Science provides an accurate and verifiable understanding of the complex world. The physical sciences (astronomy, chemistry, and physics) were first to develop with Newtonian physics providing a simple, elegant, and mechanical explanation of the natural world. Chemists discovered the basic elements and these elements served as the building blocks for understanding the structure and formation of complex objects. Biological sciences emerged next by providing a physiological blueprint and an understanding of diverse life forms. Quantum physics extended the boundary of science by providing a probabilistic understanding of phenomena that are dynamic and fluid. These scientific understandings of the natural world and technologies have been used to control and shape the environment.

Psychology emerged as an independent discipline in 1879 when Wilhelm Wundt established a psychology laboratory in Leipzig (Boring, 1921). Within a short period, psychology began to flourish as a discipline and became very successful in terms of the number of students, faculty members, research projects, funding, and professional organizations. In terms of its scientific status, however, psychology experienced a crisis of confidence in the late 1960’s (Cronbach, 1975; Lachenmeyer, 1970; Levine, 1974). Elms (1975) noted that “whether they are experiencing an identity crisis, a paradigmatic crisis, or a crisis in confidence, most seem agreed that a crisis is at hand” (p. 967). During this time, scholars around the world reacted against unjustified claims of universality and called for the
development of indigenous psychologies (Kim & Berry, 1993; Sinha, 1997). The criticism of general psychology can be divided into those who questioned its external validity and those who questioned its internal validity (Kim & Berry, 1993).

Many scholars have pointed out that psychological theories reflect the values, goals, and issues of the United States (abbreviated as U.S.) and that they are not generalizable to other societies (Kim & Berry, 1993). In Canada, Berry (1974) has been critical of the culture-bound and culture-blind nature of psychology and argued for the development of psychology that is relevant to Canada. In France, Moscovici (1972) pointed out that American psychologists adopted “for its themes of research and for the contents of its theories, the issues of its own society” (p.19). Nsamenang (1995) pointed out that “psychology is ethnocentric science, cultivated mainly in the developed world and then exported to sub-Saharan Africa” (p. 729). Azuma (1984) noted that the development of a truly universal discipline is limited due to errors of omission: “When a psychologist looks at a non-Western culture through Western glasses, he may fail to notice important aspects of the non-Western culture since the schemata for recognizing them are not provided by his science” (p. 49). Even U.S. psychologists recognize that theories in general psychology reflect the cultural values and goals of the U.S. (Brandt, 1970; Cartwright, 1979; Koch & Leary, 1985; Sampson, 1977).

Others scholars question the internal validity of general psychology (Bandura, 1997, 1999; Cronbach, 1975; Gibson, 1985; Harré, 1999; Kim, 1999; Sampson, 1978). Modeling after Newtonian physics, general psychology attempted to develop objective, abstract, and universal theories by excluding the subjective aspects of human functioning (i.e., consciousness, agency, meaning, and beliefs). Although the concepts of agency and consciousness were central in the theories developed by Wilhelm Wundt and William James, subsequent theorists have expunged them. Koch (1985) pointed out that behaviorism “marks the transition in American psychology between indigenous color and indigenous substance” (p. 25). Although psychology was founded and developed in Europe, it became indigenized and institutionalized in the U.S.

**GENERAL AND CROSS-CULTURAL PSYCHOLOGY**

In general psychology, the goal is to discover a linear, objective, and lawful relationship between an independent variable (e.g., stimulus, reinforcement, or information) and the dependent variable (i.e., response or behavior) (see Figure 1). Subjective aspects that are not directly observable (e.g., consciousness, agency, intentions, and beliefs) are considered to be noise and eliminated from the research design. Unobservable concepts are linked to the independent and dependent variables as intervening...
variables (Kimble, 1985). The mind is considered to be a black box and individuals are organisms with a brain that stores a history of reinforcement: “Brains are merely repositories for past stimuli inputs and conduits for external stimulations, but they can add nothing to their performance” (Bandura, 1999, p. 22).

With the advent of the computer, the central processor replaced the generic black box. The human brain and neural network is viewed as a digital computer that performs multiple, complex, and dynamics operations using preordained rules (Bandura, 1999). Shweder (1991) pointed out that “epistemologically speaking, knowledge-seeking in general psychology is the attempt to get a look at the central processing mechanism untainted by content and context” (p. 80). Knowledge is hierarchically organized and accessed, combined, and integrated without individuals’ awareness (Harré, 1999).

Computer simulations can provide useful information as to how people perceive, process information, and make inferences. Computers, however, lack agency, consciousness, and phenomenology that human beings possess in “thinking about events, planning, constructing courses of action, and reflecting on the adequacy of one’s thinking and actions” (Bandura, 1999, p. 22). Computers operate like human beings because they are programmed to mimic human thought processes. Computers are like mirrors that reflect human thought processes, but they cannot explain them. Since computers lack agency, phenomenology, and generative capabilities, they can only simulate human psychology, but they cannot explain it.

In cross-cultural psychology, researchers have adopted a linear model of causality by arguing that culture is a quasi-independent variable and behavior is the dependent variable (Berry, 1980; Triandis, 1980). Cross-cultural psychologists have defined the field by its comparative methodology and avoided defining and articulating the substance of the discipline (Berry, 1980; Triandis, 1980). They have been interested in examining how a
culture (as a quasi-independent variable) affects the behavior of individuals. For cross-cultural comparisons, researchers typically select cultures using the Human Relations Area File or Hofstede’s (1991) cultural dimensions. These categories or dimensions are, however, mere aggregations and permutations of behavioral and psychological data. Researchers fall into a tautological trap if these cultural categories or dimensions are then used to explain individual differences. In other words, the psychological and behavioral data that are used to categorize cultures cannot be used to explain individual differences. Cross-cultural psychology cannot avoid the problem of circularity as long as it adheres to the linear model of causality.

Indigenous and cultural psychologists attempt to examine, articulate, and analyze the substantive aspects of culture. General and cross-cultural psychologists, however, criticize the development of indigenous psychologies for accumulation of idiosyncratic data, fragmentation, reverse ethnocentrism, moving against the trend of globalization, and violating the law of parsimony (Adamopoulos & Lonner, 2001; Herman & Kempen, 1998; Poortinga, 1999; Triandis, 2000). In general and cross-cultural psychology, new phenomena from different cultures create problems since the field adheres to positivism, tautological conceptualization, and lacks a coherent understanding of culture (Kim & Park, 2005). Since cross-cultural psychology is defined by its comparative method and not by content (Berry, 1980; Triandis, 1980), it has difficulty integrating new, challenging, and diverse information. In mature sciences, such as biology, biological diversity is welcomed and scholars are constantly searching for new species to challenge, expand, and revise existing theories.

Poortinga (1999) criticized the development of indigenous psychologies since the development of multiple psychologies contradicts the scientific requirement of the law of parsimony. This criticism reflects a basic misunderstanding of the requirement of science. The law of parsimony suggests that when there are competing theories, a simple explanation should be chosen over more complex ones. For example, Copernican theory provides a mathematically elegant and more parsimonious explanation than Aristotle’s geocentric view. However, it was empirical evidence that verified Copernican theory and refuted Aristotle’s cosmology. Kepler’s Three Laws of Planetary Motion, the appearance of Haley’s comet, the trajectory of cannon balls, and Galileo’s experiments supported the Copernican view and they led to the discovery of Newton’s Law of Gravitational Attraction. In philosophy, ideas may be equally plausible, but in science empirical evidence is used to verify the most valid position (i.e., empirical evidence and not the law of parsimony is used to validate or refute a particular position).

Although Newton’s theory provides an elegant and universal explanation of mechanical physics, the theory cannot explain the properties of light, electromagnetic radiation, and nuclear fission. Albert Einstein proposed a more complex and elaborate Theory of Relativity and $E = mc^2$
to explain phenomena at the nuclear level that Newtonian physics could not. However, Einstein’s theory breaks down at the quantum level. When Einstein was confronted with the probabilistic causal explanations of quantum physics, he rejected the approach and held steadfast to the deterministic view of science: “I shall never believe that God plays dice with the world” (Musser, 2004). Although it is more parsimonious to accept the deterministic view, results from quantum physics suggest that Einstein’s deterministic view is erroneous (Musser, 2004). In other words, a theory may be parsimonious but wrong. General psychology and cross-cultural psychology may provide parsimonious view of human psychology, but they are not accurate nor universal.

**THE SCIENTIFIC FOUNDATION OF INDIGENOUS PSYCHOLOGY**

Existing psychological theories are not universal since they have eliminated the very qualities that allow people to understand, predict, and control their environment. Bandura (1999) pointed out that “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” (p. 21). As such, “psychology has undergone wrenching paradigm shifts” and “in these transformations, the theorists and their followers think, argue, and act agentically, but their theories about how other people function grant them little, if any, agentic capabilities” (p. 21). He asserted that, “the human mind is generative, creative, proactive, and self-reflective and not just reactive” (p. 22).

In the transaction model, human behavior can be explained in terms of the goals people set for themselves, the skills that they develop, the belief that their behavior can affect the outcome, and the outcome that shapes their actions (Bandura, 1997, 1999; Kim, 2000). People are agents motivated to control their lives and to attain desirable goals and avoid undesirable consequences: “The striving for control over life circumstances permeates almost everything people do throughout the life course because it provides innumerable personal and social benefits” and “unless people believe that they can produce desired efforts by their actions, they have little incentive to act” (Bandura, 1997, p. 1).

Bandura (1999) outlined the social cognitive theory that focuses on people’s capabilities for self-development, adaptation, and change, and identified four features of human agency: intentionality, forethought, self-reactiveness, and self-reflectiveness. He pointed out that people “construct thoughts about future courses of action to suit ever-changing situations, assess their likely functional values, organize and deploy strategically selected options, evaluate the adequacy of their thinking based on the effects
which their actions produce and whatever changes may be necessary” (p. 23). People’s thoughts, emotions, and actions are emergent properties of brain activities not reducible to physiological mechanisms. Although all behavior has a biological and neurological basis, the body and brain do not determine behavior. They are used to control the environment and to realize our goals (Bandura, 1999; Harré & Gillet, 1994). Bandura (1999) noted that “people are agentic operators in their life course, not just onlooking hosts of brain mechanisms orchestrated by environment” (p. 22). The method by which people can exert control over the environment can be direct or indirect and exerted by an individual or in concert with other people.

Two types of direct control over the environment can be identified: primary control and collective control (Bandura, 1997). If a person exerts direct control over the environment, it is an example of primary control (Bandura, 1997). If people work together in concert to manage their environment, it is an example collective control (e.g., democracy). Two types of indirect control can be identified: secondary control and proxy control (Bandura, 1997). If a person obtains assistance from another person in managing the environment, it is an example of proxy control. If a person adjusts to a given environment and self-regulates to adapt to the environment, it is an example of secondary control. The effectiveness of each type of control depends on the context, individual, organization, and culture.

In the transactional model, subjective qualities (e.g., agency, intention, meaning, beliefs, and goals) are the causal link that connects the environment with behavior (Bandura, 1997; Kim, 1999). In this model, it is important to examine how an individual perceives or interprets a particular event or situation (Causal linkage 1). This information can be obtained through self-report (Bandura, 1997). The second step involves assessing how this perception affects, motivates, and directs individuals’ behavior (Causal linkage 2) (see Figure 2).

In a study of management effectiveness, Bandura (1997) told one group that they did much better than average (positive feedback) and
another group that they did much worse (negative feedback). He measured their self-efficacy after they received the predetermined feedback. He found that the positive feedback increased self-efficacy and negative feedback decreased self-efficacy (Causal linkage 1). In the second phase, he measured individuals’ analytical ability and their actual performance on management effectiveness. Those participants with high self-efficacy were more likely to use efficient analytical ability, to perform well, and to be satisfied with their level of performance (Causal linkage 2). The reverse was true for those participants who received negative feedback.

Successful performance can increase self-efficacy, which can motivate individuals to seek more challenging goals (Bandura, 1997). The opposite pattern of results has been found for failure experiences. Successful mastery experiences can also lead to transformative changes in other aspects of a person’s life. In a series of studies of over 400 snake phobics who were tormented for 20 to 30 years, Bandura (2004) was able to treat them in a matter of few hours by increasing their self-efficacy through modeling. He found that the mastery of snake phobia transformed their lives and improved areas unrelated to snake phobia (e.g., reducing their social timidity, becoming self-expressive, and increasing their desire to overcome other fears). Nine large-scale meta-analyses across diverse milieus that used multiple methods, analytical strategies, and experiments were conducted to examine the causal linkage between efficacy beliefs and human functioning. They confirmed the predictive generality of social cognitive theory (Bandura, 2004).

Bandura (1997, 2002, 2004) applied his theory to help people take control of their lives. His theory has been used to teach diabetic children to manage their health, employees to reduce cholesterol levels, patients with coronary artery disease in implementing lifestyle changes, patients with arthritis to manage their pain, and employees, students, and athletes to become higher achievers. The model has also been used to develop radio and television dramas to foster society-wide changes in health promotion and AIDS prevention in Tanzania, India, and Mexico and to reduce fertility rates and elevate the rights of women in China.

INDIGENOUS PSYCHOLOGY

Indigenous psychology represents the transactional scientific paradigm in which individuals are viewed as agents of their action and collective agents through their culture (Kim, 1999, 2000, 2001). In human sciences, people are both the subject and the object of investigation. Although the objective third-person perspective is necessary in psychology, it is not sufficient. We need to supplement it with the first-person experiential perspective (i.e., agency, meaning, beliefs and intention) and the second-person analysis
(e.g., discourse analysis, Harré & Gillet, 1994). We need to obtain an integrated understanding of the first-person, second-person, and third-person perspectives in order to obtain a complete picture of human functioning.

In everyday life people have phenomenological, episodic, and procedural knowledge of how to manage their environment but they may not have the analytical skills to describe how it is done. Since most people do not possess the analytical skills, it is the role of the researcher to help participants articulate their actions analytically. For example, adult native English speakers can freely express their thoughts in English (i.e., procedural knowledge), but they may not know the grammatical syntax or structure (i.e., semantic knowledge). As Wittgenstein points out that, “a description of the grammar of a word is of no use in everyday life; only rarely do we pick up the use of a word by having its use described to us; and although we are trained or encouraged to master the use of the word, we are not taught to describe it” (Budd, 1989, p. 4–5). In human life, both experiential knowledge (e.g., a football player describing his experiences playing a game) and analytical knowledge (e.g., sport commentator providing a play-by-play analysis) are useful information that need to be integrated (e.g., a coach planning strategies for the next game).

Indigenous psychology advocates examining the knowledge, skills, and beliefs people have about themselves, and studying these aspects in their natural contexts. It represents a descriptive approach in which the goal of psychology is to first understand how people function in their natural contexts. It advocates a transactional model of human functioning that recognizes the importance of agency, meaning, intention, and goals. It recognizes that human psychology is complex, dynamic, and generative. Epistemology, theories, concepts, and methods must be developed to correspond to psychological phenomena. The goal is not to abandon science, objectivity, experimental method, and a search for universals, but to create a science that is firmly grounded in the descriptive understanding of human beings. The goal is to create a more rigorous, systematic, universal science that can be theoretically and empirically verified.

CULTURE

Culture is not a variable, quasi-independent variable, or a mere sum of individual characteristics. Culture is an emergent property of individuals interacting with, managing, and changing their environment. Culture represents the collective utilization of natural and human resources to achieve desired outcomes (Kim, 2001). Culture is defined as a rubric of patterned variables. Differences in cultures can exist if people set different collective goals, utilize different methods and resources to realize the goal, and attach different meaning and values on them.
Contrary to popular belief, we do not perceive reality directly or objectively. When we see a tree, the image of the tree is projected in the retina. The three-dimensional tree becomes an inverted two-dimensional image. The image is then sent to our brain through neurotransmission. We do not perceive tree directly or objectively, but it is reconstructed in our brain to be perceived as a tree. We perceive reality through our sense organs and also through symbols and language (see Figure 3). Culture provides human beings with symbolic knowledge to know who we are, define what is meaningful, communicate with others, and to manage the environment. This symbolic knowledge has been transformed into a digital computer language that is able to control machines and to create a new reality known as cyberspace.

Culture is as basic as our physiology. Without culture, human beings would be like other animals, reduced to basic instincts. Without culture, human beings would not be able to think, feel, or behave the way we do. It is through culture that we think, feel, behave, and manage our reality (Shweder, 1991). Just as we use our eyes to see the world, we use our culture to understand our world. Because we think through our culture, it is difficult to recognize our own culture. For a person born and raised in a particular culture, that culture feels supremely natural.

If the focus is on physiology, human limitations are evident. For example, Helen Keller was blind, deaf, and mute. Because of her disabilities, she was trapped in her body, unable to relate to the world and communicate with others. But when she discovered that she could communicate by using sign language, the whole world opened up to her. She was no longer trapped in her body, limited by her disabilities. She learned about the world using sign language and Braille, and she was
able to teach others with disabilities. She lived in a cultural world where she had access to symbols and technology that allowed her to function and contribute to society. Similarly, Stephen Hawkings is able to contribute to theoretical physics although he suffers from severe physical disabilities. The symbolic understanding is a powerful tool that allows human beings to understand, predict, and manage our environment.

To understand a person, it is necessary to know his or her past. A person with amnesia (i.e., without a past) cannot have a sense of personal identity. A person without a future (e.g., imprisoned for life) will have difficulties living in the present. In order to understand a person, we need to know his or her past, present, and future aspirations. Similarly, in order to understand a culture, we need to understand its history, and the present and future aspirations of its people (see Figure 4).

Culture is usually associated with the study of the past (e.g., history, philosophy, art, literature, language, and crafts). The products of culture represent the past, but not the whole of culture. The most important aspect of culture is the people who have created these products. Based on the understanding of the past and the present, people infer what is possible in the future. People work individually and collectively in realizing this possibility by using the available resources and skills.

The culture that people have built for themselves can have a different meaning for their children. If the culture that is created by and for adults is imposed on their children, then it can be perceived as a prison. If the culture that adults have created is incompatible with the aspirations of their children, then their children may modify the culture. Generational conflicts arise since adults use the past to understand the present and use the past to shape the future (Kim et al., 2000). Adolescents, on the other hand, do not share the same past as their parents. Since the younger generation is not bound by the past, they can explore the future more freely and creatively.
CULTURAL TRANSFORMATIONS

In general psychology, behaviorism became the dominant paradigm in psychology emphasizing biology as the basis of all behavior. In psychiatry, Freudian theory has traditionally dominated the conceptualization and treatment of the mentally ill. Experimental psychologists criticize Freudian and neo-Freudian theories for lacking objective methods, verifiable results, and therapeutic rigor. However, both behaviorists and psychiatrists agree that biology is the basis of human psychology. In the third camp, humanists criticize behaviorists and Freudians for their negative portrayal of human beings and for not giving enough attention to human potential. However, in Maslow’s hierarchy of needs, physiological needs are viewed as basic, and the other needs (e.g., self, emotional, relational and social needs) are pursued only once physiological needs are met. The three pillars of psychology assume that biology is basic to human psychology.

Many social scientists have accepted Darwin’s Theory of Evolution and applied the theory to explain psychological, social, and cultural variations. Darwinian Theory assumes that human beings have evolved and survived as a species because we were able adapt to the ecology. The theory is partly right in showing that our adaptive capabilities contributed to our survival. However, human beings were able to adapt and survive not because of physiology and natural instinct, but because we were able to overcome our instincts (Kim, 2003).

Although human beings have not changed biologically and genetically during the past 7,000 years, cultural changes have been rather dramatic. Biology cannot explain cultural developments that are recorded outside of the body and any given individual. Cultural transformations during the last seven millennia have changed the way people understand and manage the environment (Bandura, 1997; Kim, Helgesen, & Ahn, 2002). Modern nations did not evolve in a logical, sequential, or evolutionary manner, but through clash of ideas. People were able to integrate these ideas into new cultural forms (Kim, Aasen, & Ebadi, 2003).

Cultures have undergone significant transformations, from the early Stone Age to the current Information Age. As a physically weak species, human beings were at a constant mercy of predators. We found aids in nature to protect us from predators. Although it is our natural instinct to fear fire, we were able to harness the power of fire and used it for protection and survival. We learned to cook food over the fire, which increased the kind and type of food that we could consume. Fire gave us power to transform formless clay and iron into cups, utensils, houses, and weapons. How could human beings use formless clay to make something that did not exist in nature? We were able to make these things because we had reflective and generative capabilities.
We have learned to domesticate cows, pigs, and chickens as a means of storing and producing food. We have managed to transform the instinct of predators and they are now our pets, guides, and protectors. We cultivate wild rice, wheat, or vegetables to produce food from the land. With the increased agricultural efficiency, irrigation, and storage, enough food could be produced to support a sedentary lifestyle. With an increased number of people, social, legal, and political institutions were created to manage the people who lived in close proximity.

With each succeeding generation, new knowledge accumulated and it was recorded and passed on to the next generation in oral and written form. Industrialization, commerce, and science and technology transformed subsistence economies into modern societies. Currently, democracy and the rule of law protect the right of individuals in which people enjoy a freedom and quality of life unparalleled in human history.

The developments of contraceptive methods and abortion challenge the very assumption of Darwinian Theory and biological determinism. For all animals, except human beings, mating behavior is determined by a fixed-action pattern and innate releasing mechanisms (Tinbergen, 1965).

The propagation and survival of a species is ensured by pleasure derived during the mating process. Human beings, however, have invented contraceptive methods to derive pleasure from sexual intercourse while avoiding pregnancy. In most countries, a woman can legally choose to abort the fetus during the first trimester. Even the most fervent advocate of biological influence, Dawkins (1989), acknowledges that the use of contraception, abortion, and the decrease in fertility rates in economically developed countries cannot be explained by evolutionary biology.

**EAST ASIAN PERSPECTIVE**

In contrast to the Western emphasis on the individuated self, Confucianism focuses on emotions that bind individuals and family members together. The Chinese, Japanese, and Korean word for human being is 人間, which can be translated literally as “human between.” It is not what happens within an individual, but between individuals that makes us human (Kim, 2001). Mencius stated that: “If you see a child drowning and you don’t feel compassion, then you are not human being.” It is compassion that helps us to relate to the child and propels us to take the necessary action to save the child. The human essence is basically relational and can be defined in terms of the emotions people feel for one another. The love, care, and devotion that parents provide to their children are viewed as necessary and essential for a newborn child to become human.
Confucius (551–479 BC) saw the universe and all living things in it as a manifestation of a unifying force called the dao (道, Truth, Unity, or the Way). In humans, dao is manifested in human through the virtues of ren (仁, human-heartedness), yi (義, righteousness), li (禮, propriety), zhi (智, knowledge), and xin (信, trust) (see Figure 5). Human-heartedness is essentially relational and individuals experience it through the love, sacrifice, and devotion of their parents. Individuals are born into a particular family, with a particular status defined by yi (righteousness). Righteousness requires that individuals must perform and fulfill their duties as defined by their particular status and role.

Human-heartedness and righteousness are considered two sides of the same coin. A father fulfils his duties because he loves his son, and he loves his son because he is the father. The primary relationship is the parent-child relationship as defined by xiao dao (孝道, filial piety). Parents demand love, reverence, obedience, and respect from their children. Children expect love, wisdom, and benevolence from their parents. The past, present, and future are not abstract entities, but embodied in relationships. Parents and ancestors represent the past and children represent the future.

Confucius considered society to be hierarchically ordered and that each person has fen (分, portion or place) in life. Each fen had attached
roles, and each person must fulfill these roles. The duties and obligations of each fen are prescribed by li (propriety). Propriety articulates expectations and duties of each individual according to status and role. Social order and harmony are preserved when people observe their place in society and fulfill required obligations and duties.

The fourth virtue is zhi (knowledge). Knowledge is obtained through the socialization of parents and through formal education. The four concepts of human-heartedness, righteousness, propriety, and knowledge are like the two arms and two legs that people are born with; we need to cultivate and develop them in order to know how to use them. Finally, as children mature they need to interact with a wider range of people, including strangers. As such, they need to develop the virtue of xin (trust).

Confucian philosophy provides as rich a context for developing theories about human nature and behavior in East Asia as Greek philosophy has provided in the West. Although it is important to examine indigenous text as a source of information, researchers should not automatically assume that Chinese will follow the Confucian way, or that Hindu Dharma will automatically explain the behavior of Indians. These indigenous texts were developed within a particular culture, and they represent the interests of a particular religious group (e.g., Brahman caste in India) or social class (e.g., the ruling elite in East Asia). In order to use these texts, researchers need to translate them into psychological concepts and theories and empirically verify how they influence how people think, feel, and behave.

It is tempting to use philosophical and religious texts to explain the behavior of the Asians, but researchers must be cautious of their limitations. First, these texts could be used as a formal descriptive model, but they may not be suitable as an explanatory model. Philosophical or religious ideas are used as general guidelines, but very few people follow these guidelines meticulously. Second, within a particular culture, there are competing philosophies, religions, and worldviews. For example, Buddhism outlines a universal conception of self, relations, and society in East Asia. In addition, native religions such as Shamanism in Korea, Shintoism in Japan, and Daoism in China have influenced both Buddhism and Confucianism. These three epistemologies have mutually influenced each another and have been integrated and blended into a synthetic form (Kim, 1998).

Third, there are biases and blind spots in religious and philosophical traditions. In Confucianism, the father-son relationship is considered primary relationship and the prototype for all relationships. If we examine developmental research in East Asia, the father-son relationship turns out to be secondary, while the mother-child relationship is primary. In traditional East Asian societies, fathers participate in socialization of children after the age of three or four, which is after mothers have socialized children with basic linguistic and social skills. If the father-son relationship is primary, it is difficult to explain how Confucius and Mencius became the
most renowned philosophers even though their father was not alive when they were growing up. It was their mothers who played a primary role in educating them and helping them to succeed.

Fourth, cultures change and religious and philosophical ideas also change with time and social conditions (Kim, Aasen, & Ebadi, 2003). The emphasis on paternalism and sex-role differentiation may have been functional in traditional agrarian societies, but in modern East Asian societies, egalitarian values are replacing traditional values (Kim, 1998; Park & Kim, 2004). In traditional East Asian societies, women were excluded from obtaining an education and participating in society, but this is no longer the case. In Korea, the inheritance laws, divorce laws, and family registry have changed so that women have equal rights with men (Park & Kim, Chapter 19).

Confucian philosophy can be used as a starting point for research, but not as the end point. These philosophical concepts are learned in school as a part of formal education, but they are not psychological or indigenous concepts used in everyday life. It is necessary to translate these philosophical concepts into psychological constructs. In Korea, the concept of jung (情, deep affection and attachment for a person, place, or thing) can be considered a functional equivalent of human-heartedness that is indigenous and used in everyday language (Choi & Kim, Chapter 15; Kim & Park, 2004a). In Japan, amae (defined as the act of asking and receiving special favors in close relationships) could also be a psychological equivalent (Kim & Park, 2004a; Kim & Yamaguchi, 1995; Yamaguchi, Chapter 6). Although jung and amae have very different denotations, psychological analysis reveals a similar pattern of results, capturing the essence of human-heartedness.

Filial piety can be interpreted as an example of righteousness (Park & Kim, 2004). In Korea, the filial piety of taking care of parents in their old age is not only a moral imperative, but also a legal obligation that everyone must fulfill. The East Asian concepts of loyalty and duty (giri 義理 in Japanese and dori 道理 in Korean) capture the essence of righteousness. Finally, the concept of maintaining one’s face (面子) is an example of propriety (Choi, Kim, & Kim, 1997).

EMPIRICAL ANALYSIS

Philosophy can provide researchers with formal theories that could explain people’s actions. In psychology, empirical analysis is necessary to verify whether philosophical or indigenous ideas actually influence the way people think, feel, and behave. An empirical study was conducted in Korea to examine the basis of trust in interpersonal relationship. In the Confucian model outlined above, trust is based on human-heartedness, righteousness, propriety, and knowledge.
A total of 1,737 matched-sample of adolescents and their parents (274 middle school students, 305 high school students, and 579 mothers and 579 fathers) completed a questionnaire developed by the authors (Kim & Park, 2004b). Adolescents were first asked to rate how much they trust their mother, father, teachers, and friends on a 5-point scale (ranging from highly distrust to highly trust). Parents were asked how much they trust their children, spouse, and teachers. They were then asked to write down why they trusted the target person in an open-ended format. A similar study was conducted with 251 high school students and 268 adolescents on probation (Park, Kim & Tak, 2004).

The first striking result is that majority of Korean adolescents reported trusting their parents much more than themselves (Park et al., 2004). When they were asked the question (Who do you trust the most?), they gave the following response: parents (high school students = 62%, adolescents on probation = 63%), myself (high school students = 19%, adolescents on probation = 8%), friends (high school students = 9%, adolescents on probation = 15%), and other family member (high school students = 7%, adolescents on probation = 10%). These results indicate the important role that parents play. Secondly, adolescents on probation were less likely to trust themselves and more likely to trust their parents and friends as compared to high school students.

The results from the open-ended results revealed the following pattern of results. The most frequent response for adolescents is that they trusted their parents because of sacrifice (mother = 31%, father = 30%); followed by consanguinity or blood relationship (mother = 21%, father = 20%); respect (mother = 15%, father = 13%); dependability (mother = 11%, father = 16%); mutual trust (mother = 13%, father = 11%); and guidance (mother = 10%, father = 10%).

When the parents were asked why they trusted their children, they gave answers that were complementary to those of their children. The most frequent response for both mothers and fathers was sincerity (mothers = 32%, fathers = 31%), followed by honesty (mother = 31%, father = 30%), consanguinity (mother = 16%, father = 16%), expectation (mother = 9%, father = 8%), obedience (mother = 6%, father = 9%), and studiousness (mother = 3%, father = 5%). A similar pattern of results was obtained from high school students and adolescents on probation (Park et al., 2004).

These results empirically verify the Confucian idea that human-heartedness, as represented by sacrifice on the part of the parents, is the basis of trust on the part of children. The second most important basis of trust is righteousness, as reflected by the emphasis on consanguinity. The concept of propriety is reflected in the adolescents’ response of dependable and parent’s response of expectation and obedience on the part of the children. The concept of knowledge is reflected in the adolescents’ response of respect for their parents and parents’ response of studiousness of their children.
The emphasis on relationship contrasts with Western theories that view trust as individualistic “encapsulated interests” (Hardin, 1998). In addition, national surveys conducted in Denmark, Japan, Korea, and Sweden provide evidence that trust in relational cultures is different from the trust that develops in individualistic, rights-based cultures (Helgesen & Kim, 2002; Kim & Park, 2005).

**DISCUSSION**

Indigenous psychology represents the transaction model of science in which agency, meaning, intentions, beliefs, and goals are incorporated into research design. It advocates examining the knowledge, skills, and beliefs people have about themselves and how people work together with others in their cultural context. The first step is to provide a descriptive understanding of human functioning. The second steps involves developing theories and concepts that could explain the observed regularities. The goal is to create a more rigorous, systematic and universal science that can be theoretically and empirically verified.

In indigenous psychology, it is important to recognize external impositions that may distort the understanding of psychological phenomena. First, psychologists imposed the natural sciences model to study human beings. In an effort to become an independent branch of science, early psychologists tailored the discipline to fit the natural science paradigm. Although psychologists were able to achieve a modest degree of methodological sophistication, psychological knowledge became distorted. Psychologists have discarded central constructs of agency, consciousness, meaning, and intentions in order to create an objective science.

The second imposition is the assumption of the universality of psychological theories. With very little development, testing, and data, psychological theories are assumed to be universal. This assumption is particularly problematic since most theories are developed in the U.S. and tested mainly on university students in a laboratory setting.

Third, experts or professionals have imposed their views on the lay public. Heider (1958) suggested, “the ordinary person has a great and profound understanding of himself and of other people which, though unformulated or vaguely conceived, enables him to interact in more or less adaptive ways” (p. 2). Based on Heider’s preliminary work, Julian Rotter developed his theory of locus of control and Bernard Weiner developed his attribution theory. These theories are, however, far removed from people’s conceptions of attribution and control and, more important, they possess low internal and external validity (Bandura, 1997; Kim & Park, 2003).

Fourth, indigenous concepts have been analyzed as examples of indigenous psychology. The concept of *philotimo* in Greece (a characteristic...
of a person who is “polite, virtuous, reliable, proud,” Triandis, 1972), anasakti in India (non-detachment, Pande & Naidu, 1992), amae in Japan (indulgent dependence, Doi, 1973), kapwa in the Philippines (shared identity with other, Enriquez, 1993), and jung in Korea (deep attachment and affection, Choi & Kim, Chapter 16) have been analyzed and various culture-bound syndromes have been introduced (Yap, 1974). Although these concepts are interesting, they have limited communicative value to scholars who do not understand language or know the phenomena first-hand. Also, it is difficult to ascertain whether these conceptualizations are accurate and to assess the scientific merit of these indigenous concepts since very little empirical evidence exists to support their claims.

The concept of amae has been the focus of attention with the first publication by Doi (1973). Yamaguchi and Ariizumi (Chapter 6) points out that the concept of amae has been erroneously interpreted as an example of dependence by both Japanese and U.S. researchers (Doi, 1973; Johnson, 1993; Lebra, 1976; Rothbaum, Weisz, Pott, Miyake, & Morelli, 2000). This assertion has been made without a clear definition of amae and empirical evidence to support their views. These are examples of bad research and not of indigenous psychology.

Kim and Yamaguchi (1995) launched an empirical study using an open-ended questionnaire exploring various facets of amae. They administered the questionnaire to a total of 841 respondents living in various parts of Japan: 237 middle school students, 224 high school students, 243 university students, and 137 adults. The results indicated that amae involves an episode between two people: One person requests a specific favor and the other person grants the request. An amae episode occurs in close relationships, usually between a parent and child and between close friends. The special request, which is often demanding and unreasonable, is granted because of the desire to maintain close relationship.

Yamaguchi and Ariizumi (Chapter 6) conducted a series of experiments to analyze different facets of amae. They define amae as the “presumed acceptance of one’s inappropriate behavior or request” (p. 164-165). They have found that Japanese respondents engage in an amae episode in order to obtain a particular benefit through the help of a powerful other (i.e., proxy control) and to verify the close relationship (since only people who are close would be willing to grant an inappropriate request). They conclude that amae cannot be equated with dependence since it involves proxy control. They developed scenarios containing amae episodes and conducted experiments with a sample of Japanese, U.S., and Taiwanese students. They found that the U.S. and Taiwanese respondents were more likely than Japanese respondents to comply with the unreasonable request. They conclude that although amae is an indigenous Japanese word, the psychological features of amae can be found in other cultures. Thus, a series of empirical studies have helped to clarify the confusion created by
Japanese and U.S. researchers. These studies also outline key features of *amae*, which could potentially challenge the attachment and developmental theories developed in the West (Yamaguchi & Ariizumi, Chapter 6).

Finally, as outlined by Tobin, Wu and Davidson (1989), indigenous psychology encourages the use of multiple perspectives, known as the multi-vocal approach. In this approach, in addition to the researchers, participants are allowed to interpret and evaluate the results. Tobin et al. (1987) found that greatest variations across cultures appeared in the way people interpreted and evaluated other people’s behavior.

Indigenous psychology advocates the creation of more rigorous theories based on epistemological and scientific foundation. Indigenous psychology advocates a linkage of humanities (which focus on human experience and creativity) with social sciences (which focus on analysis and verification). In the past century, psychologists have focused most of our attention on internal or external validity and not on practical validity. In other words, do our theories help to understand, predict, and manage human behavior? Bandura (1997) has shown that scientifically valid theory can be applied to various social milieux, using various methods to affect personal change, community change, and a large-scale societal change. In this chapter and also in the chapter by Park and Kim (Chapter 19), theories, concepts and methods developed from indigenous psychology provide more rigorous, valid and verifiable results when compared to general and cross-cultural psychology.

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