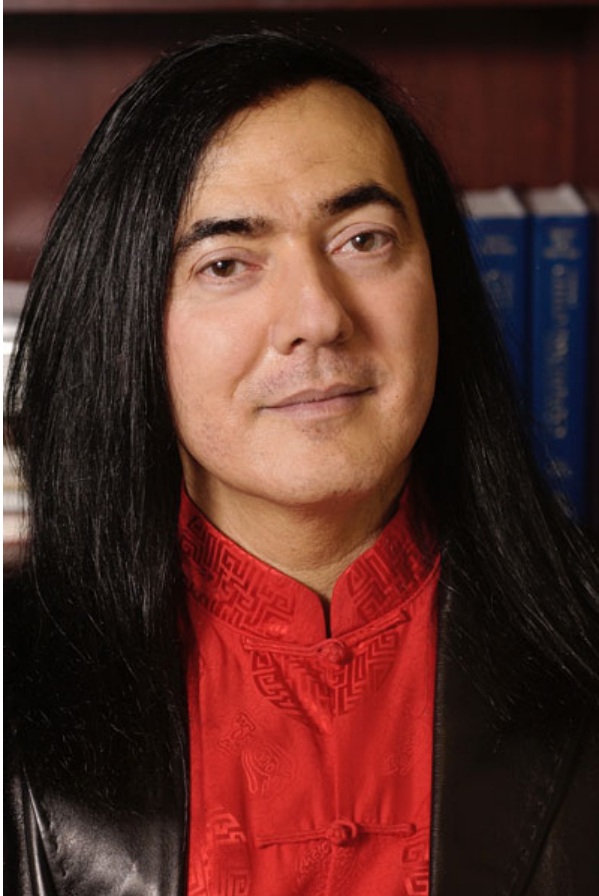


Champions of Psychology: Dante Cicchetti

November 03, 2011



This is the full, un-edited version of an interview that was published in the November edition of the *Observer*.

APS Fellow Dante Cicchetti is Presidential Chair and William Harris Professor of Child Development and Psychiatry at the University of Minnesota. Cicchetti has received numerous awards for his work in developmental science as well as his work on policy and practice related to child maltreatment, depression, and mental retardation. In 1984, he joined Mt. Hope Family Center — a research and treatment center for children and their families — where he served as Director until 2005. Cicchetti took some time to speak with the APS Student Caucus (APSSC) about his career and to provide some advice for current graduate students.

APSSC: What led you to choose psychology as a career?

DC: I grew up in a large Italian community in Pittsburgh, PA. Throughout my childhood, I was in contact with culturally and economically diverse groups, including children and families who were living in harsh conditions. Given these circumstances, I became consumed with understanding why some individuals do well despite experiencing significant adversity, whereas others get diverted onto lifelong negative pathways.

As an undergraduate at the University of Pittsburgh, I had the great fortune of working with Alex Siegel (a developmental psychologist) and Felicisima (Ping) Serafica (a clinical psychologist who focuses on developmental psychology). As someone who was interested in the study of typical and atypical developmental processes, Alex and Ping strongly influenced my ultimate focus on integrating clinical and developmental psychology. This culminated in my earliest efforts to help forge the field of developmental psychopathology during my early years of graduate school.

Siegel knew that I had a passion both for developing scientific knowledge and for helping people. He was also aware that I was leaning toward becoming a psychiatrist. After numerous discussions, Alex convinced me to pursue a PhD and to follow in his footsteps at the University of Minnesota. His belief in me helped me to believe in myself.

Serafica and I collaborated on research on the social and emotional development of children with Down syndrome. I also worked with a child psychiatrist at the University of Pittsburgh Western Psychiatric Institute and Clinic to develop a preschool for children with developmental disabilities. Many of the children in the preschool had Down syndrome and I was deeply fascinated by these children. Beginning with my undergraduate research with Ping Serafica, I continued to conduct research with infants and children with Down syndrome from my graduate school years at Minnesota through the end of the 1990s at Rochester. I continue to be inspired by these children to this day. I was privileged to work with them and am amazed by their inner strength.

APSSC: How did you develop your current research interests, and how have they influenced you as a person and a professional?

DC: Much of my research has been influenced by my own experiences. Early encounters with poverty and harsh conditions played a major role in fueling my research interest in child maltreatment. I have always preferred addressing complexity over simplicity, and this led to a multiple-levels-of-analysis approach in my research. Virtually every biological and psychological system is impacted by pathogenic experiences in child maltreatment, which allowed me to investigate biological and psychological mechanisms that contribute to resilience and psychopathology, and to translate this work into interventions that would help maltreated children. Investigating the causes and consequences of child maltreatment by studying thousands of individual maltreated children, along with other topics I have studied for decades (such as depression), also have contributed greatly to my personal growth by providing me with insight into the complexity of developmental processes. This insight has allowed me to devote time to improving the lives of others.

APSSC: What suggestions do you have for choosing an area of study?

D.C.: Choosing one area to study was tough for me. Given my multilevel thinking and interest in complexity, focusing on one area of study was difficult. Many of my professors in graduate school urged me to focus on one thing. I certainly thought long and hard about what they said because they were superb scientists. For many graduate students, adopting a multilevel perspective may not be the best way to proceed. For me, it was the natural thing to do. I was focused on helping to build a multidisciplinary field — developmental psychopathology. Fortunately, my Ph.D. advisor in clinical psychology, Paul Meehl, was very supportive of my approach. Paul urged me to pursue my passions. As a graduate student, it is important to know yourself. I would hate to discourage anyone who has a broad focus

because they may have the ability to develop more integrative models, research programs, and methods.

APSSC: How did you about select a graduate program?

D.C.: Alex Siegel received his PhD from Minnesota, and I knew he was an extremely talented and productive psychologist. There were also a number of professors at Minnesota whose areas of expertise were compatible with my interests. In particular, I was drawn to Paul Meehl, Norman Garmezy, Irv Gottesman, and Alan Sroufe. When I was offered admission to Minnesota, I was thrilled. It was my dream school and I never regretted my choice.

APSSC: What were the most rewarding aspects of graduate school?

D.C.: At Minnesota, there were great faculty who were committed to mentoring. They trained every student to be a competent psychologist. Much of the work going on in my mentors' laboratories was cutting edge, and it was exciting to work there. I also had mentors who supported my independent ideas. They weren't looking to work with students who didn't have their own goals and aspirations. Their willingness to support my ideas prepared me to become a successful academic. Finally, I can't overlook my peer group. During my time at Minnesota, it was a golden era for graduate students. Many of my peers have received national awards and become scientific leaders. I quickly realized that my peers were as valuable a resource to me as my professors were. I learned a lot from my interactions, discussions, and collaborations with my fellow students. To this day, I teach my graduate students to respect their peers and learn from them rather than view them as competitors.

APSSC: How should a graduate student work towards becoming a first-rate researcher?

D.C.: In the seminar on developmental psychopathology I teach to first-year graduate students, I ask them to name their intellectual passion. Despite their high intelligence and excellent GRE scores, a number of them have no idea what truly moves them. I stress that it is critical to find your passion. I believe that this will help students embark on a path to research success. In addition to finding their passion, graduate students must find the right mentor (or mentors) who shares their interests. Thinking out of the box and being creative also will help on the road toward becoming a first-rate researcher. Many important contributions are made by individuals who were not initially trained in a specific area. Continuing to learn new things, and interacting with peers and other scholars will also be very beneficial. Finally, once one comes up with a good idea, it's important to remember that inspiration is only part of achieving the goal. Hard work and dedication are essential components for developing top-notch research prowess. Research activities must be top priority. Compared to graduate students in other areas of psychology, individuals matriculating in clinical psychology have bigger obstacles to confront because they spend a great deal of time doing clinical work away from the research laboratory. However, the opportunity to work in clinical settings can be invaluable for generating testable research ideas.

APSSC: What advice would you give to graduate students who want to have careers in academia?

D.C.: Be resilient — an academic career is challenging but also exciting and fun, especially if you are pursuing issues that you have deep passion for. For several decades after I obtained my PhD, Paul Meehl would write me and ask, "Are you having fun?" Yes, there is joy and fun in a research career. Academic

pursuits require extremely hard work throughout one's career. Rewards such as publications and grant success take time. In many ways, the life of an academic requires being a perpetual student. It is essential to develop competence in new areas, and this can be quite humbling when one realizes that there is so much to learn. This is especially true if one is striving to integrate her/his research across disciplines.

I also would advise students to work with mentors who are productive scholars and who are committed to fostering and facilitating the career growth of their mentees. Students should seek out opportunities instead of waiting for professors to approach them. Sometimes students are intimidated by certain professors and don't interact with them. Students need to understand that even the most acclaimed scientists are very willing to work with graduate students, even early on in their program. Moreover, the student-professor relationship is bidirectional, so faculty learn many new things from their students. Finally, my mentors, Siegel, Sroufe, Meehl, Garnezy, and Gottesman, each told me that the one thing that made them most proud was seeing their former students make major contributions to the field.

APSSC: Writing and publishing are often anxiety-provoking events for graduate students. You have had a lot of experience as a writer, editor, and reviewer. What do you know now about this process that you wish you would have known earlier in your career?

DC: Everyone experiences rejections when submitting papers for publication. When "knocked down," it's important to get back up. As a first-semester assistant professor at Harvard, my first two papers were rejected. At first, I thought that I had "lost it," because all of the papers I submitted for publication as a graduate student had been accepted. I had lunch with my colleagues Steve Kosslyn as well as Jill and Peter DeVilliers. After telling them about my recent manuscript rejection experience, I asked if they had ever had a paper rejected. I fully expected they had never experienced rejection. But they told me that they had been rejected, and the key to publication was to be persistent.

Also, rejection does not always mean that the manuscript is a poor contribution. Don't be defensive. Learn from the editor's and reviewers' comments. Work hard on the revision. Seek input from mentors or peers. When preparing to submit a paper, it is important not to rush the review process. Strive to make each paper at least as good as your last one, and try to make it better than its predecessor. A major part of a scientist's legacy is the quality of her/his work. It is important to consider what the best publication outlet would be, and it is often wise to contact editors to solicit their opinions.

Finally, not every study warrants publication. Students should not publish just to publish. They may ultimately regret the decision to publish their papers in lower-tier journals later on in their careers.

APSSC: Many graduate students hope their research will benefit others. As the director and founder of a very successful family treatment and research center you have had the unique experience of seeing the integration of research and practice. Can you tell us a bit about how this idea came to life? What advice do you have for students hoping to translate research to practice on a smaller scale?

DC: I think that my decision to integrate research and practice originated during my youth. The desire to both understand and be helpful to others experiencing adversity undoubtedly began during my childhood. When I was 19 years old, a graduate student at the University of Pittsburgh asked me what I

would like to do professionally. People used to joke that I was the only person they knew who could know what they'd be doing 5-10 years ahead. As I said earlier, I am future-oriented and am always thinking about what needs to be accomplished next. I told the graduate student that I wanted to start a center for children and families that not only conducted research, but also implemented and evaluated interventions.

During my eight years at Harvard, I conducted basic research with maltreated children. I developed compassion for these youngsters and their families. I wanted my work to have a broader impact than just being published in scientific journals. Harvard did not have a clinical psychology program or a clinic at the time. Thus, when I moved from Harvard, it was important for me to go to a university that would give me the opportunity to start the center I envisioned— namely, to start a center that integrated research and treatment from a broad-band, multilevel developmental perspective.

I would not recommend that the typical graduate student embark on their own intervention research for her/his dissertation. Rather, she/he should work on existing projects that have translational potential or participate in an ongoing intervention conducted by one of his or her mentors. Starting one's own preventive intervention would most likely prolong graduate school unduly, and no student should remain there longer than necessary. Moreover, it takes much longer to get publications from intervention research.

When preparing randomized control trial (RCTs) interventions, students should make sure that their research ideas are conceived with translational implications in mind at the outset. Too often, these are tacked on after the fact. In addition, they should include the translational implications of the work in the discussion section of their papers. Finally, and critically, it is essential to build trusting relationships with communities and with research participants.

APSSC: Research in psychological science is becoming more interdisciplinary, and research in developmental psychopathology seems to embrace this philosophy. As a leading researcher in this field, what have you learned about operating in this way? How can early career scientists begin interdisciplinary research programs?

DC: With the rapid growth of scientific information, it is impossible for any individual to master all domains in an interdisciplinary field. Thus, collaboration between scientists within psychology and in other fields will become increasingly common. My approach was to build a center that conducts multilevel research. Our collaborations were largely “in house,” as we had a diverse group of scientists who were competent in supplementary and complementary areas. Whenever our research made us aware that we needed to examine other areas of the mind, we built the necessary laboratories for us to undertake this work. Event-related potential laboratories and a molecular genetics laboratory were added to Mt. Hope Family Center. Because we were a self-sustaining center, if we had the financial resources, then we could expand the center to accommodate our new foci.

For early career scientists, such as graduate students, who wish to operate at multiple levels of analysis, there are a number of possible approaches. One can either work in multiple laboratories or collaborate with someone whose research lab specializes in multilevel work. An illustration of how young scientists can begin interdisciplinary research is through assisting their professors in writing multilevel grant applications. Conversely, professors can provide feedback on student grant proposals that integrate

concepts across multiple disciplines.

APSSC: Recent research is now showing how children's and adolescents' environments and life experiences may affect gene expression and other biological processes once thought to be "fixed." How do you think such research will influence prevention and intervention efforts in the coming years?

DC: Until recently, there has been a dearth of attention devoted to biological processes in the evaluation of interventions with children and adolescents. Because there are bidirectional relations between different levels of biological and psychological organization, it is essential to recognize that experience also influences biology. Determining the levels at which change occurs through RCTs will provide insight into the mechanisms of change, the extent to which neural plasticity is promoted, and the interrelations between biological and psychological processes in the development of maladaptation, psychopathology, and resilience.

APSSC: What's next for you in your research?

DC: I am undertaking a number of new research endeavors that have proven to be very invigorating. I am very excited about these new ventures, and I believe my best work lies ahead. These new projects include incorporating DNA and RNA studies into basic and intervention research on maltreated infants and children. We are also investigating how the adverse experiences associated with maltreatment affect DNA methylation and gene expression. Neuroimaging studies are being added to my research in collaboration with my colleagues, Sheree Toth and Fred Rogosch, at Mt. Hope Family Center, along with Kathleen Thomas from the University of Minnesota. We are beginning volumetric, structural, connectivity, and functional studies that will be added to evaluations of intervention efficacy and as a part of a longitudinal research armamentarium that focuses on the multilevel contributors of resilient and non-resilient adaptation. With my Mt. Hope colleague, Fred Rogosch, I am examining the effects that child maltreatment has on physical and mental health and premature aging. My colleagues, Nicki Crick and Dianna Murray-Close, and I are going to embark on research that examines biobehavioral processes in the development of physical and relational aggression. Additionally, Nicki Crick and I are planning to conduct a multilevel investigation of child maltreatment in war-affected Ugandan youth. Finally, my Mt. Hope Family Center colleague Sheree Toth and I are embarking on a multilevel randomized control trial (RCT) aimed at preventing recurrent depression in adolescent girls, with and without a history of child maltreatment. We are excited about this new RCT because it will examine intervention efficacy across multiple levels of analysis, from the molecular to the neural and to the behavioral. I want to underscore that each of the examples I have provided is multilevel. Similar studies with children and adolescents whose mothers have major depressive disorder are being planned. Although I have highlighted biological issues, I have not abandoned examining other levels of analysis. I suspect that I never will.

APSSC: Is there a question that you wish I had asked? What would your answer have been?

D.C.: The question I would have liked to have been asked, and one which I anticipate that students may wonder about after reading this interview, is: "Given that you work so hard, how do you keep a balance in your life?" Well, there definitely is a person behind the scientist who is consumed with work. I have meaningful, nonsuperficial relationships with people. I am an affective as well as a cognitive being and greatly enjoy music, athletics, and creating fashion. I have a gym in my home where I work out six-

seven days a week. I've done so since I was 16 years old. I have very good planning, foresight, and organizational skills that are useful in helping me to maintain balance in my life. Finally, I am a major animal lover. Although I love all animals, I adore cats. I never had a pet as a child; however, for over 25 years, I have been extremely fortunate to have the companionship of many amazing cats. If I ever retire from academic pursuits (which is doubtful), then I would not be surprised if I wrote a few books about felines!