemispheres and with the most rear sections of the frontal lobes. This comprises most of the neocortex, which is large and very highly developed in humans. Sensory information, memories and associations are processed and stored in this region.

What about the superego? Some regions of the frontal lobes engage not only in "executive functions" but also in "emotional regulation" – that is, they restrain the bottom part of the brain, which wants what it wants here and now. This notion of the cerebral "brake" is not quite the same as the Freudian superego, but the ability to delay gratification, overcome emotions and apply moral considerations is closely associated with these frontal parts of the brain.

Not mere metaphors

The models I have described, like the explanations they provide, are simplistic and generalized. Nevertheless, they are not merely metaphors. They were constructed in order to explain existing findings, but their veracity has been tested by their ability to predict new findings. From a therapeutic perspective, they have successfully served to conceptualize the external and internal causes of mental processes that are responsible for immense suffering in this world, and to guide the efforts to treat them. Above all else, these models are not sacred



Jean-Martin Charcot lecturing students, as portrayed in"A Clinical Lesson at the Salpêtrière," by Pierre Aristide André Brouille (1887).

This is no small achievement. The translation between the two different languages - the one of scientific observation, the other of psychoanalytic listening - is riddled with obstacles, misunderstandings and tremendous methodological difficulties. But a group of psychoanalysts who are also involved in brain research have begun to build bridges between psychoanalysis, on the one hand, and experimental psychology and the neurosciences, on the other. They have done this within the framework of a new interdisciplinary field-neuropsychoanalysis-which seeks to create a common language between the different disciplines that are engaged in the study of the same entity: the human mind.

Psychoanalysis is essential for contemporary clinical psychology, not only because of the access it provides to the depths of human subjectivity, but also because of the way it observes and treats the relationship between two people. Freud offered his patients not just a new way to listen to and to understand themselves, but also a framework and a relationship that enabled them to search for meanBowlby but also from Beck, from Luria and from their successors. It's never too late to learn, and a little modesty won't hurt any of us.

On the other hand, any attempt by the extreme cognitive-behavioral camp in clinical psychology to ignore the singular contribution of psychoanalysis and its unique methodology for the understanding and treatment of subjective human experience, is liable to make psychotherapy sterile and alienated. It may also deprive us of an irreplaceable source of information about the human mind. Understanding the models that psychoanalysis has proposed for the human mind, along with learning how to use psychoanalytic tools in order to create and deepen the relationship between therapist and client, should be part of the training of every clinical psychologist and every therapist, along with cognitive and behavioral psychotherapeutic techniques and models.

It is not surprising that the dominant approaches in mainstream contemporary psychoanalysis and dynamic psychotherapy – the legacies of Donald Winnicott, Heinz Kohut, John Bowlby and the relational school – are based on psychoanalytic theories that have been supported by experimental research done by Bowlby, Daniel Stern, Beatrice Beebe, Peter Fonagy and other analysts who knew and dared to work scientifically.

Clinical psychology worldwide, and especially in Israel, is polarized between rival psychoanalytic and cognitive-behavioral camps. The truth lies, as it usually does, somewhere in the middle, in the no-man's-land between the rival camps, which need to learn how to observe one another and listen to one another. Will clinical psychology succeed in doing what it tries to help its clients do – observe and listen?

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The map was based largely on detailed observations carried out on a large number of brain-damaged Russian soldiers whom Luria treated and rehabilitated during and after World War II. His theories and the books he wrote were translated into English and other

and not static. As soon as new evidence accumulates, they will be updated; if necessary, they will be completely dismantled and rebuilt.

Particularly pleasing is the fact that Figure 2 – the contemporary psychobiological model of the mind proposed by

ing in a safe environment. Psychoanalysts have been doing the same ever since. I think it is no coincidence that Alexander Romanovich Luria, John Bowlby and Aaron Beck – the fathers of the three leading theories in contemporary psychology – were trained



languages, and were widely read and appreciated in the Western scientific community. He became a hero in the Soviet Union too, a shining example of the progress of Soviet science.

But there was a dark secret in Luria's past, one that almost cost him his life: He was a psychoanalyst, and even served as secretary of the Soviet Psychoanalytic Society. Psychoanalysis enjoyed a very brief flowering in the 1920s in the USSR. Then, at the start of the 1930s, as part of Stalin's purges, psychoanalysis was denounced as a "decadent bourgeois science."

Luria's psychoanalyst friends were arrested, and many were executed. He himself survived, probably because a few weeks earlier he had resigned unexpectedly from the Soviet Psychoanalytic Society and, immediately afterward, gave a lecture in which he attacked psychoanalysis and confessed his ideological deviations. He was spared. It was only in his later years, in correspondence with colleagues in the West, including the neurologist and author Oliver Sacks ("The Man Who Mistook His Wife for a Hat," "Awakenings"), that Luria exJaak Panksepp, the father of affective neuroscience – and Figure 4, which is the contemporary neuropsychoanalytic model for the human mind, resemble each other. This is no coincidence: In psychology as in life, when we speak in the language of facts and not in the language of ideology, we draw closer.

Indeed, there are signs that the ice age in psychoanalysis is nearly over. Several leaders of the analytic establishment, particularly in England and the United States, have come to understand that psychoanalysis must not live in the freezer or isolate itself behind walls. It must, rather, address and conduct a fruitful dialogue with the neurosciences, and with other competing schools in clinical and experimental psychology.

One person who has contributed to this trend is Peter Fonagy, who succeeded Anna Freud as the director of the London-based analytic institute that bears her name. After a years-long effort, he brought Bowlby's attachment theory, which had been booted out of the psychoanalytic consensus, back into the world of psychoanalytic clinical concepts and models. as psychoanalysts.

As W.H. Auden wrote in his eulogy for Freud: "if often he was wrong and, at times, absurd, to us he is no more a person now but a whole climate of opinion under whom we conduct our different lives." That climate of systematic subjective listening has no substitute. As a generalization, it can be said that all psychoanalytic schools maintain and develop a tradition of listening and connection. No treatment of human mental suffering is feasible without these two ingredients.

To sum up: Contemporary clinical psychology cannot allow itself not to see and cannot allow itself not to listen. The conservative psychoanalytic camp flatly rejects the need and the possibility to examine - with objective scientific tools - the validity of its theories and the effectiveness of its treatments. This approach is a recipe for the removal of psychoanalysis from contemporary psychological discourse, and for its transformation into a marginal messianic cult. The listening Freud never discarded the heritage of the observing Charcot. Psychoanalysis can and should learn not only from