

# Looking Back and Looking Forward: Our Professional and Personal Journey

Allan Schore's Address To The  
UCLA Interpersonal Neurobiology  
Conference 2014



The past three days have been amongst the most special in my life. They've been special because this occasion provides me the extraordinary experience of receiving direct tangible feedback from my colleagues and peers on this stage and across the country, people I highly value, about the impact of my studies on their own. What a unique and wonderful gift. Despite what on the surface looks like different areas of work, all of these presenters share an intention to use rapidly accumulating scientific and clinical knowledge in order to more deeply understand and indeed better the human condition—no small goal. And I admire the dedication and the courage of each of them. But this occasion is also special because it's happening here at UCLA, with an audience of so many colleagues and friends. I've presented here 13 times since 1998, the end of the last century, and this conference has allowed me to share the continued development of my ideas and get audience feedback even before they were published, a valuable context for the ongoing development of the body of my work.

This weekend also heightens my awareness of the passage of time, along the course of living one's life. Last month, somehow, without my permission, I turned 71, which to ease the shock my mind turned into a "dyslexic 17." One of the conscious goals that runs throughout my life is to remain emotionally and intellectually open to the future, what Bob Dylan calls "forever young." But I'm now at a stage in which there is even more looking backward, into the past, especially in light of the 20th anniversary of a central moment in my life. In that spirit I'd like to share with you some personal thoughts about the creation of *Affect Regulation and the Origin of the Self* in 1994, and the events even before it that set the foundation of the path that has guided everything from that point of origin.

Earlier, in a stage when looking forward was intense, in my late 30s, as a husband and a father of two young children, I set out to "write something." Even before that something had a specific shape, I intuitively understood, at both a surface and a deeper level, that the time had come to actively begin the venture. And so in 1980 I began what would turn out to be a 10-year period of independent study, 10 years before I would put pen to paper (note the late 20th century now almost obsolete reference). In the preceding decade, the '70s, a time when I had the valuable experience of being the

patient in a psychotherapeutic process, I dutifully put in my 10,000 hours of clinical work and had developed some expertise and confidence in the professions in which I was trained: clinical psychology and clinical neuropsychology. But in parallel my up close therapeutic work with patients fueled a rapidly growing intense curiosity about the relational processes of psychotherapy—which at the time took the form of the question, "How do minds and brains touch and shape other minds and brains?" In order to clear out the substantial amounts of time for this continuing education and self study I left my clinical position at the Psychiatry Department at Kaiser Permanente and cut back my private practice from 5 to 3 days. All with Judy's support—even more than emotional support, hard cash financial support. We switched income responsibilities and for the entire decade of the '80s my period of independent study was financed by a Judy Schore grant.

Judy has told you something about my visits to the Cal State Northridge library, just a mile from our home. For about three out of four Saturdays for 10 years I roamed through the stacks, in a state of pleasurable exploration, like a child in a candy store (again pardon the mid-20th century reference), back and forth between sections of psychological, psychiatric, biological, chemical, and even physical sciences. When Beth



and David were old enough they'd come along, riding their bicycles on the campus while I immersed myself in journal after journal, and doling out huge numbers of quarters into voracious copying machines. What is most important is that I brought the knowledge back to my home, which is where the careful analysis and synthesis of the knowledge took place. Another 10,000 hours, expanding the evolving science of my earlier education, but this time not at a university but in my home.

Meanwhile I continued to see patients, many of them in long-term psychotherapeutic explorations. What I was learning from them (and about myself) was developing in parallel to my second scientific education. The process of extended "self study" involved not only the independent, solitary processing of large amounts of external knowledge, but also reflecting upon the increasing knowledge about my own internal emotional world. And perhaps an even

greater source was my ongoing development as a husband, father, son, and friend. It is no coincidence that my application of science to the understanding of the most personal and deepest aspects of the human condition was created in the intimate context of my home, and not in an academic institution. Everything I have created about development, and attachment, about subjectivity and intersubjectivity, about shame and joy, about brain and mind has occurred in the close quarters of my life—which is why my work had to explore subjective emotions and close relationships, at both the conscious and unconscious levels.

Led almost entirely by my curiosity (a personal trait that had been nurtured from my early beginnings under the watchful eye of my loving mother, Barbara Schore) and absolutely trusting my intuition in deciding what to read beyond the fields in which I was trained, for 10 years I enjoyed long states of play, out there in the library and back at my

home office. I was acting out in daily life my long held wish to become a scholar. But a particular kind of scholar. And here I looked backward. My father George Schore, my role model in so many areas of my life, was a chemical engineer, an applied scientist, an international expert in metal finishing and water pollution, and had numerous patents on electroplating copper and gold recovery processes. In 1976, he had received an award from the Environmental Protection Agency "in recognition of having contributed major efforts and demonstrated a significant advancement in our nation's continuing struggle for environmental pollution abatement." The plaque hangs in my office. His work was always at the cutting edge, and even ahead of its time. His career, like mine, significantly changed at several points in his life. So I was exposed to the mind of a creative scientist who was continually translating advances in basic chemical science into practical applications.

When I was 21 years old, between college graduation and my post-graduate education, I spent about a year working with my father. At that time he was designing and building the first automated metal finishing systems, and sold them to amongst others, General Electric, General Motors, and IBM. I continued to learn from him. But on one particular occasion he taught me something that was to become invaluable. I went with him to Tampa Florida, where he was giving a sales presentation to build an automation system for Honeywell, the manufacturer

back and forth answering each of their technical questions, talking about the automation system in terms of its impact on all of these different fields, and then integrating that information into a system specifically tailored to their needs.

In that "Aha" moment of recognition and insight I saw my father in the role of a polymath, and I thought, that's the professional mind that I admired and needed to nurture in myself, one that knows the language of and can communicate with a number of different professions. An ability to fluidly move between disciplines would become the prototype for my burgeoning career as a scholar. This synthetic, integrative approach was opposed to the then (and still) dominant role of specialization and an increased narrowing into one's field. This affectively imprinted autobiographical memory later naturally evolved into an interdisciplinary perspective which pervades all my work. And so I would create a theoretical model that could not only describe but integrate various scientific disciplines – that would chart the points of contact between psychology and psychiatry, biology and chemistry. Early development and emotion would turn out to be a common factor.

So in 1980 as I began the independent study, I had a theoretical perspective to process and understand the various literatures I would encounter. But on a practical level I had to create a structure that self-organized my time, and an environment that could support and allow for the growth of

## **I saw my father in the role of a polymath, and I thought, that's the professional mind that I admired and needed to nurture in myself, one that knows the language of and can communicate with a number of different professions.**

of thermostats (yes, temperature regulators). I have a strong visual memory of the room, of my father in the center of a long table, facing seven scientists and executives. I watched him effortlessly field questions posed by an electrical engineer, a chemical engineer, a mechanical engineer, a water pollution expert and vice presidents from three different departments. He was going

my creativity. The routine I came up with was to visit the library on the weekend, return with 30–40 xeroxed articles, and then spend the weekdays taking notes on each in 100-sheet 8½×11 legal pads. Every third or fourth notebook I found myself recording repeating patterns across fields and began to integrate different research literatures, especially developmental biology, develop-

mental neurochemistry, and developmental psychology. And meanwhile I'm shuttling between my study and consulting room, where I'm focusing more and more on the relational processes that lie at the core of psychotherapy.

The work expanded my skills as a clinician-scientist, a term that best fit the professional identity I was creating. The scientist part was expressed in careful observations about the patient's and my own subjectivities, especially about the emotional interactions between us, including our internal worlds. But the emerging scientist was also extremely careful about the kinds of evidence that I found convincing and would later use to develop an interdisciplinary theoretical model. My focus was on the boundaries between fields, and the commonalities that lie beneath what appear on the surface to be unrelated phenomena. I became especially confident putting my money on certain organizing principles and theoretical concepts that cut across different sciences. And so when I found the construct of regulation to lie at the core of chemistry, physics, and biology, I knew that any overarching de-

velopmental or clinical model could be centered in that.

For 10 years I was frequently and routinely in a positive state of play, of flow, both intellectually and emotionally. I became very adept at transitioning between different scientific and clinical literatures, at moving between brain and mind, and by 5 years in I became absolutely confident that by creating a theoretical model of emotion and human relationships that integrated psychology and biology I could alter the course of clinical practice, and indeed science. That was the phrase that literally came to mind. And even though my self-image is basically to be a modest man, again something I learned from my father, I became comfortable with that explicit sense of conviction and confidence, even certainty in the power of the model my mind was creating.

I should mention that over the decade I engaged in one other activity, in order to create an environment that could support my creativity and imagination. At the very outset I chose to return to the piano. When I was a child I dabbled with the piano for a couple of years. Now in my late 30s, I took



lessons, as an adult. I wanted to not just listen to but create music, and thereby bring music into my home-made ivory tower. I was aware that the music would allow me to understand something in my fingers, in my body, and not just in my mind. I was learning that science, and emotions in particular, were not apprehended just through logical understanding. I also wanted to learn how to visualize what I was learning, to think in images as well as thoughts. Later I realized my intent was to involve my self in exercises that tapped specifically into my right brain, the source of creative processing. And along the way I was able to give a pretty good imitation of a cocktail pianist. Again exercises for shoring up (probably no pun intended) my right brain.

In order to come up with a fresh solution to the problems I was addressing, I realized that my right-brain implicit learning processes played an even larger role than my familiar left-brain approaches. From the outset I decided never to explicitly memorize anything. And then I found that I had to expand my tolerance for the uncertainty of not knowing, to allow my mind to stay open long enough rather than prematurely closing down the exploratory process with what appeared to be a quick solution. In order to foster the creative process I never deliberately attempted to solve anything in particular. Rather, I would just take in large amounts of salient information, with an intuitive, bodily based knack for knowing what is meaningful and essential information to the phenomenon I was attempting to understand. Ultimately my right-brain unconscious mind would recognize patterns, which my left-brain conscious mind would then describe verbally. Frequently these solutions took a visual form. More than just describing data, at the most fundamental level I was attempting not only to understand different fields but to integrate them, and ultimately to describe underlying mechanisms.

By the end of the decade the hundreds of legal pads stacked well over 6 feet high, and they contained long sections of detailed notes on research common to and overlapping different disciplines. So after 10 years, I made the decision, again intuitively, to end

the period of solitary, independent study (as well as the piano). My plan was to write a psychoneurobiological formulation of emotional development, both in early life and in the therapeutic process I was observing in my practice. And now the next set of questions. How was I going to transport the work of science I had created in my garage (family room and study) into the real world? How could I establish my credentials in order to be offered a publishing contract for a book? I decided to write an article. But on what, and where would it appear?

Coincidentally, in the '80s, Judy returned to academia for her PhD in clinical social work, on a relatively unexplored clinical phenomenon, the emotion of shame. Now when it came to emotions I found that the kind of work that I was doing with my patients, especially early disturbed patients, was all about emotion. Their interpersonal deficits were fundamentally deficits in coping with a wide array of emotions. So I became very interested in the early-forming nonverbal emotion of shame, which then led me to the early development of emotions per se, a then uncharted landscape in both the clinical and scientific literatures. In addition to becoming acquainted with the (meager) literature on bodily based shame, I was also studying it clinically, in my work with narcissistic patients, and became convinced that working with this affect was essential to the treatment of all developmental disorders.

So Judy and I wrote an article together, on shame and gender development. We submitted it to the Journal of the American Psychoanalytic Association and they would have none of it. However, there was another psychoanalytic journal, one related to JAPA, Psychoanalysis and Contemporary Thought. With a sense of relief I noticed that on its editorial board were developmental psychoanalysts like Erik Erikson, Bob Emde, and Fred Pine. When I saw their names I knew immediately that this journal would be a good fit. I wrote *Early superego development: The emergence of shame and narcissistic affect regulation in the practicing period* and submitted it to that journal. The paper ended with neurobiological speculations about the early development of the right hemisphere.

It was accepted immediately. As I look back I view it as my first articulation of developmental neuropsychanalysis, the study of the early development of the unconscious mind, as well as a regulation model of the neurobiology of attachment, themes that would become central in not only the 1994 book all my subsequent writings.

But I wanted more than to publish a paper—I wanted to come into direct contact and dialogue with the minds I admired. As soon as the shame paper came out I sent reprints to 40 authors cited in it, and along with it a letter introducing my work and carefully tying it into their own. Incidentally, many of these were child and adult psychiatrists trained in psychoanalysis, like Stan Greenspan, Dan Stern, Jim Masterson, Henry Krystal, and especially Jim Grotstein, who helped me get established here in LA. And later in that summer, this was about '91, I got back about 35 letters, and I knew that I had connected into a group of peers, clinicians and theoreticians who were also convinced of the centrality of the developmental perspective. The psychoanalytic article succeeded because the reviewers and readers could evaluate evidence that was familiar to them, observations from both psychoanalytic clinicians and researchers about the early developing mind and inner world.

But now I needed to find out how neuroscientists would respond, and what types of “evidence” were meaningful for them. I needed their feedback, and so I decided to submit to a peer-reviewed neuroscience

emotions, told me to focus less on psychoanalysis and more on John Bowlby’s attachment theory, which was more palatable to scientists because of its connections to ethology. At the time I wasn’t aware of the fact that three months before I offered that article there was a severe critique of psychoanalysis in that journal.

But even the sting of the rejection was a learning experience. The emotional disappointment led me into parts of myself that I would later describe in my work. Instead of rationalizing the pain or avoiding the risk, or even using Judy to help booster me against the injury to my self-esteem, I became aware that I just needed to allow myself to deflate and sink deeper into the momentary defeat. That became helpful to me. In other words, I allowed myself to experience not only the accelerating high arousal play states, but also the decelerating low arousal painful deflations. And I found that implicit processes, other than my conscious mind, would operate down there, and when they had run their course I’d come back up and continue forward. These experiences highlighted the fact that the ability to tolerate both positive and negative emotions was a fundamental aspect of emotional growth and development.

And so now at age 50, with a single journal publication under my belt, I sent a book proposal to a psychoanalytic publisher, Analytic Press, who then passed it along to their scientific division, Lawrence Erlbaum. As it went into the mail I had the clear thought that everything I had accomplished in my

## **But even the sting of the rejection was a learning experience. The emotional disappointment led me into parts of myself that I would later describe in my work.**

journal an expanded version of how the early mother–infant relationship was affecting the neurobiology of the developing brain. To get this feedback I submitted an article to Behavioural and Brain Sciences. Although three of the reviewers accepted it the editor-in-chief rejected it. But one reviewer, Carol Izard, a major developmental psychologist who had worked with Sylvan Tomkins, an early pioneer in the study of

life up to then would have little meaning unless this product of my mind would find a home at a publisher. They immediately accepted the book, although they had severe reservations that it would not sell because they felt that the people who were interested in the biology would not be interested in the psychology, the people who were interested in the psychiatry wouldn’t care about the neuroscience, and so on. Remember,

the positive valence of the term “interdisciplinary” was not yet established when the book came out in 1994. Even so, my initial reaction was one of great relief. I felt that the previous decade had paid off, and that I had said exactly what I wanted to say in the book. Indeed not one word was changed by the copy editor in what turned out to be 700 pages, including 105 pages of 2,500 references.

In the spring of 1994 I got my hands on the book, and that summer I again used the

was meant at the time to be groundbreaking, if not revolutionary:

“The understanding of early development is one of the fundamental objectives of science. The beginnings of living systems set the stage for every aspect of an organism’s internal and external functioning throughout the lifespan. Events that occur during infancy, especially transactions with the social environment, are indelibly imprinted into the structures that are maturing in the first years of life. The child’s first

**The British Journal of Psychiatry called me “a polymath,” something that had special meaning, and described the book as a “superb integrative work” with a depth and breadth that was “staggering.” That brightened up my day.**

feedback-communication device and wrote 60 letters, sending out many copies at my own expense. But this time in addition to psychiatrists and psychoanalysts, I wrote to neuroanatomists, neurochemists, brain researchers, cell biologists, developmental psychologists, etc., literally around the world. And again at the end of the summer I got back about 50 letters which I still have. I knew even before the book had “hit the streets” that it would get a good reception. The format of the book included citing a quotation from a major figure in each field at the beginning of every chapter. It was these experts I sent letters to, and when they responded so quickly I knew that it was a done deal. So soon after its birth I remember thinking I could die now and have the satisfaction of knowing that I had accomplished what I set out to do, to “write something.” And then the very positive journal reviews started to come in. The British Journal of Psychiatry called me “a polymath,” something that had special meaning, and described the book as a “superb integrative work” with a depth and breadth that was “staggering.” That brightened up my day.

The “Green Book” in essence was an argument for the power of integrating the psychological and the biological, the scientific and the clinical. The opening paragraph

relationship, the one with the mother, acts as a template, as it permanently molds the individual’s capacities to enter into all later emotional relationships. These early experiences shape the development of a unique personality, its adaptive capacities as well as its vulnerabilities and resistances against particular forms of future pathologies. Indeed, they profoundly influence the emergent organization of an integrated system that is both stable and adaptable, and thereby the formation of the self.”

I remember knowing that the book was about 10 years ahead of the field, some parts 20 years, especially in terms of scientific research. What I didn’t know was if other people would find “the first relationship,” the maturation of the infant’s brain, emotional development, and an affective description of the baby’s emerging consciousness, to be as fascinating as I did. I was also surprised that the book, which was written in the language of science, appealed to clinicians. This may be a surprise to some of you, but the book was not an easy read.

The year after the book was born, in 1995, I was invited to join a small group, mostly faculty at UCLA, who were studying how neuroscience could be integrated into psychiatry, psychology, psychoanalysis, and linguistics. And so for the next two years

this group focused intently on just one volume - my Green Book. The other members of this seminal peer group—Dan Siegel, Lou Cozzolino, Regina Paley, and John Schumann—were to write their own books on interpersonal neuroscience and neuropsychanalysis by the end of the decade. In 1996 I joined the clinical faculty at the UCLA Medical School, and also began my first in-

ology of attachment and in early brain development allowed me to present to dozens of conferences, where I could share ideas with a large number of leading neuroscientists and prominent clinical writers. Many of these people later presented at this UCLA Lifespan Conference. Thanks to Marion Solomon, these UCLA conferences have attained an international reputation for cut-

## **I still see patients in my home office because everything I create in science must ring true clinically.**

a number of study groups in Los Angeles, Seattle, Berkeley, Portland, Boulder, and Austin. These groups have since become important sources of feedback from experienced clinicians, as well as of new questions that I later addressed in my writings. The groups have also been a context in which I mentored numerous other professionals. Many began their own writing careers, and a number became Norton authors.

But from the beginning the book brought another instant bonus—invitations from influential journal editors in a number of different fields. These invitations from high-level developmental, psychiatric, psychoanalytic, and neuroscience peer-reviewed journals allowed me to impact a much larger readership than the book itself and gave me exposure across a wide range of disciplines. This single work also brought me invitations to be a reviewer or on the editorial boards of dozens of journals, which in turn allowed me to influence the direction of both experimental research and clinical models. It also was the generator of numerous invitations to lecture nationally and internationally, and thereby an opportunity to offer my ideas to audiences both here and around the world. If the problem of emotion had been ignored by science for most of the century, by the end of the '90s the clinical audiences I was addressing became aware and indeed very interested in how to apply the new information about bodily-based affect and affect regulation into their work with patients.

As "the decade of the brain" progressed, a rapidly expanding interest in the neurobi-

ting-edge themes and for presenting an intellectual context that allows for an ongoing dialogue between leading neuroscientists, prominent clinicians, and an extremely well-informed audience. But perhaps the most unexpected bonus of the work was the creation, at a later stage of life, of deep friendships with so many colleagues of not only like minds, but like hearts (including many people here in the audience).

Over the last 20 years my daily life has been profoundly changed, yet in some important ways remains the same. I continue to set aside large amounts of time every day for reading and poring over new studies over a broad spectrum of disciplines. Sitting at my desk I have instant access to every University of California library. The fact that the body of my work has been cited in Google Scholar in well over 10,000 publications over a broad range of scientific and clinical disciplines is a source of great pride. I still see patients in my home office because everything I create in science must ring true clinically. This home-made ivory tower has become the context that allows for the collaborative research with colleagues in different disciplines, some of whom have presented this weekend. It also is the locus of my work as editor of the Norton Series, as well as a reviewer of dozens of journals. Through these various activities, my conscious and unconscious minds are continuously stimulated, challenged and surprised by novel and intrinsically interesting information.

What I learned early on about the organic needs of my imagination continues to be ex-

pressed. Looking forward, my curiosity is now turning to, amongst other problems, the early assessment of both attachment and infantile autism, the lifelong impact of love on the right brain, the development of the deep unconscious and the survival functions of the right amygdala, the central role of mitochondrial energy systems in brain functioning, and continued studies of the subtle yet fundamental mechanisms that underlie the psychotherapeutic healing of the self. In regard to my recent appointment to the Honorary Scientific Committee of the next Psychodynamic Diagnostic Manual (PDM-2), I look forward to helping to establish this alternative to the DSM, a clinically relevant, integrative, science-based in-depth approach to personality assessment that addresses both nonconscious and conscious psychological functioning.

Along the course of my personal journey, things have dramatically changed, yet remain constant. In addition to the work, the greatest constancy comes from my relationship with Judy. The essential nature of the support that she provides continues to sustain my intellectual and emotional needs. The Green Book and everything that has naturally evolved from it has taken us to most of the states in this country, and around the world, many, many times. Our early investment has paid off nicely, in a tremendously exciting "quiet life." In the Acknowledgments of the 1994 book I said of her, "Through her intellectual keenness and emotional honesty, she continues to reflect and reveal to me those reciprocal emotional processes that are, willingly and unwillingly, most clearly exposed in an intimate human relationship." As I look back I see this as an attempt to describe the loving bond we've created. In dedicating one of my 2003 volumes to Judy I quoted Robert Frost, "Wing to wing, oar to oar." This weekend has been an extraordinary "wing to wing" experience for Judy and I. We thank you, colleagues and friends, for this special gift.



Dr Allan Schore is on the clinical faculty of the Department of Psychiatry and Biobehavioral Sciences, UCLA David Geffen School of Medicine, and at the UCLA Center for Culture, Brain, and Development. He is the author of four seminal volumes, *Affect Regulation and the Origin of the Self*, *Affect Dysregulation and Disorders of the Self*, *Affect Regulation and the Repair of the Self*, and *The Science of the Art of Psychotherapy*, as well as numerous articles and chapters. His regulation theory, grounded in developmental neuroscience and developmental psychoanalysis, focuses on the origin, psychopathogenesis, and psychotherapeutic treatment of the early-forming subjective implicit self.

His contributions appear in multiple disciplines, including developmental neuroscience, psychiatry, psychoanalysis, developmental psychology, attachment theory, trauma studies, behavioral biology, clinical psychology, and clinical social work. His groundbreaking integration of neuroscience with attachment theory has led to his description as "the American Bowlby," with emotional development as "the world's leading authority on how our right hemisphere regulates emotion and processes our sense of self," and with psychoanalysis as "the world's leading expert in neuropsychanalysis."

The American Psychoanalytic Association has described Dr Schore as "a monumental figure in psychoanalytic and neuropsychanalytic studies."

We are proud to have Dr Schore on the advisory board of *The Neuropsychotherapist*.