

## **Social cognitive theory: An agentic perspective<sup>1</sup>**

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This article presents the basic tenets of social cognitive theory. It is founded on a causal model of triadic reciprocal causation in which personal factors in the form of cognitive, affective and biological events, behavioral patterns, and environmental events all operate as interacting determinants that influence one another bidirectionally. Within this theory, human agency is embedded in a self theory encompassing self-organizing, proactive, self-reflective and self-regulative mechanisms. Human agency can be exercised through direct personal agency; through proxy agency relying on the efforts of intermediaries; and by collective agency operating through shared beliefs of efficacy, pooled understandings, group aspirations and incentive systems, and collective action. Personal agency operates within a broad network of sociostructural influences. In these agentic transactions, people are producers as well as products of social systems. Growing transnational imbeddedness and interdependence of societies are creating new social realities in which global forces increasingly interact with national ones to shape the nature of cultural life.

In its brief history, psychology has undergone wrenching paradigm shifts. In these transformations, the theorists and their followers think, argue and act agentially, but their theories about how other people function grant them little, if any, agentic capabilities. It is ironic that a science of human functioning should strip people of the very capabilities that make them unique in their power to shape their environment and their own destiny.

The behaviorists gave us the input–output model linked by an obscure black box. In this view, human behavior is conditioned and regulated by environmental stimuli. This line of theorizing was eventually put out of vogue by the advent of the computer, which filled the black box with a lot of self-regulatory capabilities created by inventive thinkers. One brand of behaviorism survived with an even more stringent orthodoxy in the form of the operant model of human behavior. Operant conditioners not only stripped human beings of any agentic capabilities, but imposed strict methodological prohibitions that even natural scientists reject.

Scientific advances can be achieved by two types of theories: those that simply seek to identify correlations between observable events without regard to linking mechanisms; and those that specify the mechanisms governing the relations between observable events (Bandura, 1996). Operant analysts declared that the only legitimate scientific approach is one confined to linking observables. In this extreme methodological prescription, they are

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much more restrictive than are natural scientists. As Nagel (1961) rightfully points out, some of the most comprehensive theories in the natural sciences are not about factors that are “observable.” Physicists, for example, created remarkable things with atomic theory, including bombs of mass destructiveness, even though atoms are unobservable.

People are often unresponsive to situational cues and unaffected by the consequences of their actions. Therefore, operant analysts had to look elsewhere for a better explanation of human behavior. The explanatory burden fell increasingly on determinants inside the organism, namely, the implanted history of reinforcement. Behavior was presumably controlled by external stimulation acting together with the implanted organismic state. Like other internal determinants, history is neither observable nor directly accessible. Operant analysts have been shifting the emphasis of their analyses from environment-based control to organism-based control (Machado, 1993). But the organismic control is non-agentic. People are merely repositories for past stimulus inputs and conduits for external stimulation, but they can add nothing to their performance. They undergo actions rather than construct, select, and regulate them.

The advent of the computer transformed psychological theorizing and radically altered its research agenda. The input–output model was supplanted by an input-linear throughput–output model. The mind as digital computer became the conceptual model for the times. For decades, the reigning computer metaphor of human functioning was a linear computational system. Information is fed through a central processor that performs computational operations according to preordained rules. This conception fitted human beings to the architecture of the linear computer at the time.

This linear model was eventually supplanted by more dynamically organized computer models that perform multiple operations simultaneously and interactively to mimic better how human brains function. In this conceptual model, input activates a multifaceted dynamic throughput that produces the output. These dynamic models include multilevel networks with agentic functions lodged in a hidden neural network devoid of consciousness, which is the very substance of phenomenal and functional mental life. Consciousness provides the information base for thinking about events, planning, constructing courses of action, and reflecting on the adequacy of one’s thinking and actions. In the connectionist line of theorizing, sensory organs deliver up information through their diverse pathways to the hidden network acting as the cognitive agent that does the construing, planning, motivating and regulating. However, stripped of consciousness and agentic capability of decision and action, people are mere automatons undergoing actions devoid of any conscious regulation, phenomenological life or personal identity.

## **Physicalistic theory of human agency**

In social cognitive theory, people are agentic operators in their life course, not just onlooking hosts of brain mechanisms orchestrated by environmental events. The sensory, motor and cerebral systems are tools which people use to accomplish the tasks and goals that give direction and meaning to their lives (Harré & Gillet, 1994). Social cognitive theory subscribes to a model of emergent interactive agency (Bandura, 1986, 1997). Persons are neither autonomous agents nor simply mechanical conveyers of animating environmental influences. Mental events are brain activities, not immaterial entities residing apart from neural systems. However, materialism does not imply reductionism. In a non-dualistic mentalism, thought processes are emergent brain activities that are not ontologically reducible (Sperry, 1993).

One must distinguish between the physical basis of thought and its functional properties. Cognitive processes are not only emergent brain activities; they also exert determinative influence. The human mind is generative, creative, proactive, and self-reflective not just reactive. People operate as thinkers of the thoughts that serve determinative functions. They construct thoughts about future courses of action to suit ever-changing situations, assess their likely functional value, organize and deploy strategically the selected options, evaluate the adequacy of their thinking based on the effects which their actions produce and make whatever changes may be necessary.

### **Triadic reciprocal causation**

Human behavior has often been explained in terms of unidirectional causation, in which behavior is depicted as either being shaped and controlled by environmental influences or driven by internal dispositions. Social cognitive theory explains psychosocial functioning in terms of triadic reciprocal causation (Bandura, 1986). In this model of reciprocal causality, internal personal factors in the form of cognitive, affective and biological events; behavioral patterns, and environmental events all operate as interacting determinants that influence one another bidirectionally.

The environment is not a monolithic entity. Social cognitive theory distinguishes between three types of environmental structures (Bandura, 1997). They include the imposed environment, selected environment, and constructed environment. These different forms of environment represent gradations of changeability requiring the exercise of increasing levels of personal agency.

The imposed physical and sociostructural environment is thrust upon people whether they like it or not. Although they have little control over its presence, they have leeway in how they construe it and react to it. For the most part, the environment is only a potentiality whose rewarding and punishing aspects do not come into being until the environment is selectively activated by appropriate courses of action. Which part of the potential environment becomes the actual experienced environment thus depends on how people behave. The choice of associates, activities and milieus constitutes the selected environment. The environments that are created do not exist as a potentiality waiting to be selected and activated. Rather, people construct social environments and institutional systems through their generative efforts. The construal, selection and construction of environments affect the nature of the reciprocal interplay between personal, behavioral and environmental factors.

There is an element of fortuity in people's lives. They are often brought together through a fortuitous constellation of events that set in motion reciprocal interplays of influences that shape the course of their lives. Indeed, some of the most important determinants of marital partnerships, occupational pursuits and untoward life paths often arise through the most trivial of circumstances (Bandura, 1982, 1998). In these instances, seemingly minor events have important and enduring impacts on the courses which lives take. For example, a flight delayed by an unexpected storm creates a fortuitous intersect by two people who found themselves seated next to each other at the airport that eventuates a marriage, geographic relocation and a shift in career trajectory, none of which would have occurred if the original flight had departed on time (Krantz, 1998). The power of fortuitous influences to launch new life courses is in accord with chaos theory in which minor events can set in motion cyclic processes that eventuate major changes.

Of the myriad fortuitous elements encountered in daily life, many of them touch people only lightly, others leave more lasting effects, and still others thrust people into new life trajectories. The nature, scope and strength of the impact that chance encounters will have on human lives are based on the reciprocal interplay of personal attributes and the characteristics of the social milieu into which one is inaugurated (Bandura, 1982). By cultivating personal attributes that enable people to make the most of fortuitous opportunities, they have a greater hand in shaping their own destinies.

## **Interdependence of personal agency and social structure**

Human adaptation and change are rooted in social systems. Therefore, personal agency operates within a broad network of sociostructural influences. In these agentic transactions, people are producers as well as products of social systems. Social structures are created by human activity to organize, guide and regulate human affairs in given domains by authorized rules and sanctions (Burns & Dietz, in press; Giddens, 1984). The sociostructural practices, in turn, impose constraints and provide resources and opportunity structures for personal development and functioning. Given this dynamic bidirectionality of influence, social cognitive theory rejects a dualism between personal agency and a disembodied social structure.

Sociostructural theories and psychological theories are often regarded as rival conceptions of human behavior or as representing different levels and proximities of causation. Human behavior cannot be fully understood solely in terms of sociostructural factors or psychological factors. A full understanding requires an integrated causal system in which sociostructural influences operate through psychological mechanisms to produce behavioral effects. However, the self system is not merely a conduit for external influences. The self is socially constituted but, by exercising self-influence, human agency operates generatively and proactively on social systems, not just reactively.

In the theory of triadic reciprocal causation, sociostructural and personal determinants are treated as co-factors within a unified causal structure. For example, poverty is not a matter of multilayered or distal causation. Lacking the money to provide for the subsistence of one's family impinges pervasively on everyday life in a very proximal way. Diverse lines of research lend support to this interdependent multicausality (Baldwin, Baldwin, Sameroff, & Seifer, 1989; Bandura, 1993; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996, 1998; Elder & Ardel, 1992). Economic conditions, socioeconomic status and family structure affect behavior through their impact on people's aspirations, sense of efficacy and other self-regulatory factors rather than directly.

## **Construction of knowledge and competencies**

Social cognitive theory posits a multifaceted causal structure that addresses both the development of competencies and the regulation of action (Bandura, 1986). Knowledge structures representing the models, rules and strategies of effective action serve as cognitive guides for the construction of complex patterns of behavior. These knowledge structures are formed from the styles of thinking and behavior that are modeled, from the outcomes of exploratory activities, verbal instruction, and innovative cognitive syntheses of acquired knowledge.

Over the years, our psychological theories have focused almost exclusively on learning through the effects of one's actions. In this rudimentary form of learning, people perform actions and notice the effects they produce. By observing the positive and negative outcomes of different courses of action, they learn what types of action are suitable in given situations. Learning from response outcomes is commonly portrayed as a mechanistic process in which responses are shaped automatically and unconsciously by their immediate consequences. Simple actions can be altered by their effects without awareness of how outcomes are linked to actions. However, the cognitive capacities of human beings enable them to profit much more extensively from experience than if they functioned as unthinking organisms. While performing activities, they form ideas about what leads to what, act on them or predict occurrences from them, judge from the results the adequacy of their thoughts and change them accordingly.

If knowledge and competencies could be acquired solely by direct experience, human development would be severely retarded, not to mention exceedingly tedious and hazardous. Cultures could never transmit their language, multifaceted mores, social practices, and requisite competencies if they had to be shaped laboriously in each new member solely by response consequences without the benefit of models to exemplify the cultural patterns. Natural endowment provides human beings with few inborn skills. Errors can be highly costly and some types of missteps are perilous. The abbreviation of the acquisition process is therefore vital for survival as well as for successful human development. Moreover, the constraints of time, resources and mobility impose severe limits on the situations and activities that can be directly explored for the acquisition of knowledge and competencies.

Human beings have evolved an advanced capacity for observational learning that enables them to develop their knowledge and skills from information conveyed by modeling influences (Bandura, 1986; Rosenthal & Zimmerman, 1978). Modeling is not merely a process of behavioral mimicry. Modeling influences convey rules for generative and innovative behavior. This higher-level observational learning is achieved through abstract modeling. In abstract modeling, observers extract the rules governing specific judgments or actions differing in content but embodying the same underlying rule. Once people extract the rules, they can use them to judge things and generate new courses of behavior that fit the prototype but go beyond what they have seen or heard.

Much human learning occurs either deliberately or inadvertently by observing the actual behavior of others and the consequences for them. However, a great deal of information about human values, styles of thinking, behavior patterns and sociostructural opportunities and constraints is gained from modeled styles of behavior portrayed symbolically through the electronic mass media. A major significance of symbolic modeling lies in its tremendous scope and multiplicative power. Unlike learning by doing, which requires altering the actions of each individual through repeated trial-and-error experiences, in observational learning a single model can transmit new ways of thinking and behaving simultaneously to vast numbers of people in widely dispersed locales. The accelerated growth of electronic technologies has vastly expanded the range of models to which members of society are exposed day in and day out. These electronic systems, feeding off telecommunications satellites, have become the dominant vehicle for disseminating symbolic environments. By drawing on these modeled patterns of thought and action, observers transcend the bounds of their immediate environment.

Social practices are not only being widely diffused within societies but ideas, values and styles of conduct are being modeled worldwide. The electronic media are coming to play an increasingly influential role in transcultural and sociopolitical change (Bandura, 1997;

Braithwaite, 1994). Because the electronic media occupy a large part of people's lives, the study of acculturation in the present electronic age must be broadened to include electronic acculturation.

Social cognitive theory analyzes social diffusion of new styles of behavior in terms of three constituent functions and the mechanisms governing them (Bandura, 1986, 1994). The first includes acquisition of knowledge, new ideas and practices and their functional value. Symbolic modeling usually serves as the principal conveyer of innovations to widely dispersed areas, especially in early phases of diffusion. The second function concerns adoption determinants. A number of factors, including perceived self-efficacy to master the requisite competencies, possession of essential resources, outcome expectations concerning the costs and benefit of the new styles of behavior, and perceived opportunities and impediments determine whether people will adopt and put into practice what they have learned. The third major subfunction in the diffusion process concerns the social networks that tie people to one another (Bandura, 1986; Granovetter, 1983; Rogers & Kincaid, 1981). Structural interconnectedness provides potential paths of influence; psychosocial factors largely determine the fate of what diffuses through those social networks.

## **Translating thought into proficient action**

In developing their competencies, people have to transform and process diverse sources of information derived from enactive experiences, social guidance and modeling influences, and integrate them into cognitive models that serve as guides for reasoning and action. The remarkable flexibility of symbolization enables people to create ideas that transcend their sensory experiences. But knowing what to do is only part of the story of human competence. One must get from thought to proficient performance.

The mechanisms governing the translation of thought into action have been a continuing major issue in psychology. In social cognitive theory, knowledge structures are translated into proficient action through a conception–matching process. This involves both transformational and generative operations. Monitored enactment is the vehicle for converting conception to skilled action (Carroll & Bandura, 1987, 1990). Conceptions serve as guides for the production of skilled action and as internal standards for making corrective adjustments in the development of proficiency. The feedback accompanying enactments provides the information for detecting and correcting mismatches between conception and action. The behavior is thus modified, based on the comparative information, to achieve a close match between conception and action.

The situations which people have to deal with are rarely, if ever, completely alike. Execution of skills must be varied to suit changing circumstances and serve diverse purposes. This requires generativeness. To function effectively, individuals must develop generative conceptions that enable them to enact skills in varied ways under different situational conditions rather than in a rigidly fixed fashion.

Cognitive guidance is especially influential in the early and intermediate phases of skill development. Knowledge structures specify how appropriate subskills must be selected, integrated and sequenced to suit particular purposes. With continued practice, skills become fully integrated and are executed with ease. Human action is regulated by multilevel systems of control. Once proficient modes of behavior become routinized, they no longer require higher cognitive control. Their execution is regulated largely by lower level sensory-motor systems in recurrent situations, unless things go awry. In that case, cognitive control again

comes into play for the development of new courses of action, which then become routinized as the habitual way of doing things. Efficient functioning thus requires a mix of routinized and mindful action.

## **Regulation of motivation and action**

People are not only knowers and performers. They are also self-reactors with a capacity to motivate, guide and regulate their activities. Social cognitive theory therefore posits a large set of regulatory factors that govern the nature and quality of functioning. The remarkable capacity for symbolization provides human beings with a powerful tool for comprehending their environment, and for creating and regulating environmental conditions that touch virtually every aspect of their lives. Most environmental influences operate through cognitive processes. Cognitive factors partly determine the salience of environmental events, what meaning is conferred on them, whether they leave any lasting effects, what emotional impact and motivating power they have, and how the information they convey will be organized for future use. Through the medium of symbols, people give structure, meaning and continuity to their experiences.

Human motivation and action is extensively regulated through the anticipative mechanism of forethought. People anticipate the likely consequences of prospective actions, they set goals for themselves, and they plan courses of action that are likely to produce desired outcomes and avoid detrimental ones. Future events cannot, of course, be causes of current motivation and action because they have no actual existence. However, the projected future can be brought into the present through forethought. By being represented cognitively in the present, conceived future states are converted into current motivators and regulators of behavior.

Much human motivation and behavior is regulated anticipatorily by outcomes expected for given courses of action (Bandura, 1986, 1997; Feather, 1982). Actions that produce positive outcomes are readily adopted and used, whereas those that bring unrewarding or punishing outcomes are generally discarded. But external consequences are not the only outcomes that influence human behavior. People profit from the successes and mistakes of others as well as from their own experiences. As a general rule, they do things they have seen succeed and avoid those they have seen fail. After people adopt standards they also influence their own motivation and behavior by the positive and negative consequences they produce for themselves. They do things that give them satisfaction and a sense of self-worth, and refrain from actions that evoke self-censure. The relative strength of external and self-sanctions shape what courses of action are pursued.

Electronic technologies greatly extend human capabilities to test the likely outcomes of given decisions and courses of action through the use of computerized enactments in simulated realities without having to carry out the activities. This is another example of how our psychological theorizing and research must fit the rapid pace of technological evolution. In some domains of activity people are now freed from the severe reality constraints of physical enactments, many of which can be prohibitively risky, costly and time consuming. In computer-aided design, for example, designers can simulate buildings, airplane fuselages and the like, alter key features of the structures, subject them to different types of stressors, and test their ability to withstand them. The outcomes are pictured graphically. Similarly, applications of computer modeling to social systems enable innovators to change certain features of organizations and policies and to observe their probable social effects. Human

survival requires an expanded time perspective because behavioral practices and technologies that bring short-term benefits can usher in disastrous futures. The capacity to extrapolate through computational enactments of future outcomes from known facts and knowledge enables people to take corrective action to avert ecological calamities. However, the informativeness of simulated enactments depends on how well the guiding conceptual model represents the factors governing the phenomenon of interest. If the conceptual model does not faithfully represent how the real-world events operate, the simulated enactments will yield erroneous outcomes.

### **Self-efficacy: the foundation of human agency**

Among the mechanisms through which human agency is exercised, none is more central or pervasive than beliefs of personal efficacy. This belief system is the foundation of human agency. Unless people believe that they can produce desired effects by their actions they have little incentive to act or to persevere in the face of difficulties. Whatever other factors serve as motivators, they are rooted in the core belief that one has the power to produce changes by one's actions.

Perceived self-efficacy occupies a pivotal role in social cognitive theory because it affects action not only directly, but through its impact on other classes of determinants as well. The capacity to exercise self-influence by personal challenge through goal setting and evaluative reaction to one's own performances provides a major cognitive mechanism of motivation and self-directedness (Bandura, 1991; Locke & Latham, 1990). Goal adoption enlists self-investment in the activity. Once people commit themselves to valued goals, they seek self-satisfaction from fulfilling them and intensify their efforts by discontent with substandard performances. The motivational effects do not stem from the goals themselves, but from the self-evaluation that is made conditional on their fulfillment.

Goals are usually structured hierarchically in which proximal goals guide and motivate actions in the here and now that subserve broader goals reflecting matters of personal value. However, proximal goals are not simply subordinate servants of valued loftier ones. By engaging the self-system, proximal goals invest the pursuit itself with personal significance. The self-satisfaction derived from progress in mastering an activity serves as its own reward during the pursuit of higher level goals. Through subgoal self-involvement, people create a continuing source of self-motivation and interest quite apart from the incentive of the loftier goal.

In self-motivation through goal aspirations, it is partly on the basis of efficacy beliefs that people choose which challenges to undertake, how much effort to invest in the pursuits and how long to persevere in the face of difficulties (Bandura, 1991a; Locke & Latham, 1990). Challenging goals raises motivation and performance attainments. When faced with obstacles, setbacks and failures, those who doubt their capabilities slacken their efforts, give up, or settle for mediocre solutions. By contrast, those who have a strong belief in their capabilities redouble their efforts and try to figure out better ways to master the challenges. They remain resilient to the demoralizing effects of adversity.

Perceived self-efficacy similarly plays an influential role in motivation through outcome expectations. This form of motivation has also been conceptualized as expectancy-value theory (Ajzen & Fishbein, 1980; Atkinson, 1964; Rotter, 1982; Vroom, 1964). In this view, motivation is the product of the expectation that a given course of action will produce certain outcomes and the value placed on those outcomes. This theory includes only one of the two belief systems governing motivation. People act on their beliefs about what they can



do as well as their beliefs about the likely outcomes of performance. There are countless activities which, if done well, produce valued outcomes, but they are not pursued by people who doubt they can do what it takes to succeed. Such exclusions of entire classes of options are made rapidly on self-efficacy grounds, without bothering to analyze costs and benefits. Rational models of decision making that exclude efficacy judgment sacrifice explanatory and predictive power (Bandura, 1997).

Perceived self-efficacy not only sets the slate of options for consideration but also influences other aspects of decision making. Making decisions in no way ensures that the needed courses of action will be executed successfully. Implementing a decision and sticking to it, especially in the face of difficulties, are essential aspects of an agentic theory of decision-making processes that rest heavily on beliefs of personal efficacy (Bandura, 1997). A psychology of decision making thus requires a psychology of action grounded in enabling and sustaining efficacy beliefs (Harré, 1983).

The causal attributions which people make for their successful and deficient performances also affect their motivation (Weiner, 1986). Efficacy beliefs shape causal attributions, regardless of the nature of the activity. People who regard themselves as highly efficacious ascribe their failures to insufficient effort, inadequate strategies or unfavorable circumstances, all of which are correctable (Alden, 1986; Courneya & McAuley, 1993; Grove, 1993; Matsui, Konishi, Onglatco, Matsude, & Ohnishi, 1988; McAuley, Duncan, & McElroy, 1989; Silver, Mitchell, & Gist, 1995). Those of low efficacy attribute their failures to low ability, which is demotivating. The effects of causal attributions on achievement strivings are mediated almost entirely through efficacy beliefs (Relich, Debus, & Walker, 1986; Schunk & Gunn, 1986; Schunk & Rice, 1986).

The preceding discussion addressed the central role that self-efficacy beliefs play in the self-regulation of motivation. Efficacy beliefs have a strong impact on other aspects of functioning as well. They affect thought patterns that can enhance or undermine performance. People construct anticipatory cognitive scenarios and visualized futures and use them to guide their actions. Those of high efficacy visualize success scenarios that provide positive guides for performance, whereas those beset by doubts about their efficacy visualize failure scenarios that undermine performance by dwelling on how things might go wrong. Moreover, in appraising situations, people who are assured in their efficacy focus on the opportunities worth pursuing rather than dwell on risks in new ventures (Krueger & Dickson, 1993, 1994). They take a future time perspective in structuring their lives (Eppel, Bandura, & Zimbardo, *in press*), and view impediments in difficult pursuits as surmountable through personal development and perseverant effort.

A major function of thought is to enable people to predict events and to devise ways to exercise control over those that are important to them. Predictive and operative knowledge must be extracted from probabilistic environmental contingencies containing many ambiguities, redundancies, and uncertainties. Discerning the nature and manner in which diverse factors combine to produce outcomes requires high cognitive efficacy, especially under complex and taxing conditions. People of high efficacy show greater cognitive resourcefulness and strategic flexibility that enables people to manage their environment more effectively and productively (Wood & Bandura, 1989).

We are entering a new era in which the construction of knowledge for decision making and problem solving relies heavily on electronic inquiry. Information is increasingly stored in electronic rather than physical print form. Before long, most information will be available only electronically. Knowing how to search this wealth of information is vital for knowledge construction and effective functioning. Electronic inquiry is a complex cognitive skill

requiring a resilient sense of efficacy. Inquirers face an avalanche of information in innumerable sources of varying reliability. The information is not only difficult to evaluate and quantify, but it is hard to know whether one is even on the right track. Small changes in search strategies can lead down radically different information paths with a lot of wasted effort in non-productive searches. The task can quickly become overwhelming. Compared to inquirers who approach knowledge construction by this means with self-doubt, those with a high sense of efficacy make better use of strategies that provide both breadth and depth of inquiry, waste less time in missteps and redundancies and gain greater knowledge (Debowski, Wood, & Bandura, 1998). Guided mastery experiences build perceived efficacy and skill in electronic inquiry.

People's beliefs in their coping capabilities also affect their vulnerability to stress and depression in threatening or taxing situations. Efficacy beliefs influence how threats and taxing demands are perceived and cognitively processed. People who believe they can manage threats are not distressed by them. Those who believe they cannot control them experience high anxiety, dwell on their coping deficiencies, view many aspects of their environment as fraught with danger, magnify possible risks and worry about perils that rarely happen. By such thinking they distress themselves and impair their functioning (Bandura, 1997; Sanderson, Rapee, & Barlow, 1989).

People who have a high sense of coping efficacy lower their stress and anxiety by acting in ways that transform threatening environments into benign ones. For example, phobics suffer chronic distress, constrict their lives by self-protective avoidance and are unmercifully tormented by perturbing ruminations and recurrent nightmares. Guided mastery treatment, in which phobics confront the things they dread and learn how to exercise control over them, instills a robust sense of coping efficacy that eradicates anxiety arousal, activation of stress-related hormones, phobic patterns of behavior, intrusive ruminations and recurrent nightmares (Bandura, 1997; Williams, 1992). The stronger the sense of coping efficacy the bolder people are in tackling the problems that breed stress and anxiety, and the greater is their success in shaping the environment to their liking.

People have to live with a psychic environment that is largely of their own making. Many human distresses result from failures to control disturbing, ruminative thoughts. Control of one's thought processes is therefore a key factor in self-regulation of emotional states. The exercise of control over one's own consciousness is summed up well in the proverb: "*You cannot prevent the birds of worry and care from flying over your head. But you can stop them from building a nest in your hair.*" What causes distress is not the sheer frequency of disturbing thoughts, but the perceived helplessness to turn them off (Kent, 1987; Kent & Gibbons, 1987).

In addition, people can exercise control over their affective states in palliative ways without altering the causes of their emotional arousal by doing things that bring relief from unpleasant emotional states when they arise. Those who believe they can relax, get engrossed in engaging activities, calm themselves by reassuring thought and support from friends, family, and others find unpleasant emotional states less aversive than those who feel helpless to relieve their emotional distress (Arch, 1992a, 1992b).

Perceived inefficacy to control things which one values also produces depression. As in the case of anxiety arousal, perceived inefficacy contributes to depression in varied ways. One route is through unfulfilled aspirations. People who impose on themselves standards of self-worth they judge they cannot attain devalue their attainments and drive themselves to bouts of depression (Bandura, 1997). Depression, in turn, weakens people's beliefs in their efficacy, thereby creating a downward cycle (Kavanagh & Bower, 1985).

A second route to depression is through a low sense of social efficacy to develop social relationships that bring satisfaction to one's life and make chronic stressors easier to manage and to bear. Perceived social inefficacy contributes to depression both directly and by impeding development of supportive relationships. Perceived social efficacy and social support operate bidirectionally in human adaptation and change. Social support is not a self-forming entity waiting around to buffer harried people against stressors. Rather, they have to go out and find or create supportive relationships for themselves and be able to maintain them. Individuals of high perceived social efficacy create more supportive environments for themselves than those who distrust their social capabilities (Holahan & Holahan, 1987a, 1987b). Supportive relationships, in turn, can enhance personal efficacy. Enabling supporters raise efficacy in others in several ways. They can model effective coping attitudes and strategies for managing problem situations, demonstrate the value of perseverance, and provide positive incentives and resources for efficacious coping. Mediation analyses reveal that social support has beneficial effects only to the extent that it raises perceived coping efficacy (Cutrona & Troutman, 1986; Major, Mueller, & Hildebrandt, 1985).

The third route to depression is through the exercise of control over depressing trains of thought. Much human depression is cognitively generated by dejecting, ruminative thought (Nolen-Hoeksema, 1991). All people experience depressive episodes from time to time in response to rejections, losses, failures and setbacks. But they vary in how quickly they get over them. Most rebound rapidly, whereas some sink into a deepening despondency that lasts for a long time. A low sense of efficacy to control ruminative thought contributes to the occurrence, duration and recurrence of depressive episodes (Kavanagh & Wilson, 1989).

The above discussion explains how efficacy beliefs regulate motivational, affective and cognitive functioning, enable people to create beneficial environments, and modify and control them. People are partly the product of their environment. By selecting their environments, they can have a hand in what they become. Efficacy beliefs can therefore play a key role in shaping the courses which lives take by influencing the types of activities and environments people choose to enter. In self-development through choice processes, personal destinies are shaped by selection of environments known to cultivate valued potentialities and lifestyles.

The power of efficacy beliefs to affect life paths through selection processes is most clearly revealed in studies of career choice and development (Lent, Brown, & Hackett, 1994). Occupational choices are of considerable import because they structure a major part of people's everyday reality, provide them with a source of personal identity and determine whether their worklife is repetitively boring, burdensome and distressing, or lastingly challenging and fulfilling. People who have a strong sense of personal efficacy consider a wide range of career options, develop greater interest in them, prepare themselves better for different careers and have greater staying power in their chosen pursuits (Lent *et al.*, 1994). Even as early as junior high school, children's beliefs in their occupational efficacy, which are rooted in their patterns of perceived efficacy, have begun to crystallize and steer their occupational considerations in directions congruent with their beliefs of personal efficacy (Bandura, Barbaranelli, Caprara, & Pastorelli, 1998).

Human well-being and accomplishments require an optimistic and resilient sense of efficacy. This is because the normative daily realities are strewn with difficulties. They are full of frustrations, conflicts, impediments, failures, setbacks, inequities, and adversities. It requires a resilient sense of efficacy to override such dissuading conditions. The functional belief system in difficult pursuits combines realism about tough odds, but optimism that one

can beat those odds through self-development and perseverant effort. Resilient self-efficacy provides the needed staying power. The people who are successful, innovative, sociable, non-anxious, non-despondent and tenacious social reformers take an optimistic view that they can play a part in bringing about valued changes (Bandura, 1997; Shepherd, 1995; White, 1982).

When people are asked about their regrets in life, for the most part they regret the actions not taken rather than the actions taken (Hatrangadi, Medvec, & Gilovich, 1995). They regret the educational opportunities forsaken, the careers not pursued that would have brought satisfaction and self-fulfillment, the risks not taken, and the relationships not cultivated or shortchanged. Our social sciences study extensively the risks of overconfidence, but ignore the pervasive self-limiting costs of underconfidence. This risk-averse bias reflects the conservative orientation of our theorizing and research on human development and functioning.

Disputes about whether people are better served by veridical or optimistic self-belief (Colvin & Block, 1994; Taylor & Brown, 1988, 1994) fail to make important distinctions that specify when optimistic judgment of capabilities is beneficial and when veridical judgment is self-limiting. Tenacious strivers should be differentiated from wishful dreamers. Wishful optimists lack the efficacy strength to put up with the uncertainties, disappointments and drudgery that are required for high accomplishments. Tenacious strivers believe so strongly in themselves that they are willing to exert extraordinary effort and suffer countless hardships and disappointments in pursuit of their vision.

The functional value of veridical self-appraisal also depends on the nature of the pursuits. In activities where the margins of error are narrow and missteps can produce costly or injurious consequences, people need to be accurate in judging their efficacy. It is a different matter where the personal costs of difficult pursuits involve time, effort and resources. Individuals have to decide for themselves which abilities to cultivate, whether to invest their resources and efforts in ventures that are difficult to fulfill, and how much hardship they are willing to endure in pursuits strewn with obstacles and uncertainties. Societies enjoy the considerable benefits of accomplishments in the arts, sciences and technologies of its efficacious persisters and risk takers. To paraphrase the astute observation of George Bernard Shaw, since reasonable people adapt to the world and unreasonable ones try to alter it, human progress depends on the unreasonable ones.

## **Exercise of moral agency**

In areas of functioning involving achievement strivings and cultivation of competencies, the standards that are selected as a mark of adequacy are progressively raised as knowledge and skills are acquired and challenges are met. In the exercise of moral agency, the internal standards that serve as the basis for regulating one's conduct are more firmly established. A complete theory of moral agency must link moral reasoning to moral action. This requires an agentic theory of morality rather than one confined mainly to cognitions about morality. An agentic theory specifies the mechanisms by which people come to live in accordance with moral standards. In social cognitive theory (Bandura, 1986, 1991b), moral reasoning is translated into actions through self-regulatory mechanisms rooted in moral standards and self-sanctions by which moral agency is exercised. After people adopt a standard of morality, their negative self-sanctions for actions that violate their personal standards, and their positive self-sanctions for conduct faithful to their moral standards serve as the

regulatory influences (Bandura, 1991b). In the face of situational inducements to behave in inhumane ways, people can choose to behave otherwise by exerting self-influence. Self-sanctions keep conduct in line with personal standards. This capacity for self-influence gives meaning to moral agency. The moral self is thus embedded in a broader sociocognitive self theory encompassing self-organizing, proactive, self-reflective and self-regulative mechanisms (Bandura, 1986, in press). These self-referent processes provide the motivational as well as the cognitive regulators of moral conduct.

The exercise of moral agency has dual aspects – *inhibitive* and *proactive*. The inhibitive form is manifested in the power to refrain from behaving inhumanely. The proactive form of morality is expressed in the power to behave humanely. In the latter case, individuals invest their sense of self-worth so strongly in humane convictions and social obligations that they act against what they regard as unjust or immoral even though their actions may incur heavy personal costs (Bandura, in press).

Moral standards do not function as invariant internal regulators of conduct, however. Self-regulatory mechanisms do not operate unless they are activated, and there are many processes by which moral self-sanctions can be disengaged from inhumane conduct (Bandura, 1986, 1991b). The disengagement may center on the reconstrual of the conduct itself by portraying it as serving worthy purposes; on obscuring the sense of personal agency through displacement and diffusion of responsibility so that the perpetrators can minimize their role in causing harm; in distorting or minimizing the injurious outcomes that flow from their actions; or on how victims are regarded by dehumanizing and blaming them for their maltreatment. Through selective activation and disengagement of moral self-sanctions, otherwise considerate people can do extraordinarily cruel things (Bandura, 1990; Kelman & Hamilton, 1989; Reich, 1990). Large-scale inhumanities in military, social, political and business spheres generally operate through a supportive network of legitimate enterprises run by otherwise considerate people who contribute to detrimental activities by disconnected subdivision of functions and diffusion of responsibility (Bandura, in press). Edmund Burke's aphorism that "*The only thing necessary for the triumph of evil is for good men to do nothing*" needs a companion adage that "*The triumph of evil requires a lot of good people doing a bit of it in a morally disengaged way with indifference to the human suffering they collectively cause.*"

## Forms of human agency

The exercise of human agency can take different forms. It includes production of effects through *direct personal agency*; through *proxy agency* relying on the efforts of intermediaries; and by *collective agency*, operating through shared beliefs of efficacy, pooled understandings, group aspirations and collective action. Each of these expressions of agency is rooted in a belief in the power to make things happen.

### Proxy agency

The above analyses analyzed the direct exercise of personal agency and the various processes through which it exerts its effects. In many spheres of life, people do not have direct control over social conditions and institutional practices that affect their lives. Under these circumstances, they seek their well-being and security through the exercise of proxy

agency rather than through direct control. In this socially mediated mode of agency, people try to get those who wield influence and power to act on their behalf to get what they want (Bandura, 1997).

People also turn to proxy control in areas in which they can exert direct influence, but do not do so because they are reluctant to spend the long hours of arduous work needed to develop the necessary knowledge and skills. To further dull the appetite for personal control, maintaining proficiency under ever changing conditions of life demands continued investment of time, effort and resources to upgrade one's knowledge and competencies. In addition to the hard work of continual self-development, in many situations the exercise of personal control carries heavy responsibilities, stressors and risks. All too often, people surrender control to intermediaries because they do not want to saddle themselves with the burdensome aspects of direct control.

### **Perceived efficacy in collective agency**

Human agency has been traditionally conceptualized as individual agency. However, people do not live their lives as isolates. They work together to produce the outcomes they desire but cannot accomplish on their own. Social cognitive theory therefore extends the conception of human agency to collective agency. People's shared beliefs in their collective power to produce desired outcomes is a crucial ingredient of collective agency. Group performance is the product of interactive and coordinative dynamics of its members. Therefore, perceived collective efficacy is not simply the sum of the efficacy beliefs of individual members. Rather, it is an emergent group-level property. A group, of course, operates through the behavior of its members. It is people acting collectively on a shared belief, not a disembodied group mind, that is doing the cognizing, aspiring, motivating and regulating.

Personal and collective efficacy differ in the unit of agency, but in both forms, efficacy beliefs serve similar functions and operate through similar processes. People's shared beliefs in their collective efficacy influence the type of futures they seek to achieve through collective action; how well they use their resources; how much effort they put into their group endeavor; their staying power when collective efforts fail to produce quick results or meet forcible opposition; and their vulnerability to the discouragement that can beset those taking on tough problems that are not easily controllable.

Beliefs of collective efficacy predict level of group performance (Bandura, 1993; Feltz & Lirgg, 1998; Hodges & Carron, 1992; Little & Madigan, 1994; Prussia & Kinicki, 1996; Spink, 1990). The stronger the beliefs people hold about their collective capabilities, the more they achieve. The contribution of perceived collective efficacy to group performance is replicated across diverse social systems, including schools, business organizations, and athletic teams. At the broader social level, the shared efficacy beliefs of residents in a community affect the quality of life in that community (Sampson, Raudenbush, & Earls, 1997). The impact of socioeconomic conditions on community life is largely mediated by neighborhood perceived collective efficacy.

The patterning of perceived collective political efficacy and trust in the governmental system predicts the form and level of political participation and social activism. People who believe that they can achieve desired changes through citizen action and regard their governmental system as trustworthy and socially responsive display high involvement in conventional models of political action (Craig, 1979; Finkel, 1985; Pollock, 1983;

Zimmerman & Rappaport, 1988). In contrast, those who believe they can produce political change through tenacious collective action but view the governmental system and its leaders as fundamentally unresponsive and untrustworthy favor more confrontive and coercive tactics outside the traditional political channels. The politically apathetic have a low sense of efficacy that they can influence governmental functioning through collective initiatives and are disaffected with the political system as not acting in their interest (Bandura, 1997).

Some people live their lives in individualistically oriented social systems, whereas others do so in collectivistically oriented systems (Triandis, 1995). Some writers inappropriately equate self-efficacy with individualism and pit it against collectivism (Schooler, 1990). In fact, a high sense of personal efficacy contributes just as importantly to group-directedness as to self-directedness. People beset by tenacious self-doubt are not easily formed into an efficacious collective force. If people are to work together successfully, the members of a group have to perform their roles and coordinative activities with a high sense of efficacy. Personal efficacy is valued, not because of reverence for individualism, but because a strong sense of efficacy is vital for successful functioning regardless of whether it is achieved individually or by group members working together.

Cross-cultural research on organizational functioning corroborates the universal functional value of efficacy beliefs (Earley, 1993, 1994). Beliefs in personal efficacy contribute to productivity by members of collectivist cultures just as they do by those raised in individualistic cultures. But cultural context shapes how efficacy beliefs are developed, the purposes to which they are put, and the social arrangements through which they are best expressed. People from individualistic cultures, such as exists in the United States, feel most efficacious and perform best under an individually oriented system. Those from collectivistic cultures, namely Hong Kong and China, judge themselves most efficacious and work most productively under a group-oriented system.

Cultures are not static, uniform entities as the stereotypic portrayals would lead one to believe. Collectivistic systems, founded on Confucianism, Buddhism or Marxism favor a communal ethic, but they differ from each other in the values, meanings and customs they promote (Kim, Triandis, Kâgıtçibasi, Choi, & Yoon, 1994). Nor are so-called individualistic cultures a uniform lot. Americans, Italians, Germans and British differ in their particular brands of individualism. Even within an individualistically oriented culture, such as the United States, the New England brand of individualism is quite different from the Californian version or that of the southern region of the nation.

There is substantial heterogeneity among individuals in communality within both individualistic and collectivistic cultures and even greater intra-individual variation in communality across social relationships with family members, friends and colleagues (Matsumoto, Kudoh, & Takeuchi, 1996). There are generational and socioeconomic variations in collectivistic cultures with younger and more affluent members adopting more individualistic orientations. Moreover, people express their cultural orientations conditionally rather than invariantly depending on incentive conditions (Yamagishi, 1988).

There are collectivists in individualistic cultures and individualists in collectivistic cultures. Regardless of cultural background, people achieve the greatest personal efficacy and productivity when their personal orientation is congruent with the social system (Earley, 1994). Thus, American collectivists do better under a group-oriented system, Chinese individualists do better under an individually oriented system. The personal orientation rather than the cultural orientation is a major carrier of the effects. Both at the societal and individual level of analysis, a strong perceived efficacy fosters high group effort and performance attainments.

Cultures are no longer insular. Transnational interdependencies and global market forces are restructuring national economies and shaping the political and social life of societies. Advanced telecommunications technologies are disseminating ideas, values and styles of behavior transnationally at an unprecedented rate. The symbolic environment feeding off communication satellites is supplanting national cultures to some extent and homogenizing collective consciousness. With further development of the Internet world, people will be even more heavily embedded in global symbolic environments. In addition, mass migrations of people are changing cultural landscapes. Moreover, in an effort to increase their leverage over growing transnational control, nation states are merging into larger functional blocks. These regional mergers require some relinquishment of national sovereignty and changes in some traditional ways of life. These new realities call for broadening the scope of cross-cultural analyses beyond the focus on the social forces operating within the boundaries of given societies to the forces impinging upon them from abroad. With growing international imbeddedness and interdependence of societies, the issues of interest center on how national and global forces interact to shape the nature of cultural life.

### **Underminers of collective efficacy in changing societies**

Life in the societies of today is increasingly shaped by transnational interdependencies (Keohane, 1993; Keohane & Nye, 1977). Because of extensive global interconnectedness, what happens economically and politically in one part of the world can affect the welfare of vast populations elsewhere. The transnational forces, which are hard to disentangle let alone control, challenge the efficacy of governmental systems to exert a determining influence on their own economic and national life. As the need for efficacious collective effort grows, so does the sense of collective powerlessness. Many of the contemporary conditions of life undermine the development of collective efficacy.

Some of the transnational market forces may erode or undermine valued cultural aspects of life when they are disregarded or considered detractors from profitability. Social bonds and common commitments that lack marketability are especially vulnerable to erosion by global market forces unfettered by social obligation. The specter of failure in international competition is often invoked to justify inequitable economic practices and reduction in social obligations that serve the common good. There are no handy social mechanisms or global agencies through which people can shape and regulate transnational practices that affect their lives. As nations wrestle with the loss of control, the public express disillusionment and cynicism over whether their leaders and institutions can work for them to improve their lives.

Under the new realities of growing transnational control, nation states increase their controlling leverage by merging into larger regional units such as the European Union. Other regional nation states will similarly be forced to merge into larger blocks, otherwise they will have little bargaining power in transnational relations. These regional marriages are not achieved without a price. Paradoxically, to gain international control nations have to negotiate reciprocal pacts that require some loss of national autonomy and changes in traditional ways of life (Keohane, 1993). Some sectors of society gain from the pacts, others lose. Disparate effects create disputes within societies between the winners and losers.

Modern life is increasingly regulated by complex technologies that most people neither understand nor believe they can do much to influence. The very technologies that people create to control their life environment paradoxically can become a constraining force that,



in turn, controls how they think and behave. The social machinery of society is no less challenging. Bureaucracies thwart effective social action. Many of the bureaucratic practices are designed more to benefit the people who run the social systems than to serve the public. Social change does not come easily because beneficiaries build their privileges into protective institutional structures and processes. Those who exercise authority and control wield their power to maintain their advantages. Long delays between action and noticeable results discourage efforts at change.

Social efforts to change lives for the better require merging diverse self-interests in support of common core values and goals. Disagreements among different constituencies create additional obstacles to successful collective action. The recent years have witnessed growing social fragmentation into separate interest groups, each exercising its own power. Pluralism is taking the form of antagonistic factionalism. In addition, mass migration of people fleeing tyranny or seeking a better life is changing cultural landscapes. Societies are thus becoming more diverse and harder to unite around a national vision and purpose.

The magnitude of human problems also undermines perceived efficacy to find effective solutions for them. Profound global changes, arising from burgeoning populations, deforestation, desertification of croplands, ozone depletion and rapid extinction of species by razing their habitats are destroying the intertwined ecosystems that sustain life. Worldwide problems of growing magnitude instill a sense of paralysis that there is little which people can do to reduce such problems. Global effects are the products of local actions. The strategy of "Think globally, act locally" is an effort to restore in people a sense of efficacy that they can make a difference. Macrosocial applications of sociocognitive principles via the electronic media illustrate how small collective efforts can have huge impacts on such urgent global problems as the soaring population growth (Singhal & Rogers, 1989; Vaughan, Rogers, & Swalehe, 1995; Westoff & Rodriguez, 1995).

Theories are judged by their explanatory and predictive power. But in the final analysis, the value of a psychological theory must also be judged by its operative power to improve the quality of people's lives. The rapid pace of social, informational and technological change is placing a premium on the ability for self-development and continual self-renewal at both the individual and societal level. Self-regulatory efficacy is gaining primacy in diverse spheres of life. For example, in the educational domain, students now have the best libraries, laboratories, museums and multimedia education at their fingertips through the Internet anywhere, anytime. This enables them to exercise greater control over their own education. Self-regulatory efficacy is similarly playing a key role in occupational pursuits in the modern workplace, where knowledge and skills must be continually upgraded; otherwise they are rapidly outmoded. There has been a major change in the conception of health from a disease model to a health model. By exercising control over several health habits, people can live longer, be healthier and slow the process of biological aging. Social cognitive theory lends itself readily to social applications that enable people to enhance their well-being and individual and collective accomplishments.

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