Play and the Art of Psychotherapy

An Interview with Terry Marks-Tarlow

Terry Marks-Tarlow is a clinical and consulting psychologist and psychotherapist and a member of the teaching faculty at the Reiss Davis Child Study Center in Los Angeles. She is the author of *Awakening Clinical Intuition: An Experiential Workbook for Psychotherapists*; *Psyche's Veil: Psychotherapy, Fractals, and Complexity; Clinical Intuition in Psychotherapy: The Neurobiology of Embodied Response*; and *Creativity Inside Out: Learning through Multiple Intelligences*. She is also a research associate of the Institute of Fractal Research in Germany, and her numerous publications include several works on fractals. Marks-Tarlow is also a rock-climber, dancer, painter, librettist, and yoga teacher. In this far-reaching interview, she explores the sources of play, creativity, and social connection and their relationship to the search for mental equilibrium. She discusses the game-like interplay of therapist and patient. And she suggests that fluid states of play rather than rigid theory should guide the course of therapy and inform clinical insight. **Key words**: clinical intuition, creativity, fractals, playful therapy, psychotherapy

American Journal of Play: Tell us how you played as a child.

Terry Marks-Tarlow: I grew up in a suburb in New Jersey, about thirty minutes from Manhattan. My home was surrounded by woods, including a steep gulch down to a creek that ran for miles. I spent much of my childhood playing outside. I loved to go into those woods and turn over rocks to find salamandars and other creatures. On summer nights, I was especially fond of catching fireflies and stuffing them into a jar. Playing outside represented freedom for me.

AJP: Does it still?

Marks-Tarlow: I have a strong interest in the continuity between early play and later activities in life and am quite sure that my blissful play outside helped me gravitate toward the outdoors later on. In high school, I began camping, which became an excuse to sneak to places with my boyfriend. Once

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I told my parents we were going to camp in upstate New York. This was true, but we headed for Watkins Glen, which was hosting a rock concert that had more than six hundred thousand people attending, a gathering so large that traffic closed down the New York State Thruway. Extensive news coverage helped my parents figure out where we had been by the time I got home. After I went to college on the West Coast, my love of the outdoors morphed into backpacking. At Stanford, I experienced culture shock and took to the land instead, finding solace in the beauty of the landscape. When I moved to Southern California to study clinical psychology at UCLA, my outdoor interests morphed again when I became a serious rock-climber.

AJP: What drew you to rock-climbing?

Marks-Tarlow: I loved the feeling of the rock against my body. I had been doing yoga for almost a decade and was flexible enough to put my foot up by my ear to step up (I've been called a pretzel in a former lifetime). Climbing felt somewhere between a moving meditation and a dance on the rocks—a form of play whose serious consequences, including risk of death, helped to ground me inside my body.

AJP: What do you find playful at that dizzying height?

Marks-Tarlow: This very interesting question brings to mind Karen VanderVen's notion of the protean self, which prepares for a chaotic world through play by becoming adaptive and resilient. Play is full of paradoxes and polarities that I love. Children throw themselves off balance in order to discover what balance is. They twirl until they fall in order to discover stability at the center—that eye in the hurricane. All these embodied lessons help children stretch their windows of tolerance.

AJP: Can such lessons be taught through play?

Marks-Tarlow: Parents instinctively play with children at the edges of the regulatory boundaries—the thin line between terror and pleasure that connects to Stephen Porges's polyvagal theory, the theory that the autonomic nervous system gets toned by touching unsafe edges in the context of social safety. When a mom tickles a baby, it is fun partly because she is violating baby's space unpredictably, not unlike a predator. When dad throws a toddler into the air, this triggers glee partly from the threat of falling. The ancient fear of falling dates back to our primate predecessors who slept and took refuge in trees. By playing at the edges of scary places and ancient fears, children and adults learn to tolerate minor discomforts and high levels of arousal. In *Clinical Intuition in Psychotherapy*, I tell an animal tale of three Patas

monkeys who repeatedly climbed up a tree and then dove off a branch in order to make belly flops onto the ground. Why did they land this way instead of on their feet? From the standpoint of emotional regulation, play teaches us that having fun can involve pain, while—conversely—experiencing pain sometimes feels like fun. In my case, playing up there on the rock face helped counterbalance the intense headiness of graduate school.

AJP: Can you elaborate?

Marks-Tarlow: I think play educates the embodied self. The end product is often wisdom, which I can illustrate with the story of Chunky from my childhood. Chunky was the horse assigned to me the first year I went away to riding camp. At first, I was really disappointed, because Chunky was old, fat, and not nearly as dazzling as many of the horses assigned to other kids. But eventually, I considered myself the lucky one, precisely because of Chunky's age and years of experience. She turned out to be unflappable, especially when it came to jumping. And Chunky did love to jump! No matter how much I screwed up the pacing in approaching a jump, Chunky would get it right and sail over the top. Because she was more mature, she knew how to protect herself—and, as a consequence, me—in ways that the younger, more impetuous horses didn't. I had started out superficially concerned with Chunky's lack of beauty, but I wound up tuning in more deeply. I grew to appreciate the importance of embodied learning, especially after winning second place in a regional jumping competition plus the award for best rider in the camp! Who would guess that horse play could teach me so much about wisdom?

AJP: What do you mean by "tuning in more deeply"?

Marks-Tarlow: Play often teaches the body about grace. I started taking ballet and jazz classes during graduate school as crosstraining for rock-climbing. When a little kid starts ballet at a young age, she more easily taps into a state of grace. Little kids can throw their bodies into what they are doing. They lack self-consciousness. Their brains aren't advanced enough for thoughts to get in their way. If they stick with the discipline long enough, the dance positions and sequences are built into the very constitution of their bodies through the recursive magic of repetition. When this occurs, these kids seem to ooze grace, right down to the lilt of a finger.

AJP: Was dancing a natural aptitude for you?

Marks-Tarlow: No. That was not the case for me, both because I started dancing in my midtwenties, and because I was overthinking what I was doing,

trying to figure it all out with my head. I wanted to break everything down cognitively into component pieces and body parts. As a result, everything I did looked jerky and fragmented. Nothing held together at the center. To make matters worse, because I was rock-climbing, I was also full of bravado. I liked being strong, being one of the guys. This didn't help me much in the grace department. But eventually, I realized the problem, and I became determined to feminize myself. I went off in search of grace. It took me more than two decades to get a clue. What was the trick? I had to empty out my head, stop thinking altogether, and trust my body to learn and remember. When I succeeded in all of this, I started to tap into states of grace. I did this partly by embodying a mild form of synesthesia (a neurological condition of blended senses). This was the point where my body was singing the music. Finally, I was truly dancing by moving from the heart and not the head. My body, my mind, and my soul were finally unified.

AJP: Do you continue to find play unifying and inspiring?

Marks-Tarlow: Yes. These days I am almost continually at play, especially with my creativity. I used to take the issue of my own creativity way too seriously. I would constantly critique and judge my own talent, or lack thereof. I dreamed about being an artist when I was younger. I even went to the Rhode Island School of Design for a summer. But so many people there appeared so much more talented than I felt. Self-doubt stopped me cold. I became a clinical psychologist instead. But when I got out of graduate school, I had studied little that interested me. I had an early life crisis, because I hadn't yet found my true calling. And when it came down to it, I couldn't shake the feeling that creativity still interested me most.

AJP: Play led you to creativity?

Marks-Tarlow: Not directly, alas. You know the old adage, "Those who can't do teach"? Well I lived out the equivalent, "Those who don't feel creative write books about creativity instead." Apparently I couldn't give up my early dream, and this was a back door in. I started reading everything I could about creativity and creative people. My first book was a creativity curriculum for educators called, *Creativity Inside Out: Multiple Intelligences across the Curriculum*, with a foreword by Howard Gardner. I also put in an application to teach a course on creativity at UCLA Extension, which the university accepted. The administration also asked me to moderate a much larger lecture series on creativity after the original moderator became ill. I panicked. So many truly creative people and experts were going to be

flown in; and here I was, just out of graduate school with no expertise in this field. Yet, I couldn't resist the opportunity, and so I agreed to moderate the lecture series.

AJP: How did that turn out?

Marks-Tarlow: I worked really hard to prepare, and the whole experience opened many doors for me. I met psychiatrist Oscar Janiger, a creativity expert who lived in Santa Monica where I had my private practice. Os became a confident and mentor of sorts. He had fantastic stories from the 1960s, like hosting salons that included the author Christopher Isherwood or giving LSD to luminaries like Cary Grant and Anaïs Nin in order to study its effects on their creativity. Through Os, I befriended Tom Van Sant, a sculptor who had created the world's largest image by setting up mirrors in the desert in the shape of an eye, which he then photographed using the LANDSAT satellite. Tom had also created the world's smallest image, one-fourth of a micron wide, another eye as etched by an electron microscope into a crystal of salt. The way that Tom played at the interface between science and art has continued to inspire my work to this day.

AJP: You also became friends with physicist Richard Feynman. How did you meet him?

Marks-Tarlow: It was through Tom Van Sant, in fact. They were good friends, having met while Tom was flying a kite on a beach in Mexico. Tom held weekly life drawing sessions in his Japanese-style home in the Hollywood hills. Because of the UCLA Extension course, in which Tom also participated, I received the invitation to draw. I couldn't believe my luck to be among so many interesting people—a blend of artists, entertainment folks, and scientists. Feynman, who is considered the bad boy of physics, was always there. I became utterly transfixed by the guy. Talk about playful! I have never met anyone so full of life, spit, joy, and fire. For years, after each drawing session, a few of us would stay for a dip in Tom's outdoor hot tub to relax and enjoy easy conversation under the stars.

AJP: What did you take away from these encounters with Feynman?

Marks-Tarlow: I recognized the opportunity to pick the brain of reputedly the smartest man in the world after Einstein and was acutely aware of how unusual my position was. Because Dick vehemently refused to be interviewed by any journalist or TV personality, he had become a living legend. And here I had him virtually all to myself! I began reading everything I could about physics. I wanted to ask him all of the hardest questions I

could: Do the laws of physics change in different parts of the universe? Is it possible for people to travel backwards in time? Where is the universe headed?

Because of all the reading he inspired, I came across, in the mid-1980s, the concept of a fractal. Immediately I became fascinated. Something seemed truly profound about these shapes. No sooner did I discover fractal geometry than I ran to Dick and asked, in front of several others, "Don't you think fractals are profound?" Someone else asked, "What's a fractal?" He needed only a few minutes to give a state-of-the-art explanation.

AJP: What did he say about fractals?

Marks-Tarlow: He described fractal geometry as a new branch of mathematics discovered in the 1970s by Benoît Mandelbrot. The hallmark of a fractal is self-similarity, which means the shape of the whole is repeated in the shape of the parts. Think of the branching shape of a tree trunk that splits into two smaller branches, with each branch splitting yet again, and again, each time into smaller and smaller sizes. Mathematically, fractals possess the unusual quality of fractional dimensionality, because they play in the infinite space between finite Euclidean dimensions (0-D for points, 1-D for lines, 2-D for planes, etc.). Because they have the freedom to wander between traditional dimensions, fractals are better than Euclid's regular shapes of circles, cones, and cubes for modeling nature's irregularities and discontinuities. In computer animation, fractals help artists render earth and alien landscapes. But one important question at the time was whether fractals are just a set of pretty pictures that resemble nature in superficial ways or do they enjoy some deeper connection to nature's patterns? When Dick finished his awesome explanation, I asked again, "Don't you think fractals are profound?"

AJP: Did he think so?

Marks-Tarlow: What he said next is forever burned in my psyche—simply, "I don't understand them." "What!" I thought. "How could Dick say *that* after explaining fractals so beautifully?"

AJP: Where did his statement leave you?

Marks-Tarlow: At the time, all I registered was shock and disappointment, but the event churned in my mind for years. What did it mean that the world's smartest man could demonstrate his brilliance at the very same time as he protested his ignorance? The contradiction made no logical sense to me, but eventually it did make "psycho-logical" sense. I have come to view these sorts of paradoxes as cracks in the bedrock of the psyche, much the

same way that the Liar's Paradox—"This sentence is a lie," which is true only if false, and false only if true—cracked the bedrock of mathematics.

AJP: That is a playful way to think about it. Does it make sense to confront uncertainty with both study and play?

Marks-Tarlow: Yes, now I believe so. In Feynman's puckish psyche, for example, I envisioned the tension between understanding and not understanding as a dialectical pole that propelled him to take nothing for granted, question every fact he came across, and embark on an endless search for deep knowledge. Meanwhile, I was left alone to slog my way through confusion as to why *I* thought fractals were profound.

AJP: Have you figured out why you think so?

Marks-Tarlow: Well, it did take me more than a decade, but I persevered and came to an understanding. Curiously, I realized that fractals were also profound because they embodied paradox. Take the Coastline Paradox (figure 1), for example. From the point of view of fractals, which use variable measuring sticks, complicated coastlines, like Norway's, can't have a definite length. This is because the smaller the measuring stick you use to capture all of the bays and isthmuses, the longer the coastline appears. At the limit of an infinitely small measuring stick, you wind up with an infinitely long coastline. Well, this counterintuitive idea may be hard to imagine for a finite coastline, but it works particularly well for grokking the edges of the psyche.

AJP: How so?

Marks-Tarlow: The tinier and more refined our lens of observation, and the longer we search, the deeper we and other people appear. My second book, *Psyche's Veil*, applies the nonlinear sciences of chaos and complexity theory and fractal geometry to clinical practice. In a more playful vein, I also wrote a fractal fairy tale about the Coastline Paradox, but it remains unpublished. I wanted to capture that magical feeling when the infinite becomes embodied within finite dimensions.

AJP: Is that the point at which you as a psychotherapist became more professionally and specifically interested in play?

Marks-Tarlow: For me it might have been the other way around. There is often continuity between early forms of play and later choices in vocation or avocation when children are free to follow the inner whims of imagination, and I think this happens because fractal seeds of personality emerge through play in the first place. For example, when I was a kid, along with loving to play outdoors, I loved to play spy games with my best friend, Pooh.

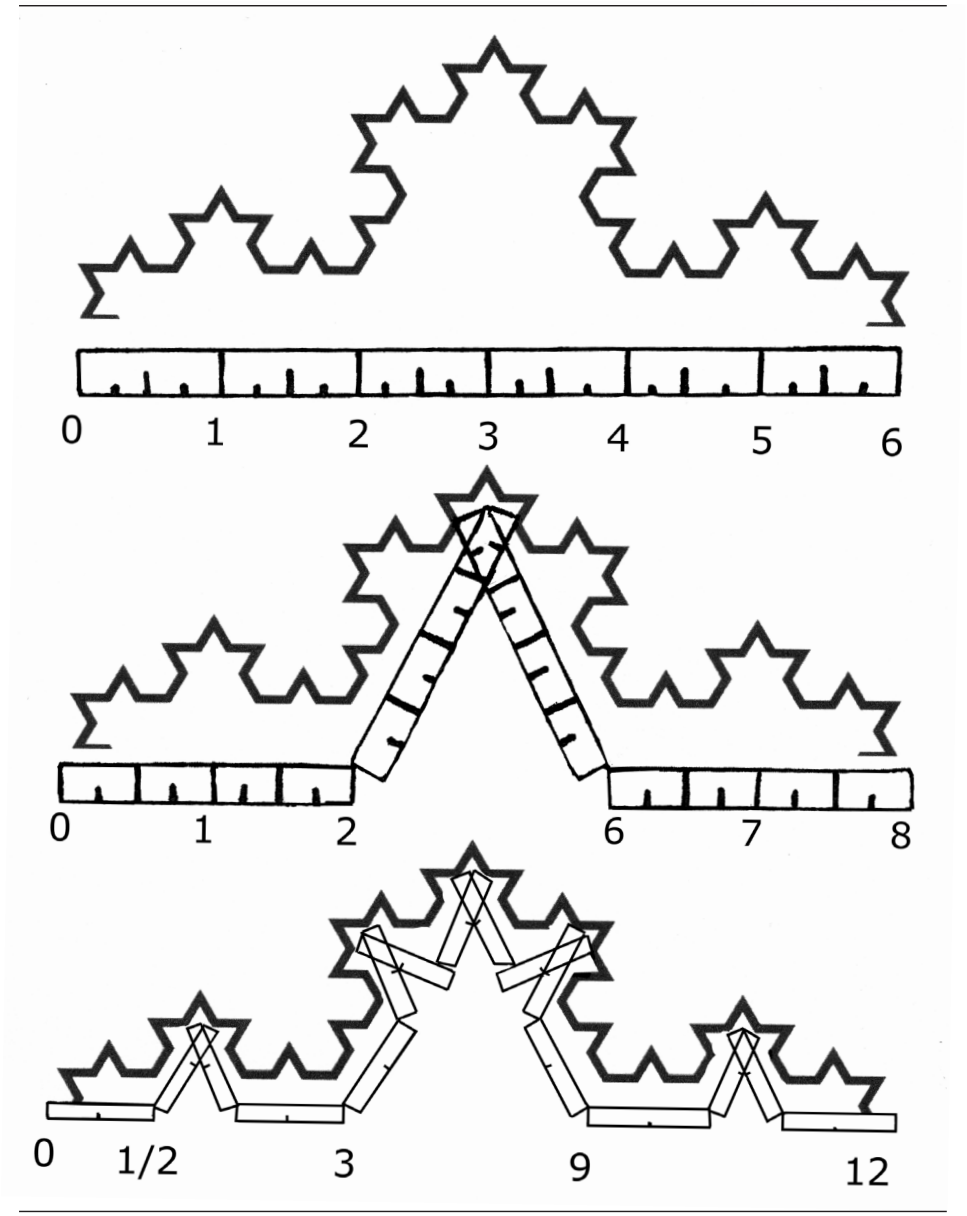

Figure 1. The Coastline Paradox illustrates that shorter measuring units create longer coastlines.

We were devotees of TV shows—*Mission Impossible* and *The Man from U.N.C.L.E.*, for example—and we frequently acted out our own dramatic episodes. We equipped ourselves for missions with homemade weapons of

polished sticks to shoot rubber bands. My favorite book was *Harriet the Spy*, and although I didn't keep a diary like Harriet, I drew elaborate maps to help my sneaking around. I especially loved to spy on my mother's bridge games; my ultimate goal was to crawl under the card table without being seen by any of the ladies.

Years later, I read Jerome Singer's description of his early-childhood play in his first book with his wife Dorothy, *The House of Make-Believe*. Jerome grew up in New York City where he frequently served as a spy between groups playing in the streets. Like me, he grew up to be a psychologist interested in spying into the inner life of others. After reading that, I had an "aha!" moment as I realized the connection between my own current professional life and early-childhood play.

AJP: Describe the connection for us, please. What makes play therapeutic?

Marks-Tarlow: When trauma occurs, young children spontaneously tend to revisit disturbing events through play. This recursive impulse is one reason that play therapy can be so effective. Through play, children reexperience highly stressful experiences more safely, within the context of lower, more tolerable arousal levels. This enables children to experience mastery. Where the child may have felt afraid and out of control, he can now feel powerful and in complete control. Where the child may have felt victimized, he can now turn the tables by enacting the perpetrator or even changing the very outcome of the event. The healing power of imagination allows someone to envision futures that contain different endings from those of the past.

AJP: Do all psychotherapists find the same value in play?

Marks-Tarlow: No, but the more I get entwined in the topic of play, the more I believe that all psychotherapists should take interest in this area. Play, imagination, and change all go hand in hand. As a psychotherapist, when I work with people, I'm not satisfied with surface changes. Instead, I want to address the very embodied core of things, which includes nonconscious levels of automatic, spontaneous response. Because play is universal among social animals, the instinct to play is deeply wired into the mammalian nervous system, where it is deeply connected to how young animals learn and grow. In humans, the play instinct extends to adults, as was certainly the case for Feynman, who famously played with a pizza pie dish to make his Nobel-winning discovery regarding quantum electrodynamics in physics. In much the same way, in psychotherapy play is an integral part of healing, creativity, and growth.

AJP: Isn't the instinctual often regarded as automatic and unspontaneous—the opposite of playful? And haven't critics of traditional psychotherapy often pointed to its theoretical rigidity?

Marks-Tarlow: The more I work with a variety of people who harbor different issues and come from different backgrounds, the more aware I am of tuning into their uniqueness. And the more acutely I focus on tiny differences between people, the more I see how much the devil lurks in the details, which translates to my sober awareness that there is no valid prescripted approach, no manual with rules or algorithms that hold universally. Because we live in a fundamentally chaotic and unpredictable universe, there is never complete certainty; full control over anything is only an illusion. For this reason, play is the only sane conclusion. My best clinical work consists of flying from the seat of my pants as I play with possibilities, ambiguous edges, and fuzzy truths. Most recently, this has informed my writing on the topic of clinical intuition, the subject of my latest two books: *Clinical Intuition in Psychotherapy* and *Awakening Clinical Intuition*.

AJP: Where does your preference for the unique and the intuitive lead you in your clinical practice?

Marks-Tarlow: I pride myself in taking on unusual and difficult cases. In fact, the stranger the dynamics, the more interesting cases become.

AJP: Is play involved even in these challenging cases?

Marks-Tarlow: Yes. The more I work with outliers on the tails of statistical distributions, the more I am aware of playing. I strive to enter each session with a beginner's mind—empty of theory, assumptions, presumptions, or agendas. I play by experimenting with my inspiration and then carefully observing what happens and comes back my way as a result. I have likened the deep structure of therapy to a game of hide-and-seek; but its game-like deep structure also resembles tennis, perhaps, or call-and-response singing. If a question isn't returned well or doesn't open up something important, if a comment or interpretation isn't useful, or if it is blatantly wrong, I want to let it go and try something else. All is part of the play.

***AJP*:** What effect does play have in therapy sessions?

Marks-Tarlow: Play provides an antidote to stuck, outdated, or overly rigid ways of seeing, being, believing, or behaving. It lowers the stakes for both patient and therapist. It reduces the defensive need to be right. And it adds flexibility, helping both therapist and patient feel safer in otherwise scary emotional circumstances. My own playful style frequently includes humor.

I've worked with Mafia folks, members of the FBI, and others murderously angry. A lighthearted style helps keep perspective, while modeling risk taking and the valuing of experimentation.

Melting fully in the patient-therapist relationship requires mutual trust and lots of emotional safety. But when this does happen, then the dyad lives, breathes, and plays fully inside of intersubjective space, where the relationship can take on a life of its own. Within that intersubjective space, or the space *between* therapist and patient, both individuals are fully immersed and open to wherever the moment might take them. Psychoanalyst Philip Ringstrom likens spontaneous interplay during therapy to theatrical improvisation. Especially with respect to emotional exchanges that occur under surface awareness at implicit levels, this sort of interplay also resembles musical improvisation. As the British psychoanalyst Donald Winnicott emphasized, however we view this zone *between*—whether it is between mother and infant or therapist and patient—the fluid state of the relationship is at its most fertile for growth in children or for therapeutic change in patients.

AJP: Is the role of play in therapy a mirror of the role of play in human development in general?

Marks-Tarlow: Yes, in the sense that from a developmental perspective, play is inherently social. For example, the parental impulse to play kicks in almost instantly after babies are born. Babies are designed by nature to be cute. This is not just so we'll love them but so we'll play with them too. Play begins in infancy the very first time a mother tickles her baby's toes. Alongside soothing a baby's distress, parents use play as a way to stimulate a baby's joy, interest, and capacity for passion and intrinsic motivation throughout life. Babies and mothers continually benefit from what neuropsychologist Allan Schore calls "dopamine pops" as they explore the joys of connecting to others through play. Meanwhile, babies learn how to "feel felt," as my colleague Dan Siegel, a psychiatrist, would say, within the emotional, energetic "field" that grows between people—in the intersubjective space I mentioned earlier.

AJP: Within this intersubjective space, can clinicians really see the therapeutic prospect in a flash of insight?

Marks-Tarlow: Surprisingly often, yes. Clinicians can sense a lot about patients based only on a tiny sliver of exposure. And here think of Malcolm Gladwell's concept of "thin slicing," as described in his popular book,

Blink. Thin slicing involves the ability to find patterns based on a narrow window of experience, but where accuracy depends on lots of prior exposure to build up an implicit repertoire of knowledge. Within my field of applied psychology, these relate closely to the notion of clinical intuition. The uniqueness of who we are pervades all levels of our being and responses. Perhaps accuracy of intuition is made possible, again, because of the fractal nature of personality. Much like fingerprints, personality is both unique and fractal in structure. An aggressive person might crowd out the speech of others by talking too much, pushing ahead of others in line or in traffic, or brushing aside the accomplishments of others at work. Each level, from micro to macro, gets recursively enfolded within other levels at ever larger scales of social description. So does the common psychoanalytic notion that the first session with a patient contains the whole of the psychoanalysis. On a shorter time scale, the first exchange with a patient is thought to foreshadow the rest of the session. This holistic way of understanding patterns in psychotherapy invokes the fractal concept of self-similarity. Maybe when we feel we come to know someone quickly, we sense underlying fractal patterns.

AJP: What would Richard Feynman think of such an invocation?

Marks-Tarlow: I can see Dick's eye twinkling now at your question; he didn't much like the field of psychology which he considered pseudoscience, nor did he like psychologists, whom he regarded as quacks. Still, he and I became fast friends. He might have said that you can find fractals in our bodies wherever you look—in the pattern of wrinkles and branching of our lungs or circulatory systems, for instance. And fractals are in our brains in the self-similar folds of our cerebrum and then way down at the microscopic level in the branching axons and dendrites of our neurons. Recursion like this may be the most basic pattern of the universe—a kind of pattern of patterns, or megapattern. A simple way to understand recursion is as a feedback loop, where the end product of something is fed back in as the new beginning for the next round. This is how fractals are constructed, whether by nature or by computer. All natural cycles appear to involve recursion, like the earth spinning on its axis. Whether created by nature or by computer, fractals involve shapes recursively repeated on different size or time scales.

AJP: Is consciousness itself also recursive?

Marks-Tarlow: Recursion lives in our thinking and emotions in the form of

loops of awareness that help us to self-reflect as well as to learn from experience. This kind of looping circuitry appears to be the broadest function of the frontal lobes. We might conceptualize wisdom to arise at least partly out of the recursive looping of experience throughout a lifetime. But what especially interests me is how fractals cross from material realms into psychological ones. Freud's repetition compulsion hints at this.

AJP: Speaking of Freud, what about the unconscious? Where do recurring dreams fit in psychotherapy?

Marks-Tarlow: An important function of dreams appears to be the consolidation of learning. Recursive dreams that repeat the same theme over and over, sometimes rigidly similar and sometimes with variations, tend to be the most important dreams. Within psychotherapy, I can easily track progress (or a lack thereof) through repetitive dreams. One lady, who had to conceal her identity during the McCarthy era because of her communist leanings, repeatedly dreamt of losing her pocketbook. One man, who had been continually shamed by his father, repeatedly dreamt of pooping in public.

AJP: What should people do with such dreams?

Marks-Tarlow: A great way to work with these dreams in our lives is to return to them over and over again in light of new experience. When I was a little girl in New Jersey, for instance, I dreamed the Statue of Liberty came stomping over from New York City, towering over the landscape as a giant. Terrified, I lined up my stuffed animals along the windowsill for protection and then dove under the covers of my bed. In the morning in my dream, the doorbell rang, and when I went downstairs to respond, I found a miniature replica of the Statue of Liberty on the door stoop. I scooped her up, brought her into the house, and closed the front door. End of dream. I have mused about this dream over and over in the decades since, with each subsequent recursive consideration revealing a new shade of meaning. I have understood this dream in terms of conflicts with my mother, fear of my own femininity, terror surrounding my personal liberty, and the onset of creative freedom. I have even recognized its fractal structure as presaging my interest in fractal geometry. This inspired my fractal drawing, "Liberty in Hand" (figure 2).

AJP: Do you unravel dream imagery differently from Freud?

Marks-Tarlow: I have such a strong interest in creativity that I strive to play every single day with original technique. I also believe that each patient is absolutely unique, and it is my duty as a practitioner to honor that uniqueness.

Figure 2. *Liberty in Hand* fractal, drawing by Terry Marks-Tarlow

What I do depends exquisitely on what emerges out of me, according to the particulars of the moment. Because this level of attunement is impos-

sible to predict or prescribe, my technique is spontaneous and intuitively guided. That is why my most recent books have been on clinical intuition and the neurobiology of embodied response. Apparently they are among the first about this topic, which seems weird to me given my belief that all effective psychotherapy draws upon clinical intuition in the heat of the moment to fill the gap between theory and practice. But it's not just the play of the therapist's intuition that is important; it's also the play of the patient's intuition, which is where the relational unconscious comes in. By contrast to my emphasis on play, experimentation, creativity, imagination, and spontaneity, Freud's psychoanalysis was much more a fixed theory based on universal stages of psychosexual development leading to characteristic forms of psychopathology and to interpretations designed to make the unconscious conscious as the prescribed form of treatment.

AJP: Are dreams themselves a form of play?

Marks-Tarlow: I guess you could say dreams are mind play. For decades, the purpose of dreams and even sleep eluded researchers. As I mentioned, what is becoming clearer is that dreams help us to consolidate daytime learning into long-term memory. When rats in György Buzsaki's lab were exposed to a maze, they showed identical neural patterns as during REM, the dream phase of sleep. When the rats were exposed to more than one maze during the day, the neural patterns during REM consisted of an amalgam. It appeared that the rats were using imagination to create a new, composite maze. Perhaps the creative dimension of dreams is the mind's way of playing with experience. Isn't it interesting that the same neural substrates underlie present perception, remembered events, plus imagined futures? More and more, it appears that evolution designed memory *not* to remember the past but to prepare for the future. And it is here that the play of imagination becomes crucial.

AJP: Now to move from the psychical to the physical, do you access the playfulness of the body in therapy?

Marks-Tarlow: Sometimes I directly access playfulness in the body during therapy. For example, I once had a patient who would rearrange the furniture in my office every time she walked in. By playing with my chairs and ottoman she experimented concretely with feeling more agency to be herself and to place me wherever she wished. I held onto my own chair for a long time, but eventually I even relinquished this right at the point we switched places. This was a powerful moment, representing my patient's willingness

to fully internalize my role by providing her own inner counsel.

Another example of embodied play relates to Gestalt therapist Arnie Beisser's "paradoxical theory of change." Beisser states that the only way to change is to start exactly where we are. I like to demonstrate this idea playfully by standing up and placing an ottoman in front of my legs. I then point to the horizon and say, "I want to go over *there*." But when I try to move over there, I only stumble because the ottoman blocks my way. I repeat these antics as many times as I can get a laugh out of my patient, as I nonverbally try to make the point that in order to go over *there*, I have to start by recognizing and dealing with what blocks my way right in front of my nose. Only by removing my focus from the horizon and putting it by my feet can I easily walk around the ottoman and be on my merry way. There is a wisdom to the body that is often more evident through play, wisdom that stretches well beyond the hollow reach of words.

AJP: How do you find a place for such apparently different activities as play and yoga in therapy?

Marks-Tarlow: Within psychotherapy, play and yoga don't seem all that different to me. I have been practicing and teaching yoga for thirty years. I love to play with yoga with patients, meaning that I send them to yoga whenever possible. Then, in therapy we talk about their experiences with yoga. Once in a while, I might climb out of my chair to demonstrate a posture or make a physical adjustment. Mostly, I have developed a good sense of how emotional issues translate into physical symptoms, including how and where emotional blocks manifest in the body. As above, so below—which translates here to "as on the mat, so too in life."

AJP: You find metaphor useful, then?

Marks-Tarlow: Yoga is filled with embodied metaphors. For example, I distinguish between "bad pain" and "good pain." Bad pain, like sharp knee pangs, signals impending tissue breakdown, while good pain, like burning quads, signals potential breakthrough. In psychotherapy, this might translate to understanding how and when suffering signals growth versus deterioration. As another example, I often offer the yogic practice of setting intentions as an alternative to setting goals. When we set an intention, we adopt a soft stance of opening up space for the possibility that something might emerge naturally and organically. When we set an intention we emphasize the *process* of *how* to get somewhere rather than the endpoint. By contrast, setting a goal involves a more hardened position, with a narrowed focus

on the outcome plus an all-or-nothing quality of success or failure. This makes experimentation with new things way too risky. Yoga also provides an embodied model of progress within psychotherapy. In yoga, by simply showing up and doing the work, people are bound to get stronger, more flexible and more balanced over time. The same is true for psychotherapy. Despite the ups and downs, committing to the process and staying engaged is bound to yield high results, even if symptoms like depression block the perception of this.

AJP: Is yoga playful in any sense?

Marks-Tarlow: Not only do I play with yoga with my patients, but I also play with yoga myself. As with my own creativity, if I take myself too seriously, I give far too much power to my brittle ego. I want to do everything perfectly. I get angry at my shortcomings and limitations. If I adopt a playful attitude instead, yoga becomes much easier, as does life. I can explore the cutting edges of my capabilities the way children do when they play—with less risk and consequence. In yoga, I can experiment with difficult poses without worrying about falling down or looking silly. If I do fall, I can laugh about it rather than chide myself for ineptness or clumsiness. By adopting a playful attitude, yoga is a lot more fun!

AJP: Do play and yoga both aim for the state that some psychologists call "flow"?

Marks-Tarlow: Yes, play and yoga both aim for flow, but there are significant differences between the two. Play achieves flow naturally. When little kids get completely absorbed in what they are doing, play sets up an organic rhythm that applies both to how activities are orchestrated and how time is managed. With yoga, things are not so easy or natural; it can take months if not years of practice before flow is truly achieved. People often first approach yoga through their heads, the way I did in dance, by trying to *figure out* the poses. They might continually look at others and make comparisons. "She's so flexible, and I look like a stick." They zoom in on tight places and often wiggle around to make adjustments. Nothing is wrong with any of this initially. But, there can be little flow before people find proper position and alignment and are able to draw their gaze inward. Once these things have been achieved, they can begin aligning physical with spiritual aspects of yoga, primarily by coordinating the special *ujaii* breath with movements and holds and learning the *drishti*, or eye focus, which is half turned inward and half turned outward. All of these highly technical considerations are necessary to achieve true flow in yoga.

AJP: How does play connect the mental, physical, and social spaces?

Marks-Tarlow: I look here to neuroscientist György Buzsáki's research on place cells in the rat hippocampus, the part of the brain responsible for long-term memory. Rats first learn to become oriented in physical space by the inside-out feel of things through free exploration. Once oriented, maps of physical space are internalized, allowing the rats to later navigate successfully using outside-in cues, like the sight of a familiar water dish. It occurred to me that children might go through similar phases in social space. First, they use their bodily senses of touch, smell, and taste to explore the world and people through the safety of a secure relationship, from the inside out, according to feel. As they mature, children continue exploring social space through the free play of imagination by which they gain an embodied feel for a variety of roles, as explored from multiple perspectives. One day, through imaginative play, the kid can be a doctor; the next day, he is a patient, and then an ambulance driver. Such imaginative explorations help children become oriented in social space from the inside-out, where they begin to internalize maps that later help them navigate social space according to external information and authorities. Perhaps this two-stage model sets the foundation for self-trust and self-guidance according to the inner dictates of intuition.

AJP: Before we conclude, let's go back to creativity and neurobiology. To start, would you please describe how you became a librettist?

Marks-Tarlow: The composer of the opera *Cracked Orlando*, Jonathan Dawe, had read *Psyche's Veil*. Being a Julliard teacher who puts fractals in his music, he was writing a contemporary opera based on Vivaldi's three-act opera, *Orlando Furioso*. He had extracted a thin stream of narrative in Italian and wanted someone to put fractals into some English words, which he conceived as planting little seeds that would grow over the course of the work. I was intrigued by the project, but had no idea how to accomplish it, as I am not a musician, though I did play the piano as a kid and occasionally circle back round to playing Bach fugues, preludes, and inventions. I had been to only one opera—*Peter and the Wolf*, as conducted by Leonard Bernstein. Given all of this, if I hadn't been willing to play, I definitely wouldn't have accepted the challenge of writing a libretto. This was too far afield for my comfort level. But then again, that hadn't stopped me before. In this case, I figured I really had nothing to lose—if I tried and failed, my own colleagues would never know.

AJP: Did you succeed?

Marks-Tarlow: Maybe because I was just playing, I wound up writing the libretto in a total of just two and a half days.

AJP: So how did you play with fractals in the opera?

Marks-Tarlow: An elegant solution came to me immediately. I used the Fibonacci sequence: 1, 1, 2, 3, 5, 8, 13, and so on, which quite simply involves adding each number to the number before it. This results in the part/whole ratio between each subsequent pair of numbers (sometimes called the "Golden Mean") remaining fixed. For the libretto, I treated the sequence like Haiku poetry, threading in English words and phrases between the Italian bits, so that the singers moved back and forth between English and Italian. I pulled out the emotional themes of the characters, such that the English words wound up more passionate. When I attended the opera's premiere in 2010, which took place in New York City and included a ballet, all was new to me, and the hair on my arms literally stood up. I thought to myself, "This is it. This is as good as it gets. I could die now, and it would be okay." Of course, I didn't die, and I hope to have many more crazy adventures like this one.

AJP: Does your painting "Fractal Watch" (figure 3) contain a Fibonacci sequence because you mean to suggest that the universe itself plays by playful rules?

Marks-Tarlow: Sure, why not? This idea wasn't in my head when I created the drawing, but it's a great one. The Fibonacci sequence is a form of fractal geometry recognized since antiquity. The Golden Mean underlies proportions in art and architecture in many different cultures, sometimes created intentionally, other times created intuitively in ways that mimic natural proportions. Whether in the winding form of a snail's shell growth, the placement of leaves in phylotaxis, or the spiral of my fractal watch, you could say this sequence governs one of the main rules of our universe's unfolding game.

AJP: Is creativity of itself therapeutic?

Marks-Tarlow: Play helps people loosen up rigid, self-defeating habits or fearful expectations that inhibit risk taking. My interest in creativity has morphed into a specialty of working with writer's block and other cases of blocked productivity. As an example, many years ago I worked with a young woman who kept flunking her written licensing exam in psychology. She was a perfectionist who deep down inside believed she had too many flaws to deserve to pass. But as psychotherapists, the point of working *with* our

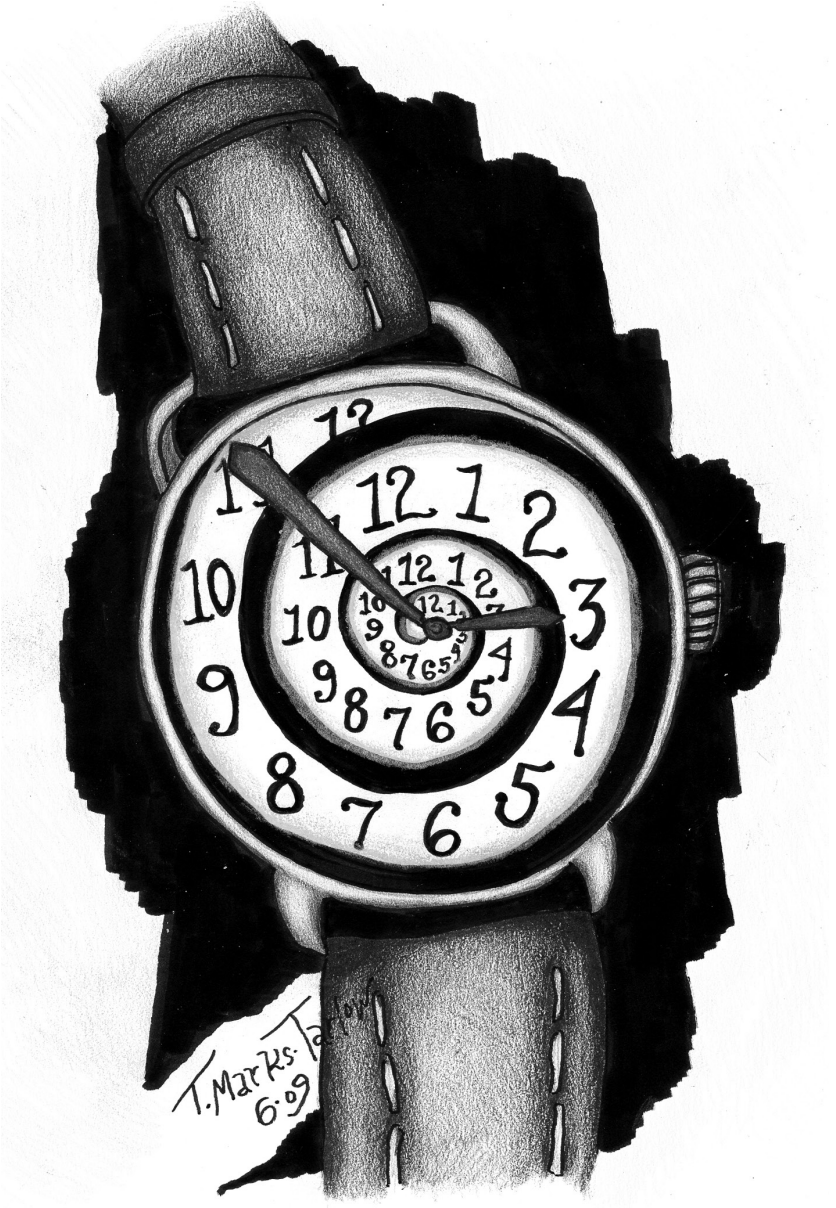

Figure 3. *Fractal Watch* with Fibonacci sequence by Terry Marks-Tarlow

countertransference issues involves recognizing their presence so we can bracket them aside. The point is not to get rid of our issues entirely. This

is unrealistic and inhuman at the extreme. My prescription for this woman was to initiate her next round of testing by scribbling all over the edges and back of her practice sheet. This became a way to rebel against her inner perfectionist and a means to remind herself that life is messy and it's okay to be human. This playful idea worked beautifully; she passed the exam.

AJP: Is your interest in interpersonal neurobiology, like your interest in opera and painting, an adventure into new territory?

Marks-Tarlow: When I discovered this newly emerging discipline, my interest in nonlinear science suddenly felt more grounded. All those highly abstract ideas could now be contained within the material workings of the brain and body. Interpersonal neurobiology adopts a holistic perspective of the mind-body-brain as a single system and investigates how minds, brains, and bodies develop and heal through relationships with others, from the womb to the tomb. So the discipline carries a strong developmental emphasis that recognizes how critical windows in early development open into later life, for better or worse. The key to mental and physical health throughout life rests on developing a securely attached bond with attuned care givers during the first two years of early childhood. Of course, play is a critical ingredient in any care giver's repertoire. Play stimulates early joy states, introduces social rhythms, and encourages trust and safety in relationships. All these are necessary for secure attachment.

AJP: Would you explain attachment in terms of another musical metaphor that some neurobiologists favor, attunement?

Marks-Tarlow: Attunement involves an emotional level of open responsiveness to a person's feelings, needs, motives, and intentions. To conduct play sensitively requires following a baby's natural arcs of interest, fatigue, and tolerance for stimulation. An attuned care giver not only knows how to play but also when to stop playing as a baby's window of engagement closes. Tickling is a good example of this, because laughing all too easily turns into crying without exquisite attunement. In graduate school, I remember watching a film of a mother and baby at play, in slow motion, with the sound turned off. The level of coordination between the two bodies was extraordinary, executed like a fine dance. Mother and baby would arc away and then lean in, perfectly matched to one another. Because this kind of coordination takes place at implicit rather than explicit levels of awareness, the dance is unconsciously choreographed and entrained. Entrainment refers to the physical coordination between self and other—the mechanics

of how two bodies come together, which often includes coupled physiological processes.

AJP: A final question. What future surprises do you have in store?

Marks-Tarlow: Now isn't this a silly way to end? If I knew what was in store, then it wouldn't be a surprise, would it? I'm afraid that you, I, and everyone else will just have to wait to find out.

AJP: Okay, then, let's try this. Where do you see yourself headed as a psychotherapist?

Marks-Tarlow: I'm reminded of a typology I made up years ago, partly in jest, of who becomes a psychotherapist. I identified four types: the Earth Mother type, full of compassion, wailing with the world's woes, and ready to put her arms around everyone; the Walking Wounded, who feel broken and troubled and seek to repair themselves through helping others; the Voyeurs, thoroughly fascinated with people, the weirder the better, and hungry to understand what makes everybody tick; and finally the Wounded Healers, who represent the final stage of maturity, reachable only if the therapist works his or her way through issues presented by being one of the first three types. From my own spy beginnings, clearly I entered the field as a Voyeur. Thankfully, my fascination with people has protected me for decades from burnout or compassion fatigue, and I remain as interested and energetic about my work as when I entered into the field. I hope I am approaching Wounded Healer status, as I consciously strive to cultivate greater clarity of vision and compassion.