Philippine Psychological Sciences: Opportunities and Challenges for Development

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In recent decades, global psychological research has grown considerably, so much so that some researches on the development of sciences have suggested that psychological science is now one of the major hubs of scientific work (Boyack, Klavans, & Borner, 2005), distinct from the other social sciences and similar to chemistry, physics, and the biological sciences. A guick search of the leading indexing and abstracting system of psychology journals, PsycInfo, indicates that there are now in the list some 2,447 journals. How has Philippine psychology developed amidst this growth on the global scale? This paper addresses the question by examining data on research training and knowledge production of Philippinebased psychologists. The data are reviewed with the goal of identifying the areas of growth and opportunities for further development, and also discussing the constraints and challenges that characterize these developments.

DEFINING THE SCOPE OF THE REVIEW

As with many other social science disciplines, psychology comprises researchers and practi-tioners who represent the knowledge production and knowledge application dimensions of the discipline, respectively. Although these two dimensions are not mutually exclusive and are actually interdependent, this review will focus on developments in the knowledge production dimension for two reasons. First, data on the practice of professional psychologists in the Philippines are guite sparse, which makes it difficult to analyze any trends. Second, the knowledge production dimension provides a better indicator of growth in the discipline, it being the basis of professional practice of psychology (however, recent observations seem to suggest otherwise, e.g., Baker, McFall, & Shoham, 2008).

The review will focus on three main data sources: (a) data on enrolment and graduation in graduate education programs (MA and PhD) in psychology, (b) data on the flagship psychology journal in the Philippines, and (c) data on international publications of Philippine-based psychologists.

RESEARCH TRAINING OF PHILIPPINE PSYCHOLOGISTS

One important indicator of development in any scientific discipline is growth in the research training system or the graduate education system in that discipline. Enrolment data from the Commission on Higher Education (CHED) for the academic years 2000 until 2007 indicate that the enrolment figures for psychology programs are quite substantial, although there is no clear positive

Table 1 Enrolment in Master's and Doctoral Programs in Psychology						
Academic Year	Master's Programs	Doctoral Programs				
2000-2001	1,135	95				
2001-2002	2,219	186				
2002-2003	1,382	165				
2003-2004	1,213	96				
2004-2005	999	116				
2005-2006	1,139	171				
2006-2007	1,195	246				

Table 2Graduates in Master's and Doctoral
Programs in Psychology

Academic Year	Master's Programs	Doctoral Programs
2000-2001	213	9
2001-2002	108	14
2002-2003	85	17
2003-2004	57	8
2004-2005	193	17
2005-2006	172	11
2006-2007	177	19
Total	1,005	95

or negative trend over the seven-year period (see Table 1).

The CHED data on the number of graduates also indicate a stable flow of new graduate degree holders in psychology (see Table 2). On the average, there were 143.6 new MAs and 13.5 new PhDs in psychology every year in the past seven years. There are probably a few psychologists who earned their master's and doctoral degrees in psychology from foreign universities in those years, as well. All this adds to a rather sizable population of individuals with the graduate credentials that prepare them to contribute to the advancement of psychological knowledge. If we consider that all the graduates of these master's and doctoral programs are required to complete a research project for their thesis or dissertation requirements, we can interpret Table 2 as also indicating some new contributions to psychological knowledge.

However, if we look at the institutions that offer these graduate programs in psychology, we will note that the geographic distribution of these programs is quite skewed. As of 2008, there are 31 higher education institutions (HEIs) that offer master's degree programs in psychology, and seven that offer doctoral degree programs. However, 74.19 percent of all institutions offering the master's degree in psychology are in Luzon, and 45.16 percent of all the programs are in Metro Manila. The other 16.13 percent of the master's programs are in Mindanao and the remaining 9.68 percent are in the Visayas. The skewed geographic distribution of the graduate programs in psychology is even more problematic at the doctoral level, where five out of the seven (or 71.43%) institutions offering doctoral degree programs in psychology are in Luzon, and four out of the seven (or 57.14%) are in Metro Manila. The other two are both in Mindanao, and there are no doctoral programs in psychology in the Visayas.

Even if we assume that psychologists in Visayas and Mindanao may attend graduate programs in Metro Manila and Luzon, there is still a concern about whether the psychologists being trained are adequately dispersed in all parts of the country. The skewed geographic distribution of trained psychologists has implications for the locus of knowledge production in psychology as well. We will examine this implication in the following sections that look into publications of psychology research produced by Philippine psychologists.

PUBLICATIONS IN THE *PHILIPPINE JOURNAL* OF PSYCHOLOGY

I previously published a survey of Philippine publications from 1986 to 1996 (Bernardo, 1997), and the survey included publications of scholars affiliated with psychology departments, including books and articles in non-psychology journals (e.g., public administration, industrial relations, education) and also university-based journals. In the present paper, for purposes of assessing the current state of psychology knowledge production in the Philippines, I decided to focus only on journal publications mainly because such publications are considered to be the preferred medium for disseminating the most important knowledge productions in the discipline worldwide. I also decided to focus only on psychology journals so as to ensure that the publication is considered to be a contribution to the discipline of psychology (e.g., it is possible that the publication in an education journal is not actually a psychological study, even if the author is a psychologist). Finally, I excluded universitybased publications because there is no guarantee of peer-reviewing and editorial standards, and such publications only publish works of faculty members of the university.

All these considerations point to a survey of the *Philippine Journal of Psychology (PJP)* which is the flagship journal of the Psychological Association of the Philippines (PAP), and is the principal venue for publishing psychology research in the Philippines. The first volume was published in 1968, and it is currently published biannually. From 1994 to 2008, 15 volumes were published. The volumes until 1998 had only one issue, but all subsequent volumes had two issues. The 2002 volume was excluded in the analysis because it was a special double issue that reprinted a selection of the most significant articles published in the journal since its first volume (in commemoration of the 40th anniversary of PAP).

In this section, the articles published in the 14 volumes of original publications were analyzed. There was a total of 141 articles published, for an average of 10.07 new original articles every year. However, some of the articles were authored by foreign psychologists (China, South Africa, United States); the actual number of articles published by Filipino psychologists from 1994 to 2008 is 133. I analyzed these 133 articles in terms of authorship (nature of authorship, institutional affiliations, geographic location) and in terms of substantial elements (topic and research approach).

Type of authorship

The various articles were first categorized in terms of the type of authorship, which was either (a) sole authorship, (b) co-authorship among Filipino psychologists, (c) lead authorship with foreign co-author(s), or (d) co-authorship with a foreign psychologist as lead author. Table 3 summarizes the results of this categorization.

Table 3 Type of	of Authorship for	Articles Published in the	Philippine Journal	of Psychology
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1994-1998	1999-2003	2004-2008	Total	
18	39	41	98	
1	5	24	30	
1	2	1	4	
0	0	1	1	
20	46	67	133	
	18 1 1 0	18 39 1 5 1 2 0 0	18 39 41 1 5 24 1 2 1 0 0 1	18 39 41 98 1 5 24 30 1 2 1 4 0 0 1 1

Individual research seems to be the norm among Filipino psychologists who publish their work as indicated by the fact that 73.7 percent of all publications are sole authorship papers. However, there is a trend towards collaboration in recent years, with the percentage of singleauthored papers declining from 90 percent during the first five years surveyed, to 84.8 percent during the next five years, and to 61.2 percent in the most recent five years. Most notably, collaborative projects among Filipino psychologists increased dramatically over the 15-year period. Only five percent of the papers were co-authored by a team of Filipino psychologists, but this percentage increased to 10.9 percent and 35.8 percent in the next two five-year periods. Collaborative projects with foreign psychologists only accounted for 3.76 percent of all the publications during the 15-year period, and all but one of these papers had a Filipino psychologist as lead author.

This trend towards more collaborative knowledge productions may be a good sign that may remedy the skewed geographic distribution of research training programs or graduate education programs in the country. This remedy may take the form of collaborations among Filipino psychologists in different geographic regions of the country. However, the results of the institutional affiliations and geographic locations of the authors and co-authors described in the next subsections indicate that such is definitely not the case.

Institutional affiliation of authors

Table 4 summarizes the institutional affiliation of the authors of the 133 articles. Many of the articles were co-authored, some of which were coauthored by psychologists from different institutions; thus, the figures in Table 3 do not add up to 133.

We again can see a skewed distribution of institutions, but this time referring to the institutional affiliation of the psychologists who published in the flagship psychology journal of the Philippines. Over the 15-year period, 79.70 percent or nearly four out of every five articles in the PJP was authored by a psychologist from three schools in Metro Manila: Ateneo de Manila University (ADMU), De La Salle University (DLSU), and the University of the Philippines Diliman (UP Diliman). But there is actually an improvement in the past 15 years. In the first five years surveyed (1994 to 1998), nearly all of the papers published were authored by psychologists from the three universities; that adds up to 90 percent of the 20 articles published. In the next five years surveyed (1999 to 2003), there were eight articles published by psychologists from four other schools, although psychologists from the three schools still authored 82.61 percent of all the papers published in the journal during the period. In the last five years surveyed (2004 to 2008), there were authors from 20 schools and institutions other than the three big Metro Manila universities, some of whom co-

Institution	1994-1998	1999-2003	2004-2008	Total
teneo de Manila University	10	21	26	57
e La Salle University	6	12	13	31
niversity of the Philippines – Diliman	2	5	11	18
1iriam College	0	3	3	6
e La Salle – College of Saint Benilde	0	0	3	3
iman University	0	0	2	2
iversity of Santo Tomas	0	0	2	2
iversity of the Philippines in the Visayas	0	1	1	2
niversity of the Philippines – Los Baños	0	0	2	2
thers	1	4	14	19

Table 4. Institutional Affiliation of Authors who Published in the Philippine Journal of Psychology

authored their papers with psychologists from the three universities. Still, psychologists from the three big schools authored or co-authored 73.13 percent of all the papers published in the *PJP* during the five-year period.

Geographic location of authors

The geographic location of the psychologists who authored the articles published in the PJP shows a different dimension to the skewed distribution of the psychologists' affiliation. The pertinent data are summarized in Table 5, which shows that in the first five years surveyed, all the authors were based in institutions in Metro Manila. In the second five years surveyed, only four papers were authored by psychologists outside Metro Manila (from Visayas), with Metro Manila-based psychologists accounting for 91.30 percent of all publications during the period. The situation improved only slightly during the last five years surveyed, with ten psychologists outside Metro Manila authoring papers (two co-authoring with Metro Manila psychologists). Psychologists from

Metro Manila still accounted for 88.06 percent of all the articles published during this period. All the data so far indicate a highly localized production of psychological knowledge in Metro Manila, and in three institutions in particular. Even the increasing number of collaborative or coauthored publications involved psychologists from within and among these three institutions.

Areas of study

Moving away from analysis of trends regarding authorship, the publications were also analyzed in terms of the particular sub-area of psychology that was the focus of the published articles. Table 6 summarizes the results of this analysis.

The results in Table 6 have significant similarities and differences with the results found in a similar survey published over 12 years ago (Bernardo, 1997). In that survey, social psychology topics were also the most frequent focus of published research by Filipino psychologists (41.7% of total in the earlier survey, and 28.57% in

Table 5	Geographic Location of Authors who Published in the Philippine Journal of Psychology

Geographic Zone	1994-1998*	1999-2003	2004-2008	Total	
Metro Manila	19	42	65	126	
Luzon (excluding Metro Manila)	0	0	7	7	
Visayas	0	4	2	6	
Mindanao	0	0	1	1	

* The institutional affiliation of the author of one article published in 1994 was not indicated.

Table 6	Areas of Study	of Articles Published in the Philippine Journal	of Psychology

Area of Study	1994-1998	1999-2003	2004-2008	Total
Social psychology and personality	3	13	22	38
Clinical and counseling psychology	6	16	13	35
Developmental psychology	4	6	7	17
Industrial and organizational psychology	1	1	13	15
Educational psychology	2	3	5	10
Psychometrics or psychological				
measurement	1	3	3	7
General (history, trends, current issues)	2	3	2	7
Cognitive psychology	1	1	0	2
Biological psychology	0	0	1	1
Sport psychology	0	0	1	1
Total	20	46	67	133

the current survey). In the earlier survey, developmental (child and family) psychology was the next most frequent focus (22.5% of total), followed by clinical, counseling, and health psychology (21.1%). These two clusters broad areas are also the next most frequent focus of research in the current survey, but papers on clinical and counseling psychology comprise a bigger proportion (26.32%) of the total number of papers in the last 15 years compared to papers on developmental psychology (12.78%).

The increase in the proportion of publications in clinical and counseling psychology seems to be part of a trend of increased publications in the more applied areas of psychology. Industrial and organizational psychology, educational psychology, and psychometrics accounted for only 5.3 percent, 2.6 percent, and two percent, respectively, of the total publications in the earlier survey (Bernardo, 1997). However, the same three areas now account for 11.3 percent, 7.5 percent, and 5.26 percent of the total publications in the current survey.

Research approach

I also looked into the research approach undertaken by the authors of the published papers. The results are first presented across all the areas of study, and later presented for the different areas of study.

Different categories of research approaches were used in the earlier survey (Bernardo, 1997) but similar trends can be observed. As in the earlier survey, most of the published papers remained in the descriptive level of analysis; the first two categories in Table 7 account for 61.65 percent of all papers published in the 15-year period. Moreover, the proportion of descriptive studies increased from 40 percent during the first five years, to 60.9 percent in the next five years, to 68.7 percent in the most recent five years.

The other dimension of this increasing production of descriptive research is revealed in the decrease in proportion of experimental research publications. In the earlier survey (Bernardo, 1997), experiments accounted for 10.6 percent of all publications surveyed, but only 3.8 percent of the papers published in the current survey involved experiments.

The trends observed seem to be true for the most frequently studied research areas. Table 8 shows that in the five main areas of study among articles published in PJP, descriptive research approaches were dominantly used. In four of these areas (social and personality, developmental, industrial and organization, and educational psychology), the non-experimental quantitative descriptive research approach was used. These studies used mainly descriptive statistics (e.g., means, correlations) to answer the research question about the variables of interest and the relationships among these. In the clinical and counseling research papers, the dominant descriptive research approach involved the use of qualitative data analysis (e.g., case studies, phenomenological analysis, etc.). Qualitative research was also often used in the publications in the area of social psychology and personality.

Table 7	Research Approaches of	Articles Published in the	Philippine Journal	of Psychology

Research Approach	1994-1998	1999-2003	2004-2008	Total	
Non-experimental quantitative (descriptive)	4	16	31	51	
Qualitative	4	12	15	31	
Literature review (historical analysis, trends)	8	9	4	21	
Non-experimental quantitative (predictive)	0	2	8	10	
Program development and evaluation	3	3	3	8	
Psychometric analysis	1	3	3	7	
Experiment	0	1	4	5	
Total	20	46	67	133	

	Social &	Clinical &	Developmental	Industrial &	Educationa
Research Approach	personality	counseling		organizational	
Non-experimental quantitative (descriptive)	19	9	6	8	7
Qualitative	11	18	2	0	0
Literature review (historical analysis, trends)	6	0	6	1	1
Non-experimental quantitative (predictive)	0	1	2	6	1
Program development and evaluation	0	7	0	0	1
Experiment	2	0	1	0	0
Total	38	35	17	15	10

Table 8 Research Approaches used in the Five Major Areas of Study in Papers Published in the Philippine Journal of Psychology

The only departure from this trend of using descriptive research approaches is found in the industrial and organizational psychology field, where 40 percent of the papers published used non-experimental quantitative approaches to study the predicted relationships among variables based on some articulated theory. The 40 percent actually corresponds to six papers coming from two research groups: three papers from the ADMU, and the other three from a team of psychologists from the De La Salle-College of Saint Benilde and from the University of Queensland, Australia.

Before we discuss the possible implications of these trends regarding the publications in *PJP*, we should consider whether the trends are mirrored in international publications of Filipino psychologists. These publications are analyzed in the next section.

INTERNATIONAL REFEREED PUBLICATIONS

Aside from the local publications of Filipino psychologists, there are also publications in

international refereed publications. The first survey of such publications was conducted to cover the ten-year period of 1991 to 2000 (Bernardo, 2002). In the present paper, a survey is conducted using the same 15-year period of *PJP*. The earlier survey used the *PsycInfo*, which is the database published by the American Psychological Association. The current survey used the database of *Scopus* which is broader in scope (i.e., includes more journals) than *PsycInfo*. The database search yielded 79 articles published in various psychology journals with at least one Philippine-based psychologist as author. These 79 articles were analyzed using the same system as in *PJP* articles.

Type of authorship

Table 9 summarizes the type of authorship of the Filipino psychologists involved in the 79 articles in international refereed journals.

The trends in the type of authorship for Filipino psychologists' international publications are quite different from the publications in *PJP*. The majority (62%) of the international publications are collaborations with foreign

Table 9	Type of Authorship for	International Refereed	d Publications of Filipino Psychologists	

Type of Authorship	1994-1998	1999-2003	2004-2008	Total	
Sole authorship	2	12	9	23	
Co-authorship among Filipino psychologists	1	3	3	7	
Lead authorship with foreign co-authors	2	7	2	11	
Co-authorship with foreign lead author	4	13	21	38	
Total	9	35	35	79	

psychologists. In nearly half (48.1%) of all the publications, the Filipino psychologist is a coauthor in a research report with a foreign psychologist as lead author. The percentage of this type of authorship has increased in recent years; 44.4 percent of all international publications from 1994 to 1998 and 37.1 percent from 1999 to 2003 were co-authored with a foreign psychologist as lead author, and this percentage increased to 60.0 percent in 2004 to 2008. In contrast, only 8.9 percent of the international publications involved collaborations among Filipino psychologists, and 29.1 percent of the publications had sole authorship.

Institutional affiliation of authors

Table 10 summarizes the institutional affiliation of the authors of the 79 articles, and the over-representation of the three schools found in the *PJP* articles was also observed.

Over the 15-year period, 74.7 percent or three out of every four international publications of Filipino psychologists were authored by a psychologist from three schools in Metro Manila: DLSU, ADMU, and UP Diliman. Psychologists from DLSU alone accounted for 38 percent of all these publications. As with *PJP*, there is some improvement in the past 15 years. The percentage of total publications authored by psychologists from the three schools decreased slightly from 77.8 percent from 1994 to 1998 and 80 percent in 1999 to 2003, to 68.6 percent in 2004 to 2008.

Geographic location of authors

The geographic location of the psychologists who authored the international publications is summarized in Table 11. The data again show the skewed distribution found in the local data. All the papers in the first five years surveyed was authored by a psychologist from a Metro Manila institution (one was co-authored with someone from Luzon). In the second five years surveyed, only five papers were authored by psychologists outside Metro Manila (from Visayas); the situation worsened during the most recent five-year period, with only two co-authors from outside Metro Manila (also from Visayas).

Areas of study

Focusing now on more substantive aspects of the international publications, Table 12 summarizes the sub-areas of psychology in which the

			ications		
Institution	1994-1998	1999-2003	2004-2008	Total	
De La Salle University	3	12	15	30	
Ateneo de Manila University	0	10	6	16	
University of the Philippines–Diliman	4	7	4	15	
University of San Carlos	0	2	2	4	
De La Salle-College of Saint Benilde	0	0	3	3	
University of the Philippines-Manila	1	0	2	3	
University of Santo Tomas	0	0	3	3	
Alliance	0	2	0	2	
University of Asia and the Pacific	0	0	2	2	
Others	2	2	1	5	

Table 10 Institutional Affiliation of Authors of International Refereed Publications

Table 11 Geographic Location of Authors of International Refereed Publications

Geographic Zone	1994-1998	1999-2003	2004-2008	Total	
Metro Manila	9	30	35	74	
Luzon (excluding Metro Manila)	1	2	0	3	
Visayas	0	3	2	5	

publications were done. The trends have interesting similarities and contrasts with the trends in PJP. Social psychology and personality is still the most represented sub-area of psychology among the international publications, and in fact, this area accounts for a slightly larger percentage of the international publications (39.2%) compared to local publications (33.6%). The same trend was observed in an earlier survey of international publications (Bernardo 2002), and the present data indicate that share of social psychology research in the total number of international publications is still increasing. Publications in social psychology and personality accounted for 22.2 percent of all publications from 1994-1998, and increased to 34.4 percent in 1999 to 2003, and 48.6 percent in 2004-2008. The share of social psychology research is actually higher if we consider that some of the publications in the industrial and organizational psychology and educational psychology areas actually applied social psychology theories, concepts, and/or methods.

Three areas, industrial and organizational psychology, cognitive psychology, and educational psychology, accounted for a sizable percentage of the international publications (17.7%, 12.7% and 12.7%, respectively), more than their percentage of the local publications. In contrast, clinical and counseling psychology and developmental psychology, which accounted for a sizable percentage of the local publications, accounted for a rather small percentage of the international publications (10.1% and 2.5%, respectively).

To further explore the international contributions of Filipino psychologists in the four most productive areas, the type of authorship was analyzed and shown in Table 13. We can see that the overwhelming majority of international publications by Filipinos in social psychology and personality (77.4%) and in industrial and organizational psychology (85.7%) are mainly products of collaboration with foreign psychologist authors, and are mostly led by the foreign psychologist (61.3% and 64.3%, respectively). An inspection of these studies suggests that the Filipino co-authors in these publications may have actually only played the role of gathering Philippine data for cross-cultural studies involving

lable 12 Areas of Study of International Re	efereed Publica	tions			
Area of Study	1994-1998	1999-2003	2004-2008	Total	
Social psychology and personality	2	12	17	31	
Industrial and organizational psychology	0	7	7	14	
Cognitive psychology	3	4	3	10	
Educational psychology	3	5	2	10	
Clinical and counseling psychology	1	5	2	8	
Developmental psychology	0	0	2	2	
General (history)	0	1	1	2	
Psychometrics or psychological measurement	0	1	0	1	
Sport psychology	0	0	1	1	
Total	9	35	35	79	

Table 13 Type of Authorship for International Publications in the Four Top Areas of Study

Typew of Authorship	Social & personality	Industrial & organizational	Cognitive	Educational
Sole authorship	4	1	7	5
Co-authorship among Filipino psychologists	3	1	1	0
Lead authorship with foreign co-authors	5	3	0	3
Co-authorship with foreign lead author	19	9	2	2
Total	31	14	10	10

several countries. Thus, the volume of international refereed publications in these two areas may not truly reflect strong contribution of Filipino psychologists in knowledge production in these areas. Note that in contrast, most of the publications in the cognitive psychology (80%) and educational psychology (80%) areas were led by Filipino psychologists.

Research approach

A look into the research approach used in international refereed publications reveals a very different trend compared to local publications. Table 14 shows that majority of the studies employed more theoretically-driven research approaches such as experiments (31.6%) and quantitative tests of predictive models (26.6%), which together account for 58.2 percent of all the publications. Research of these types comprises only 11.3 percent of local publications. In contrast, the non-experimental quantitative descriptive and qualitative research studies that account for 61.7 percent of the local publications only make up 24.1 percent of international refereed publications.

The same trends were also observed in an earlier survey of international publications (Bernardo, 2002), and seem to be also true for the most frequently studied research areas. Table 15 shows that the experimental and non-experimental quantitative predictive studies were the main research approaches used in publications in social psychology and personality, industrial and organizational psychology, and cognitive psychology.

OBSERVATIONS AND DISCUSSION

Several important observations can be drawn from the limited data analyzed in this paper, particularly on seven important concerns regarding different aspects of knowledge production in Philippine psychology.

Table 14 Research Approaches of International Refereed Publications

Research approach	1994-1998	1999-2003	2004-2008	Total	
Experiment	5	13	7	25	
Non-experimental quantitative (predictive)	1	7	13	21	
Non-experimental quantitative (descriptive)	0	4	6	10	
Qualitative	0	5	4	9	
Program development and evaluation	1	2	4	7	
Psychometric analysis	2	2	1	5	
Literature review (historical analysis, trends)	0	2	0	2	
Total	9	35	35	79	

Table 15	Research Approaches	used in the Four Major	Areas of Study of Intern	ational Refereed Publications

Research approach	Social & personality	Industrial & organizational	Cognitive	Educational
Experiment	11	1	9	3
Non-experimental quantitative (predictive)	10	9	0	1
Non-experimental quantitative (descriptive)	1	3	0	2
Qualitative	9	0	0	0
Psychometric analysis	0	0	0	4
Program development and evaluation	0	1	1	0
Literature review	0	0	0	
Total	31	14	10	10

Ineffective research training system

The first observation relates to the apparent inefficiency of the graduate education programs in psychology as the means for developing psychology researchers and for producing new psychological knowledge. The volume of enrolees and graduates of the various graduate programs in psychology was not reflected in the volume of publications in the most publicly accessible publication venues for Filipino researchers in psychology. One possible explanation for this is that many (or perhaps most) of the enrolees and graduates maybe in the professional areas (i.e., industrial and organizational psychology, clinical psychology, counseling psychology), and are thus not likely to prioritize publishing their thesis and dissertation work. Another possible explanation is that the quality of research produced by graduates of master's and doctoral programs in psychology may be of such quality that they are not accepted for publication in the main local psychology journal nor in international psychology journals. These two speculations regarding the low rate of publication relative to the volume of graduate enrolment and completion both point to the ineffectiveness of most graduate programs for research training. Either these programs have failed to sufficiently emphasize the importance of seeing the knowledge production process through to publication, or they have failed to develop adequate research skills to produce publishable research.

The ineffectiveness of Philippine graduate programs in psychology as research training systems may be related to the possibility that most faculty members in these graduate programs are not published researchers. The relatively small volume of publications that come from an even smaller number of researchers (who are mostly working in only three universities, see subsection below) suggests that most graduate programs are actually manned by faculty members who are not active researchers who publish their research outputs. Further research is needed to verify the research capacities of the graduate faculty of psychology in the various universities that offer master's and doctoral degree programs in psychology. Research is also needed to determine whether the curriculum, libraries and research facilities of such programs are adequate to develop research skills among their students. The adequacy of such program features may be compared to appropriate benchmarks of effective graduate education programs in psychology in other countries in the region.

Metro Manila-centric knowledge production

The data on graduate enrolment and completion, local and international publications all point to a very skewed distribution related to research training and knowledge production. The plurality of graduate programs is located in Metro Manila, and the overwhelming majority of local and international publications come from psychologists in Metro Manila. In most countries, knowledge production in the various disciplines is not typically equally distributed in all geographic regions, and instead tends to be more concentrated in the more urbanized regions. In this regard, the Metro Manila-centric knowledge production process is not surprising. Given the financial and other demands of the knowledge production process, it is not unreasonable to find that psychology research will be found in Metro Manila where there are probably more institutions that are willing and able to provide the required resources for psychology research.

However, there are also various causes for concern with the underdeveloped knowledge production system in other regions of the country, even in the other urban centers with high concentration of higher education institutions that could actually be producing psychological research. In particular, the type of psychology research that gets done may reflect the values and priorities of Metro Manila psychologists, which may emerge from or reflect the distinct experiences of Filipinos in Metro Manila. This concern is particularly important considering that much of the research that gets published is in the area of social psychology, which refers to psychological processes related to group behavior, intergroup process, social perceptions, attitudes, and other social cognitions, among others. Filipino psychologists need to engage in more critical reflection of the implications of the high concentration of psychology knowledge production in Metro Manila, and the relative underdevelopment of the same in the other regions of the country.

The big three universities

The lack of geographic spread of psychology knowledge production seems even more acute if one considers that the overwhelming majority of knowledge production that get published in the main local psychology journal and in international journals come from only three universities in Metro Manila: ADMU, DLSU, and the UP Diliman. Psychologists in ADMU lead in the number of publications in PJP, whereas those from DLSU lead in the number of publications in international refereed journals. The psychologists from these two universities are also publishing more in recent years compared to ten and fifteen years ago. The concentration of knowledge production in the three universities may also be seen as a natural consequence of the unequal distribution of resources to support psychology research. Indeed, it is understandable that serious psychology researchers would seek out institutions where there is a community of researchers and where their research work will be supported.

However, attention is devoted to this particular trend to critically reflect on the role of psychologists from these three institutions in developing psychology research in other institutions in other regions of the country. What are the psychologists in these three universities doing to help the development of research capacities of psychologists in other provinces, or to encourage and support research and publications in these three universities mindful of the wide gaps in research knowledge and capacities across the country? In what ways are they trying to bridge these gaps? Or are they unwittingly contributing to widening these gaps?

Social psychology as an area of strength

It is important to note that there is a clear area of strength in Philippine psychology research, and that is in the area of social psychology. Social psychology research figured prominently in both local and international publications of Filipino psychologists, and the research draws from various sub-areas of social psychology: social cognition, social representations, indigenous psychology concepts, group processes and relations, personality and individual differences, and various applied social psychology topics such as political psychology, health psychology, organizational behavior, among others. Social psychology is an area where there seems to be a critical mass of psychology researchers that can sustain research activity of various forms, and that can see through the research until its publication. Interestingly, only the three universities mentioned earlier offer graduate programs in social psychology, and only ADMU and UP Diliman offer PhD programs in social psychology. However, the publications in the area of social psychology are produced by a wider range of institutions, which supports the idea of a critical mass of social psychology researchers in the Philippines.

The strength of social psychology as a research area may reflect the strong ties of Philippine psychology to social science research and the strong interest in grounding psychological research on Philippine social realities (Bernardo, 2002), which was described by Tiglao-Torres (1997) as Filipino psychologists "climbing down the ivory tower." In the local psychology literature, the most emphatic essays related to psychological knowledge production in the Philippines have emphasized the need to develop psychological theories and models that are responsive to the various concerns in Philippine society and that are contextualized within the experiences of the Filipino people (see e.g., Enriquez, 1977; GonzalezIntal & Valera, 1990; Sta. Maria, 1996; Tiglao-Torres, 1997).

International collaborations: boon or bane?

As noted earlier, an overwhelming majority of international publications in social psychology are actually products of collaborations with foreign psychologists as lead researchers. Thus, part of the viability of social psychology in knowledge production relates to the increased collaboration of Filipino psychologists with foreign social psychologists in cross-cultural research studies. Cross-cultural studies with Filipino co-authors were found not only in social psychology research, but also in personality, organizational psychology, educational psychology and other areas, as well. Cross-cultural psychology research is recognized as a very important route to grounding psychological knowledge within the cultural experiences of different societies (Kim, 2000; Matsumoto & Yoo, 006; Triandis, 2000; Yang, 2000). In Philippine psychology, Enriquez (1979) has advocated cross indigenous psychological approaches as the route towards developing psychological theories relevant to the Filipino experience, although Sta. Maria (2000) called for more critical appreciation of how cross-cultural approaches may or may not be developing culturally-relevant psychological knowledge in the Philippines. All things considered, cross-cultural research with foreign psychologists provides a viable means by which Filipino psychologists can contribute to psychological knowledge production.

Unfortunately, there are indications that the Filipino psychologists in such collaborations may be playing a very minimal role in the research process; that is, the Filipino collaborator is given co-authorship for gathering data from Filipino participants in cross-cultural studies. It is not clear as to what extent the Filipino psychologists were involved in the conceptualization of the research questions, the development of the research design, or the analysis and interpretation of the results. If such is the case, then these publications may not truly reflect genuine contributions of Filipino psychologists in knowledge production in psychology, if we define genuine contribution as indicating some intellectual involvement in the conceptualization and elaboration of the psychological knowledge, and not just gathering data for foreign psychologists.

This concern about collaborative research with foreign psychologists might persist in the coming years as such forms of "minimal" collaborations are definitely "easier" ways of becoming published in international refereed publications, which would attract more and more Filipino psychologists, especially as more universities now give strong incentives for those who publish in international refereed journals.

Going local or global?: Trends in other areas of psychology

The comparison of local and international publications reveals an interesting contrast in the publication venues of the other active areas of psychology research: clinical and counseling psychology, cognitive psychology, developmental psychology, educational psychology, and industrial and organizational psychology. The publications indicate that these areas of psychological research yielded a sizable number of publications either in the PJP or in international refereed journals. The last two areas-educational psychology and industrial and organizational psychology-had a respectable number of contributions in both local and international publications. However, clinical and counseling psychology, and developmental psychology publications were marked in the local journal, and were hardly found in international journals. On the other hand, cognitive psychology was marked in international journals, but not so much in the local journal.

The researchers in social psychology, educational psychology, and industrial and organizational psychology seem to be capable of addressing both local and international psychology communities. However, clinical, counseling, and developmental psychology researchers seem to be focused on the local psychology audience. Is this a deliberate choice? Do researchers in the area primarily seek to address a local audience, and foresake the larger global psychology community? Or is this focus on local publications reflective of the inability of researchers in these areas to produce the type of psychological knowledge that is accepted in international refereed journals? If so, to what extent are researchers in these fields isolated from the knowledge discourses in the global psychology community?

Description vs. theorizing

The preceding discussion may be related to a rather revealing observation regarding the contrasting approaches to research works that get in the local and international journals. The research that gets published in the PJP is mostly descriptive research that employs varied quantitative and gualitative research approaches. Thus, for most of the local publications, the knowledge production is limited to illustrating or characterizing a psychological phenomenon, or portraying a Filipino sample in terms of some psychological construct or dimension. On the other hand, the research that gets published in international refereed journals is mostly theory-driven or theorydirected research. Many of these publications use quantitative and qualitative approaches, and are mostly experiments to test specific predictions drawn from explicit theories of some psychological phenomenon. The latter trend merely reflects the editorial standards and requirements in global psychological publications. Indeed, there are very few reputable international psychology journals that would routinely publish purely descriptive psychological research, especially qualitative descriptive research. Thus, there may be a natural selection going on here, where the more theoryoriented research works by Filipino psychologists are able to penetrate the international publication venues, but the less theory-oriented works are not able to do so and end up being published in local publication venues.

For Filipino psychologists who wish to publish in international refereed journals, the message

seems clear. They should do psychological research that is strongly theory-oriented; that is, work that articulates new theories, and/or that tests or verifies theories or specific propositions therein. However, psychology researchers also know that theory-oriented work also requires a base of descriptive-level knowledge that provides the basic observations about behavior that need to be accounted for by theories. Thus, although descriptive research may not be publishable in international psychology journals, these types of research serve a very important function in the Philippine psychology knowledge production. Which is why it is important that the local psychology journals should continue to provide space for such studies.

The foregoing discussion points to the dilemma of the serious psychology researcher in the Philippines who wishes to do more theoryoriented psychological research in an area of study where the basic descriptive observations are not yet established. Doing the descriptive work would be tedious and would consume much time and resources, but the reports that would derive from such work are not likely to be publishable in the good international journals. Yet it would be extremely difficult to do good theoretical work based on incomplete or even non-existent basic data. Perhaps the community of psychology researchers in the Philippines needs to consider a system of knowledge production that differentiates the types of research work that need to be done and allocates the different types of work to different sectors of the knowledge production community. A simplistic example may involve the allocation of more simple descriptive work among undergraduate student researchers or other similar less skilled psychology researchers. This type of work can be done within large-scale collaborative efforts across institutions, where there is a steady supply of undergraduate psychology majors. The more theory-oriented work can be encouraged among graduate students and the more skilled and more resource-endowed psychology researchers, whose theory-oriented activities can address the descriptive data generated by other researchers.

CONCLUSION

The purpose of this paper was to assess the state of psychology knowledge production in the Philippines, and the assessment was done based on data regarding enrolment and graduates of master's and doctoral programs in psychology, and on local and international publications of psychology. The data analyzed in the study are limited in many ways. More intensive information regarding the graduate programs (i.e., curriculum, thesis, libraries, research capacities of faculty, etc.) would have allowed for a richer analysis of the research training system for psychologists. There are also other local and international venues for publishing the research production of Filipino psychologists. Although many of these are considered part of the grey literature, some are important publication venues (e.g., books and monographs published by reputable presses, book chapters, etc.) that also showcase important contributions to psychological knowledge. A more thorough analysis of the publications of Filipino psychologists should cover a wider range of publication venues and formats, and involve a more in-depth analysis of the substantive aspects of the research studies reported in the publications.

These limitations notwithstanding, we were able to discern some very important trends and observations from the data. These observations clearly point to relatively strong contributions to psychology knowledge production of selected sectors of the Philippine psychology research community in particular areas of psychological study. It is important to acknowledge such contributions, but we also need to understand how these contributions were achieved within the larger environment of underproductivity. Perhaps, future research could focus on understanding how and why psychologists in the big three universities are able to produce as much as they can, so that we can see how we can build more such hubs of psychology knowledge production in the Philippines.

But corollary to this achievement, the observations made in the paper also point to some areas of serious concern: weak research training systems, gaps in research capacities and productions, and dilemmas faced by psychologists who need to address local concerns while trying to engage the global psychology community. The latter concern was actually already articulated 40 years ago, using more harsh contrasts that reflected the perspective of that time. Abraham Felipe (1969/2002), in the second volume of *PJP*, wrote:

The reference points in the world of psychology and the Philippine reference points do not tally. Briefly, the difference is one of emphasis. In the world of psychology, there is more emphasis in psychology being science, less in human welfare; in the Philippines, there has been a greater sentiment for human welfare than for science. Hence, here in the Philippines, judging a psychologist in terms of the intellectual worth of his works is not evaluating him on a professionally crucial dimension. (p. 5)

In some ways, the contrasts observed by Felipe 40 years ago may no longer be as intense as they used to be, but in other ways the contrasts are even sharper. Global psychology has developed in ways that make it much more involved in human and social development, making it more resonant to the moral sense of responsibility of many Filipino psychologists. However, global psychological science has also advanced in an exceedingly fast pace, with theories, methods, and analytic techniques moving ahead at rates that make it very challenging for Filipino psychologists to keep in stride.

Fortunately, as this paper points out, there are some psychologists in selected institutions who have managed to effectively engage the important knowledge production functions of psychologists by addressing psychological questions that relate to the specific aspects of the human and social development concerns in Philippine society. The challenge for Philippine psychology is to find ways to create more environments that would support the work of such psychologists, so that a larger proportion of the Philippine psychology community can participate in building psychological knowledge that would be useful for Filipinos and for Philippine society.

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