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Dear Reader,

Psychology is a ubiquitous and relevant discipline that encompasses our entire life. Our relationships, the way we think and feel, and our personalities are all shaped and viewed from a mass of protoplasm that resides within our skull. This complex network of neuronal tissue is only being scratched at the surface and scientists today are seeking to understand the complexity of what makes us human.

Beneath that, though, perhaps somewhere deep in the frontal lobe resides our psyche—this conglomeration of one’s personal narrative memory, motivation, and emotion which comprises a level of awareness and identity that is beyond our reach—what Freud calls our unconscious. It is the unconscious that drives so much of what we do and is beyond our awareness. It is the goal of psychotherapy and psychoanalysis to understand our individual and unique unconscious and bring this awareness to our consciousness so that we can enjoy better relationships, success at school, productivity at our jobs, and acquire tools to help us navigate the sometimes rough terrain of life.

And so, our goal for the magazine is to create a medium where the students of Brooklyn College can share their thoughts and talent within the parameters of psychology. And, in doing so, create a dialogue about all the things that make us human.

We begin with a forward authored by Dr. Irvin Yalom, psychiatrist and best-selling author who kindly allowed us to borrow the title of one of his fictional books, Lying on the Couch, for our magazine.

We then have an article by Gabriella Goldberg, who talks about stress and what we can do about it.

We begin a conversation with Dr. Jay Greenberg, psychoanalyst and co-author of Object Relations in Psychoanalytic Theory, which explores psychoanalysis from the theoretical orientation of Object Relations.

Next, we have an article by Lori Raingevirtz titled, Bi-Poe-Lar: An Analysis This article explores the famous master of suspense's darker side.

A piece of prose titled, Oops, a Freudian Slip, by Albert Abraham Mitta gives over a humorous vignette that involves an embarrassing slip of the tongue.

We have a piece of prose by Yacov Bressler, who muses about loneliness.

We also include a paper on Consciousness by Brenda Kamenetsky who explores whether Conscious awareness can be studied and observed.

Next is a review of the documentary, “The Face of Meth”, by Sharon Hollander, which tells the story of a recovering meth addict who is trying to spread awareness about the devastating effects of drug abuse.

On page 37 there’s an article on the neurodegenerative disease, Alzheimer’s, by Josh Sabo. In it, Josh Sabo researchers some of the things one can do to slow the cognitive deficits associated with Alzheimer’s disease.

Following, we have a paper by Deborah Borlam on Autism. In her paper she examines the symptoms, statistics, and treatment for this complex neurodevelopmental disorder.

Finishing off, we have a book review written by Batya Weinstein and a poem by Rivkah Rosenberger titled, The Unspoken, where she free associates.

As editors of Lying on the Couch we hope that this magazine will be like the field of psychology—exciting, relevant, and always growing.

And so, as you lie on your couch or if you decide to finally, “lie on the couch”, I hope you can appreciate this important discipline and apply its knowledge to your everyday life.

Happy Reading,

Batya Weinstein and Batsheva Becher
Forward

Forward by Dr. Irvin Yalom, psychiatrist and best-selling author

Dear Readers,

I am very pleased that this student psychology magazine has chosen to name their publication, Lying on the Couch, borrowing the name of my psychotherapy novel. In that novel I tried to emphasize the humanistic aspects of psychotherapy especially emphasizing that therapists be open, authentic, and empathic. My best wishes and hopes that this new student publication, Lying on the Couch, will continue that tradition.

Irvin Yalom, MD
Stress. Can you find one person who hasn’t experienced it? Even the calmest person you know probably has gone through it in some way or another. From maintaining a good average to planning a party, everyone has come across this loathsome term at least once in his or her lifetime. Stress is the process of adjusting to circumstances that disrupt one’s equilibrium. The stressor, positive or negative, is the one to blame for disrupting the equilibrium. A positive stressor could be anything from getting a promotion to buying a new car. A negative stressor could be from sitting in a traffic jam to filing for a divorce. Stressors come in all different sizes: a large stressor could be caused by a catastrophic event, a medium stressor could be caused by an illness, and a small stressor could be caused by daily hassles.

Hans Selye’s theory on stress is called General Adaptation Theory. He believed that when the stressor occurs, the body goes into a stage of alarm where it is mobilized into action. At this stage, the body is highly aroused. After the alarm stage, the body shifts into the resistance stage, especially if the stressor persists. The body is in a prolonged, moderately aroused state at this stage. The body secretes cortisol to help sustain the level of activity and to continue facing the challenge. Remaining in the resistance stage for too long uses up the body’s reserves of energy, compromising the immune system. The two ways to enter the final stage are either one’s reserve energy is gone, or the stressor disappears. The final stage in Selye’s theory on stress is exhaustion, where one feels weak, fatigued, and other negative symptoms.

When you reach the exhaustion stage of stress, multiple types of symptoms may ensue. Emotional symptoms include depression, impatience, fits of rage, and tearfulness. Cognitive symptoms are comprised and manifests itself in a lack of concentration, memory lapse, difficult decision making, confusion, and panic attacks. Behavioral symptoms consist of eating changes, drug/alcohol use, fidgeting, restlessness, and nail biting. Physical/physiological symptoms involve sleep changes, fatigue, headaches, aches and pains, dizziness, and sweating.

To deal with the symptoms of stress, people often turn to coping. Coping is a term that refers to a person’s patterns of response to stress. Two ways people can respond to stress are by Problem-Focused Coping or by Emotion-Focused Coping. When people choose Problem-Focused Coping, they want to alleviate the stressor and deal with the problem flat out. First, one does this by confronting the problem head on. Secondly, one seeks social support from people who had/have the same issue to learn more about it. And thirdly, one comes up with a plan to solve the problem. The other choice to deal with stress is to make oneself feel better with Emotion-Focused Coping. Different methods to cope this way include: self-control by controlling one’s emotions; distancing by distracting oneself from the problem; positive reappraisal by looking for a different way to view the problem (see the silver lining); accept responsibility that it’s your fault that the problem occurred and learn from it for next time; and wishful thinking. If the problem is controllable, use Problem-Focused Coping. If it is not controllable, use Emotion-Focused Coping.

Even though most of my problems usually fall under the controllable category, I don’t frequently choose Problem-Focused Coping to solve them. Like many others, I choose Emotion-Focused Coping to sort out my problems. For instance, when I sat down to write this paper, I didn’t do it one sitting. I distracted myself. I watched a movie, cleaned my room, and texted to avoid doing my paper and other work I had to do. Instead of it taking me a normal amount of time to do my work, I procrastinated.
and therefore it took me double the time. I accept the responsibility that it is my fault that when the deadline is coming close, I have a lot more work than I would have had if paced myself correctly. I try to do my work ahead of time, but I know that it’s due in a while so I push it off for as long as I can.

Ever since I started college, I’ve begun to experience symptoms of stress. Changes with my body, eating habits, restlessness, sleep patterns, and even memory loss began to occur due to the amount of stress I have started to undergo. Since the beginning of the year, I’ve lost at least 10 pounds, due to the change in my eating habits. I eat less now that I am more stressed than ever before. In class, I feel restless and unable to focus at times. I incessantly feel fatigued, perhaps because I don’t have enough sleep due to the amount of work I have or because of the never-ending stress factors. I’ve begun to notice that I cannot remember things so accurately anymore because I have so much on my mind.

Taking my road test was one of the highest stressful points in my life so far. A couple of weeks before the test, I had a nightmare in which I drove right into oncoming traffic. Two days before the test, while I was practicing, I became so nervous that I forgot how to drive. This in turn made me even more stressed. The night before, I couldn’t remember which way to turn the steering wheel when parking or making a k-turn. The day of the test I didn’t want to stress myself out so while waiting for my turn to drive, I spent the time talking to my mother about everything under the sun, excluding driving. I kept my mind off the test, distancing and distracting myself from it, and I alleviated the stress by doing so.

One thing I know for sure is that I don’t freak out when I feel stressed. No matter how close I am to the deadline or how agitated I am, I remain calm. I tell myself that I can overcome whatever is causing me stress and that there is no reason to have a nervous breakdown. I believe this helps me get through my dilemmas in the best possible way because if I focus on the stress, I won’t be able to tackle the problem. I suppress my stress, but the problem is that it sometimes appears in my dreams or nightmares. It’s obviously in my subconscious mind and won’t go away. Maybe it’s not the best possible way to cope, but in all fairness, it’s the best possible way to keep me sane.
I got on the C train that was heading towards the Upper West Side. Looking through the crowded passengers, I found a seat. As the train passed over the Brooklyn Bridge, I glanced out the window and noticed the sun beginning its slow descent. I wondered what I would ask Dr. Greenberg. I was curious. I wanted to know more about this aloof and mysterious process that is called psychoanalysis. What goes on in those offices with those couches? How does the “talking cure” manifest itself and enact change? What mechanisms induce healing?

I walked down Central Park West to his office. I was met with a black door. Upon opening it, I discovered that there were three smaller doors inside. Not knowing which was his, I knocked on the one facing me. Upon receiving no answer, I knocked on the door to my right. He opened it.

He was the man I saw in the YouTube video that I watched on a panel discussion that consisted of psychoanalysts discussing the definition of guilt. And, after googling him, I found that he was the co-author of Object Relations in Psychoanalytic Theory as well as a training analyst at NYU and William Alanson White Institute, where he worked. I thought that perhaps he could shed some light on what goes on in psychoanalysis.

“Hi, Batya,” he said.

He appeared to be middle aged and sported a white, Freudian like beard. He wore a blue shirt decked with a mustard colored tie.

He led me into his office.

I briefly looked around me; photographs lined his walls, figurines and trinkets were displayed on shelves that jutted out from the wall near the door, and he had windows that faced eastward toward Central Park.

Filling the space of the room sat a large, leather armchair, and adjacent, was a beige leather couch. Against the walls were oak wood bookcases filled with neatly, categorized books.

“Do you mind if I record this?”

“Not at all, go ahead”

After making some small talk, I began. “So, if you can please tell me what object relations of psychoanalysis is”

“Freud thought that people had all sorts of needs that had to be met. Freud thought these needs stemmed from a desire to being loved, for food, and sexual needs—a whole range of requirements that he felt drew us into relationships. The object is a thing that satisfied these needs, according to Freud. He is the person who introduced the term object into psychological thinking. “

Dr. Greenberg elaborated and explained how the object represents our many different needs. For example, a sandwich would be an object that satisfies the need of hunger and a blanket to maintain the body’s optimal temperature if we were to be cold. He went on to explain that the objects considered most important and interesting by contemporary analysts are the people who can meet various needs.

“How does this need, this object, or lack of it turn into a problem?” I asked.

“If person, when he or she was growing up, wanted a hug for warmth and affection and got smacked instead because the adults around them had trouble with affection then the person might develop a kind of aversion to approaching people. For these reasons, difficulties in object relations early on might affect individuals when they desire them.

Also, one might have trouble turning to people for love and affection and might turn to a dog or cat. Another possibility is that if one’s life experience was that they were treated harshly when they approached someone for affection then they would turn to people who treated them the same way and might find themselves getting into painful relationships because they learned by experience that being treated harshly was the price for affec-
I interjected, “So one begins to associate love with being treated harshly?”

“Yes, so one would continue to live in that way. One might even, if one associated harsh treatment with affection, wind up provoking the person they approached to treat them harshly, and then get into bad patterns of relating.

“If an individual has problems in their present life due to being treated badly early on, how would a psychoanalyst treat them?”

“Someone who had the kind of history we’re talking about would come in complaining how they have trouble maintaining a relationship. They start out well but then the relationship falls apart. So first, as analysts we would start to listen. We would listen to some of the specifics of the things that happen in this person’s relationship. We would explore to some extent, some of the history of the persons relationship.

More and more these days we are going to be interested in what happens in the analysis itself that might cast some light on the problem. So, somebody might complain how they have trouble feeling supported by the person who they are with. And, as you start working with this person you notice that you might say supportive things, things that you might consider supportive to them and they feel that they are insults; or, you might find that after a while you don’t feel particularly supportive of this person even though most of the time you find yourself liking patients and wanting to support them. Yet, with this patient one might feel more critical than usual. So you notice, that within the relationship itself patterns develop that have some relationship to the problems that the person is describing and so the therapeutic relationship itself becomes a kind of laboratory where you can see the sorts of things go wrong you start to find things that are happening between the two of you that puts you off and makes you feel more critical.

Just to give you a silly example: Somebody might feel that people are critical of them and then over time the therapist notices that the patient is coming in and lying on the couch with muddy shoes, the person is late all the time, or not paying the bill on time—all sorts of things that influence the way you feel about a certain person. You start to wonder in what way is this person being provocative and maybe undermining other people in his life. Again, the therapeutic situation becomes a laboratory where some of the problems start to reveal themselves.”

I asked, “Do you comment on this or do you let it play out?”

“Often you let it play out; the idea is to make it accessible to being talking about. But that’s not always so simple because you want to wait till there is enough basis for dealing with it so that the other person doesn’t feel misunderstood or criticized.”

“Like a therapeutic alliance?

“Well that’s part of it, a therapeutic alliance in the sense that you want the other person to feel comfortable enough that they are able to hear and work with things that you notice.”

“Is that because you don’t want there to be resistance?” I queried.

“When you ask about resistance it’s a difficult term to pin down, controversial. Different people have different thoughts about it. Different people have different ideas on how to handle it, when to address it, and when not to. In fact, I am editor of a psychoanalytic journal, a paper that was recently submitted for publication is called “Reconsidering Resistance” it’s something that people talk about a lot. There is never a time when there isn’t resistance. What you are working towards isn’t that people aren’t resisting, in a certain sense they always are. What we are interested in is when somebody can hear me in a way that is close to the way that I’d like to be heard. And use what I have to say in ways that are close to the way that I’d like to see them being used. Resistance, which is a very early term of Freud, had a particular place in his theory as it sat in a particular relationship to other phenomena. But it’s not that you wait until there is no resistance.

A broad example: There is a patient that I saw
today who gets into frames of mind. She is somebody who is quite disturbed (so this is an extreme example). She gets into states of mind where she feels that just the sound of my voice is like rubbing sandpaper on an open sore. She is in and out of that state. Certainly, you would call that a resistance in the sense that she is not able to hear and use an interpretation; she literally feels it like a painful assault on her.”

“Does that happen with you or other people?”

“It becomes a conscious experience where she knows she can say to me, shut up and then tell me that’s the way it feels to her. She is feeling like she hates me at that point but she is able to tell me. She wouldn’t tell that to someone else. Letting me know how she feels is between her and me. She often feels something like that with other people—her husband, kids, mother, and friends, but she wouldn’t tell them. She wouldn’t tell them and wouldn’t let it get to the point. She is much more likely to withdraw and not expose herself to the risk of feeling tormented. With me she feels that she can expose herself to the risk and tell me about it.

Getting back to resistance, obviously when she is in that state of mind it isn’t the time for me to tell her the truth about herself. So there are frames of mind in which people can hear things and where they can't hear in other frames of mind.”

“And do you sense that?”

“Oh yeah, that’s something that you better learn how to sense, otherwise you’re going to get yourself in trouble. It’s part of the training but it’s also part of just learning how to be with other people. To learn that no matter how important you think a particular idea is and no matter how beneficial you think it would be to the patient for them to know it right now, and sometimes you can feel that way as therapists get very caught up in wanting to help the patient. You learn how to put it on the backburner for yourself and cool your own enthusiasm until the patient is ready.”

“Once you understand the patient’s problem, how do you motivate or how do you heal the patient and help them regain successful relationships or overcome the past. Is self-awareness enough? In other words, is it enough that the patient understands their present interactions because of the past?”

“Freud thought that self-awareness was the whole deal, he thought that if you came to Freud because you couldn’t move your left arm due to hysterical paralysis and in the course of the analysis you learned that you had constructed paralysis because you are afraid that if you could move your arm you might hit your mother. Freud thought that once the conflict was made conscious the symptom would have no more reason to exist and so it would disappear. Contemporary analysts don’t think it’s that simple. We don’t think that self-awareness is either necessary or sufficient. Our ideas about what works are much more complicated. So, if you’ve asked the question, what has changed when you observe these patterns that are recurring in the analytic setting
including the history, seeing how it plays out in life experiences and through the work with dreams—all the different things that you do. It still doesn’t seem that this kind of self-awareness is all that is going on. There are other possibilities. When I am with a patient I want them to learn more about themselves. I also want them to be more open to learning about themselves than they were before they started therapy. I want them in a certain way to be more interested in what makes them tick and to be open to surprises about themselves.

One of the things that I think gets people in trouble is that they live internally in very enclosed systems, where everything has fixed meanings that people have lived with forever. I want to help them to be more curious, more open to surprise then they were. The goal of the analyses isn’t necessarily to provide answers as to what goes on but also to help people be interested in the way that they are affected by things.

I am thinking of a guy I work with who is very successful in the sense that he is an accomplished professional. For the most part he enjoys what he does and is good at it, and recognized for it. More recently, he is happily married, and has a daughter that he is wildly in love with much to his surprise.

One of the things that brought him into therapy is that there are times when he just feels that maybe that everything he's done in his life was a mistake. He thinks that maybe he should've done something else. He is tormented by the idea that everything he's done is a mistake and doesn't know what to do about it. When he gets into that state of mind, it’s almost the exact same each time it happens. It used to happen very frequently, he used to act out, leave a job and his relationship when he felt that way. He got himself into trouble and made impulsive and bad choices. Now it’s not like that, he’ll feel that way for a couple of days, and instead of happening fairly regularly it happens episodically, as this is one of the things we’ve accomplished and been able to do in the course of therapy. We both know now that when he gets into that mood something has happened that he hasn’t noticed but he hasn’t let himself be aware of or process.

For instance, he was at a dinner honoring a friend of his and people were saying nice things honoring his friend. He is jealous, angry, and competitive, except he doesn’t realize. His conscious experience is that this is a good friend, he is very happy for him; he is very supportive, which by the way, he is. He is a generous friend, but he also, like everyone, is subject to jealousy.

However, he won’t notice that during the dinner. Two days later he’ll think that all his choices in life have been misguided and self-destructive. In
therapy, we really have to do some work, to really locate this dinner and some of the thoughts he has about the dinner as being some of the turning points in his frame of mind. When he gets into this global dissatisfaction he is really able to ask himself the question, has something happened. It’s really being able to ask the question as much the particular answer that he comes up with that’s useful.

By just developing the curiosity of what happened, that’s what I meant what I said, when I said I like to help people be more interested in themselves. He has to ask the question where have I been the past few days that I’ve gotten into this frame of mind. Maybe it’s not that he should’ve taken this other job five years ago, or married some other woman. The work hasn’t been just about finding out what goes wrong but also but really learning in an emotional meaningful way that throughout his life he didn’t pay attention to certain things that are important to him.”

“What do you mean?”

“Things went on in his life that were very painful, especially as a young powerless kid. In his kind of chaotic life he learned that not paying attention allowed him to focus on other things.”

“So, that’s like a defense mechanism?”

“Yeah.”

“So that would be looking at it through the lens of psychoanalysis? Where knowing how the past contributes to his present situation?”

“Yeah, knowing the past helps illuminates the present but the important change is in his current functioning and its being able to notice that he felt competitive with his friend at the award dinner. Learning about the past it’s built a platform where that new way of living can sit in a stable way and reinforces his ability to introspect. Ultimately, though, it’s really being able to live differently in the present that has made the difference.

I asked, “Is that like cognitive psychotherapy?”

“I think recently there is overlap between contemporary psychoanalysis with some of the conceptual structure of object relations which talks about a mix of thoughts, actions and feelings. There is some overlap. Cognitive therapists have moved recently closer to psychoanalysis because they’ve discovered transference and to some extent, conflict.

There are more and more bridges that could be built between cognitive psychology and psychoanalysis. There are some people who are interested in building them, not too many but there are profound differences between psychoanalysis and cognitive therapy. For one thing, we put much more emphasis on feelings then cognitive therapist. We put a lot more emphasis on motivation then cognitive therapist and to some extent that evokes the past because once you’re talking about motivation you’re talking about the past which includes history and conflicts. Because of that we believe that the results we achieve go deeper and are more enduring than those of the cognitive therapists.

It’s not quite as easy to say well, if you find yourself thinking this, think that instead. The two theoretical orientations are different in the model of mind where you recognize the pervasiveness of conflict. So, there are still differences but there are also overlaps. One thing that triggered your question is that it looks like there is more common ground as psychoanalysts move away from an exclusive emphasis on the past, and look more at current thinking. Also, when you’re talking about object relations, and when you talk about the concept of representation, object representation, self-representation, the way I think about myself. When you talk about representations there’s a great deal of overlap between a representation – for instance, an idea of what I “look like” or what another person intends – and other kinds of thoughts. So that’s one of the places where there is some convergence between cognitive approaches and psychoanalytic approaches and also the emphasis on contemporary here and now is another area where there is potential overlap.”

“Interesting, now, going back to the patient who is jealous. How does he control his thoughts/depression?”
“I wouldn’t say he controls his anxiety and depression. What he is able to do is learn to live in the moment. He’ll be at the dinner honoring his friend and he’ll start to feel jealously and he’ll notice he feels jealously.”

“So it becomes conscious?”

“Yeah, that’s really the first thing. I think that one of things psychoanalysts believe that when we can put words to an experience it becomes a different experience. Freud knew that, he really got that in some very fundamental way. I believe it’s one of his key ideas. So, if I am to pick up the newspaper and I see that a friend of mine got an award and I could allow myself to feel consciously in words that I wish that was me, if I can let myself be aware of that the experience, it is much different than if I can’t let myself be aware.”

“So you’re saying that by not being conscious you end up acting out in one way or another?”

“Yeah, this is sort of what Freud said. The old saying, what you don’t know can’t hurt you is the exact opposite of what we believe.”

“So,” I said. “The goal of psychoanalysis in healing a patient is just to make their unconscious, conscious?”

“Yes, if you recognize that in saying that you’ve really said a mouthful. What does that mean when you say make the unconscious, conscious? What does it mean for something to be conscious, and unconscious? All sorts of things fly into my mind when you say that. One example, a patient can come into your office, and talk for ten minutes and you can say they have an Oedipus complex and the problem is you want to have sex with your mother and kill your father. A person might say, yeah I might say I was angry at my father a lot, my mother was a source of warmth and I really got jealous—that would do nothing, a lot else has to happen.”

“So that’s just one factor?”

“Yeah, it’s certainly just one factor and just to know something, to be consciously aware of something without it having great emotional poignancy for you is not likely to be terribly useful. Also, at the same time there’s a lot of people in my practice over the years who have gotten better but I couldn’t exactly tell you what it is that they know about themselves that they hadn’t known before. I think it’s possible to have insight and not to get better and it’s possible I think to get better without having insight. This is something that analysts talk about all the time: what is it exactly that has to change? And how does it have to change? What is it that makes people better? There is enormous literature on the topic. Any relationship between two people is tremendously complex if the relationship goes on for a long time and very private things are talked about. All sort of emotions are allowed into the room and dealt with in one way or the other. If, at the end of five years the person got better and now you have to ask, out of all this enormous mass of events, what helped the patient? What is responsible for the patient getting better? It has to be arbitrary in some way; you’ve got to be somewhat arbitrarily selecting events of the experience and neglecting others to say that this is what works.”

“So there is no exact science?”

“No, there is no exact science and some people worry about that. Some analysts think that there ought to be a precise way of measuring the impact of various events. It’s important for us to keep talking about but I can’t imagine a day when we are able to pinpoint a specific therapeutic agent. It’s not like we can say this is the bacillus that caused the illness, and here is the medication that destroys the organism that is causing the problem. We are not likely to ever be able to do that.”

“Well, I guess ultimately something’s working”

“Yeah, for example, let’s say you and I are working on a problem of yours and I say something that touches you. It feels true. It feels deep and you feel it’s something that you haven’t been able to put into words yourself. Yet there is a resonance that made it true all along. It feels deep and you feel it’s something that you haven’t been able to put into words yourself. Yet there is a resonance that made it true all along. It feels important and so you feel touched by it. Now, on the one hand you would say, or someone who is interested, this is one interaction between you and me. Subsequent to that interaction you felt better, the problem improved in some demonstrable way
and now we want to write the case up. When I said the thing that I said to you, on the one hand you learned something about yourself; you are able to put words to something that had no words before. It feels true. In that sense it meets Freud’s standard of what it means to make the unconscious, conscious. It’s not like you just walk in one day and I tell you, you’ve got an Oedipus complex, because everyone does. It’s not like that because it has a deep emotional resonance, so something that has been unconscious has been made conscious. But, it’s also true that to arrive at the point where I could say that thing to you, make that interpretation, I also had to spend a lot of time listening very carefully to you, and you’ve noticed that I’ve paid a lot of attention to you and that may be different from what other people in your life may have done. Perhaps your parents didn’t listen to you, weren’t thoughtful, were disturbed by things that you were thinking and feeling. In contrast, I’ve been able to take in your experience and work with it, mull over it in my mind, and that’s a new experience for the person. Maybe, you had given up feeling that kind of thing could happen to people; in having this new experience with me it’s corrected a set of assumptions about human relationships that have been problematic. Or, another possibility is that when I made that interpretation, you’ve felt close to me. It stirred up feelings of emotional connection and you could see the way that things were passing back and forth between us that I was feeling close to you as well. That’s just three perspectives on what happened when I said those thing to you. We know that you got better in the aftermath. Which dimension of the experience is responsible for you feeling better could be all three or it could be some combination. I think they work together in intricate ways. I also think, it may not be the same for everybody, sometimes we may just not know. So, because there are also dimensions of what goes back and forth between people, we don’t even realize what’s happening. We are sometimes touching each other in ways that are inaccessible to both of us.”

All what I was hearing was fascinating, but the neuroscientist in me wondered if there was a neurological basis for psychoanalysis. So I asked him.

“It has because everything has a neurological basis and I think it’s presumptive that there has to be some kind of neurophysiological change because that’s just who we are. Having said that, the place where I think there is a problem in terms of some of the conceptualization that is going on, is that people try prematurely or misguidedly to mix levels of discourse that just come from different universes. I don’t know if the kinds of data neuroscientists have could possibly bear on the kinds of data we have, and how they coordinate, I think that they could never come together. I am somewhat reactionary on the point, I don’t see the day that there can be a great synthesis, I think we are dealing with different discourses. I think that because the data of psychoanalysis doesn’t have the kind of certainty that a lot of people are looking for. We can’t separate the different events, the interpretation, in this case whether it was my smile that touched him etc. There are a lot of people who long for that kind of clarity and certainty and who couldn’t function very well in the uncertainty of the sloppiness of the data inherent in psychoanalysis. I am not troubled by it, I can live fairly comfortably with that particular kind of uncertainty, and not everybody can.
At the moment, any neurologists that can pull out mirror neurons can easily intimidate a psychoanalyst. I think we are in a different kind of enterprise and I’ll tell you briefly, one of my favorite stories.

A very long time ago, at the beginning of my career, I saw a young man who had just graduated from college. He came to therapy because he couldn’t choose between the two girlfriends that he had. I only saw him once a week. All he wanted to talk about was the two girlfriends. I saw him late at night, after a full time job. I was just having a part time practice and I saw him, he was my last patient, and was incredibly boring to me. He would just come in to talk about these two girlfriends; it was the same thing, week after week. I basically didn’t have very much to say about it, it didn’t seem like either one of them was bad choice. If I had to tell you what I did, I mainly struggled to sort of stay awake and listen. Every now and then I would try to make some kind of comment, yet I can’t remember anything I said.

After a year and half, we stopped the therapy, we stopped and I don’t know why we stopped. I don’t know if he decided on the girlfriends. I remember that it was a friendly termination, but I didn’t know why or what happened. I pretty much forgot about him and I don’t think I’ve thought about him for twenty years. Twenty years later, I get a letter from him from California. Inside is a picture of him with a note. His picture is of him in a cap and gown with three kids and his wife. The note said this is a picture of me on my graduation day. I got my law degree and this is my family and I just want you to know that you’ve saved my life.

It was incredibly moving and I had absolutely no idea what changed or saved his life.

But I think that there is something about that that really captures both the power of the experience and also the mystery of psychoanalysis.

I had a friend who had a somewhat similar experience of years later running into a former patient who greeted him very warmly and said, you really changed my life. The therapist asked, could you tell me what, what was so powerful about it? The patient told him simply, you always showed up—that’s something that we do. It would be corrective in different ways for different people.

There is something about the psychotherapeutic venture, that no matter how furious you a patient is with me today, and they can tell me today that I wish you were dead and you know I’ll be here tomorrow. It touches people. It could certainly rectify a certain kind of cynicism of who people are to each other. Just showing up can be meaningful."

I left his Upper West Side Office thinking. I thought about the stories he told, of the people he helped. I tried to quantify it; analyze it. I tried to think of a certain brain region that might be implicated in the healing that results from successful psychoanalytic treatment. The mystery he spoke of, what was it. What force was this—a stranger talking to a stranger? How can that heal? Perhaps it’s the love that heals—the human companionship, acceptance, and unconditional positive regard. Love and understanding that is often missing from an individual’s life that often propels them to seek help in the first place. I walked down the station stairs, stepped onto the train, and rode off as I stared out at the C train’s window, while noticing the bright lights that emanated from the multitude of buildings, twinkling in symphony with the stars above them.
According to the American Psychiatric Association, there are many types of bipolar disorders, each defined by its manifesting symptoms. Bipolar II Disorder is most interesting as demonstrated by the case of American writer and critic, Edgar Allen Poe. Although Poe was never properly diagnosed, he showed signs of mental illness early on in his life that is similar to the physical mental, and behavioral symptoms of Bipolar II. Bipolar disorders can be inherited (Kelsoe 585), but it is hard to tell if Poe’s genetics played a direct role in his illness because his parents passed away long before he was recognized. However, a traumatic event or stressor in life can cause the mental illness to emerge or develop (Saylers 1141), and therefore, the genetic information of Poe’s father is quite trivial. Early diagnosis is essential to properly take care of mental illnesses; however, Poe was not privy to the technology and medical advancements of the world we live in today. In this essay, I will argue that Poe developed Bipolar II Disorder due to the traumatic events of his past and that this disorder led to his specific style of writing.

Among each individual who is stricken with Bipolar II Disorder, there is a commonality, which is a checklist of symptoms. Most patients often exhibit mood swings that oscillate between episodes of abnormally elevated moods and feelings of extreme depression. These are known as the manic and depressive states of Bipolar II Disorder (American Psychiatric Association 362). People who have by Bipolar II Disorder are known to have ‘extreme’ emotional highs and lows.

Bipolar II’s physical, behavioral, and mental symptoms are easily detected. An individual with the disorder will have a decreased need for sleep due to excited states and will show traces of insomnia. They will act purely on impulse and will not be concerned with the consequences of their behavior at all. They are easily distracted and tend to engage in reckless behavior such as engagement in sexual activities and gambling. Mentally, they feel an increase in self worth classified as ‘grandiose.’ Typically, Bipolar II Disorder patients have racing thoughts known as ‘flights of ideas’, where the mind will skip from one topic to another in haste without making connections between thoughts. In addition, they experience an increase in goal directed activities that are either socially, academically, or sexually oriented (American Psychiatric Association 362).

Many of these physical, behavioral, and mental symptoms entwine and overlap. Both mood symptoms must be apparent along with four physical, behavioral, and mental symptoms in order to be diagnosed with Bipolar II Disorder. It is a common practice to diagnose a patient after watching him or her for a week (American Psychiatric Association 362). As Poe died long before this disorder was discovered, we cannot observe him. Luckily, Poe expressed these long-term symptoms through his life experiences, short stories, and poems. These life experiences, short stories, and poems created by Poe provide us with a copious amount of evidence that leads us to recognize that Poe did, in fact, have Bipolar II Disorder.

In “The Tell-Tale Heart”, Poe wrote,

And every night, at about midnight I turned the latch of his door and opened it – oh, so gently! And then, when I had made an opening sufficient for my head,
I put in a dark lantern, all closed, closed, so that no light shown, and then I thrust in my head... And this I did for seven long nights—every night just at midnight—but I found the eye always closed; and so it was impossible to do the work; for it was not the old man who vexed me, but his Evil Eye... I could scarcely contain my feelings of triumph... The old man's hour had come! ... I then smiled gaily to find the deed so far done... I placed my hand upon the heart and held it there many minutes. There was no pulsation. He was stone dead. His eye would trouble me no more... When I had made an end of these labors, it was four o'clock—still dark as midnight... (Poe 121-3)

Here, Poe was in a manic state. Without rational consideration, Poe’s character, who is not named, decides to kill an old man because he is fixated on his ‘Evil Eye’. The eye taunts him, and he wants to get rid of it. And so, he stays up late, day after day, showing clear traces of insomnia to readers. Scholars claim that the old man is a delusion of Poe’s mind and that he is really placing the hate he has for himself that he would like to get rid of onto an imaginary being (Tucker 92). Moreover, the main character takes great pride in his master plan to kill the old man as he says, “Oh you would have laughed to see how cunningly I thrust it in!” (Poe 121). This quote also has a sexual connotation, which means that Poe’s frenzy must stimulate him in more ways than one.

The love Poe finds in these women links back to the traumatic experience of losing his mother at such a young age. Perhaps Poe was “scarred for life” by his mother’s death, and therefore went on to find the only affection he had known, the touch of a sick woman’s hand. Now this may seem a bit ‘insane’, but this is no false claim. Many of the loved ones in Poe’s life, and even those he wrote about, were sick. For example, the character Berenice in Poe’s short story was afflicted by “a fatal disease” that “changed her mind, her habits, and her character” (Poe 172). Even Morella, his wife, was sick, so sick he wanted her to die. He admits, in his short story “Morella” that he would once “linger by her bedside”, but after the sickness had befallen her, he could “no longer bear the touch of her wan fingers” (Poe 223). Furthermore, in a depressive state, Poe wrote a romantic poem titled “Annabel Lee” where he kills off the one woman he seems to not be able to live without. Clearly, all these women must relate to the Oedipus complex Poe undoubtedly had.

As time went on, Poe began to experience flights of ideas. The onsets of these flights were caused by Poe missing the motherly figure in his life. After adoption, Poe was sent to a boarding school in Irvine. He would escape reality by experiencing delusions or keeping to himself to cope with his “unhappiness and unbearable pressure.” These escapes happened often and soon became notable in Poe’s frequent behavior. At night, Poe would be known to stay awake for great lengths of time; it was also public knowledge that Poe experienced insomnia and had nightmares (Mankowitz 24).

Though Poe complained a great deal while he was away at boarding school, he still managed to be...
an exemplary student. And he knew it. Poe exemplified his feelings of grandiosity in a letter, saying, “The ardor, the enthusiasm, and imperiousness of my disposition, soon rendered me a marked character among my school mates, gave me ascendancy overall not greatly older than myself.” Poe achieved excellence in school work and at times, seemed high on life, but at other times, he fell into total isolation (Mankowitz 27). Sometimes, Poe would go swimming and sailing with his classmates, but at other times he wrapped himself up in solitude (29). Even with all the highs and lows, Poe maintained an overall ambition. He continued to flourish in his academics by excelling in French, Latin, literature, and mathematics (28).

In addition to feelings of grandiosity, another symptom of Bipolar II Disorder Poe demonstrated was a healthy, and encouraged sexual appetite. His romantic inclinations were high. He fell in love with many girls in his town. These included the many women in his poems such as Louisa and Helen (Mankowitz 29). To Louisa he wrote,

Louisa, take my scorn,
Curs’d was the hour that saw us meet
The Hour when we were born” (Mankowitz 29).

For Helen he wrote a poem saying,
Helen, thy beauty is to me
Like those Nicean barks of yore..
Lo! In yon brilliant window- niche
How statue- like I see thee stand
(Mankowitz 30).

And to an older woman, Mrs. Standard, who Poe fell madly in love with, he wrote,
“I could not love except where death was mingling his with Beauty’s breath” (Mankowitz 30).

Each of the lovers Poe had chosen can be traced back to his mother, who I believe to be the stressor that triggered Poe’s Bipolar disorder. With this information, it is clear that Poe’s writings are products of his deep feelings and thoughts.

To strengthen the argument that Poe was Bipolar, scientific studies have provided evidence showing a direct correlation between mental illness such as Bipolar and Schizophrenia with creativity. Bipolar II Disorder allows for faster thought process and the ability to convert information into art, poetry, and design. Creativity has three stages. The first stage is storing relevant information. The second stage is mulling over the stored information and processing it on an unconscious level. The final stage is having flashes of insight, which occur as a result of the first two processing stages. Creativity usually manifests during the manic phases of Bipolar II Disorder because of the energy and fixations the person is undergoing. These fixations and boosts of energy lead to new ideas (Hare 1588).

On the other hand, during stages of depression, thoughts and actions do not flow as smoothly. In
either situation, a person who has Bipolar II Disorder will understand the emotions they are feeling at the time they are feeling them and can also be creative. Depression can definitely lead to creativity. The ‘tortured soul’ has been known to write a great deal of touching literature. For example, Poe wrote “Annabel Lee” during a depressive state.

Now, if the correlation between creativity and mental illness wasn’t enough, maybe biological factors will be more convincing. Ongoing studies have shown and continue to show that bipolar is more common in males rather than in females. This correlation does show that men have higher rates of being creative over women. Ororwan, a biologist, says that creativity is higher in males due to the high concentration of uric acid in their bodies. Historically, in primates, this high acid concentration has proven to be a stimulant of brain activity and growth. As a result of the biological concentration, men (such as Poe) undergo rapid, intellectual development. This idea is true in the case of Poe who was a well-read man. Most interesting in this case, mental illness afflicted an “extraordinary number of Europeans,” such as Poe, who lived during the eighteenth century (Hare 1588).

When one examines Poe’s literature fully, it is safe to say that his writings style was strongly impacted by his life. Poe romanticized women and included his philosophical and political views. Poe did live during the time of a Romantic literary movement, which emphasized emotions in writing. Because Poe had such strong aesthetic values, he is considered a Romantic writer, but more importantly, he is known for his Gothicism. The themes in his poems and short stories usually include death, insanity, and chaos. These gothic motifs offer readers the “thrill of vicarious fear through participation” (Harbor 114). As they read along, they are challenged to make rational and moral decisions all while trying to figure out what Poe’s characters will choose to do.

Gothic literature feeds people’s desire for the excitement that comes along with terror. Now, it is a common claim that Poe was just giving the readers what they wanted and to deny this outright would be unjust (Harbor 113). Poe could very well have been encouraged by his audience, but his truest intent came from his own racing thoughts. Poe’s literature is a byproduct of his mental states. His creativity enticed him to write down his thoughts. It is sheer luck that he had a mental illness driving him to his successes. And to under credit the notion of his success being partly caused by Bipolar Disorder would be irrational and ignorant for it is blatantly obvious that the mind of genius was not, shall we say, “all there.”

Many analysts and critics of Poe argue that the analysis of his works are either fabricated or over analyzed. Perhaps the works are dissected too deeply to have a leg to stand on. A young Harold Fromm believes Poe's works to be over analyzed. He acknowledges that Poe demonstrates irregular patterns of pathology, but claims that because these pathological patterns were only discovered after his lifetime, Poe cannot be diagnosed. He claims that even if he matches a mental disorder, the diagnosis would lack credibility (302). This claim is most absurd. If Poe was diagnosed as an alcoholic based on biopsy, would Fromm say it lacked credibility? If Poe was given a lobotomy would he deny those results too? Obviously with modern technology and psychological understandings a diagnosis can be made for Poe’s long mental suffering.

Obviously, an argument claiming that Poe had Bipolar II Disorder and that no other opinion counted would be misguided and half-baked.
There is credit to be given to those who say that Poe was “philosophical rather than a psychoanalytic study” (Tate 457). It is an opinion, but it negates and ignores all possibilities other than its own. Undeniably, Poe engaged in deep thoughts of philosophical wonders. His thoughts shine forth in his texts. “Eureka”, “The Power of Words,” and “The Colloquy of Monos and Una” are some of his finest works that include rational and philosophical reasoning (458). Looking under the surface of Poe’s works, it is only fair to examine the many facets and possibilities of what he wanted to convey to his readers and what they can gather from his thoughts while he was writing. Even Tate can be quoted saying “when Poe is not involved directly in his own feeling, he can be a master of the ordinance” (461). Tate knows Poe was more or less wrapped up in his own mind but disregards the thought of it for an unknown reason.

Analyzing more of his works in depth will only provide further evidence for his diagnosis of Bipolar II Disorder. For instance, in “Berenice” Poe gives his character the name Egaueus, yet he deflects his own imaginations onto this character. The character has an illness that causes him to fixate on things and become easily distracted. He denotes an “intensity of interest” (Poe, 172) that indicates fixations. Poe exhibits clear fixations on women who are beautiful and are on the verge of death. He clearly regresses to thoughts of his mother each time he falls in love with a woman. Egaueus seems to be fixated on his cousin, Bernice, which alludes to a variable of sexual indiscretion. In passing, he refers to all the books he has read to administrate his intellect yet sheepishly boasts as he says, “I well remember, among others...” (173). As his mental illness proceeds, he studies more and more. As such, his knowledge increases. Through Egaueus, Poe’s character unfolds. Poe expresses his feelings by projecting his thoughts onto a literary character.

Poe then demonstrates an extremely ambitious, cocky character in his short story, “The Cask of Amontillado”. Montressor, the protagonist, is insulted by a wine connoisseur and has “vowed revenge” that shall “punish with impunity” (Poe 191). Montressor smiles with extreme confidence knowing the connoisseur’s soon to be fate. He is now dedicated to going through with his plan to punish the connoisseur. Montressor is lead by his ambition and feelings of euphoria as he schemes through his plan (192). He leads the connoisseur down through the cellars and loads him up on wines (193). Then, he proceeds with excessive rushes of euphoria to bury him under bricks (194). He fixates upon the bricks as a compulsion. He applies layer after layer of bricks all until he plasters the last stone (195). Here, again, Poe demonstrates the many symptoms of Bipolar II disorder.

Evidently, Poe had Bipolar II Disorder. Poe displays the behavioral, mental, and physical symptoms of the disorder and also has an extremely creative mind, which is linked to bipolar disorder. His symptoms emerge in his creative works such as “Berenice”, “The Tell Tale Heart,” and “Annabel Lee”. After analyzing and examining Poe’s works, the DSM criterion has put to rest all questions of uncertainty regarding the insanities of Poe.

Bibliography


Oops, a Freudian Slip

By: Albert Abraham Mitta

Being an active member of the Syrian community, it isn’t a surprise to hear that yet another couple is engaging in holy matrimony. As weddings are quite common, one does not even have to ask where the ceremony is being held since the answer is always the same – in the luxurious Shaare Zion synagogue. It is a common practice for relatives of the bride and groom to invite their own friends to the wedding, even though the bride and groom didn’t directly invite their friends. This is commonly known as wedding crashing and it does tend to happen often, as there are no bouncers at the door with a guest list checking for invitations. My good friend, Ralph’s cousin was getting married to his girlfriend of five years and although I had no idea who this cousin of his was, I was still invited by Jeffery to join the wedding. Ralph invited me for the fun of it – for the free food, loud dance music, and open bar (they seldom check for ID’s at weddings). At first I was a bit hesitant about attending a wedding that I wasn’t invited to. What did the trick was when Ralph had to convince me saying, “What’s a wedding without a wedding crasher?”

I agreed to attend the wedding but rather than go alone, I decided to invite my girlfriend to attend the wedding with me. As everybody knows, the first basic rule of wedding crashing is to dress really well – almost inconspicuously so you can blend right in with the black tie crowd. After all, the better you look, the more attention you attract, and that generally means more people wanting to come to you and ask who you are, where you’re from, and how you’re related to the happy couple. However, little did my girlfriend and I know this was not a black tie wedding. We both overdressed and made a grand entrance wearing a professional tuxedo and a lavish gown. Needless to say, we stuck out like sore thumbs and all eyes were on the both of us. The mother of the bride approached us and asked ever so gently which background my girlfriend came from. As nervous as my girlfriend was to respond, instead of casually saying that she was from Lebanese origin, she blurted out that she was a lesbian. As if all eyes weren’t on us beforehand, the amount of eyes on us was now tenfold. We both walked out of the wedding hall completely mortified.

The aforementioned situation happened well over a month ago and in my mind, I never knew what to classify it as. While sitting in my Introduction to Psychology lecture listening to my professor lecture about Freudian slips, I figured that this situation is a perfect example of one. According to any ordinary Psychology textbook, a Freudian slip is defined as an unintentional utterance that is believed to be linked to the unconscious mind. This is exactly what happened when my girlfriend accidentally uttered out that she was a lesbian instead of saying that she was from Lebanese origin. Until now, I have never asked her what was going through her mind the moment she said the word lesbian. It could very well be that she was watching an episode of the Ellen DeGeneres show just before I picked her up. Or perhaps she was watching a midnight rerun of the Glee episode “Born This Way” where Santana admits to Brittany that she really is a lesbian. Or maybe my girlfriend is an actual lesbian and has been keeping it a deep dark secret until now. An infinite amount of reasons why this might have occurred are possible, but I guess I may never know.
"Some people think that being alone and lonely are the same, that one naturally causes the other. That is not true. A person can be in a crowded room and be lonely and, conversely, a person can be alone but not feel lonely." -Barbarra A. Robinson.

The emotion of loneliness confuses me. I am a loner, as I love to spend hours with no one's company but my own. As a student, an endurance athlete, and a writer I am accustomed to spending hours alone while studying, training and writing. But I am not lonely during these periods. Right now, as I write this essay I am alone. This is confusing, because sometimes I am lonely. And often enough it's not when I'm alone.

The opposite of loneliness is a hard term to coin. Is it having friends? Is it being surrounded by people? No, it can't be, because a person can have friends that don't know them as well as a person would want, or better worded, need. And being surrounded by people most certainly doesn't exclude one of loneliness as seen all throughout pop culture. In order to find the opposite of loneliness it is more important to take a closer look at what loneliness really is.

Is loneliness a state of mind? If it were a state of mind, it would be the perceived realization that one is uncared for. This can result from many situations. To list a few, when one is separated from their family and/or friends, or when someone's self-confidence is so low that the person does not see any value in himself to be cared about. So yes, loneliness is a state of mind.

But what if it was not a perceived realization, what if it was actuality? For example, in post-apocalyptic movies, the main character is often very lonely. This is because there are no people to care for him or her. What is this feeling? Is it the absence of something we need or the presence of something we avoid?

When someone is without the presence of others they are lacking physical beings. But that person has the comfort of being thought about. Loneliness is equivalent to being forgotten. It is when people don’t know or care who you are. Loneliness, in this sense, is the absence of existing to others.

So in fact, if one plays a role in the minds of others, that person should be very comfortable being alone. Because when they are in the absence of the physical beings that contain the minds that can liquidate loneliness, they have already done away with it. Is there such a thing a being less lonely or lonelier? Absolutely. In fact this is what distinguishes people from each other. For some are content with less “anti-loneliness” than others. So from here it is evident that loneliness is an entity which we try to avoid.

This is what makes loneliness so confusing to me. Because I can’t figure out what it is. I cannot see the difference between it being an entity to avoid or the absence of a stimulus. But the source does not interfere with the outcome, which is a perceived reality of being forgotten. I know how to avoid it, it’s just that I’m confused over what it is I’m trying to avoid.
Autism: Symptoms, Statistics, and Treatment

By: Deborah Borlam

Abstract

Autism is a pervasive developmental disorder characterized by impaired communication skills, social interaction, and repetitive, obsessive behaviors. Because it is a spectrum disorder, the range and severity of symptoms vary with each individual. This report outlines common symptoms, diagnostic tools, and treatment methods. Five peer-reviewed studies are summarized and discussed. Their results suggest that the increasing prevalence of autism is not due solely to improved diagnostic criteria; promote the use of an autism-specific screening tool for all children, rather than a standard developmental screening; show the ADOS-G as an effective diagnostic tool when combined with an assessment of repetitive behaviors and interests; and analyze the role of parents' conceptualization of autism in selecting treatments for their child and underscore the need for individualized treatment.

Symptoms of Autism: The Autistic Child

Autism is a neurodevelopmental disorder affecting a child's social, cognitive, and psychological development and functioning. Autistic children have impaired or delayed communication skills (both verbal and non-verbal), lack metacognition, and have very specific interests. They may show “stimming” (self-stimulatory behavior), aggressive or self-injurious behavior, and hypersensitivity to sensory stimuli. Because autism is a spectrum disorder, the range and severity of symptoms vary with each individual. For this reason, autism treatment plans must be adjusted to accommodate the child's specific needs and level of functioning.

The autistic child's lack of verbal communication manifests itself in echolalia, interchanging of pronouns, difficulty or inability to engage in conversation, and, in some cases, a lack of any spoken words. Echolalia is repeating words or phrases without attributing meaning. A parent of an autistic child, for example, might ask: “Which crayon do you want, the blue one or the red one?” The child will likely respond, “the red one,” but may not show interest in the red crayon. If the parent then reverses the order, and asks, “Which crayon do you want, the red one or the blue one?” The child will likely respond, “the blue one,” without showing interest in the blue crayon either. The child repeats the last few words he hears but does not demonstrate that he knows what they mean. In this case, he does not take the red crayon after responding that he wants “the red one.” An autistic child may also interchange pronouns, such as “I” or “me” and “you.” For example, he might say, “You go to school,” to mean “I go to school,” or “Fix you” to mean “Fix it for me.” The autistic child also has difficulty with reciprocal communication, the “back and forth” between using expressive language to speak and receptive language to listen to others. Thus, his ability to engage in conversation is limited. An autistic child might speak only when prompted, depending on his level of functioning.

The autistic child's impaired non-verbal communication skills involve a lack of eye contact and suggestive gestures. He avoids locking eyes when speaking and may not look at the camera when his picture is taken. He may not point to objects or look at an object that someone else is pointing to. He also has difficulty in reading facial expressions and other social cues.

The autistic child is limited in his ability to engage in social relations, which is partly a manifestation of his lack of theory of mind. Theory of mind refers to one's ability to conceptualize the mind and understand that other people have minds that can think, want, and feel differently than one's own. Because of this deficit, the autistic child has difficulty sharing experiences and
empathizing with others and may not be able to form friendships with peers.

The autistic child’s impaired social functioning is sometimes considered closely related to his lack of communication skills because both indicate a lack of reciprocity (Lord, 2010). This can be seen, for example, in the phenomenon of parallel play. Two autistic children can play with toys in close proximity to each other but not with each other; they don’t interact. Moreover, a study by Snow et al. indicates a high correlation between social behaviors and non-verbal communication measures on the Autism Diagnostic Interview-Revised (ADI-R) (2009). Citing this study, Lord mentions that one proposal for the DSM-V is to combine the two categories into one: reciprocal social communication (2010).

Repetitive behaviors and interests are another feature of the autistic child. He may engage in “stimming,” repetitive body movements for the purpose of self-stimulation. He also has a very narrow range of interests, and may refuse to do anything he is not interested in. For example, if he enjoys playing games on the computer all day, he will likely refuse to go to the park.

Some autistic children also have difficult behaviors. They may throw tantrums and be aggressive or self-injurious. They may sit down in a public area and refuse to get up, refuse to sit at a table during a meal, or resist paying attention. When aggravated, they may also behave aggressively towards others and may hit, bite, and throw objects. This is sometimes the only way they are able to express themselves and let others know when they are upset because they have difficult using words. Some autistic children may also injure themselves by hitting their head against a wall or slapping themselves.

Statistics and Trends

Autism Spectrum Disorders (ASDs) appear to be increasingly prevalent. Today, an estimated 1 in every 110 children is diagnosed with autism (Hertz-Picciotto, 2009). Some attribute this increase to improved diagnostic methods; however, researchers Hertz-Picciotto and Delwiche suggest that this does not fully account for the increased diagnosis rate. They examined records of autism cases from 1990-2006, and calculated the percent-increase that can be attributed to a younger age of diagnosis and the inclusion of milder cases resulting from changing diagnostic criteria. They found that the younger age of diagnosis can account for a 12% increase in diagnostic rate, and the inclusion of milder cases can account for a 56% increase (Hertz-Picciotto & Delwiche, 2009). However, younger ages at diagnosis, differential migration, changes in diagnostic criteria, and inclusion of milder cases do not fully explain the observed increases. Other artifacts have yet to be quantified and, as a result, the extent to which the continued rise represents a true increase in the occurrence of autism remains unclear. (Hertz-Picciotto & Delwiche, 2009, p. 89)
Screening Tools and the Diagnostic Process

In any case, parents today are increasingly aware of autism and concerned with their child's development. The American Academy of Pediatrics recommends that pediatricians screen their patients for developmental delays during their well-visits at nine months, eighteen months, and twenty-four or thirty months. Common screening tools include the Ages and Stages Questionnaire (ASQ) and the Parents' Evaluation of Developmental Status (PEDS) (Pinto-Martin et. al., 2008).

Pediatricians should also screen for ASDs specifically during the child's well-visits at eighteen and twenty-four months. Autism-specific screening tools include the Screening Tool for Autism in Toddlers and Young Children (STAT) and the Modified Checklist for Autism in Toddlers (MCHAT). The STAT is an interactive test that measures social behavior and communication skills of children from ages two to three. The MCHAT is a series of “yes” or “no” questions designed for children from ages sixteen months to two and a half years. Research suggests using autism-specific screening tools for all children, rather than a general developmental screening followed by an autism-specific screening only for those at high risk. Researchers tested 152 toddlers from ages one and a half to two and a half years at well-visits using both a general developmental screening tool (PEDS) and an autism-specific screening tool (M-CHAT) to determine which method was most accurate and effective. They found that 16% of children with developmental delays as determined by PEDS screened positive for ASD on the M-CHAT, in addition to 14% who did not display developmental delays on the PEDS. These results led researchers to support the use of an autism-specific screening tool for all children instead of only high-risk children, because PEDS missed many children who screened positive for autism on the M-CHAT (Pinto-Martin et. al., 2008).

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Pediatricians should also screen for ASDs specifically during the child's well-visits at eighteen and twenty-four months. Autism-specific screening tools include the Screening Tool for Autism in Toddlers and Young Children (STAT) and the Modified Checklist for Autism in Toddlers (MCHAT). The STAT is an interactive test that measures social behavior and communication skills of children from ages two to three. The MCHAT is a series of yes or no questions designed for children from ages sixteen months to two and a half years. Research suggests using autism-specific screening tools for all children, rather than a general developmental screening followed by an autism-specific screening only for those at high risk. Researchers tested 152 toddlers from ages one and a half to two and a half years at well-visits using both a general developmental screening tool (PEDS) and an autism-specific screening tool (M-CHAT) to determine which method was most accurate and effective. They found that 16% of children with developmental delays as determined by PEDS screened positive for ASD on the M-CHAT, in addition to 14% who did not display developmental delays on the PEDS. These results led researchers to support the use of an autism-specific screening tool for all children instead of only high-risk children, because PEDS missed many children who screened positive for autism on the M-CHAT (Pinto-Martin et. al., 2008).

It is important that pediatricians screen their young patients periodically, as symptoms may emerge at different times in different individuals. Some children with autism may initially appear to be developing normally and reach developmental milestones as expected but then regress. Such a child may utter his first words, for example, "Mommy" and "Daddy," but then stop speaking. He may also avoid eye-contact and not respond when prompted with "Mommy," "Daddy," or his own name. Other children may not regress, but stop progressing after a certain point. Such a child might learn to correctly identify colors but fail to learn how to identify shapes. Still other children show red flags even in early infancy. Such a child might stiffen in response to physical contact or never make eye contact with caregivers.

If the results of this screening point towards an ASD, then a comprehensive diagnostic evaluation becomes necessary. This evaluation seeks to determine the underlying cause of the child's symptoms and rule out possible medical conditions before diagnosing an ASD. Although language delay and impairment is typical of autism, a child who does not speak at all and remains unresponsive to language cues offered by others must first have his hearing checked to rule out deafness or hearing loss. The next step, after medical conditions are ruled out, is for a professional to observe and evaluate the child's behavior. The observation could be done by the child's pediatrician, but more often the pediatrician will refer the parents to a specialist, such as a child neurologist, child psychiatrist, child psychologist, or neurodevelopmental pediatrician.

The Autism Diagnostic Observation Schedule-
Generic (ADOS-G), created by Catherine E. Lord of University of Michigan, is considered the “gold standard” in diagnostic tools to date. It combines, builds upon, and improves the methodology of its precursors: the original Autism Diagnostic Observation Schedule (ADOS) and Pre-Linguistic Autism Diagnostic Observation Scale (PL-ADOS), both created by Lord, and the Autism Diagnostic Interview (ADI). The ADI is administered to the parent(s) or caregiver(s) of the child and consists of a series of questions assessing autism-related symptoms in the child’s developmental history and current level of functioning. The ADOS was originally developed “as a method of standardizing direct observations of social behavior, communication, and play in children suspected of having autism” (Lord et. al., 2000, p. 206) to be used in conjunction with the ADI. A key component of the ADOS and its subsequent revisions is the occurrence of “presses,” defined as “planned social occasions…in which a range of social initiations and responses is likely to appear” (Lord et. al., 2000, p. 205). This component is crucial because it allows a professional examiner to observe the child’s behavior and communication skills in “play situations…[which] allow observation of a range of imaginative activities and social role-play” (Lord, et. al., p. 205) and make an assessment solely based on this observation.

The original ADOS was limited, however, in that it only targeted individuals “between the ages of five and twelve, who had expressive language skills at least at the three-year-old level” (Lord et. al., 2000, p. 206). There was an increasing need for a diagnostic tool that would accommodate younger and less verbal patients as “children under five now constitute the bulk of referrals for a first diagnosis of autism” (Lord, et. al., 2000, p. 206). The PL-ADOS addressed this need by standardizing a test method for pre-verbal or non-verbal children and introducing a play-environment as the test setting. This was more conducive for younger children than sitting at a table for thirty minutes and attempting conversation in the original ADOS. Lord then developed the ADOS-G, which is intended to accommodate all individuals. It is thus unique in that it can be administered in four different modules to accommodate individuals varying in verbal expression and age level. In effect, this setup controls for level of verbal communication as a variable in determining the severity of one's condition. As Lord writes, “it has been particularly difficult to disentangle the effects of language level from severity of autism in individuals with autism spectrum disorders” (Happe, 1995; Mahoney, et. al., 1998). Module 1 is designed for pre-verbal individuals and those who, at most, can communicate in one or two-word phrases. Module 2 is designed for individuals who can sometimes speak in phrases but are not “verbally fluent,” meaning they do not speak in sentences with multiple clauses and do not demonstrate an ability to discuss things which are not in front of them at that specific moment. These modules are administered in a “play setting,” where both test-examiner and child move around the room. Modules 3 and 4 are both designed for individuals who can speak fluently and maintain a regular conversation. They are generally administered as a “sit-down” conversation at a table. The difference between the two is that Module 3 utilizes “play activities” similar to those used in Modules 1 and 2, and Module 4 involves discussion of the patient’s daily activities and social relations. Thus, the former is designed to suit children, and the latter is designed to suit adolescents and adults who may not be interested or comfortable in playing with games and toys. Each module takes 30 minutes to administer, and a given individual is tested with only one module at a time, according to his or her level of verbal communication.

The authors of this study tested the psychometric properties of the ADOS-G on a group of 223 children and adults in the following categories: autism, Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS), and “non-spectrum diagnosis.” A child was determined as belonging to the autism or PDD-NOS category according to a “best estimate” diagnosis (Lord et. al., 2000, p. 210) reached by a clinical psycholo-
gist in conjunction with a child psychiatrist after having interviewed the parents and observed the child's behavior. (It must be noted that all those in the autism “category” also scored positive for autism on the ADI-R). Those with a “non-spectrum diagnosis” did not meet the autism diagnostic criteria on the ADI-R. Examiners had to undergo training and testing to ensure that they could administer and score the ADOS-G accurately.

The ADOS-G tested excellent for inter-rater reliability, test-retest reliability, and internal consistency. The diagnostic validity in distinguishing autism from “non-spectrum disorders” also tested as excellent. In addition, the authors note that the data of the study seems to indicate a quantitative, rather than a qualitative, differentiation between autism and PDD-NOS, which seems to confirm “evidence from genetic and longitudinal studies … [which] suggests that autism and other pervasive developmental disorders are on a continuum of severity, with little evidence of qualitative differences between the categories, especially if language level is considered separately” (Lord et. al., 2000, p. 221).

It is important to note, however, that the ADOS-G alone does not suffice as a diagnosis tool. This is due to the fact that the ADOS-G does not measure all the diagnostic criteria for autism as delineated in the DSM-IV. The thirty minute testing period does not allow for adequate observation and evaluation of “restricted, repetitive behaviors;” this criterion must be assessed by another diagnostic measure before a diagnosis is reached. An additional criterion according to the DSM-IV is that the onset of symptoms must occur before 3 years of age.

The diagnostic process can be stressful and overwhelming for all parents. Once their child receives a proper diagnosis; however, reactions among parents can differ. Some might feel relieved that their child’s condition is finally recognized and view their child's diagnosis as a step toward remedying it. Others might be shocked and devastated, unable to accept that their own child's life will not be as they imagined it. In any case, the crucial next step is planning the child’s treatment. Early intervention is crucial for the child's best possible future prospects.

**Treatment Options**

Treatments for autism generally fall into four categories: behavior therapies, medications, dietary modifications or supplements, and alternative medicine.

Behavior therapies are aimed at developing the autistic child's ADL (Activities of Daily Living) and language skills. They include occupational, physical and speech therapy and Applied Behavioral Analysis (ABA). ABA is a form of operant behavioral therapy in which the child is rewarded for good behavior with reinforcements, such as a favorite snack or music. Play therapy, music therapy, and sensory integration are also occasionally used.

Medications are sometimes used to alleviate an autistic child's difficult behaviors. Anti-psychotic drugs are used to treat aggressive behavior, anticonvulsive medications are used to control seizures (in cases where autism and epilepsy are comorbid), and selective serotonin reuptake inhibitors (SSRI's) are used to minimize obsessive behaviors. Some medications for ADHD (Attention Deficit Hyperactivity Disorder) can also be used for autistic children to improve focus, for example, Ritalin. An autistic child who is taking any medication should be closely monitored for side effects because he often cannot verbalize if and when he feels something is out of the norm.

Food allergens, such as dairy or eggs, can exacerbate the symptoms of some autistic children, so many parents try to eliminate these foods from their diet. Gluten-free diets and omega 3 and vitamin B12 supplements also seem to be helpful for some children.

Complementary and alternative medicines (CAM) have not undergone extensive testing and therefore are not guaranteed absolutely safe for autistic chil-
Children. Many parents, however, are willing to try any treatment that has the possibility of working. CAM treatments include acupuncture and chelation, a process that removes heavy metals from the body.

Parents' Explanatory Models and their Role in Treatment Choices

According to a study in Taiwan, parents' conceptualization of their child's autism may in fact influence their treatment choices. Researchers selected thirteen parents who were the primary caretakers of their autistic children. The children ranged from ages three to seven, and had to have received their autism diagnosis from a child psychiatrist. Due to its small sample size, the study is intended for qualitative, and not quantitative, purposes.

Although small, the parent sample was fairly representative. Parents varied in education level, with eight college graduates, two holding a Master's degree, one high school graduate, and one junior high school graduate. Eight of the parents worked full time, one worked part-time, three were housewives, and one was temporarily unemployed. Religious affiliations also varied, with five Buddhists, three Taoists, three adherents of "folk belief," and two with no religious affiliation. The children sample, on the other hand, was fairly homogeneous. All the children were males, and received at least one type of occupational, speech, or physical therapy. Nine children attended special education preschools, while two attended regular schools (Lotus, Tsai, & Tsai, 2010, p. 1324).

“The specific aims of this study were to explore parental expectations about autism, beliefs about its cause and significance, associated social problems, and choices in seeking treatment options in the context of the health care system and culture of Taiwan” (Lotus et al., 2010, p. 1324). The researchers based their investigation method on Kleinman's explanatory model, which “describes the etiology, time, and mode of symptom onset, pathophysiology, course of sickness, and treatment...[and] often represents a semantic network that links concepts such as expectations about associated symptoms and psychological processes, beliefs of cause and significance, specific interpersonal problems, and social tensions” (Lotus et al., 2010, p. 1324).

The researchers interviewed parents about their child's diagnosis process and treatments, asking questions like, “How did you find out your child has autism? ... How did you feel after you found out the diagnosis? What did you think about this diagnosis (e.g., causes, nature, and prognosis)? What treatments is your child receiving? ... How has the disorder influenced your life and the family?” (Lotus et al., 2010. p. 1324-1325).

The interviews were tape-recorded and transcribed verbatim. Categories of parents' reported incidents and concepts from the explanatory model were grouped into “demographics, time and mode of symptoms onset, causes, course of illness, effects of the child's disorder, and treatment strategies/help-seeking behaviors” (Lotus et al., 2010, p. 1325). The researchers then used theoretical coding to determine inter-factor influences. For example, one mother mentioned that when she found out that food allergies aggravated her son's autistic symptoms, she altered his diet. Thus, in this case, researchers found that the parents' conceptualization of “etiology of illness/symptoms” influenced “treatment strategies” (Lotus et al, 2010, p.1325).
Results of the study yielded five categories of parents' explanatory model: “time and mode of symptom onset, diagnosis and causes of autism, impact of autism, treatment strategies/help-seeking behaviors, and influencing factors” (Lotus et. Al, 2010, p.1325).

Most parents reported that they first noticed their child's symptoms between the ages of eighteen and twenty-four months. Speech delay, lack of eye contact, lack of responsiveness, poor social interaction, and obsessive behaviors were the most commonly reported. Speech delay was the main impetus in parents' seeking of professional advice, while lack of eye contact, lack of responsiveness, and poor social interaction tied for a close second.

Most parents attributed their child's autism to both biological and supernatural factors. They hypothesized about genetic factors. Eleven also sought the advice of a fortune-teller, which is not surprising considering their religious beliefs.

The researchers found that having an autistic child had an impact on the child himself, the parent, and their relationships in three areas: the relationship between parent and child, the child's siblings, and extended-family relations.

Parents reported that the child was hard to care for and were often depressed, worn-out, and apprehensive about their child's future. They also felt an impermeable distance between themselves and their child. Because of the extensive time and energy they needed to invest in their autistic child, parents had little time for other siblings and often felt guilty about this. Parents also reported tensions between themselves and with extended family members, mothers-in-laws in particular. One mother expressed her frustrations. “They seldom come to visit me. They just keep asking my husband when he [the child with autism] will recover. They think it [autism] is like the flu or something” (Lotus et. al, 2010, p.1328).

Most parents reported that their child received some type of therapy, and the majority (69%) attended a special education daycare. However, many used other treatments in addition, such as acupuncture and vitamin supplements. Some also tried supernatural treatments such as paying a monk to read the Buddhist Bible.

**Do Autistic Symptoms Improve with Time? Patterns of Verbal Growth**
Researchers of this study aimed to discern the variations in verbal ability over a span of 7 years, between and among children with autism, PDD-NOS, and “non-spectrum” developmental disabilities. Participants had to be three years old or younger at the beginning of the study. They consisted of 192 children (162 males) with either autism or PDD-NOS, and twenty-two children with “non-spectrum” developmental delays. 47% of the participants had received an autism diagnosis before age two, 28% had PDD-NOS, and 25% had other developmental disabilities.

Participants were assessed at ages two, three, five, and nine with a battery of tests: the Autism Diagnostic Interview-Revised (ADI-R) at ages five and nine and a toddler-version at ages two and three; the PL-ADOS scored according to Module 1 at ages two and three; the ADOS at ages five and nine. Parents were interviewed according to the Vineland Adaptive Behavior Scale (VABS) about their child's communication, social, motor, and ADL skills. The Infant Mullen Scales of Early Learning tested the children's tests gross motor, fine motor, nonverbal cognition, expressive language, and receptive language. The Differential Ability Scales (DAS) tested children in Conceptual Similarities and Word Definitions and also included four sections for non-verbal reasoning and spatial skills. Some children took the DAS-P (Differential Ability Scales-Preschool) instead. The Wechsler Intelligence Scale for Children-III was given only to the highest functioning children at age nine. A joint-attention measure was calculated based on factor-analysis of the ADOS.

The researchers found, as they expected, that verbal ability of the autistic children improved at a slower rate than that of the other two groups. The gap widened over time, although differences between the groups were already substantial at age two. It is important to note, however, that the autistic children's final test results of verbal skills appeared to be bimodal. They were either very low (“non-verbal”) or very high (“fluent”). The researchers note that this wide range underscores the need for individualized treatment. For those children who remained non-verbal, they recommend treatment for “preverbal social skills.” For the highest-functioning, “fluent” children, they recommend therapy for social communication. For the remaining “verbal” but not “fluent” children, they recommend a combination of speech therapy and working on cognitive skills. (Anderson et. al., 2007)

To date, there is no cure for autism despite the vast research done in this area. It is important, however, for researchers, parents, therapists, and anyone with an autistic individual in their life to continue their efforts. As a mother from Taiwan study states:

All treatments have their own theories and have worked for some children. We do not know which one will work for him [her autistic son]. As parents, we can only keep trying. It is like fishing in the ocean. Perhaps one day, I will catch the fish (Lotus et. Al, 2010, p.1328).

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Conscious Awareness

By: Brenda Kamenetsky

In 1930, John B. Watson, a pioneering behaviorist, sounded a death knell for consciousness studies stating, “Why don’t we make what we can observe the real field of psychology? Let us limit ourselves to things that can be observed, and formulate laws concerning only those things” (Behaviorism, p. 6). His main contention was that consciousness was ill-defined, and further that it could not be observed regardless of definition. Behaviorists of the 20th century were frustrated with the study of psychology being based on the ‘abstract,’ and they felt that they could no longer work with what they called “intangibles and unapproachable” (6). It was only logical then that Watson and his fellow behaviorists argued that the concept of consciousness could never be scientifically studied, since at the time it could not be directly observed.

We can challenge both facets of the behaviorist argument. Even Watson et al would concede that the brain is the seat of the mind and a working definition of consciousness would depend largely on understanding the processes of the brain and its interactions. Technological developments since Watson’s era have enabled us to view neurological processes as they occur, and to some extent influence the operation of a living brain. It’s only natural then to conclude that Watson’s argument against consciousness studies is no longer valid and we can indeed begin to directly study consciousness and eventually build a firm definition. Even absent a firm definition, workable hypotheses have already been proposed that capitalize on our expanded toolset.

This can be seen as early as 1968, just 39 years after Watson made his sweeping statement. In R.W. Sperry’s paper, “Hemisphere Deconnection and Unity in Conscious Awareness”, the author discusses a series of studies involving patients who had their corpus callosum severed. The corpus callosum and its related structures- the smaller anterior and hippocampal commissures, allow the left and right sides of the brain to communicate with one another. In severely epileptic patients, a radical surgery was performed where the corpus callosum was severed. Sperry and his colleagues tested several of these post-surgical patients in a series of experiments aimed at assessing the degree which disrupted communication between the hemispheres which affected various mental skills. In one experiment, they put an item in the subjects hand and asked them to identify what the object was by touch alone.

“...It was only logical then that Watson and his fellow behaviorists argued that the concept of consciousness could never be scientifically studied, since at the time it could not be directly observed.”

Depending on the hand and its attendant hemisphere it was connected to, the patient would be unable to articulate verbally what they had felt, and in some cases claimed verbally that they had indeed felt nothing, but nonetheless were able to select it accurately from a group of objects later on while still insisting they could not identify what they held. This and further experiments demonstrated that both hemispheres were functioning, but the right hemisphere was aphasic; that is, language was localized laterally in the left hemisphere.

Interestingly when the subject was tasked with selecting a similar object and presented with a disparate group of objects from which to select, and an identical object was not present, the subject would typically nonetheless pick an appropriate object. An example would be the patient was given a fork to feel, and then presented with a selection pool that included no forks, but a spoon, which fulfills a similar conceptual role in
proposed definition of consciousness. Again, this is a window into the mind that behaviorists did not have and did not account for when dismissing the study of consciousness as unreasonable.

McIntosh, Raja, and Lobaugh (1999), conducted a study where they separated two groups of subjects into groups labeled “AWARE” and “UNAWARE” based upon whether they intuited that a specific tone when played, indicated that another stimulus would occur, and that another tone did not. Positron emission tomography (PET) was used to confirm neural system communications linked to awareness and performance of the subjects. Using the PET technology, experimenters observed that the prefrontal cortex region of the brain experienced the most changes in activity directly related to the changes in tone in the “AWARE” group as opposed to no consistent changes in activity seen in the “UNAWARE” subjects. The differences studied in brain activity shown by PET imaging between the two groups is extremely important and relevant to the discussion of what is going on in the mind when one is experiencing “awareness”. Through the use of imaging technology, we are able to study and attempt to pinpoint which regions of the brain are responsible for the act of being aware. The behaviorists’ argument that conscious awareness could not be scientifically studied seems weak in the face of machinery and equipment that we have access to today.

Still more advanced technologies give us greater access to the inner workings of the mind. In Stanislas Dehaene et al’s paper, “Cerebral Mechanism of Word Masking and Unconscious Repetition Priming” (2001) functional magnetic resonance...
in this unresponsive state, although left without any verbal or motor capacity, may retain intact cognitive function and capabilities but cannot communicate this awareness to observers. “These patients show no signs of being aware of themselves or their environment” (130). Therefore detecting the cognitive ability of these patients is no easy task. Patients who display no motor ability at all make it extremely difficult for an examiner to determine if there are any cognitive abilities remaining. An early behaviorist when presented with such a circumstance would most probably raise his hands up in frustration and say that it is impossible with his methods to extract proof that this person is in fact someone who boasts cognitive functioning.

However, today this is not the case. We do not claim that something is impossible to define and study simply because it is unobservable and is not clearly based on stimulus response surveillance, which was the behaviorist platform. With the proper machinery and advanced technological capabilities that we now possess we can go beyond the seemingly primitive extraction methods of early behaviorists. Positron emission tomography (PET) and functional magnetic resonance imaging and event related potentials were used to observe subjects as they were exposed to several experimental setups that would flash target numbers or words preceded by priming stimuli. The setups varied largely in the methods of masking and the variable time between priming stimuli and targets. In some of the trials the priming word and the target word were both in the same case (e.g., either uppercase or lowercase) and in other trials were of differing cases. Intriguingly, not only were the researchers able to localize brief sessions of increased brain activity, indicating increased processing in that region, but by varying the case they were able to eliminate mere shape priming as a factor; for the prime to work between cases it was necessary for the subject’s brain to extract meaning from the character string since the shape differed.

Likely, a definition of consciousness would need to differentiate between unconscious image processing and a higher order assignment of meaning attributed to consciousness below a threshold of awareness. (In the language of Baars and Franklin, the string was interpreted by an unconscious processor in the global workspace but did not receive selective attention.) Although this is not a commentary on the viability of a consciousness study per se, it still bolsters our rebuttal of Watson’s assertion. A definition of consciousness is certainly helped by studying processes that lie on the border of conscious awareness; that is, priming, masking, and repetition suppression which alternately raise and lower the conscious perception of stimuli. With advancing technology such as fMRI, behaviorists’ complaint that consciousness cannot be studied seems arguable.

In an intriguing study performed recently by Adrienne M. Owen and Martin R. Coleman (2008), an attempt was made to detect awareness in subjects who were in a vegetative state. Patients who are
aging (fMRI) are two neuroimaging tools that can be used to study cognitive activity in patients who are in the vegetative state.

With tools such as these there is no need for any blatant behavior to be displayed by the patient. Experiments were done on unresponsive subjects to try and detect both auditory and visual processing. When familiar pictures of family were presented to the patient, activity in the right fusiform gyrus was detected. The right fusiform gyrus is the region of the brain most associated with facial recognition. More recently, event related fMRI was used in study concerning seven vegetative patients. The fMRI detected neural activity in five out of the seven subjects in response to a familiar voice speaking the patient’s name. The two patients who displayed the most widespread activation improved to a slightly conscious level within the next few months.

This evidence in addition to further observations made by experimenters studying vegetative patients again challenges the behaviorists claim. In terms of evidence pointing specifically to the concept of awareness, an experiment was performed on a patient who displayed no observable responsive signs to any commands or visual and auditory stimuli. The subject met all criteria and guidelines that characterize a vegetative state. She was told to imagine a few scenes which included playing a robust game of tennis, walking through her house, and just relaxing. Each of these separate tasks exhibit dependable and strong activation in specific, different regions of the brain. In healthy subjects, imagining to play tennis has been proven to prompt activity in the supplementary motor area and when one is imagining walking around rooms in their home, the parahippocampal cortices, posterior parietal lobe and the lateral premotor cortices all display heightened activity.

The recording of activity that was found in the brain of the vegetative patient was “statistically indistinguishable from that observed in healthy awake volunteers” (135). The other task given, imagining going through the rooms of one’s house again proved no different when studying the resulting brain activity between the vegetative and healthy subjects. This study reached the conclusion that although the patient was unresponsive in speech or motor activity, she still sustained the ability to respond cognitively-through brain activity. “…confirming beyond any doubt that she was consciously aware of herself and her surroundings” (135).

From the results of the experiment on vegetative patients and from the other referenced experiments in this paper, it is clear that John B. Watson’s statement about psychology needing to be a directly observable science can now come under question. Watson and other early behaviorists believed that the state of conscious awareness in human beings was something that could never be technically studied and observed because of its difficult definition and subjective stance. The reason for their bold statements is no longer applicable. At the time of Watson’s published argument he may have been correct, because back then there were no tools available that would have allowed them to study the brain and its interactional activities. At this point in time, we have indeed begun to directly study the brain and its inner functions and interactions.
It may be true that the concept of conscious awareness in human beings is in fact something that might still be looked upon in psychology circles as challenging to pinpoint and analyze. However, today, it would be absurd to make the all-encompassing claim that Watson and colleagues made in the early 20th century. One may speculate that the basis for such claims on their part may be due to the fact that neuro-imaging techniques such as PET, fMRI, EEG, and others were unavailable in the early 1900’s. Perhaps if these advanced technological tools were available during that time, behaviorists would have taken a step back to think about their bold claim. They would not have been able to produce statements that discuss how something like conscious awareness cannot be studied and observed.

One might argue that despite the brain imaging tools we have today there are still many problems that need to be addressed before we can totally dismiss and disagree with the early behaviorists claim. There may be other interpretations for the experimental data perhaps. Although the evidence gathered from studies done using advanced brain imaging tools is compelling, it is not conclusive. This might lead back to the question of whether psychology of the mind and its inner mechanics can be studied at all. That question remains debat-

able today even with much evidence collected via brain imaging. However, what we do know is that we have made colossal steps in just the half-century span from Watson’s time. With the advent of brain imaging technology we can now reasonably question a basic tenet of behaviorism.

References
The Face of Meth: A Documentary Review

By: Sharon Hollander

The Face of Meth is a documentary that features David Parnell’s tragic but ultimately triumphant story that details how a former drug addict turned his tragedy into something positive.

David Parnell, a 36 year old father and husband, tells us how as a kid his father introduced him to marijuana. Since then, he had grown up abusing all kinds of drugs. When David got older he started abusing methamphetamines. As time went on he got very sick, experienced delusions that people were out to get him, and had hallucinations which consisted of him seeing shadow people.

"After going through this entire trauma David feels that he has the obligation to spread awareness of the devastating effects that drug abuse had on him."

Finally, his wife and children couldn’t handle the situation any more as David got really sick. As a desperate cry for help, David shot his face off and was rushed to the hospital. At the hospital David almost died and his face was barely recognizable. David vowed never to take drugs again and it was there that he finally gave up abusing drugs. After going through this entire trauma David feels that he has the obligation to spread awareness of the devastating effects that drug abuse had on him.

Today, David is totally off the drugs and can be seen in high schools sharing his story with teenagers and serves as a visible warning how drug use can spiral out of control and potentially destroy not only the individual himself but his family as well.

My reaction to the movie was of pure horror. It made me feel sorry for David Parnell. His home environment was not ideal, as he mentions that he used to smoke marijuana with his father. After watching the video, I felt for all these drug users as it just takes one experimentation with the drug to turn into full blown addiction. Methamphetamine seem to cause a change in the brain almost immediately that causes an addiction. Parnell was a good-looking man with a beautiful family who almost destroyed himself and his family. He was lucky that the doctors were able to resuscitate him and reconstruct him. Although he remains with a disfigured face, he has received a second chance in life. This second chance at life allows him to enjoy his family and spread the message that the use of methamphetamine is dangerous and even deadly.

David Parnell says that the methamphetamine made him feel strong and superhuman—it was as if he could do anything he wanted to. Yet, methamphetamine destroyed his life. It did not cause him to get more enjoyment and happiness out of life. The drug caused him to constantly live in fear. He hallucinated and thought that everyone was out to get him. He was paranoid and exhibited a form of psychosis which manifested itself in his paranoid and delusional thoughts. He thought that the mail carrier and the road workers were undercover cops, he was seeing and hearing people who were not there, he would shoot at imaginary people causing his home to be full of bullet holes, and he even mentioned that the methamphetamine made him feel homicidal and suicidal. He was not enjoying life and his kids were afraid of him and described their home as one of fighting all the time.

There are also physiological effects associated with the use of methamphetamine. Methamphetamine can lead to blindness, nerve damage, tooth decay, respiratory failure, chest pain, internal...
bleeding, kidney failure, scabbing and breaking of the skin. Methamphetamine users are killing themselves slowly, causing them to get old before their time. As a quote from “The Tragedy of Meth Addiction” video said, “Meth will take one down a path of destruction, sickness and a slow long drawn out death.”

All it took was one experimentation of the drug, to alter his brain chemistry which caused him to be addicted and no longer in control. After being off of the drug for five months, he started using it again with a vengeance. This would lead me to believe that he developed a tolerance for the methamphetamine, which caused him to constantly need to increase the dosage. People who are addicted to methamphetamine go to great lengths to achieve the high from the drug. “The Tragedy of Meth Addiction” shows someone getting methamphetamine from a light bulb. David Parnell described how people pick their scabs and eat it, because they know that there is methamphetamine in it. Additionally, people would go so far as to drink their own urine.

While some may argue that those who are going to end up abusing drugs will abuse regardless of any warning I feel that David Parnell will be successful in preventing a lot of teenagers from abusing drugs. Being that David tragically ended up with a highly deformed face from shooting himself while on drugs, his face serves as a visible warning of what could G-d forbid potentially happen to someone if they abuse drugs.

David Parnell took his suffering, rose above it, and channeled it into a platform for awareness. Awareness of what drug abuse can do to an individual, his family, and ultimately to society at large.
Alzheimer’s is a devastating disease that affects millions of people each year, making it the most common form of dementia. Symptoms of the disease tend to show up in people 65 and older. The disease is associated with long term memory loss as well as loss of important neural networks. Structural changes in the brains of those with the disease eventually inhibit one’s ability to do basic cognitive processes. Unfortunately the disease has no cure, and eventually leads to death. However, in the past thirty years there have been theories that suggest that those who live a more intellectually active lifestyle (such as those who read a lot, play games or simply engage in social interactions on a regular basis) may be able to slow down the symptoms of the disease.

*“Whereas occupational experience might be linked to genetic intelligence, learning a second language is free from that constraint.”*

There have already been studies that have supported the notion that individuals with high social, mental and physical engagements seem to be more resilient to the disorder. Combined, these elements are known as cognitive reserve and appear to have the ability to slow down the disorder. However, there may be other examples of cognitive reserve that have yet to be extensively studied. One recent study done by Fergus Craik, Ellen Bialystok, and Morris Freedman, explores whether or not learning a second language can help delay the disease.

The researchers did their study by carefully choosing a sample of hospital patients that were diagnosed with probable Alzheimer’s Disorder. A group comprising of at least two physicians and one neuropsychologist determined which individuals had the disorder by adhering to the guidelines laid out by the National Institute of Neurological and Communicative Disorders and Stroke-Alzheimer’s Disease and Related Disorder Association. Once it was determined who had the disorder, the researchers had the patients answer a well structured questionnaire that aimed to get as much information as possible from the patients. The researchers made sure to note the ages of their participants and gather information concerning the patients’ occupational, educational, language and emigration history. Based on this criterion they reported 102 bilinguals: 60 females and 42 males; 109 participants who only spoke one language: 60 females, and 49 males. Addi-

Alzheimer's: An Investigative Study

By: Josh Sabo

studies dealing with cognitive reserve were inherently correlational. Their reasoning for calling the past findings correlational stemmed from their belief that it is unclear whether or not one’s involvement in physical activities, intellectual activities or social abilities result in improve cognitive performance. It may be the case that people who are genetically predisposed to have a better functioning brain are also for the same genetic reason naturally protected from the onset of this disorder. They felt that their study was different, as learning a second language isn’t natural and comes forth based on experiences that each individual goes through. Whereas occupational experience might be linked to genetic intelligence, learning a second language is free from that constraint. In this sense the results of this study would show more than a correlation between language and dementia--they would show a clear causal relationship.
tionally, it should be noted that the progression level of disease was the same for both the control and bilingual groups.

The results of the experiment were consistent with the researchers’ hypothesis that learning a second language can serve as a cognitive reserve. The results showed that in comparison to monolingual patients, bilingual patients were diagnosed 4.3 years later and reported symptoms a little more than 5 years later. The results matched up well with other studies that looked at cognitive reserve such as occupational status. The researchers also made sure to note that the bilingual group had less education than the monolingual group. The other discrepancy between the groups was that the bilingual group had more immigrants but that didn’t seem to act as a significant factor.

One aspect in particular that I liked about this research paper is that they did point out areas in their research that could be considered flawed like the fact that they didn’t have an equal amount of immigrants in both groups. Another positive aspect of their report is that they gave their credentials, which can help determine how reliable they are. One aspect of the study I felt that could have been improved on was brought up in the article. I feel that there should have been an equal amount of natives and immigrants in each group. I also feel that they should have tried to explore each participant level of intelligence a little more thoroughly such as looking at I.Q. tests and similar intelligence tests. It would also be interesting to see if different languages have different effects, to find out if the results be lessened if the second language was similar to the first.

Overall, I found the results of this experiment particularly surprising as I wasn’t familiar with cognitive reserves in general. Additionally, I feel that they had a large sample size of patients to gather information from so their conclusion was justified. This study could really serve as a great motivator for those learning a second language. Older people generally have a harder time learning a second language, so this might push them a little harder to achieve their goal. I feel that they should continue this experiment to get an even larger sample size and to correct for the disproportionate amount of immigrants in this study.
Bookshelf
Reviewed by: Batya Weinstein

Review of: The Schopenhauer Cure by Irvin Yalom

Julius Herzfeld, a successful psychotherapist finds out that he has cancer. Upon his tragic discovery, he begins to assess and examine his long and successful career. Looking through the files of his former patients, he comes across a former patient, Philip Slate, a patient whom he remembers as being a hopeless sex addict, and who he termed a failure on his part in the psychotherapeutic venture.

Curiously, he calls him up and finds out that Philip Slate is now a philosopher who specializes in Schopenhauer. They reunite and make a deal that Julius offers free group psychotherapy sessions in exchange for Philip teaching him about Schopenhauer.

The group psychotherapy sessions mirror the members’ outside lives and the way they interact with their fellow group members forms a microcosm that reflects their interpersonal relationship that exists in their macrocosmic lives. The maladaptive patterns of relating to each other are reenacted in the group session and by using the group session as a rehearsal for their personal life, they can begin to make changes in the safety of the group and slowly begin to channel that change into improving their relationships with their friends and family.

What results is a remarkable journey that illuminates the interpersonal relationships that occur between therapist, patient, and fellow group members and also taps into deep existential issues that society faces at large.

This book is a successful blend of psychology and philosophy that is underpinned by wonderful prose that showcases the writer’s sheer literary talent.

Review of: The Age of Insight: The Quest to Understand the Unconscious in Art, Mind, and Brain, from Vienna 1900 to the Present by Eric Kandel

The Age of Insight by Eric Kandel is a book that examines art on a neuroscientific, psychoanalytic, and cognitive level all within the framework of Vienna 1900, where the likes of Schnitzler, Freud, and Klimt probed beneath the surface of the human brain and psyche all within their respective disciplines. This book is a tour de force on the analysis of art and investigates how the artist approaches his work and in turn, how the viewer responds to that work of art.
Dehydrated from love
the emotion that once flowed
through me like a shallow river
surrounded by stones
my eyes give blank stare.
Hug me, pretend not to love me.
Inside is invisible and there's no way
of investigating, except for talking.
Talking doesn't give enough evidence
for what is really going on.
Yes, even words have their flaws
their misshapen letters and meanings
so perfectly pronounced in the dictionary.
Somehow, they're not precise
once they've slipped out of our mouths.