COMMENTARY

The Implication of Popper's Anti-inductive Theory for the Development of Indigenous Psychologies

Kwang-Kuo Hwang

Abstract Echoing Kumar's advocacy that psychologists should not ignore Popper, this article received the methodological strategies for attaining the epistemological goal of universal psychology or global psychology as suggested by previous indigenous psychologists and argued that it is impossible for them to attain this goal by the inductive method. The significant implications of Popper's anti-inductive theory for solving this dilemma are emphasized for future progress of indigenous psychologies.

Keywords Epistemological goal · Global psychology · Inductive method · Methodological strategy · Universal psychology

In her article entitled as *Karl Popper, Psychology and Philosophy*, Kumar published in *Psychological Studies Vol. 55(3)* reminded us that psychologists should not ignore Popper. She indicated that Karl Popper started his career as a psychologist, wrote his Ph. D thesis on psychology of thinking, and switched his interest from the psychology to the methodology of problem-solving. His philosophy of science, with its emphasis on the method of trial and error, is largely inherited from the psychology of Otto Selz who laid the foundations for the psychology of scientific discovery (ter Hark 1993, 2000). Popper transformed Selz's anti-inductivist theory of problem-solving into a deductive psychology of knowledge, and asserted that induction is myth; it is not in fact a psychological or scientific reality. Science progresses because it actively looks for and accepts negative evidence and will reject previously held beliefs. He eventually developed his theory of evolutionary objective epistemology by abandoning the psychology of discovery and giving priority to the logic of discovery (Popper 1962, 1972). He charged psychologists with psychologism-attempting to answer a philosophical question by empirical or psychological means.

Popper's view that psychology cannot explain the growth of thinking and his position as one of the most outspoken opponents of a psychological approach to science, may work both ways. As Kumar indicated in her article, very few psychologists study and discuss Popper, but she argued that psychologists should not ignore Popper.

The Implantation of Western Academic Paradigm

I strongly agree with Kumar's arguments. I have devoted myself and thus paid close attention to the development of indigenous psychology for more than thirty years. It seems to me that the popular belief in the methodology of induction prevailing in the community of indigenous psychologists is actually one of the major factors that may hinder its progress.

Most non-Western psychologists have taking an implicit position of naïve positivism in doing psychological research or practice. They implant the Western paradigms of psychological research on the presumption that Western theories of psychology represent a kind of "truth".

Psychologists following this approach may find its problems after a period of practice. For example, Dr. Yung-ho Ko, the most senior professor of clinical psychology in Taiwan who retired in 2000, gave a keynote address with a title of "The Taiwanese Clinical Psychology as I

K.-K. Hwang (✉)
Department of Psychology, National Taiwan University,
Taipei, Taiwan
e-mail: kkhwang@ntu.edu.tw

Dream of' at the 48th Annual Conference of Taiwanese Psychological Association at September 26, 2009. He said:

> I think the most important task for the future development of Taiwanese clinical psychology is the construction of its own theory. Since the historical beginning of clinical psychology in Taiwan, its definition, titles of worker, sites of work for clinical psychologists, instruments and methods of work, theories, textbooks and reading materials, are all imported from America. Half century has passed, the situation remains the same. All clinical psychologists in both academic and practical fields believe that the way of clinical psychology paved by American psychologists cannot be wrong. We may just follow it all the way without any modification.

In preparation of his keynote speech, Professor Ko asked clinical psychologists in Taiwan to fulfill a questionnaire about the theories which they frequently used in practice. The 22 respondents mentioned six of them, including cognitive (81.8%), behavioral (77.3%), elastic (45.5%), client-centered (31.8%), psychoanalytic (22.7%), and existential (22.7%) therapies. "But, they are all imported; none of them is home-made". Therefore, he argued that:

> If we want to have a Taiwanese clinical psychology, it must have one or several core theories, which must be unique to and accountable in Taiwanese culture, it must even be superior to theories imported from anywhere else. Otherwise, our clinical psychology should be called "clinical psychology in Taiwan", rather than "Taiwanese clinical psychology".

Prof. Ko expected that some clinical psychologists may devote themselves to the task of theoretical construction by integrating their previous experience of teaching, practicing, and doing research after they have been promoted to the position of professor. Otherwise, he said, we might expect that clinical psychologists in Taiwan will spend their academic or practical careers like "walking corpse without soul" by following foreign paradigms blindly.

Indigenization Movement of Psychology

Professor Ko raised a problem faced not only by clinical psychologists, but also by the psychologists of other fields in Taiwan. We may even say that it is not only a problem of Taiwan, but also a problem of most non-Western countries.

Dissatisfaction with the transplantation of the Western psychology paradigm originated the indigenization movement. Since 1970s, many non-Western psychologists in such areas as India, the Philippines, Korea, Japan, and Taiwan,

decided to develop indigenous psychology because they recognized that Western paradigms of scientific psychology are often irrelevant to or inappropriate for resolving problems encountered by local people in their daily lives.

They have argued that current mainstream psychology is basically a kind of Westernized or Americanized psychology. Both its theory and research methods contain Western ethnocentric bias. When the Western psychology research paradigm is transplanted blindly to non-Western countries, it is usually irrelevant, inappropriate, or incompatible for understanding the mentalities of non-Western people (Sinha 1988). Such a practice has been regarded as a kind of academic imperialism or colonialism. By ignoring the fact that many Western theories of social psychology are culturally bound, duplication of a Western paradigm in non-Western countries may result in the neglect of cultural factors that may influence the development and manifestations of human behaviors.

Based on such reasoning, many indigenous psychologists have advocated "a bottom-up model building paradigm" (Kim 2000, p. 265) to promote "the study of human behavior and mental processes within a cultural context that relies on values, concepts, belief systems, methodologies, and other resources" (Ho 1998, p. 94), and that treats people "as interactive and proactive agents of their own actions" that occur in a meaningful context (Kim et al. 2000, p. 71). They perform a "scientific study of human behavior (or the mind) that is native, that is not transported from other regions, and that is designed for its peoples" (Kim and Berry 1993, p. 2) in order to develop a "cultural-appropriate psychology" (Azuma 1984, p. 53), "a psychology based on and responsive to indigenous culture and indigenous realities" (Enriquez 1993, p. 158) or a psychology whose "concepts, problems, hypothesis, methods, and tests emanate from, adequately represent, and reflect upon the cultural context in which the behavior is observed" (Adair et al. 1993, p. 149).

The bottom-up model building paradigm implies a methodology of inductive approach. Results of unsophisticated use of this approach have been criticized by mainstream psychologists. For example, Triandis (2000) pointed out that anthropologists have used a similar approach for years, and that accumulating anthropological data with an idiosyncratic approach may not have much significance in terms of contribution to the development of scientific psychology. Poortinga (1999) indicated that the usage of the plural "indigenous psychologies" by many indigenous psychologists suggest an implicit restriction on the potential for development of indigenous psychology. The development of multiple psychologies not only contradicts the scientific requirement of parsimony, but also makes the demarcation of cultural populations a pending problem. If every culture has to develop its own psychol-

ogy, how many indigenous psychologies should there be? How many psychologies would have to be developed for Africa? What is the optimal number of indigenous psychologies? What is the meaning of an indigenous psychology developed in a specific culture to people in other cultures?

The Epistemological Goal of Indigenous Psychology

In order to respond to these challenges, most indigenous psychologists have argued that the development of numerous indigenous psychologies is not their final goal. Rather, their final goal is to develop an Asian psychology (Ho 1998), a global psychology (Enriquez 1993; Yang 1993), a universal psychology (Berry and Kim 1993; Kim and Berry 1993), or a human psychology (Yang 1993). To achieve this goal, they have proposed several research methods or approaches, including the derived etic approach (Berry 1989; Berry and Kim 1993), the metatheory method (Ho 1998), the cross indigenous method (Enriquez 1977, 1993), as well as cross-cultural indigenous psychology (Yang 1997a, b).

It seems to me that the development of Asian psychology, global psychology, universal psychology or a human psychology implies the construction of universal theory to integrate previous findings of indigenous psychologies. Nevertheless, are their proposed research methods or approaches plausible for them to attain those goals?

In order to overcome the barrier to construct theories of universal psychology or global psychology, it is necessary for us to examine the methodological strategies as suggested by those pioneer indigenous psychologists.

The Derived Etic Approach

As noted earlier, most indigenous psychologists advocate the emic approach and emphasize the use of concepts and terms from the local cultural system to understand the meanings of local phenomena. Berry and Kim (1993) regarded the derived etic approach as a necessary step in constructing a more universal psychology. The derived etic approach attempts to integrate the knowledge obtained by the imposed etic and emic approaches through a process of comparison.

At this point a crucial question to ask is: What is nature of the imposed theory to be used by indigenous psychologists in a derived etic approach for constructing a theory of global psychology? If it is a formal theory for interpreting psychological mechanisms of the human mind that is applicable to various cultures (though such assumptions might be falsified by empirical facts), the derived etic

approach proposed by Berry (1969, 1989) is acceptable. On the other hand, if it is a substantial theory referring to an acculturation strategy of integration "where psychology draws upon the ideas, theories, methods, and findings of both [cultures], [and] eventually all societies yield to the generalized universal psychology" (Berry 1993, p. 272), such an advocacy implies repeated use of the inductive method, and its feasibility is dubious. Following this latter approach, no matter how many cultures are studied, results would contribute only "one small step toward a universal psychology" (Berry 1993, p. 260). The final goal of attaining a global psychology would always remain far away.

The Cross-Indigenous Method

Enriquez (1977, 1993) separated indigenous research strategies into *indigenization from within* and *indigenization from without*. The indigenization from without approach is very similar to the imposed etic approach. It advocates importing (Western) psychological knowledge from dominant source cultures to interpret data obtained from the target culture in the third world. Enriquez strongly opposed this approach. Instead he advocated the indigenization from within approach using "the local languages and cultures as sources for theory, method, and praxis" (Enriquez 1993, p. 163). In order to increase the generalizability of research findings in indigenous psychology, he proposed a cross-indigenous method that entailed using various cultures as the sources for cross-indigenous psychology, expecting to broaden the database for building a global psychology.

The focus of Enriquez's (1977, 1993) discourse is on language and culture. His cross-indigenization method is subject to the dilemma of the inductive approach if it results in a substantial psychological theory with higher generalizability amongst different cultures. Though it is expected that "with the cross-indigenous approach, not only can universal regularities be discovered, but also the total range of a phenomenon investigated is increased" (Kim and Berry 1993, p. 11), there are still some doubts about "how such an integration of knowledge derived in different cultural systems [can] actually be realized" (Poortinga 1997, p. 361). Even Enriquez (1993) himself admitted "cross-cultural psychology will remain a promise so long as indigenous psychologies remain untapped because of language and cultural barriers" (p. 154).

Metatheory Approach

Indigenous psychologists argue that blindly adopting imported foreign theories may raise the risk of ethnocentric

pitfalls, since these theories contain many concepts that are alien to the target culture. However, Ho (1988, 1998) argued that relying on indigenous concepts alone might lead to similar difficulty, and would not eliminate the fundamental predicament of culturocentrism. Ho (1998) distinguished theories along an indigenous-exotic dimension. Indigenous theories are constructed on the basis of values and concepts of the target culture and represent an insider's viewpoint. In contrast, exotic theories are produced with values and concepts alien to the target culture and represent an outsider viewpoint. In order to eliminate the potential incongruence between various theories, Ho proposed development of a meta theory by comparing indigenous and exotic theories in terms of contents, theorists, and cultures.

His approach also implies the potential difficulty of using an inductive approach. Ho's meta theory thus constructed is just a mini-meta theory. "It may be expanded for multicultural and even holocultural studies in which the target universe includes all known cultures in the whole world" (Ho 1998, p. 93). Ho's proposal raises the question: To what extent should the target universe of such a mini-metatheory be expanded to include all known cultures in the world?

Cross-Cultural Indigenous Psychology

K. S. Yang (1993) supported Enriquez's (1989) distinction between exogenous indigenization and endogenous indigenization, or indigenization from without and indigenization from within. He argued that the psychology established by the exogenous indigenization approach is just a kind of exogenous indigenous psychology:

> Such psychology adopts culture and history from other societies (usually Western countries), but not their own as the origin of thinking. It is roughly a kind of deformed Western psychology, and fails to represent validly the characteristics and genuine phenomena of local society, culture and history. So, I don't admit it as real indigenous psychology. What we mean by indigenous psychology is restricted to endogenous indigenous psychology, and that is what we seek. (K. S. Yang 1993, p. 44)

Yang further divided indigenous psychology into monocultural indigenous psychology and cross-cultural indigenous psychology, and argued that Westernized or Americanized psychology is also a kind of monocultural indigenous psychology. The construction of regional psychological theories cannot merely rely on monocultural indigenous studies, but must integrate related knowledge from several indigenous psychologies through cross-cultural indigenous studies (K. S. Yang 1997a, b, 2000).

At first glance Yang's arguments are very similar to Enriquez's. But, Yang goes on to discuss the integration procedure from the perspectives of content and approach. So far as content is concerned, he proposes two types of integration: empirical and theoretical. Empirical integration "rests mainly on the common characteristics (components, processes, constructs, structures, or patterns) and functions shared by all the compared indigenous psychologies" (K. S. Yang 2000, p. 258).

With respect to theoretical integration, Yang argues that "if a psychological theory is able to adequately understand, explain and predict psychological and behavioral phenomena in a certain domain across two or more cultures, it may be said that the theory integrates the phenomena in that domain for those cultures" (Yang 2000, p. 258). His proposal is very similar to the derived etic approach advocated by Berry. But the question remains, with insistence on the cross-cultural indigenous psychology approach, who would be able to construct a theory to integrate the common characters and functions shared by all of the compared indigenous psychologies?

The Philippino Experience

Though pioneers of indigenous psychologies have suggested so many methodological strategies for constructing universal psychology, so far as I know, no theory of global psychology, human psychology, universal psychology, or even Asian psychology has been constructed by using any of these strategies. Let's take the case of Philippine as an example to see the crux of the matter.

On October 23, 2009, Dr. Pe-Pua of University of New South Wales visited the department of psychology at the National Taiwan University and delivered a lecture on *Capturing the Theoretical Contributions of Indigenous Psychology,* which was eventually changed to *Musings (Reflections) of Someone in Search of Theory.* The content of her lecture reflected the common problems encountered by non-Western psychologists in their efforts to develop indigenous psychology.

Dr. Pe-Pua was a former student of Prof. Enriquez, who was the founder of Filipino indigenous psychology. He established the Philippine Psychology Research House in 1971, the National Association of Filipino Psychology in 1975, and began to teach the course *Sikolohiyang Pilipino* since 1978 with the aim of liberating Filipino psychology from academic colonization (Enriquez 1992). He wished to develop Filipino indigenous psychology to attain cultural empowerment for the Philippine people (Enriquez 1994).

Enriquez passed away in 1994. A new generation of leaders has emerged from the National Association of Filipino Psychology. They are trying to apply knowledge of

indigenous psychology, particularly in the field of counseling psychology. They also attempt to develop indigenous research methods for conducting empirical research. But they found it relatively difficult to publish their research findings in international journals and to attract the attention of the international community of psychologists. Pe-pua believed that in order to enhance the international visibility of their indigenous psychology, there is an urgent need to develop robust theories using their research works.

Conclusion

Enriquez's methods of *indigenization from within* and *cross-indigenization* involve the dilemma of inductive approach. Such methods enable collecting fragmentary data by empirical approach, but it is very difficult to construct theory using this approach. The Philippine experience and developments in other parts of the world enable us to see the value of Kumar's advocacy for emphasizing Popper's anti-inductive theory of objective epistemology. It has significant implications for solving the dilemma encountered during the development of indigenous psychology. Speaking more specifically, it is impossible for indigenous psychologists to construct universal psychology theories using the inductive method. As I emphasized in my book entitled *Confucian Relationalism: philosophical Reflection, Theoretical Construction, and Empirical Research* (Hwang 2009), what they *can* do is to use creative imagination and rational criticism to construct formal theories with regard to universal psychological functions or operations which are supposed to be applicable to various cultures. They can then use these theories to analyze the unique mentality of a given culture. If an indigenous psychologist insists on the positivist inductive method to construct a substantial theory suitable for a given culture first, and then integrate the developed theories into a theory of universal psychology, he will certainly encounter many methodological and/or epistemological difficulties.

References

Adair, J. G., Puhan, B. N., & Vohra, N. (1993). Indigenous of psychology: empirical assessment of progress in Indian research. *International Journal of Psychology, 28*, 149–169.

Azuma, H. (1984). Psychology in a non-Western culture: the Philippines. *Psychological Bulletin, 102*, 272–292.

Berry, J. W. (1969). On cross-cultural comparability. *International Journal of Psychology, 4*, 119–128.

Berry, J. W. (1989). Imposed etics-emics-dervied etics: the operationalization of a compelling idea. *International Journal of Psychology, 24*, 721–735.

Berry, J. W. (1993). Psychology in and of Canada: One small step toward a universal psychology. In U. Kim & J. W. Berry (Eds.), *Indigenous psychologies: Research and experience in cultural context* (pp. 260–275). Newbury Park: Sage.

Berry, J. W., & Kim, U. (1993). The way ahead: From indigenous psychologies to a universal psychology. In U. Kim & J. W. Berry (Eds.), *Indigenous psychologies: Research and experience in cultural context* (pp. 277–280). Newbury Park: Sage.

Enriquez, V. (1977). Filipino psychology in the Third World. *Philippine Journal of Psychology, 10*, 3–18.

Enriquez, V. (1989). *Indigenous psychology and national consciousness*. Tokyo: Institute of the Study of Languages and Cultures of Asia and Africa.

Enriquez, V. (1992). *From colonial to liberation psychology: The Philippine experience*. Quezon City, Philippines: University of the Philippines Press.

Enriquez, V. (1993). Developing a Filipino psychology. In U. Kim & J. Berry (Eds.), *Indigenous psychologies: Research and experience in cultural context* (pp. 152–169). Newbury Park: Sage.

Enriquez, V. (1994). *Pagbabangong-dangal: Indigenous psychology and cultural empowerment*. Quezon City: Akademyang Sikolohiyang Pilipino.

Ho, D. Y. F. (1988). Asian psychology: a dialogue on indigenization and beyond. In A. C. Paranjpe, D. Y. F. Ho, & R. W. Rieber (Eds.), *Asian contributions to psychology* (pp. 53–77). New York: Praeger.

Ho, D. Y. F. (1998). Indigenous psychologies: Asian perspectives. *Journal of Cross-cultural Psychology, 29*(1), 88–103.

Hwang, K. K. (2009). *Confucian relationalism: Philosophical reflection, theoretical construction, and empirical research*. Taipei: Psychological Publishing Co (in Chinese).

Kim, U. (2000). Indigenous, cultural, and cross-cultural psychology: a theoretical, conceptual, and epistemological analysis. *Asian Journal of Social Psychology, 3*(3), 265–287.

Kim, U., & Berry, J. (1993). Introduction. In U. Kim & J. Berry (Eds.), *Indigenous cultural psychologies: Research and experience in cultural context* (pp. 1–29). Newbury Park: Sage.

Kim, U., Park, Y. S., & Park, D. (2000). The challenger of cross-cultural psychology: the role of the indigenous psychologies. *Journal of Cross-Cultural Psychology, 31*, 63–75.

Poortinga, Y. H. (1997). Towards convergence? In J. W. Berry, Y. H. Poortinga, & J. Pandey (Eds.), *Handbook of cross-cultural psychology (Vol. 1, Theory and method)* (2nd ed., pp. 347–387). Boston: Allyn & Bacon.

Poortinga, Y. H. (1999). Do differences in behavior imply a need for different psychologies? *Applied Psychology: An International Review, 48*(4), 419–432.

Popper, K. (1962). *Conjectures and refutations*. London: Routledge.

Popper, K. (1972). *Objective knowledge: An evolutionary approach*. Oxford: Oxford University Press.

Sinha, D. (1988). Indigenization of psychology in India and its relevance. *The Indian Journal of Social Science, 1*, 77–91.

ter Hark, M. (1993). Problems and psychologism: Popper as the Heir to Otto Selz. *Studies in History and Philosophy of Science, 24*, 585–609.

ter Hark, M. (2000). Popper, Otto Selz and the rise of evolutionary epistemology: uncertainty, vagueness and psychological indeterminacy. *Synthese, 124*, 193–220.

Triandis, H. C. (2000). Dialectics between cultural and cross-cultural psychology. *Asian Journal of Social Psychology, 3*, 185–195.

Yang, K. S. (1993). Why do we need to develop an indigenous Chinese psychology? *Indigenous Psychological Research in Chinese Societies, 1*, 6–88 (In Chinese).

Yang, K. S. (1997a). Indigenizing Westernized Chinese psychology. In M. H. Bond (Ed.), *Working at the interface of cultures: Eighteen lives in social science* (pp. 63–76). London: Routledge.

Yang, K. S. (1997b). Towards an indigenous Chinese psychology: a selective review of methodological, theoretical, and empirical accomplishments. *Chinese Journal of Psychology, 41*(2), 181–211.

Yang, K. S. (2000). Monocultural and cross-cultural indigenous approaches: the royal road to the development of a balanced global psychology. *Asian Journal Asian Journal of Social Psychology, 3*(3), 241–263.