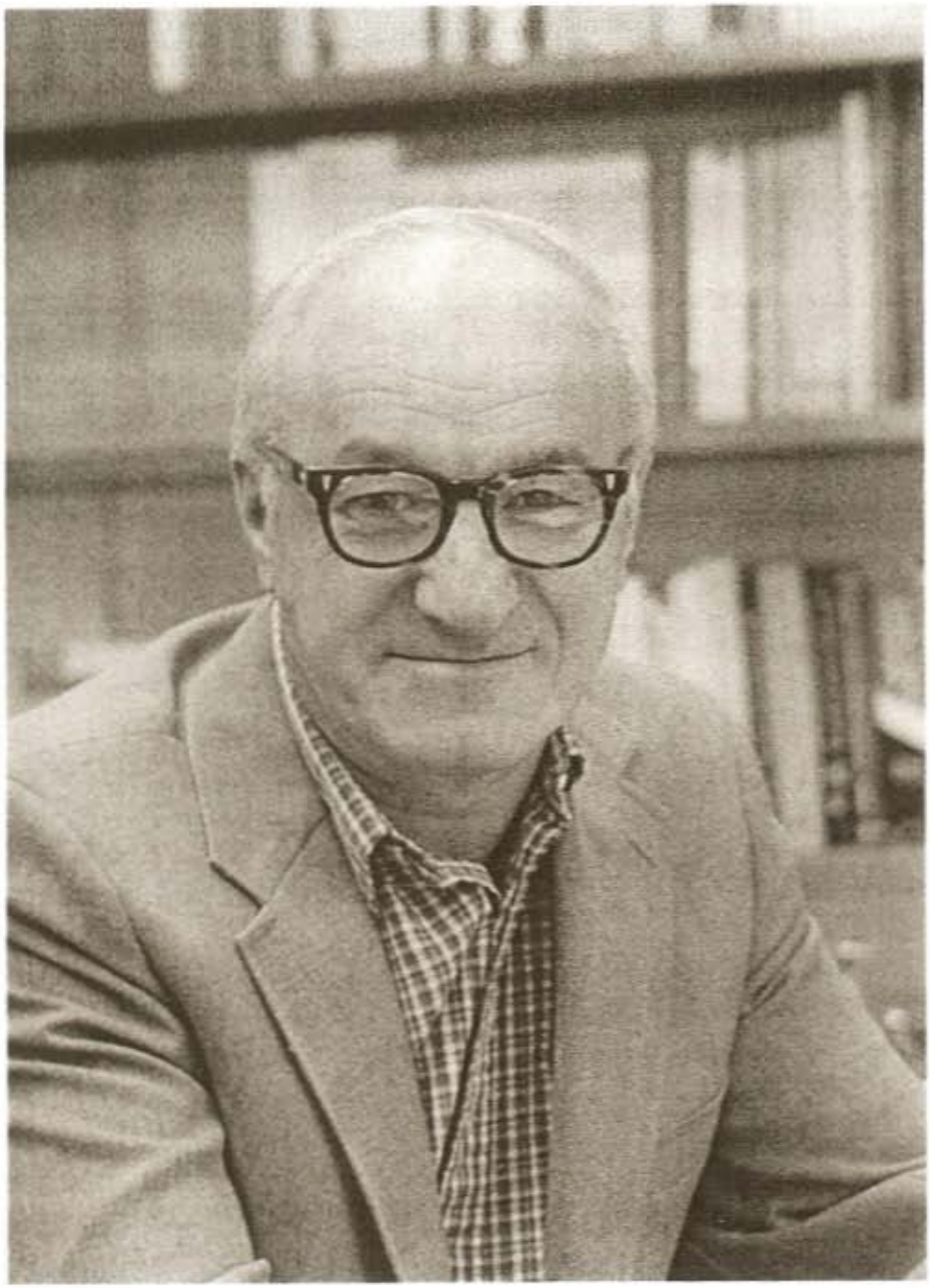

Albert Bandura

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Albert Bandura

It is not uncommon for theorists to exempt themselves from the theories they develop to explain how other folks behave. The road I have traveled is very much in keeping with the agentic perspective toward human self-development, adaptation, and change, which underpins social cognitive theory. I was born December 4, 1925, and grew up in Mundare, a tiny Canadian hamlet in northern Alberta. In a venturesome move, my parents emigrated as teenagers from Eastern Europe, my father from Poland and my mother from Ukraine. My father worked laying track for the trans-Canada railroad; my mother worked in the general store in town. After they garnered sufficient savings they bought a homestead. Manually converting land that was heavily wooded and strewn with boulders into a tillable farm with virtually no mechanization was an arduous undertaking.

In addition to creating a workable farm, my father supervised the layout and construction of the road system in this newly opened homestead district. The beginning of this pioneer life was a tough struggle.

A few sections in the autobiography include revised and elaborated material from Bandura (2005). For additional autobiographical information with photographic accompaniments, see the Web site: www.albertbandura.org.

In the 1st year, a layer of the thatched roof on the house my father built had to be dismantled and fed to the cattle because of a severe drought. Through laborious effort my father added further sections to the farm. Before long he was sporting a Model T Ford, an odd cultural novelty at the time.

In social cognitive theory, I distinguish among three types of environments: the imposed, selected, and constructed. Life in this austere homestead area placed a premium on agentic capabilities for constructing most of one's life environment with meager resources and no agricultural subsidies or insurance coverage against widespread crop destruction by unmerciful hail storms, early frosts, and severe droughts. Constructionism was a vital lifestyle, not an abstract psychological theory to be debated in arcane language in learned circles.

Not all was arduous labor, however. These folks worked hard in the early building of the Canadian nation, but they also knew how to party. They had many saints and religious events requiring festive celebrations. My mother was a superb cook, and my father played a sprightly violin. In another mark of constructional initiative, the folks in this area operated stealth liquor-distilling systems that helped to lubricate their communal festivities. This required considerable ingenuity to escape the ever-vigilant Royal Canadian Mounted Police. For example, one innovative farmer sectioned a portion of the boiler in his steam engine for his fermented mash so he could distill the potent brew while performing the farming activities. This is a graphic early example of "multitasking."

We were a close-knit family. I was the youngest with five older sisters. Our family lost a young daughter to the flu pandemic in 1918. My mother walked from home to home helping to nurse back to health those who were fortunate enough to survive. We also lost a son in a hunting mishap with one of his friends. The Great Depression took a toll on my father's fun-loving spirit when he lost a section of land he had cultivated so laboriously. It pained him to see somebody else farming it.

My parents had no schooling, but they placed a high value on the education they missed. My father taught himself to read three languages and served as a member of the school board in the district where we lived. So that we could be closer to school, my parents sold a portion

of the farm to purchase a freight delivery business, and a livery stable in Mundare. All of the supplies for this town were brought in by rail, so our drayage service delivered the incoming supplies to the various businesses. The town had a huge mill where farmers from the region brought their grain to be milled into flour. We provided a no-room-service bunkhouse where the farmers could bed down for the night, usually after an extended visit to the local beer parlor. We also operated a large livery stable where the farmers parked their horses. During the summer months, my father worked on the farm, and I would pitch in with the harvesting of the crops while my mother operated the businesses in town.

The only school in town, which housed first grade through high school, was woefully short of teachers and educational resources. Two teachers had to teach the entire high school curriculum; they tried their best but were not always fully informed in key subject areas. We once pilfered the answer book for the trigonometry course, which brought it to an abrupt halt. We had to take charge of our own learning. Self-directed learning was an essential means of academic self-development, not a theoretical abstraction. The paucity of educational resources turned out to be an enabling factor that has served me well rather than an insurmountable handicapping one. The content of courses is perishable, but self-regulatory skills have lasting functional value whatever the pursuit might be.

During summer vacations in high school, my parents encouraged me to seek experiences beyond the confines of our hamlet. I worked in a furniture manufacturing plant in Edmonton. The carpentry skills I acquired helped to support me through college in part-time work. During another high school summer break, I ventured to the Yukon, where I worked in one of the base camps. The workers prevented the Alaska highway from sinking into the infirm muskeg by continuously resurfacing it with gravel. The camp contained an interesting mix of characters fleeing creditors, probationary officers, the military, and angry ex-wives demanding alimony payments. Alcohol was their prime nutrient. They were brewing their own. One early morning they left jubilantly to distill their fermented mash only to return profoundly despondent. The grizzly bears had partied on their alcoholic mash. We were faced with animated grizzlies stumbling drunkenly in our camp. Fortunately, they were too uncoordinated to do much damage.

Life amid this frontier, drinking, and gambling subculture elevated the survival value of personal resourcefulness and initiative. It provided me with a uniquely broad perspective on life.

IN SEARCH OF A BENIGN climate, I enrolled in the University of British Columbia in Vancouver. Being short of the coin of the realm, I worked in a woodwork plant in the afternoons and took a heavy course load in the mornings. I graduated in 3 years with the University Bolacan Award in psychology. There was an element of fortuity to my entry into psychology. I was in a carpool with premeds and engineers who enrolled in classes at an unmercifully early hour. So while waiting for my English class, I flipped through a course catalogue that happened to have been left on a table in the library. I noticed an introductory psychology course that would be an early time filler. I enrolled in it and found my future profession.

When it came time to apply for graduate study I went to my academic advisor and asked, "Where are the stone tablets of psychology?" He replied unhesitantly, "University of Iowa, of course." This was the heyday of theoretical and experimental analyses of learning, which was the phenomenon of central interest, with the Hullian approach being the dominant theory at the time. Clark Hull had passed on his theoretical baton to his illustrious protégé, Kenneth Spence, who presided masterfully over the psychology department at Iowa. So I set my sights on the theoretical epicenter for graduate study. As I was about to leave, my advisor explained that previous applicants had found the doctoral program at Iowa to be a taxing experience. His portrayal made it clear that resilience and a tough hide would be handy survival resources.

As a Canadian, I did not qualify for fellowships because of the citizenship requirement. Arthur Benton set up a fluid aid system that kept me financially afloat until he could arrange more stable funding. I dusted off my carpentry skills for construction projects at Arthur's home during this interim aid program. When Judson Brown departed for his summer consultancy at the Lackland Air Force Base, I was the keeper of his house and amiable hound. I wrote to my undergraduate advisor and informed him that the psychology department at Iowa was, indeed, an intellectually demanding place. But it was also a highly

supportive one. I explained that my experience at Iowa reminded me of Mark Twain's comment about Wagner's music: "It is not as bad as it sounds!"

Unlike the all-too-common doctoral programs run on an eclectic cafeteria style, Iowa conducted a theoretically intense program that had a strong impact on students' professional careers. It was here that students had the benefit of models of intense dedication to theoretical analyses coupled with intricately designed experiments to settle disputes between rival theories. Strong commitment to theoretical analysis and respect for incisive experimentation became the hallmark of an Iowa graduate. Diverse programs of research conducted by Kenneth Spence, Judson Brown, and Isador Farber addressed the determinants and mechanisms governing learning, motivation, and clinical phenomena from the perspective of Hullian theory. Gustav Bergmann, a relocated member of the positivist Vienna Circle, provided the philosophical foundation for this line of theorizing. Arthur Benton, who directed the clinical training program, added a cognitive neuroscience dimension long before it became in vogue.

This was the era of contests between alternative grand theories. Do contingent experiences build and strengthen habits, as the Hullians contended, or create expectancies, as the Tolmanians argued? Was reinforcement necessary for learning? Experiments were designed to challenge basic tenets of the contending theories. The leading theorists differed in their conceptual orientations, but they subscribed to methodological reductionism. Elementary processes were explored mainly with animals on the assumption that the rudimentary processes verified in animal experimentation would explain psychosocial phenomena at higher levels of complexity.

Although we graduate students were products of the same doctoral program, we did not worship at the same theoretical altar. This was strikingly illustrated at a meeting called by the National Institutes of Health to discuss new developments in theorizing in the field of learning. Of the seven invitees, five were Iowa doctorates. Shep White went the cognitive route, Sid Bijou and Jacob Gewirtz went the operant conditioning route, Howard Kendler represented the Hullian perspective, and I chose a social cognitive theoretical framework. We left Iowa with the values and tools to be productive scientists whatever future theoretical course our scholarly pursuits took.

Kenneth Spence micromanaged virtually every aspect of the department. From time to time we added a bit of levity and countercontrol to this otherwise intense doctoral program. On one occasion, when one of the beasties drew its final breath in its mazed world, we deposited it in a makeshift rodent coffin adorned with reverential wreaths on the department bulletin board with the sign, "This rat ran according to Tolman's theory." Kenneth was not at all amused by our ceremonial burial.

Gustav Bergmann had a colorful animated lecturing style. He would wander throughout the class chain-smoking, with cigarette ash floating down on the students seated below. He stuffed his pocket with wooden matches and would light them with a flourish on his thigh. His lectures took on an emotive quality when he addressed theories he held in low regard, which were quite a few. Gestalt theory was high on this list. He sought to demystify the notion that the whole is greater than the sum of its parts. He characterized the "whole" as reflecting emergent properties that are the product not only of the aggregate properties of the constituent elements but also of their interactive effects. It is reported that on one occasion, while announcing in a dramatic crescendo, "If the whole is greater than the sum of the parts, then the whole is a ghost," Gustav set himself on fire while vigorously slapping his match-laden pocket. The student over whom he was hovering at the time sounded the alarm:

"Professor Bergmann, you are on fire."

"You're damn right I am," he exclaimed, thinking the student was speaking figuratively.

Blissfully oblivious to power differentials, at the end of each academic year we hosted the annual Regression Dinner, during which we made ceremonial offerings to the faculty. For example, to the faculty member who taught the psychotherapy course from a nondirective perspective, we offered a broom handle topped with hands pointing in every direction. In recognition of his membership in the positivist Vienna Circle, we offered Gustav a circle of baloney. In accepting our offering, he remarked that this was operationalism at its material best. My graduate peers were mainly World War II veterans pursuing their education on the GI Bill. Their combat experiences under General Patton and other tough commanders undoubtedly contributed to the boldness of our cohort.

Given a lean cash flow, I opted for the same fast-track academic pace I had adopted for my baccalaureate degree and completed the doctoral program in 3 years. I left Iowa with more than a degree, however. There is much that we do designedly to exercise some measure of control over our self-development and life circumstances, but there is a lot of fortuity in the courses lives take. Indeed, some of the most important determinants of life paths occur through the most trivial of circumstances. People are often inaugurated into new life trajectories, marital partnerships, and occupational careers through fortuitous circumstances. A seemingly insignificant fortuitous event can set in motion constellations of influences that alter the course of lives. These branching processes alter the linear progression, continuity, and gradualism of life-course trajectories.

I PREVIOUSLY DESCRIBED HOW a fortuitous event got me into psychology. At Iowa I met my future wife, Virginia Varns, who was on the teaching staff in the School of Nursing, through a fortuitous event. My friend and I were quite late getting to the golf course one Sunday, so we were bumped to a later starting time. There were two women ahead of us. They were slowing down. We were speeding up. Before long we became a genial foursome. I met my wife in a sand trap! The golf connection had a trivial origin. The University of British Columbia required two physical education courses for graduation. I selected outdoor physical education, imagining it to be a communion with Mother Nature at a leisurely pace. On being instructed in the first session to run around the track to the point of exhaustion just short of cardiac arrest, I opted for archery as more to my liking. To fulfill the second requirement, I selected indoor physical ed in which, unexpectedly, they not only made us run around but climb ropes to dizzying heights. On my speedy descent I promptly switched to a more benign form of exertion—golf. Were it not for the bothersome physical ed requirement and tardiness in getting to the golf links, our lives would have taken entirely different courses.

Some years later, I delivered a presidential address at the Western Psychological Convention on the psychology of chance encounters and life paths (Bandura, 1982). At the convention the following year, an editor of one of the publishing houses explained that he had entered

the lecture hall as it was rapidly filling up and seized an empty chair near the entrance. In the coming week he would be marrying the woman who happened to be seated next to him. With only a momentary change in time of entry, seating constellations would have altered, and this intersect would not have occurred. A marital partnership was thus fortuitously formed at a talk devoted to fortuitous determinants of life paths!

Fortuitous influences are ignored in the causal structure of the social sciences even though they play an important role in life courses. The physical sciences acknowledge indeterminacy at the quantum level in the physical world. Fortuitous events introduce an element of indeterminacy in the behavioral sciences. The separate paths in a chance encounter have their own determinants, but they are causally unconnected until their intersection, at which point the encounter creates a unique confluence of influences that have causal impact. Fortuitous occurrences may be unforeseeable, but having occurred, the conditions they create enter as contributing factors in causal processes in the same way as prearranged ones do. I took the fortuitous character of life seriously, provided a preliminary conceptual scheme for predicting the psychosocial impact of such events through the interaction of personal and environmental properties, and specified ways in which people can capitalize agentically on fortuitous opportunities (Bandura, 1982, 1998).

Fortuity does not mean uncontrollability of its effects. People can make chance happen by pursuing an active life that increases the number and type of fortuitous encounters they will experience. Chance favors the inquisitive and venturesome who go places, do things, and explore new activities. People also make chance work for them by cultivating their interests, enabling beliefs and competencies. These personal resources allow them to make the most of opportunities that arise unexpectedly. Pasteur put it well when he noted, "Chance favors only the prepared mind." Even that distinguished lay philosopher, Groucho Marx, insightfully observed that people can influence how they play the hand that fortuity deals them, "You have to be in the right place at the right time, but when it comes, you better have something on the ball." Self-development gives people a hand in shaping the courses their lives take.

After receiving my doctorate, I completed a 1-year internship at the Wichita Guidance Center. I was attracted to this program for two main reasons. The center was directed by a psychologist, Joseph Brewer, which I reasoned would dampen excessive medicalization of common problems of living. This was a time when the field of clinical psychology was heavily intrapsychically oriented under the reign of psychoanalytic theory. The center was embedded in a diverse network of community services. The societal connectedness provided a broader perspective on how people live their lives. It was a year well spent.

I joined the faculty at Stanford University in 1953. My first meeting with the renowned assemblage of faculty members—Bob Sears, Jack Hilgard, Quinn McNemar, Calvin Stone, Paul Farnsworth, and Doug Laurence, three of whom were former American Psychological Association (APA) presidents—was an awed experience. I had been weaned on their textbooks, so they were larger than life. My appointment was for 1 year as an acting instructor. Halfway through the academic term, I went to Bob Sears, the chair of the department, and explained that I was considering an offer in Santa Rosa, near the bucolic wine region, combining clinical work in a community service center with part-time teaching at the Santa Rosa Junior College. In his forceful response, Bob explained that I would be receiving a 3-year assistant professorship, and that in the interim, he would place me under self-protective "house arrest" to forestall an irrational decision.

During this time, Stanford was in the early throes of launching an expansive transformational change under the adroit leadership of its provost, Fred Terman. He was the son of Lewis Terman, who created the Stanford–Binet test and launched the productive longitudinal study into the life courses of intellectually gifted children. Flushed with ample reserves and discretionary funds from an ambitious fund-raising campaign, Fred put into overdrive his theory of "steeples of excellence." He instructed search committees in every division of the university to go for the best. Renowned faculty, he argued, would attract promising young faculty members, excellent graduate students, and plentiful research grants. He would wander into search committee meetings to be greeted, all too often, with recitals of why the foremost scholar in a given field would not be movable. Fred would remind the faculty that they were charged with finding the best candidate,

and it was his responsibility to figure out how to attract them to Stanford.

This was a period of accelerated growth in excellence. Programs in the humanities were being enlarged with recruited distinguished professors from the Ivy League universities. Nobel laureates were added, and Stanford grew its own Nobelists with the young scholars they brought with them. The psychology department was given two new billets, which brought Leon Festinger and Bill Estes to Stanford. In short order the department added Dick Atkinson, Gordon Bower, Eleanor Maccoby, Walt Mischel, and Phil Zimbardo to its faculty. The medical school was relocated from San Francisco to the Stanford campus to link it more closely to the basic sciences, with expanded opportunities for collaborative teaching and research. Being an astute judge of innovativeness, Terman encouraged graduate students to translate theoretical ideas into businesses developing new technologies, thus laying the foundation for Silicon Valley with attractive consulting arrangements for the faculty.

Within a relatively short time, Stanford was transformed into a university of the highest rank. As a visiting faculty member at Stanford in 1906, William James aptly described this wondrous place as near "utopian," where "there couldn't be imagined a better environment for an intellectual man to teach and work," with the added benefit of "perfection of weather" (James, 1906). Stanford offered a wonderful academic environment in 1953 and got even better with time. I was blessed with illustrious colleagues, gifted students, considerable freedom to go wherever my curiosity might lead, and a university ethos that approached scholarship not as a matter of publish or perish but with puzzlement that the pursuit of knowledge should require coercion.

The many attractions in the spectacular San Francisco Bay area made it easy to maintain a balance in the competing priorities of life. In reflecting on their life course, people typically express regrets over the things they shortchanged in pursuit of their career. The late Senator Tsongas put it well when he remarked, "No one on their death bed ever expressed regret for not having spent more time in the office." My wife and two daughters, Mary, a clinical psychologist, and Carol, the director of a clinic for adolescent children of migrant workers and the neglected poor, made sure we kept the retrospective regrets to a

minimum. We hiked the Bay area ridge trails, camped amidst the stately redwoods, worked in grassroots conservation movements, explored the regional culinary shrines, cheered the melodious operatic divas and philharmonias, applauded the baroquers at the Carmel Bach festivals, sampled the noble grape in the bucolic Napa Valley, and explored the grandeur of the High Sierras. Nothing beats communing with the muses atop Vogelsang Peak to place petty concerns in cosmic perspective. The reach of work life has undergone transformative changes with the advent of wireless technologies. People are now wired to their workplace, making it more difficult to keep the mobile office from intruding into family, social, and recreational life.

I ROSE THROUGH THE RANKS at Stanford, chaired the department briefly, and was awarded the David Starr Jordan Professor of Social Science in Psychology endowed chair, named after the first president of the university. In 1973, my cloistered work life in academia took a sharp turn to an unaccustomed trajectory. One day, Ken Little, the executive officer of the APA, called, explaining that the association's call for nominations placed my name on the presidential ballot. I regarded this contest as providing Warhol's 15 minutes of fame with virtually no risk of electability, because I had no involvement in the organizational activities and political machinations of the association. On a bright Saturday morning while I was pruning atop a mulberry tree, I was called to the phone, where Ken announced, "You're it," with no option for a recount. This was the fastest evolutionary descent from the trees to a professional boardroom. *Robert's Rules of Order* displaced *Psychological Review* as the reading of choice.

This was a difficult time for our profession both internally and publicly. A media frenzy was whipping up public fear of the looming peril of behavior modification. In his disaffection with the social sciences, President Nixon issued an executive order terminating psychology training grants. Psychologists had no effective vehicle for speaking in a collective voice on legislative initiatives and sociopolitical influences that affected our discipline. Through reluctance to engage in public activities and fear of jeopardizing our tax status, we were accomplices to our own quiescence in the public arena. To remedy this lack,

we created a separate advocacy organization, the Association for the Advancement of Psychology, to address issues affecting our profession and to bring our scientific knowledge to bear on public policies and social practices that affect people's lives.

This newly formed organization was quickly put to use to counteract efforts by the American Psychiatric Association to limit the autonomy of psychologists to practice psychotherapy. The two associations had agreed not to infringe on each other's turf in legislative matters. In violation of this accord, they were lobbying for a bill in Congress to allow psychologists to practice psychotherapy only under medical authorization, on the grounds that only medical psychotherapy can treat mind and body. We defeated this professional infringement.

The Department of Defense cut the budget for psychological services for dependents of veterans. The American Psychiatric Association was promoting a set of guidelines that would have placed limits on the use of psychology providers. We not only defeated this effort but, on the basis of our congressional testimony, the chairman of the congressional committee overseeing the program invited us to help draft the service guidelines.

The main thrust of my presidency centered on creating mechanisms for bringing psychological knowledge to bear on public policies and informing the general public about the relevance of our discipline for matters of societal concern. We established our credibility in congressional circles as a reliable source of information, not just as promoters of guild self-interests. We testified regularly on pending bills, informed congressional staffs in the drafting of legislative regulations, and placed psychology congressional fellows on the staffs of key senators and House members who presided over committees relevant to our field.

The APA was on the brink of dissolution, with festering conflict between academicians and activist practitioners seeking to gain control of the association. The commission appointed by the APA board to consider restructuring the association recommended a federalist model, granting the constituent units a fair amount of autonomy to pursue their parochial interests with a central board to address issues of common importance and to speak with one voice to the public. A 2-year trial, marred by distrustful machinations, ended in divorce and the formation of the American Psychological Society.

MY INITIAL PROGRAM OF RESEARCH at Stanford focused on the centrality of social modeling in human self-development and change. The prevailing analyses of learning focused almost entirely on learning through the effects of one's actions. The explanatory mechanisms were cast in terms of peripheral association of environmental stimuli to responses. I found this behavioristic theorizing discordant with the obvious social reality that much of what we learn is through the power of social modeling. I could not imagine a culture in which its language; mores; familial customs and practices; occupational competencies; and educational, religious, and political practices were gradually shaped in each new member by rewarding and punishing consequences of their trial-and-error performances.

Despite the centrality and pervasiveness of social modeling in everyday life, there was no research to speak of on modeling processes until the publication of *Social Learning and Imitation* by Miller and Dollard in 1941. They recognized modeling phenomena but construed them as a special case of discrimination learning. A model provides a social cue, the observer performs a matching response, and its reinforcement strengthens the tendency to behave imitatively. I found this conception wanting on the determinants, mechanisms, and scope of observational learning. It seemed at odds with observational learning in everyday life, which requires neither performance enactment nor reinforcement. There were some other conceptions of modeling phenomena, but I found them lacking as well.

The writings on imitation characterized modeling as mimicry of specific acts. This constricted view limited the scope of research for many years. Personality and developmental theorists conceptualized modeling as identification involving wholesale incorporation of personality patterns. The defining properties of identification were too diffuse, arbitrary, and empirically questionable either to clarify modeling processes or to guide scientific inquiry (Bandura, 1969b). I conceptualized this mode of learning as modeling. It transcended specific response mimicry in scope and was selectively and conditionally manifested rather than involving wholesale adoption of personality traits.

The power of social modeling was underscored in a large-scale project I conducted with Richard Walters, my first doctoral student. We studied the familial determinants of hyperaggressive styles of behavior

in boys who lived in advantaged neighborhoods that were not conducive to antisocial behavior. Robert Cairns, a newly admitted student in our doctoral program, was also part of this project. We found that parental modeling of aggressive orientations played a prominent role in the familial transmission of aggression (Bandura & Walters, 1959).

To further understanding of the determinants and mechanisms governing modeling, we studied this mode of learning and social influence experimentally. Dorrie and Sheila Ross and Ted Rosenthal contributed much to this program of research. We analyzed social modeling as operating through four subfunctions encompassing attentional, representational, enactive translational, and motivational processes (Bandura, 1971). I came under heavy fire from operant conditioners for whom nonreinforced modeling posed a major problem for their explanatory system (Baer, Peterson, & Sherman, 1967). They contended that reinforcement of some matching responses would establish imitation as a conditioned reinforcer. Tests of these alternative theories demonstrated that generalized imitation is governed by social beliefs and outcome expectations rather than by infused reinforcement (Bandura & Barab, 1971).

There were a number of entrenched misconceptions about the nature and scope of modeling that put a damper on the research and social applications of this powerful mode of learning. Progress in this area, therefore, required research designed not only to elucidate the determinants and mechanisms of social modeling but to put the misconceptions to rest. One such misconception was that modeling could produce only response mimicry. This misconception was dispelled by showing that modeling involved abstracting the information conveyed by specific exemplars about the structure and the underlying principles governing the behavior, rather than simple response mimicry of specific exemplars (Bandura, 1986; Rosenthal & Zimmerman, 1978). Once individuals learn the guiding principle, they can use it to generate new versions of the behavior that go beyond what they have seen or heard.

Another misconception, requiring retirement, held that modeling is antithetical to creativity. We were able to show how innovation can emerge through modeling. When exposed to models who differ in their styles of thinking and behavior, observers rarely pattern their behavior exclusively after a single source. Nor do they adopt all the

attributes even of preferred models. Rather, observers combine various features of different models into new amalgams that differ from the individual modeled sources (Bandura, Ross, & Ross, 1963). Thus, two observers can construct new forms of behavior entirely through modeling that differ from each other by selectively blending different features from the variant models. There is a variety in the profusion of modeling. Innovators select useful elements from different exemplars, improve upon them, synthesize them into new forms, and tailor them to their particular pursuits. Selective modeling often serves as the mother of innovation.

There was another oft-repeated misconception regarding the scope of modeling. Many activities involve cognitive skills on how to gain and use information for solving problems. Critics argued that modeling cannot build cognitive skills because thought processes are covert and are not adequately reflected in modeled actions, which are the end products of the cognitive operations. This was a limitation of conceptual vision rather than an inherent limitation of modeling. In fact, cognitive skills can be readily promoted by verbal modeling, in which models verbalize aloud their reasoning strategies as they engage in problem-solving activities. The thoughts guiding their decisions and actions are thus made observable and acquirable.

MY BAPTISM IN POWER POLITICS occurred early in my professional life. At the time that I began my experiments on observational learning, there was growing public concern about the possible effects of televised violence on children. I was invited to testify before congressional committees, the Federal Trade Commission, and the National Commission on the Causes and Prevention of Violence prompted by the assassination of Robert Kennedy. The Federal Trade Commission was troubled by increasing reports of serious injuries suffered by children who modeled hazardous activities in televised advertisements. The commission used our research findings on modeling to get advertisers to alter ads depicting injurious feats by children on bicycles and dune buggies, ads for headache remedies in which the characters induce splitting headaches by pounding each other on the head with mallets, and other types of ads showing children performing activities that risk serious injury.

This excursion into the public arena provided a sobering glimpse into the power of the broadcast industry, some of which was directed at me personally. I got my first inkling into the exercise of this power at a meeting convened by the National Institute of Mental Health (NIMH) to draft a research agenda on television's effects. Surprisingly, we met at the plush Waldorf Towers in New York rather than in Washington for what turned out to be essentially a production staged by the broadcast industry under the auspices of NIMH. After we identified the different lines of research that could advance the understanding of television's effects, the research community was invited to submit grant proposals. A review panel, meeting in a luxurious Caribbean setting, rejected my proposal.

Look magazine invited me to write a piece on the social influence of television for a special issue they were publishing on youth. When it appeared, the Television Information Office, a subsidiary of the National Association of Broadcasters, sent a large packet of material to its sponsor stations explaining why my research on social modeling should be disregarded. This was just the beginning of a multipronged offense. Psychologist Ruth Hartley prepared a document commissioned by CBS in which she took me to task and criticized the relevance of other experimental studies demonstrating a positive relation between exposure to violent fare and aggressive behavior. In an article prepared for *TV Guide* under the title, "The Man in the Eye of the Hurricane," Edith Efron (1969) dismissed the modeling studies, complained that the research by members of the "Bandura school . . . won them center stage in Washington," and criticized the Surgeon General's office for acting "as if Rome were burning and Dr. Bandura were a fire extinguisher" (p. 37).

One evening I received a call from one of my graduate students telling me to turn on my television set to see the character playing my role undergoing a blistering cross-examination concerning my modeling studies. I wasn't doing too well! In the plotline of this televised movie, a beleaguered wife of a screenwriter defends him as he is being unmercifully victimized by a haranguing press and a vindictive mother who claims that her son's crime was prompted by a similar act in one of the screenwriter's televised plots. The cross-examiner was disputing evidence that televised violence affects aggressive behavior. As part of my program of research on selective moral

disengagement at the social systems level, I documented how each of the mechanisms by which moral self-sanctions are disengaged from detrimental conduct was enlisted by the television industry in the production of gratuitous violence for commercial purposes (Bandura, 1973, 2004b). The self-exonerating televised movie portrayed these disengagement practices in vivid fashion. As I was being pummeled by media-commissioned critiques, paid consultants, and fictionalized dramas, I began to feel a kinship with the Bobo doll!

Failure to distinguish between the diverse effects of televised violence and the appropriate methodologies for elucidating them provided a fertile ground for disputes. Different lines of research identified four major effects of exposure to televised violence. It can teach novel aggressive styles of conduct; weaken restraints over interpersonal aggression by legitimizing, glamorizing, and trivializing violent conduct; desensitize and habituate viewers to human cruelty; and shape public images of reality. The Bobo doll laboratory experiments were designed to clarify the processes governing observational learning. The methodology for measuring learning effects requires simulated rather than human targets so that viewers will reveal all they have learned. To use human targets to assess the instructive function of televised influence would be as nonsensical as to require bombardiers to bomb San Francisco, New York, or some other inhabited locations to test whether they had acquired bombing skills. I had to address misunderstandings and misrepresentations of the research.

The National Commission was about to release its report concluding, in the mass media section, that the empirical evidence taken as a whole was supportive of a positive relation between televised violence and aggressive behavior (National Commission on the Causes and Prevention of Violence, 1969). In a surprise move, Senator Pastore, a supporter of the broadcast industry (Paisley, 1972) who chaired the Communications Subcommittee, instructed the Surgeon General, with President Nixon's endorsement, to assemble a committee of experts to evaluate the effects of televised violence and to allocate a million dollars for new research on this topic.

The first meeting of the evaluation committee took place at the Center for Advanced Study at Stanford. Ed Parker and I were invited to sit in on the meeting. We were surprised to find that 40% of the committee membership was tied to the broadcast industry—two

network researchers, two network consultants, and a former research executive at CBS. We enlisted Senator Metcalf to obtain information on the selection procedure. Health, Education and Welfare Secretary Finch explained that each network was allowed to veto, without explanation, any of the nominations on the list submitted by professional associations and the broadcast networks. I was one of eight researchers, including Len Berkowitz, Percy Tannenbaum, child psychiatrist Leon Eisenberg, and sociologists Leo Bogart and Otto Larsen, who were vetoed. Finch provided two justifications for the veto procedure—precedent and objectivity. He explained that the tobacco industry was given veto power in the formation of the committee to evaluate the health effects of smoking. The report would have greater impact, he claimed, if the committee members were entirely objective. Senator Metcalf was astonished to learn that the tobacco industry was also given sole veto power. He questioned the selective privilege of veto power given to the broadcast industry and how stacking the committee with folks tied to the television industry accomplished impartiality.

Writing the report created headaches for the broadcast-linked members because the empirical data were not friendly to a conclusion of null effects. The report by Jack Gould (1972) was written in opaque technobabble that was better suited to confuse than to inform the public. Rose Goldsen (1972), a Cornell sociologist, dubbed the report "science in wonderland." Before the report was released, a copy was leaked to the *New York Times*, which published a column on the report under the misleading headline, "TV Violence Held Unharmful to Youth."

Researchers who conducted the studies for the committee were incensed at the misrepresentation of their findings. They protested to Senator Pastore, who then scheduled an open Senate hearing on the committee's report. After years of obfuscation, negation, and disparagement of research programs by the broadcast industry, their own chief researcher, Joseph Klapper, acknowledged at the hearings, "There were indications of a causal relationship. . . . The catharsis theory had no empirical support." No U.S. network reported on the Senate hearing. Because of concern over the spillover of U.S. televised violence into Canada, the Film Board of Canada (1972) filmed the entire Senate hearing.

Several social scientists reported on the perversion of the scientific review process. Mathilda Paisley (1972) wrote a piece on violence done to TV violence research. In a book devoted to this controversial episode, Cater and Strickland (1975) traced the evolution and fate of the report. *Science* published a lead article documenting and condemning the misuse of the scientific advisory system for policy initiatives (Boffey & Walsh, 1970).

The late President Johnson once remarked that politics is like sausage making. You don't want to examine what goes into it. Social scientists seek to advance knowledge that can inform public policy. As the stealthy workings of the sociopolitical forces swirling around the issue of television effects illustrate, we also need to study how politics and power, which shape public policy, determine how our knowledge is used. Policy research is difficult to conduct, and we do little of it.

A growing influential source of social learning is the varied and pervasive symbolic modeling through the electronic media. The extraordinary advances in the technology of communication are transforming the nature, reach, speed, and loci of human influence. These technological developments have radically altered the social diffusion process. Video systems feeding off telecommunications satellites have become the dominant means for disseminating symbolic environments. New ideas, values, and styles of conduct are now being rapidly spread worldwide in ways that foster a globally distributed consciousness.

AS MENTIONED EARLIER, psychodynamic theory, especially the psychoanalytic form, reigned over the fields of personality, psychotherapy, and pop culture when I entered the field of psychology. The mid-1950s witnessed growing disillusionment with this line of theorizing and its mode of treatment. The theory lacked predictive power and did not fare well in therapeutic effectiveness. Following the adage that one should light a candle rather than curse the conceptual darkness, Dick Walters and I provided an alternative view of human behavior in the book, *Social Learning and Personality Development* (Bandura & Walters, 1963).

During this period, I was teaching the psychotherapy courses at Stanford, and I became intrigued by cases in which direct modification

of problem behavior not only produced lasting improvements in people's lives but fostered generalized benefits in nontreated areas of functioning. I spent several months tracking down such treatments published in obscure journals housed in the musty catacombs of the Stanford library. I emerged bleary-eyed but inspired to publish the article, "Psychotherapy as a Learning Process" in the journal *Psychological Bulletin* (Bandura, 1961). It was organized around six basic principles of behavioral change.

The time was apparently ripe for a new direction in the conceptualization and treatment of behavior. I was flooded with reprint requests from home and abroad across specialties and disciplinary domains. On the basis of this article, Eysenck invited me to contribute a chapter to a volume he was editing, which was the first published volume on behavior therapy. The chapter kept enlarging until it outgrew the assignment. Instead, it turned into the volume *Principles of Behavior Modification* (Bandura, 1969a). It addressed the influential role of cognitive, vicarious, and self-regulatory mechanisms in human adaptation and personal and social change.

During this time, I was examining the self-regulatory mechanisms by which people exercise control over their motivation, styles of thinking, emotional life, and personal accomplishments. As part of this line of research on the development and exercise of personal agency, my students and I were devising new modes of treatment using mastery experiences as the principal vehicle of change. Talk alone will not cure intractable problems. People with intractable phobias, of course, are not about to do what they dread. With the creative contributions of Bruni Ritter and Ed Blanchard, we created environmental conditions that enabled people with phobias to succeed despite themselves. This was achieved by enlisting a variety of performance mastery aids (Bandura, Blanchard, & Ritter, 1969; Bandura, Jeffery, & Gajdos, 1975).

We initially tested the effectiveness of this enabling approach with people with severe snake phobias. This proved to be a powerful treatment. It instilled a robust sense of coping efficacy; transformed attitudes toward the phobic objects from abhorrence to liking; and wiped out anxiety, biological stress reactions, and phobic behavior. These people with phobias had been plagued by recurrent nightmares for 20 or 30 years. Guided mastery transformed dream activity and wiped out chronic nightmares. As one woman gained mastery over her snake

phobia, she dreamt that the boa constrictor befriended her and was helping her to wash the dishes. Reptiles soon faded from her dreams. The changes endured. The people with phobias who achieved only partial improvement with alternative modes of treatment achieved full recovery with the benefit of the guided mastery treatment regardless of the severity of their phobic dysfunctions. Lloyd Williams (1990) showed that the guided mastery treatment was equally powerful with the most profound anxiety disorder—agoraphobia.

The 1960s ushered in remarkable transformative changes in the explanation and modification of human functioning and change (Bandura, 2004c). Causal analysis shifted from unconscious psychic dynamics to transactional psychosocial dynamics. Human functioning was construed as the product of the dynamic interplay between personal, behavioral, and environmental influences. Social labeling practices regarding problems of living were changed. Problem behavior was viewed as divergent behavior rather than a symptom of a psychic disease. Functional analysis of human behavior replaced diagnostic labeling that categorized people into psychopathologic types with stigmatizing consequences. Laboratory and controlled field studies of the determinants of human behavior and the mechanisms through which they operate replaced content analyses of interviews. Action-oriented treatments replaced interpretive interviews. The modes of treatment were altered in the content, locus, and agents of change.

Within a decade, the field was transformed by a major paradigm shift (Bandura, 2004c). New conceptual models and analytic methodologies were created. New sets of periodicals were launched for the rising stream of interest. New organizations were formed for the advancement of behaviorally oriented approaches. New professional conventions provided a forum for the exchange of ideas.

Psychodynamicists branded these new modes of treatment not only as superficial but dangerous. I was invited to present my program of research at the Langley Porter Clinic in San Francisco, a stronghold of psychodynamic adherents. The session began with a disparaging introduction to the effect that this young upstart will tell us seasoned analysts how to cure phobias! I explained that my host's generous introduction reminded me of a football contest between Iowa and Notre Dame in South Bend. Iowa scored a touchdown, which tied the score. As the player ran on the field to kick the extra point, coach

Evashevski turned to his assistant coach and remarked, "Now there goes a brave soul, a Protestant attempting a conversion before 50,000 Catholics!"

Not all the critics of the psychodynamic model embraced the same theoretical framework, however. Some thought the operant route provided the best glimpse of the promised land. Others adopted Hullian theory. I took the social cognitive route, emphasizing the influential role of agentic capabilities in self-development, adaptation, and change. Vigorous battles were fought over cognitive determinants and their scientific legitimacy (Bandura, 1995a, 1996; Catania, 1975; Skinner, 1971).

The popular media were deluging the public with repugnant imagery of brainwashing and the frightful scenarios of *1984* and *Brave New World* dominated by social engineers wielding powerful methods of behavioral control. The hit movie, *A Clockwork Orange,* graphically portrayed the fiendish nature of behavior modifiers physically shocking people into submission. In his movie *Sleeper*, Woody Allen amusingly outwits the ironclad control by despotic social engineers who reduce humans to mindless zombies. Skinner's publication, *Beyond Freedom and Dignity* (1971), alarmed the public that the application of these new psychological methods would strip people of their dignity and deprive them of their freedom. The unibomber targeted Jim McConnell at the University of Michigan as his first victim with a tirade about the evils of behavior modification. Lyndon LaRouche, who became a perennial candidate for the U.S. presidency, branded the practitioners of behavioral approaches as "Rockefeller Nazis," formally tried some of the leading figures in his tribunal for crimes against humanity, stormed classes at the State University of New York at Stony Brook, and issued threats requiring police surveillance of the Association for the Advancement of Behavior Therapy convention in Chicago. As in any professional practice, there were some appalling applications of behavioral principles, especially in coercive institutional systems, that affirmed and fueled the public's fears.

At the height of this media frenzy, I began my term as president of the APA. A responsible social science must concern itself not only with the advancement of knowledge but with the social effects of its applications. In keeping with this dual commitment, the APA Board of Directors formed an interdisciplinary task force to examine the way

in which knowledge on behavioral modification was being used both at the individual and institutional level. A wide-ranging analysis that was published in the volume *Ethical Issues in Behavior Modification* (Stolz, 1978) provided a thoughtful evaluation of existing applications and a set of standards for ethical practice that helped to dispel the frightful misconceptions propagated by the mass media. Growing applications of our knowledge for personal and social betterment not only won public acceptance but cognitive behavior treatments were being cited as the method of choice for diverse aspects of the human condition. This fascinating odyssey involved dual transformative changes—a paradigm shift in theory and practice as well as a sweeping change in public acceptance.

The theoretical framework guiding my work was originally labeled *social learning theory*. I later relabeled the theory as *social cognitive theory* for several reasons (Bandura, 1986). A variety of theories founded on divergent tenets—Miller and Dollard's drive theory, Rotter's expectancy theory, Gewirtz's operant conditioning theory, and Patterson's functionalist theory—were all christened with this same appellation. This created untold confusion in the literature concerning the theory being posited and tested. Moreover, the theory under discussion had always been much broader than the initial descriptive label. It not only addressed how people acquire cognitive, social, emotional, and behavioral competences but also how they motivate and regulate their behavior and create social systems that organize and structure their lives. In the more fitting appellation as *social cognitive theory*, the *social* portion of the title acknowledges the social origins of much human thought and action; the *cognitive* portion recognizes the influential contribution of cognitive processes to human motivation, affect, and action.

THE ADDITION OF THE self-efficacy belief system to the agentic features of social cognitive theory was an outgrowth of our research aimed at building resilience to phobic threats. Our powerful guided mastery treatment was eliminating snake phobias of long standing in everyone in a few hours. This seemingly circumscribed phobia was not just a minor inconvenience for these people. It had seriously impaired their occupational, social, and recreational lives and had plagued them

with distressing ruminations and recurrent nightmares. Having overcome, in a few hours, a phobic dread that had tormented them for 20 or 30 years was a transforming and liberating experience. In follow-up assessments, the individuals expressed gratitude for being rid of their phobia but explained that the treatment had a more profound psychological impact—it transformed their belief in their efficacy to exercise better control over their lives. They were putting themselves to the test in activities they formerly avoided and enjoying successes, much to their surprise.

I redirected my research efforts to gain a deeper understanding of this belief system. To guide this new mission I developed a conceptual framework that specified the nature, structure, and function of efficacy beliefs; the means by which they can be developed; their diverse effects; the cognitive, motivational, affective, and choice processes through which they produce their effects; and how this agentic knowledge can be used for personal and social betterment. Diverse programs of research were conducted that were essential to understanding these various aspects of self-efficacy theory. This body of knowledge helped to clarify how people's beliefs in their efficacy enable them to exercise influence over the quality of their functioning and to organize, create, and manage the life circumstances that affect what they become and the courses their lives take (Bandura, 1995b, 1997).

The conventional theorizing and research on human agency focused almost entirely on agentic processes operating at the individual level. To represent more fully how agency is actually exercised in people's everyday lives, I posited triadic modes of human agency—individual, proxy, and collective agency operating in concert. In personal agency exercised individually, people bring their influence to bear on their own functioning and on environmental events. In many spheres of functioning, people do not have direct control over conditions that affect their lives. They exercise socially mediated agency by influencing others who have the resources, knowledge, and means to act on their behalf to secure the outcomes they desire. Many of the things people seek are achievable only by working together through interdependent effort. In the exercise of collective agency, they pool their knowledge, skills, and resources and act in concert to shape their future. Collective agency extended the applicability of social cognitive theory to collectivistically oriented societies. The relative weight given to individual,

proxy, and collective agency varies cross-culturally and by spheres of life, but one needs all forms of agency to make it through the day, regardless of where one lives.

Contentious dualisms pervaded the field of cultural psychology, pitting autonomy against interdependence, individualism against collectivism, agency against communion, and human agency against social structure reified as an entity disembodied from the behavior of individuals. It was widely claimed that Western theories lacked generalizability to non-Western cultures. This prevailing belief had to be addressed empirically.

Through an examination of the issue of cross-cultural generalizability, social cognitive theory distinguished between basic human capacities and how culture shapes these potentialities into diverse forms appropriate to fit different cultural milieus. For example, humans have evolved an advanced capacity for observational learning. This mode of learning is essential for their self-development and functioning regardless of the culture in which people reside. Modeling is a universalized human capacity, but what is modeled, how modeling influences are socially structured, and the purposes they serve vary in different cultural milieus. Being immobilized by self-doubt and belief in the futility of effort has little adaptive value. A growing number of studies demonstrated that the sources, structure, and function of efficacy beliefs are much the same in diverse cultural milieus (Bandura, 2002b). But how efficacy beliefs are developed and structured, the forms they take, the ways in which they are exercised, and the purposes to which they are put vary cross-culturally.

These various sources of evidence supported the view that there is commonality in basic agentic capabilities and mechanisms of operation but diversity in the culturing of these inherent capacities. In social cognitive theory, universality is not incompatible with manifest cultural plurality. Cultural variations emerge from universalized capacities through the influence of social practices reflecting shared values, beliefs, and norms and from the impact of incentive systems, role prescriptions, and pervasive modeling of distinctive styles of thinking and behaving. Cultures are neither monolithic entities nor insular anymore. Growing global connectivity is shrinking cultural uniqueness, homogenizing some aspects of life, polarizing other aspects, and fostering a lot of cultural hybridization.

As another aspect to the agentic perspective of social cognitive theory, I undertook a program of research into the nature and mechanisms of self-regulation (Bandura, 1991a, 1986). In exercising self-reactive influence, individuals adopt standards of merit and morality, monitor their behavior, judge it in relation to their personal standards and situational circumstances, and react self-evaluatively to it.

Some of the studies conducted with Dan Cervone, Carol Kupers Whalen, Mike Mahoney, Bernard Perloff, and Karen Simon clarified how personal standards are constructed from the profusion of social influences; other studies documented the regulatory power of self-reactive influence; and still others shed light on how dysfunctions in self-regulation give rise to affective and behavioral disorders. Operant conditioners treated self-regulation as a ghostly fiction, rechristened it as *stimulus control*, and located it in the external environment (Catania, 1975). In rejoinders, I relocated self-management in the sentient proactive being and documented the growing body of evidence on the means by which individuals exercise self-directedness (Bandura, 1976).

In rational models of self-regulation rooted in the market metaphor, behavior was said to be regulated by self-interest construed almost entirely in terms of material costs and benefits. My students and I demonstrated that human motivation and performance attainments are governed not only by material incentives but also by self-evaluative incentives linked to personal standards. People often settled for alternatives of marginal utility or even sacrificed material gain to preserve their positive self-regard. Some of our studies examined self-regulation under conflictual conditions in which individuals are rewarded for behavior they devalue or are punished for activities they personally value. Principled dissenters often find themselves in the latter predicaments. They invest their sense of self-worth so strongly in certain convictions that they will submit to maltreatment rather than accede to what they regard as unjust or immoral.

The 1970s were an inhospitable time to present an agentic theory of human behavior. Psychodynamicists depicted behavior as driven unconsciously by impulses and complexes. Behaviorists depicted behavior as shaped and shepherded by environmental forces. The cognitive revolution was ushered in on a computer metaphor. This conception stripped humans of agentic capabilities, a functional consciousness, and a self-identity. The mind as a symbol manipulator in the likeness

of a linear computer became the conceptual model for the times. Computerized cognitivism was, in turn, supplanted by parallel distributed models in which sensory organs deliver information to interconnected, multilayered neural networks that generate the output automatically and nonconsciously. In these conceptual schemes it was not individuals but their subpersonal modules that were orchestrating activities nonconsciously.

The prevailing control theories of motivation and self-regulation focused heavily on error correction driven by negative feedback loops in a machine metaphor of human functioning. I regarded regulation by negative discrepancy as telling only half the story and not the more interesting half. Social cognitive theory posited dual control in self-regulation—proactive discrepancy production in which individuals create negative discrepancies for themselves to be mastered by setting themselves challenging goals and standards accompanied by discrepancy reduction by mobilizing the efforts and resources needed to fulfill those standards.

SOCIAL COGNITIVE THEORY LENDS itself readily to social applications. Our knowledge of self-regulatory mechanisms served as the basis for the development of new models for health promotion and disease risk reduction. The dominant health practices focus heavily on the supply side with mounting pressure on health systems to reduce, ration, and curtail health services to contain soaring health costs. The self-management models developed in collaboration with Robert De Busk and Kate Lorig at the Stanford Medical School focused on the demand side. They promote effective self-regulation of health habits that keep people healthy so they do not require costly medical care. These self-management models are now being integrated into mainstream health care systems and disseminated internationally. The interactive online formats enable people to exercise some control over their health wherever they may live.

Self-regulatory mechanisms also play a key role in the exercise of moral agency rooted in self-sanctions. As another aspect of social cognitive theory, our program of research in this domain sought to clarify the nature and function of moral agency. The various lines of research examined how individuals construct moral standards from the mix of

social influences; the processes by which people select, weigh, and integrate morally relevant information in making moral judgments; and the self-regulatory mechanisms whereby moral judgments are linked to moral conduct through self-sanctions (Bandura, 1991b, 2004a). This theoretical approach addressed the dual nature of moral agency—the inhibitive form manifested in the power to refrain from behaving inhumanely and the proactive form expressed in the power to behave humanely.

Moral standards do not function as unceasing internal regulators of conduct. In their everyday life, people often use a variety of sociocognitive means to selectively disengage moral self-sanctions from detrimental conduct. To guide research on this aspect of moral agency, the theory specifies the forms moral disengagement take and the points in a control process at which they come into play. Through selective moral disengagement, people who in other areas of their lives are considerate and compassionate can get themselves to support detrimental social policies, carry out harmful organizational and social practices, and perpetrate large-scale inhumanities at the social systems level (Bandura, 1999).

In nonagentic microdeterministic theories, behavior is the product of nonconscious processes in which environmental inputs activate subpersonal neuronal modules that cause the actions. If people's actions are the product of the nonconscious workings of their neuronal machinery and their conscious states are simply the epiphenomenal outputs of lower level brain processes, it is pointless to hold them responsible for what they do.

The subpersonal workings of the biological machinery are nonethical. A theory that humans have no conscious control over what they do, in fact, represents a position on morality. It is one of moral nonaccountability that is socially consequential. Would a nonagentic conception of human nature erode personal and social ethics that undergird a civil society? How would people create and maintain a civil society if its members are absolved of any personal accountability for their actions?

Psychologists often cite examples in the natural and biological sciences in which knowledge pursued for its own sake has unforeseen human benefits. The knowledge gained from the modeling experiments 40 years earlier and the insights from the more recent self-efficacy work spawned, through a collaborative partnership, unimagined global

applications to alleviate some of the most urgent global problems (Bandura, 2006).

These include stemming the soaring population growth that is destroying the ecosystems that support life and degrading the quality of life; raising the status of women in societies in which they are marginalized, devalued, disallowed aspiration, and denied their liberty and dignity; and curbing the spread of the HIV/AIDS epidemic. Some societies present unique problems that require special social themes tailored to their detrimental cultural practices such as child trafficking that sells children for slave labor under inhumane conditions and forcing women to undergo the brutal genital mutilation procedure.

One morning I received a call from Miguel Sabido, a creative producer at Televisia in Mexico City. He explained that he was developing long-running serial dramas founded on the modeling principles from the Bobo doll experiments to promote national literacy and family planning in Mexico (Sabido, 1981). These televised productions dramatize people's everyday lives and the problems they have to manage. The enabling dramas inform and enable viewers, help them to see a better life, and provide them with the strategies and incentives to take the steps to realize that life.

There are three major components to the evolved social cognitive approach to fostering society-wide changes: a theoretical model that specifies the determinants of psychosocial change and the mechanisms through which they produce their effects; a translational and implementation model that converts theoretical principles into an innovative operational model; and a social diffusion model on how to promote adoption of psychosocial programs in diverse cultural milieus. We often do not profit from our successes because we lack adequate systems for diffusing effective practices.

In this evolving development, social cognitive theory provided the theoretical model and Sabido created the generic translational and implementational model. On the basis of the demonstrated success of this macrosocial approach, David Poindexter (2004), director of Population Communication International in New York, designed the social diffusion model. Worldwide applications in Africa, Asia, and Latin America are promoting national literacy, adoption of family planning methods in countries with soaring population growth, raising the status of women, curtailing the spread of HIV/AIDS infection,

fostering environmental conservation, and in other ways bettering people's lives (Bandura, 2002a). These worldwide applications illustrate how the effectiveness of psychosocial programs can be amplified by blending different types of expertise that no one discipline can provide.

In this brief memoir, I traced the social influences that played important roles in my life and reviewed my life's work in a disciplinary pursuit that has been highly fulfilling. As I reflect on this transforming journey, it feels like a surreal odyssey from a remote hamlet in Northern Alberta to the balmy palms of Stanford in a brief 6 years. I have recently completed a half century of active academic service at Stanford and am saddled up for continued exploration into the second half. In my instructional activities, I am now lecturing to offspring of my former students ("Psychology Lessons That Transcend Generations," 2005). A variety of theoretical issues regarding the nature of human agency, collaboration in diverse programs of research at Stanford and abroad, and development of new models for personal and social change have kept me too busy to create a postscript to my professional career. This memoir affords me the opportunity to acknowledge my indebtedness to the many people who lightened my labors and enriched my scholarship over these many years. I also thank them for the gift of their friendship. I do so in the eloquent words of the poet Yeats: "Ask where my glory most begins, and ends. And I say my glory was I had such friends."

As I reflect on my journey to this octogenarian milepost, I am reminded of the saying that it is not the miles traveled but the amount of tread remaining that is important. When I last checked, I still have too much tread left to gear down or to conclude this engaging odyssey.

Selected Publications by Albert Bandura

Bandura, A. (1961). Psychotherapy as a learning process. *Psychological Bulletin, 58*, 143–159.

Bandura, A. (1969a). *Principles of behavior modification*. New York: Holt, Rinehart & Winston.

Bandura, A. (1969b). Social-learning theory of identificatory processes. In D. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 213–262). Chicago: Rand McNally.

Bandura, A. (Ed.). (1971). *Psychological modeling: Conflicting theories*. New York: Aldine-Atherton.

Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1976). Self-reinforcement: Theoretical and methodological considerations. *Behaviorism, 4*, 135–155.

Bandura, A. (1982). The psychology of chance encounters and life paths. *American Psychologist, 37*, 747–755.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1991a). Self-regulation of motivation through anticipatory and self-reactive mechanisms. In R. A. Dienstbier (Ed.), *Nebraska Symposium on Motivation: Vol. 38. Perspectives on motivation* (pp. 69–164). Lincoln: University of Nebraska Press.

Bandura, A. (1991b). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development* (Vol. 1, pp. 45–103). Hillsdale, NJ: Erlbaum.

Bandura, A. (1995a). Comments on the crusade against the causal efficacy of human thought. *Journal of Behavior Therapy and Experimental Psychiatry, 26*, 179–190.

Bandura, A. (Ed.). (1995b). *Self-efficacy in changing societies*. Cambridge, England: Cambridge University Press.

Bandura, A. (1996). Ontological and epistemological terrains revisited. *Journal of Behavior Therapy and Experimental Psychiatry, 27*, 323–345.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Bandura, A. (1998). Exploration of fortuitous determinants of life paths. *Psychological Inquiry, 9*, 95–99.

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3*, 193–209.

Bandura, A. (2002a). Environmental sustainability by sociocognitive deceleration of population growth. In P. Schmuck & W. Schultz (Eds.), *The psychology of sustainable development* (pp. 209–238). Dordrecht, The Netherlands: Kluwer Academic.

Bandura, A. (2002b). Social cognitive theory in cultural context. *Journal of Applied Psychology: An International Review, 51*, 269–290.

Bandura, A. (2004a). The role of selective moral disengagement in terrorism and counterterrorism. In F. M. Moghaddam & A. J. Marsella (Eds.), *Understanding terrorism: Psychological roots, consequences and interventions* (pp. 121–150). Washington, DC: American Psychological Association.

Bandura, A. (2004b). Selective exercise of moral agency. In T. A. Thorkildsen & H. J. Walberg (Eds.), *Nurturing morality* (pp. 37–57). New York: Springer Science & Business Media.

Bandura, A. (2004c). Swimming against the mainstream: The early years from chilly tributary to transformative mainstream. *Behavioral Research and Therapy, 42*, 613–630.

Bandura, A. (2005). The evolution of social cognitive theory. In K. G. Smith & M. A. Hitt (Eds.), *Great minds in management* (pp. 9–35). Oxford, England: Oxford University Press.

Bandura, A. (2006). Going global with social cognitive theory: From prospect to paydirt. In S. I. Donaldson, D. E. Berger, & K. Pezdek (Eds.), *Applied psychology: New frontiers and rewarding careers* (pp. 53–79). Mahwah, NJ: Lawrence Erlbaum.

Bandura, A., & Barab, P. G. (1971). Conditions governing nonreinforced imitation. *Developmental Psychology, 5*, 244–255.

Bandura, A., Blanchard, E. B., & Ritter, B. (1969). Relative efficacy of desensitization and modeling approaches for inducing behavioral, affective, and attitudinal changes. *Journal of Personality and Social Psychology, 13*, 173–199.

Bandura, A., Jeffery, R. W., & Gajdos, E. (1975). Generalizing change through participant modeling with self-directed mastery. *Behaviour Research and Therapy, 13*, 141–152.

Bandura A., Ross, D., & Ross, S. A. (1963). A comparative test of the status envy, social power, and secondary reinforcement theories of identificatory learning. *Journal of Abnormal and Social Psychology, 67*, 527–534.

Bandura, A., & Walters, R. H. (1959). *Adolescent aggression*. New York: Ronald Press.

Bandura, A., & Walters, R. H. (1963). *Social learning and personality development*. New York: Holt, Rinehart & Winston.

Other Publications Cited

Baer, D. M., Peterson, R. F., & Sherman, J. A. (1967). The development of imitation by reinforcing behavioural similarity to a model. *Journal of the Experimental Analysis of Behaviour, 10*, 405–416.

Boffey, P., & Walsh, J. (1970, May 22). Study of TV violence: Seven top researchers blackballed from panel. *Science, 168*, 949–952.

Catania, C. A. (1975). The myth of self-reinforcement. *Behaviorism, 3*, 192–199.

Cater, D., & Strickland, S. (1975). *TV violence and the child.* New York: Russell Sage Foundation.

Efron, E. (1969, November 15). The man in the eye of the hurricane. *TV Guide*, pp. 34–37.

Film Board of Canada. (1972). *The question of violence: The U.S. Senate hearings* [Motion picture]. United States: Phoenix Films. (Available from Phoenix Films, Inc., 470 Park Avenue South, New York, NY 10016)

Goldsen, R. (1972). *Science in wonderland.* Unpublished manuscript, Cornell University, Ithaca, NY.

Gould, J. (1972, January 11). Violence held unharmful to youth. *New York Times*, p. 1.

James, H. (Ed.). (1906). *The letters of William James, Vol. II.* Boston: Atlantic Monthly Press.

Miller, N. E., & Dollard, J. (1941). *Social learning and imitation.* New Haven, CT: Yale University Press.

National Commission on the Causes and Prevention of Violence. (1969). *Commission statement on violence in television entertainment programs.* Washington, DC: U.S. Government Printing Office.

Paisley, M. (1972). *Social policy research and the realities of the system: Violence done to TV research.* Stanford, CA: Stanford University, Institute for Communication Research.

Poindexter, D. O. (2004). A history of entertainment-education, 1958–2000. The origins of entertainment-education. In A. Singhal, M. J. Cody, E. M. Rogers, & M. Sabido (Eds.), *Entertainment-education and social change: History, research, and practice* (pp. 21–31). Mahwah, NJ: Erlbaum.

Psychology lessons that transcend generations. (2005, July/August). *Stanford Magazine,* p. 30.

Rosenthal, T. L., & Zimmerman, B. J. (1978). *Social learning and cognition.* New York: Academic Press.

Sabido, M. (1981). *Towards the social use of soap operas.* Mexico City, Mexico: Institute for Communication Research.

Skinner, B. F. (1971). *Beyond freedom and dignity.* New York: Knopf.

Stolz, S. B. (1978). *Ethical issues in behavior modification.* San Francisco: Jossey-Bass.

Williams, S. L. (1990). Guided mastery treatment of agoraphobia: Beyond stimulus exposure. In M. Hersen, R. M. Eisler, & P. M. Miller (Eds.), *Progress in behavior modification* (Vol. 26, pp. 89–121). Newbury Park, CA: Sage.