

Teaching of psychology in countries with advanced versus developing economies

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We compare structures and contents of psychology programmes from countries with developing and advanced economies. Respondents from 49 countries completed a survey of the International Union of Psychological Science on psychology education and training. In general, there are more similarities than differences between countries with developing and advanced economies. Nonetheless, large differences emerge with regard to the availability of international teaching resources. The transition rate from the lowest academic degree to programmes at the next level is much lower in countries with developing economies than in countries with advanced economies (25 per cent vs. 70 per cent). In addition, programmes from the former countries have higher student-faculty ratios and use lab sessions, seminars and tutorials less often. Differential and biological psychology/neuropsychology is less often taught in the former countries. In addition, there is larger variability of the quality of programmes within countries with developing economies. Conclusions are drawn for improving psychology education and training.

Keywords: Psychology education; psychological training; teaching; cross-cultural psychology.

PSYCHOLOGY as a scientific discipline and a topic of study has its origins in Europe. Wilhelm Wundt (1832–1920), the founder of the world's first laboratory of experimental psychology in Leipzig (Germany) held his first lecture in 1875 (Fuchs & Milar, 2003). Psychology spread to other countries, and after World War II, the US psychology gained an important impact on psychology around the world (Freedheim & Weiner, 2003). Although results of research from the US form core contents of almost all recent textbooks in the field of psychology, and textbooks from the US are probably used in most countries of the world, individual countries have their own traditions with regard to structures and contents of teaching psychology. Differences between countries in the present structure and contents of teaching psychology reflect these traditions as well as national differences in particular needs (e.g. the degree of industrialisation and the structure of the educational system may affect the needs for occupational and educational psychology), and in the availability of material resources (e.g. with regard to access to international journals and textbooks).

Papers on teaching of psychology have been published from a number of countries, for example, in the *European Psychologist* (Lunt, 2005; Newstead & Makinen, 1997), in a special issue of the *International Journal of Psychology* (Karandashiev & McCarthy, 2006), in *Teaching Psychology Review* (e.g. Georgas, 1998; Ruiz, 2011), and in the three volumes of *Teaching Psychology around the World* (McCarthy et al., 2007, 2009, 2012). However, these papers did not follow a common structure and are, therefore, difficult to compare. In addition, results from a previous cross-national survey on teaching psychology in 28 countries (Nixon, 1994) and some of the contents of other older papers are probably outdated because the systems of teaching psychology change over time.

In order to get comparable data across a larger number of countries, the International Union of Psychological Science (IUPsyS) launched a work group on psychology education and training. This group developed a questionnaire on that topic and asked the 82 national member organisations of the IUPsyS (in most cases the National Society of Psychology or associations of National Societies) to fill out the

questionnaire online. In addition, psychologists from countries who attended two symposia on psychology education were asked to provide answers if we had not got a response from their national professional society. Responses from four countries were added by this approach. Data were collected between 2011 and June 2012. Finally, we got response from 49 countries and Hong Kong that is a special administrative region of the People's Republic of China but an individual member of the IUPsyS. Two to three responses were available from 11 countries and were averaged for the present analysis.

According to the International Monetary Fund (IMF), 29 of these countries are classified as countries with developing economies (CDE), based on criteria such as income levels and development of the financial markets (IMF, 2012; Nielsen, 2011): Argentina, Armenia, Bahamas, Brazil, Bulgaria, Cameroon, Colombia, Croatia, Georgia, Hungary, India, Indonesia, Kenya, Malaysia, Mexico, Paraguay, People's Republic of China, Philippines, Poland, Russia, South Africa, Sudan, Thailand, Turkey, Uganda, Uruguay, Venezuela, Yemen, and Zimbabwe. The other 20 countries and Hong Kong were classified by the IMF as countries with advanced economies (CAE): Australia, Austria, Canada, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hong Kong, Ireland, Italy, Japan, New Zealand, Norway, Singapore, Slovak Republic, Slovenia, Spain, and the US. Although different classifications of countries have been suggested by the United Nations Development Project (UNDP) and the World Bank, we followed the IMF because this classification provides a split into two main groups of countries while the UNDP and the World Bank split into three and four groups, respectively (Nielsen, 2011) which would lead to small numbers of participating countries per group. In addition, while Hong Kong is classified by the IMF, this is not the case in the other classifi-

cation systems. Furthermore, 20 countries that were classified as advanced economies would also be in the highest category of the World Bank and 19 in the highest category of the UNDP (Nielsen, 2011), thus leading to similar classifications across the available systems.

The average results of the survey across all participating countries are reported elsewhere (Pinquart & Bernardo, 2014). The present manuscript focuses on a comparison between CAE versus CDE. There are four reasons for making such a comparison. First, because psychology first developed in Western countries and spread thereafter to other regions of the globe, we were interested in whether similar structures and programme contents would be found in both groups of countries. Second, because these groups of countries differ in the economical resources that could be invested in the system of teaching, we were interested in differences in teaching resources and programme quality. Third, probably most psychological textbooks and most of their contents come from the US and Western Europe. Thus, we were interested in whether cross-cultural psychology (such as the comparison of results from Western and non-Western countries) and indigenous psychology (topics and results specific to a particular culture) would play a larger role in CDE because some of the results from the US and Western Europe may not be valid under other cultural contexts (e.g. Sinha, 1997; van de Vijver, Chasiotis & Breugelmans, 2011). Finally, we searched for starting points for improving psychology education of countries with both developing and advanced economies.

The present paper will focus on four topics: the general structure of programmes, contents of teaching, forms of teaching, and quality of the programmes. Because of the rather small number of countries per category, we do not apply statistical tests.

Results of the survey on psychology education and training

The history and structure of programmes

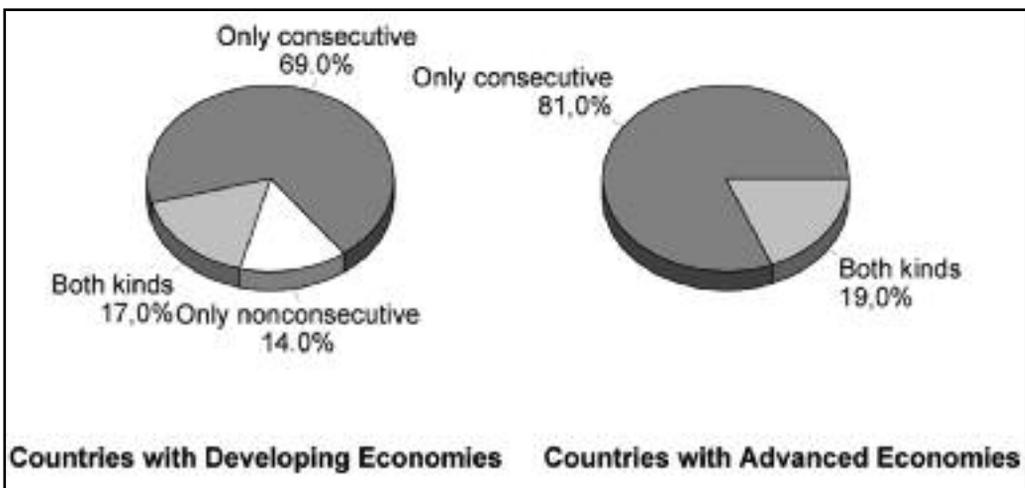
The first psychology departments were founded between 1879 (Germany) and 2005 (Singapore) in the participating CAE and between 1918 (South Africa) and 1990 (Cameroon) in CDE. On average, the first full programmes that end with an academic degree in the field of psychology started in 1944 in the CAE (range from 1900 in Great Britain to 1987 in Greece). Such programmes were, on average, launched 14 years later in CDE ($M=1958$, range from the 1920s in India to the 1990s in Bahamas and Cameroon).

Most of the assessed countries offer consecutive programmes in the field of psychology, such as Bachelor (Level 1 degree) programmes followed by Master's (Level 2 degree) programmes that continue and explore the subject matter in greater depth. Non-consecutive predoctoral programmes, such as a five-year diploma programme, are less common and most often found in Latin America. As shown in Figure 1, all assessed CAE offer at least some

consecutive programmes, although about one-fifth of them also have non-consecutive programmes. The situation is more heterogeneous in CDE. Although consecutive programmes are also here the dominating form, 14 per cent of these countries only offer non-consecutive programmes. About 18 per cent of the assessed countries offer consecutive and non-consecutive programmes.

The average numbers of education facilities that offer programmes at Level 1 are somewhat higher in CAE ($M=112$, $SD=312$, range from 1 to 625) than in CDE ($M=97$, $SD=166$, range 2 to 1367). Between-group differences are larger with regard to programmes at Level 2. On average, 57 universities in CAE offer programmes at Level 2 ($SD=155$, range 2 to 652) while the numbers are only half as large in CDE ($M=29$, $SD=52$, range 1 to 200). Respondents from four CAE and from five CDE reported that there are also predoctoral programmes at a third or fourth level (e.g. programmes for training graduate students as psychotherapist) but these numbers are too small for a detailed analysis.

Figure 1: Structure of psychology programmes in countries with developing and advanced economies.



The largest differences appear in numbers of non-consecutive programmes. While, on average, only 2.5 universities of CAE offer this kind of programme ($SD=2$, range 1 to 4), on average 91 educational facilities offer these programmes in CDE ($SD=177$, range 1 to 450). This indicates that non-consecutive programmes are the exception to the rule in CAE. For example, members of the European Union that offered non-consecutive programmes in the past have shifted to the consecutive two-tier degree structure as part of the Bologna Process of harmonisation of educational structures (Lunt, 2005). This process has not yet been completed in some countries.

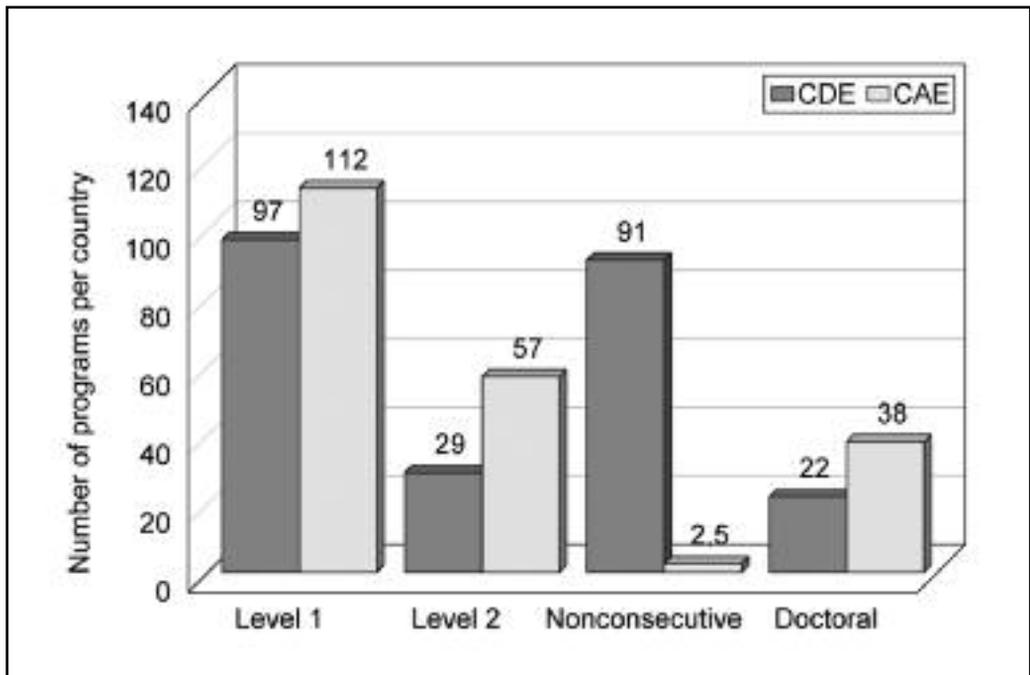
Between-group differences are also observed in the number of doctoral programmes: CAE offer more doctoral programmes than the other countries ($M=38$, $SD=78$, range 1 to 287 versus $M=22$, $SD=38$, range 0 to 147, see Figure 2).

Systematic differences are also found with regard to the number of students who are newly enrolled in the programmes per year. These numbers are higher in CAE than in CDE with regard to consecutive programmes and doctoral programmes. The reverse is found with regard to non-consecutive programmes (Figure 3).

It is estimated that, on average, 9941 students of Level 1 degree programmes are newly enrolled each year per participating CAE ($SD=9,503$, range 80 to 27,400), while 5056 students are enrolled per CDE ($SD=7,979$, range 10 to 40,000). Similarly, an average of 4407 students per CAE are newly enrolled each year at Level 2 degree programmes ($SD=13,297$, range 50 to 57,308) as compared to 968 students from CDE ($SD=2015$, range 25 to 6,700).

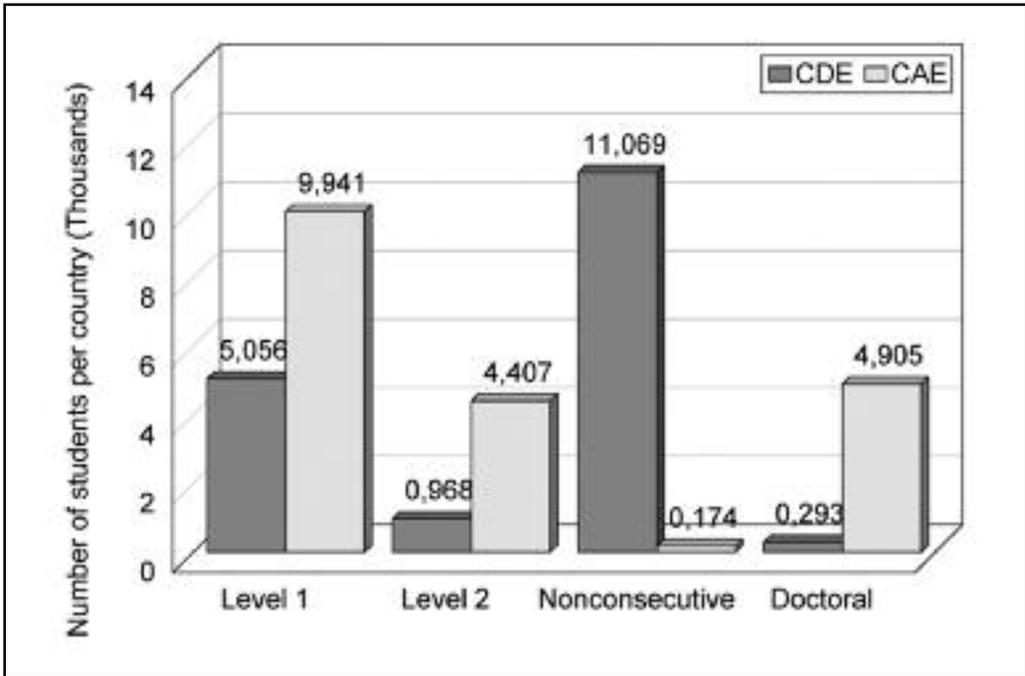
With regard to doctoral programmes, we asked for the total number of doctoral students rather than for the numbers of

Figure 2: Average number of programmes per country at different levels.



Note: CDE=countries with developing economies; CAE=countries with advanced economies.

Figure 3: Average number of students per country in different kinds of programmes.



Note: CDE=countries with developing economies; CAE=countries with advanced economies.

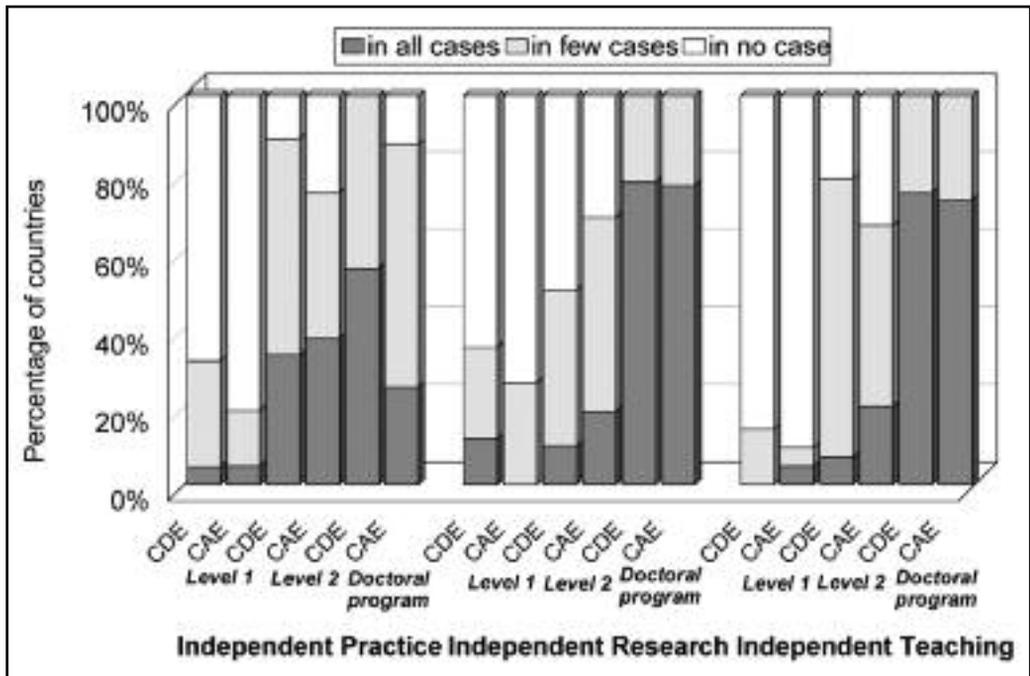
newly-enrolled students per year because not all programmes may enroll the same number of students each year. The average number of doctoral students per country is 4905 in CAE ($SD=13,413$, range 1 to 38,095) and 293 in CDE ($SD=430$, range 25 to 1400).

The average percentage of completers of Level 1 and Level 2 degree programmes does not differ much between CAE and CDE (Level 1: 77 per cent vs. 80 per cent; Level 2: 79 per cent vs. 87 per cent). However, the average completer rate of non-consecutive programmes tends to be higher in CAE than in the other group of countries (91 per cent vs. 63 per cent). If we assume that the average numbers of newly-enrolled students of Level 1 degree programmes have been constant for the last three to four years, we can estimate the numbers of those completing Level 1 programmes who are enrolled in Level 2 degree programmes thereafter. These rates are much higher in CAE than in other countries. While in the

former countries 70 per cent of the completers of Level 1 programmes start a Level 2 degree programme in the field of psychology, only 25 per cent of completers from CDE go on to a programme at Level 2.

As many completers of Level 1 degree programmes do not continue their studies, we also asked whether the completion of a Level 1 degree would qualify for independent practice without supervision, independent research, and independent teaching at the university level (Figure 4). Only one respondent from each group of countries indicated that the completion of a first-level degree would qualify in all cases for independent practice without supervision. In addition, three respondents from CAE as compared to six respondents from CDE reported that completers of a first-level degree are allowed to do independent work in some practical fields. Nonetheless, about 70 per cent to 80 per cent of the respondents indicated that this would never be the case in

Figure 4: Completion of programmes as precondition for independent work in non-academic and academic fields.



Note: CDE=countries with developing economies; CAE=countries with advanced economies.

their country. Thus, completers of a Level 1 degree programme have only slightly better chances of independent work in CDE than in other countries.

The completion of a Level 2 degree provides more opportunities for independent practice than the completion of a Level 1 degree although only about 40 per cent of the respondents from both groups of countries indicated that such a degree would always qualify for independent practice. A doctoral degree seems to further enhance the opportunities for independent practice in CDE but not in most CAE.

With regard to independent research at the university level, again, between 70 per cent and 80 per cent of the respondents indicated that the completion of a Level 1 degree never qualifies for this kind of work, and the completion of a Level 2 degree only slightly enhanced the chance for doing independent research. Answers on both questions show only small differences between

CAE and CDE. About 80 per cent of the respondents from both groups of countries indicated that a doctoral degree would always qualify for independent research. The answers are very similar with regard to independent teaching at universities (Figure 4).

Programmes at Level 1 are somewhat shorter in CAE ($M=3.01$ years, $SD=3.69$) than in other countries ($M=3.66$ years, $SD=0.75$) as is the estimated average workload ($M=2570$ hours vs. 2860 hours). A similar trend is observed at Level 2 ($M=1.86$ years, $SD=1.63$ and 2370 hours vs. $M=2.18$ years, $SD=0.73$ and 2240 hours). Non-consecutive programmes last, on average, about five-and-a-half years in CAE ($SD=.71$) and five years in the other countries ($M=4.90$, $SD=.22$). Due to many missing data, we could not compare the average workload in non-consecutive programmes. Only minor differences between CAE ($M=3.52$, $SD=.93$) and CDE ($M=3.66$ $SD=.64$) are observed with regard to the average length of doctoral programmes.

Programme contents

Regarding programme contents, we asked whether a list of 24 topics is taught in all programmes, most, few, or no programme of their country. In addition, respondents could add topics that were not listed. Table 1 provides an overview of frequencies of topics that are taught in most or even all programmes at a particular level.

General education not specific for psychology (such as learning foreign languages) is a topic of most non-consecutive and Level 1 degree programmes in many countries while few programmes at Level 2 contain such a component. No national differences are observed for Level 1 degree programmes. Respondents from CAE and CDE estimated that about 20 per cent of the

Table 1: Percentage of countries which include topics of teaching into all or most psychology programmes.

Topics of teaching	Non-consecutive programmes		Level 1 degree programmes		Level 2 degree programmes	
	CDE	CAE	CDE	CAE	CDE	CAE
Non-psychological topics and research methods						
General education	100	50	67	71	14	20
Ethics	100	100	59	44	86	50
Quantitative research methods	83	100	94	100	100	71
Qualitative research methods	33	100	59	65	67	47
Research projects	68	100	63	100	100	82
Basic fields of psychology						
General psychology	100	100	94	94	57	53
Developmental psychology	100	100	89	94	56	64
Personality psychology	83	100	83	94	60	57
Biological Psychology/ Neuropsychology	83	100	67	88	38	50
Differential psychology	67	100	65	88	27	64
History of psychology	100	100	65	69	46	19
Applied fields						
Psychological assessment	100	100	75	71	80	56
Psychopathology	100	100	75	88	67	67
Psychotherapy/counselling	100	100	59	63	60	56
Educational psychology	100	100	59	63	47	56
Occupational/work psychology	100	100	76	44	60	31
Health psychology	50	50	29	44	38	31
Geropsychology	17	50	25	13	29	19
Forensic psychology	50	50	6	19	15	25
Sports psychology	0	0	13	13	0	12
(Cross-)Cultural aspects						
Cross-cultural psychology	0	0	18	25	27	25
Indigenous/national psychology	33	0	19	0	33	12
<i>N</i>	6	2	18	17	16	17

Notes: CDE=countries with developing economies; CAE=countries with advanced economies; N=numbers of countries per analysis.

student working hours are used for general education at Level 1 (CAE: $M=21$ per cent, CDE: $M=22$ per cent) as are about 10 per cent in non-consecutive programmes (CAE: $M=10$ per cent, CDE: $M=8$ per cent). However, at Level 2, the time for general education tends to be lower in CAE ($M=4$ per cent) than in the other countries ($M=13$ per cent).

Quantitative research methods are taught in most programmes of most countries, although two respondents from CDE reported that this is not the case in most non-consecutive or Level 1 degree programmes of their country. Qualitative research methods play a smaller role in psychology curricula than quantitative methods, although all respondents from CDE reported that most or all of their non-consecutive programmes teach these methods. The majority of programmes of most CAE and CDE include research projects, although this tends to be more often the case in Level 1 degree and non-consecutive programmes of the former countries. Ethics is taught in most non-consecutive programmes of all countries, but plays a smaller role in Level 1 degree programmes. Comparisons of CAE and CDE show that ethics seems to be a more prominent topic in consecutive programmes in the latter countries.

The basic disciplines of psychology, such as general psychology, social psychology, and developmental psychology, are taught in most non-consecutive and Level 1 degree programmes of almost all participating countries. However, only about half of the respondents indicated that these topics are also taught in most programmes at Level 2. Consistent between-group differences are observed for biological psychology/neuropsychology and differential psychology that tend to be more important in CAE than in the other countries.

We also have to be aware that respondents from a minority of countries indicated that some basic disciplines are not taught in most of their Level 1 and Level 2 degree programmes. Thus, most graduates of

Level 1 degree programmes from a few countries will lack knowledge about core aspects of psychology. The lack of this content in Level 2 degree programmes would not be problematic if the students have already received knowledge about these fields in Level 1 degree programmes.

With regard to applied fields, we observed that psychological assessment, clinical, educational, and occupational psychology are taught in most or even all nonconsecutive programmes of all countries. The numbers are lower in consecutive programmes. More Level 2 degree programmes than Level 1 degree and non-consecutive programmes are specialised from the beginning and tend to focus on only one applied field so that other applied fields need not to be taught in these programmes (Pinquart & Bernardo, 2014).

Occupational or work psychology tends to play a smaller role in programmes of CAE than in the other countries. Other applied fields – such as health psychology, geropsychology, and forensic psychology – are taught in fewer programmes than the aforementioned applied fields. There are, again, few differences between CDE and CAE, although geropsychology is more often taught in non-consecutive programmes of CAE.

Although an important question is whether psychological findings from Western countries could be generalised to non-Western countries, cross-cultural psychology does not play an important role in most programmes. In fact, none of the included countries included cross-cultural psychology in the majority of the non-consecutive programmes. We also observed that cross-cultural psychology is not more often taught in CDE than in CAE (Table 1).

A somewhat different situation emerges with regard to indigenous psychology. Although about 20 per cent of the participating countries teach this content in most of their programmes; it plays a larger role in CDE than in other countries. Nonetheless, only 19 per cent to 33 per cent of the respon-

dents from CDE reported that indigenous psychology would be a topic of most of their programmes. Very few respondents added topics of teaching, such as community psychology, psychoanalysis, and Buddhist psychology, to our list.

Forms of teaching

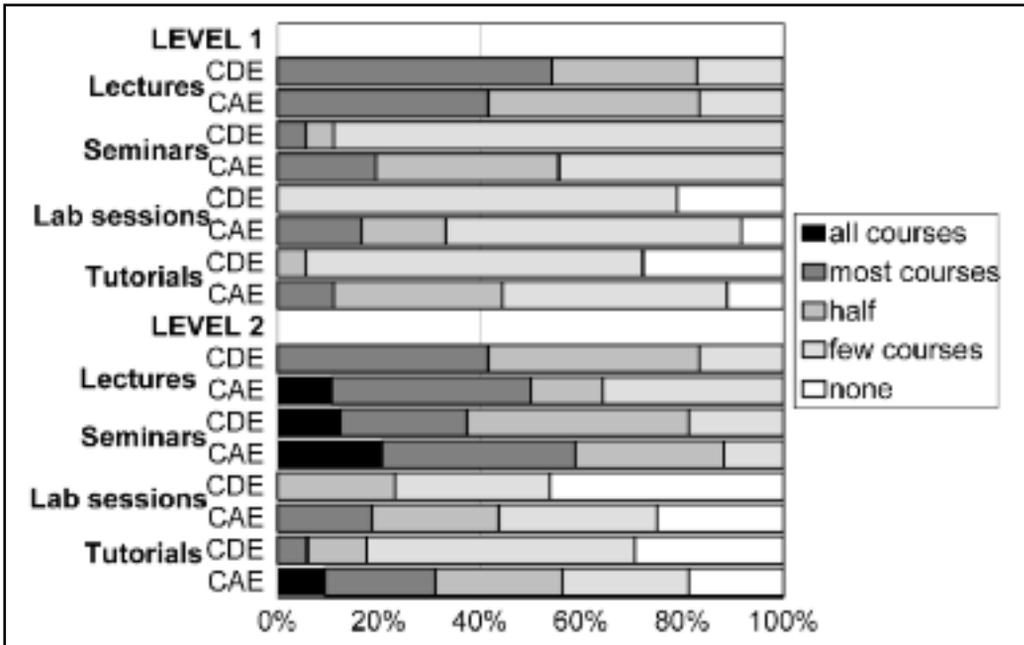
For many years, lectures, tutorials, and lab classes have been the dominant forms of teaching psychology in Western countries (Hartley, 2012). This is still the case in both CAE and CDE. As shown in Figure 5, about half of the respondents of both groups of countries reported that courses at Level 1 and Level 2 are most often provided as lectures. Seminars and tutorials are more frequently offered in programmes at Level 2 than in programmes at Level 1. We also found a trend that seminars, lab sessions, and tutorials at both levels tend to be offered less in CDE than in CAE.

It has been suggested that the internet would be a good platform to deliver the state of art in the field of psychology to lower income, developing countries (Myers, 2009). However, online courses are still rarely offered, and in particular in CDE. Thirty-five per cent of the CDE offer online courses in some programmes at Level 1 as compared to 90 per cent of the CAE. Similarly, online courses in Level 2 degree programmes are also less frequently offered in CDE (25 per cent vs. 90 per cent).

Quality of programmes

Respondents indicated on a four-point Likert-scale how they perceive the average reputation of psychology programmes of their country in comparison with psychology programmes of other countries. Because we got few answers to that question about nonconsecutive programmes our analysis will focus on Level 1 and Level 2 degree programmes.

Figure 5: Forms of teaching in programmes at Level 1 and 2.



Note: CDE=countries with developing economies; CAE=countries with advanced economies.

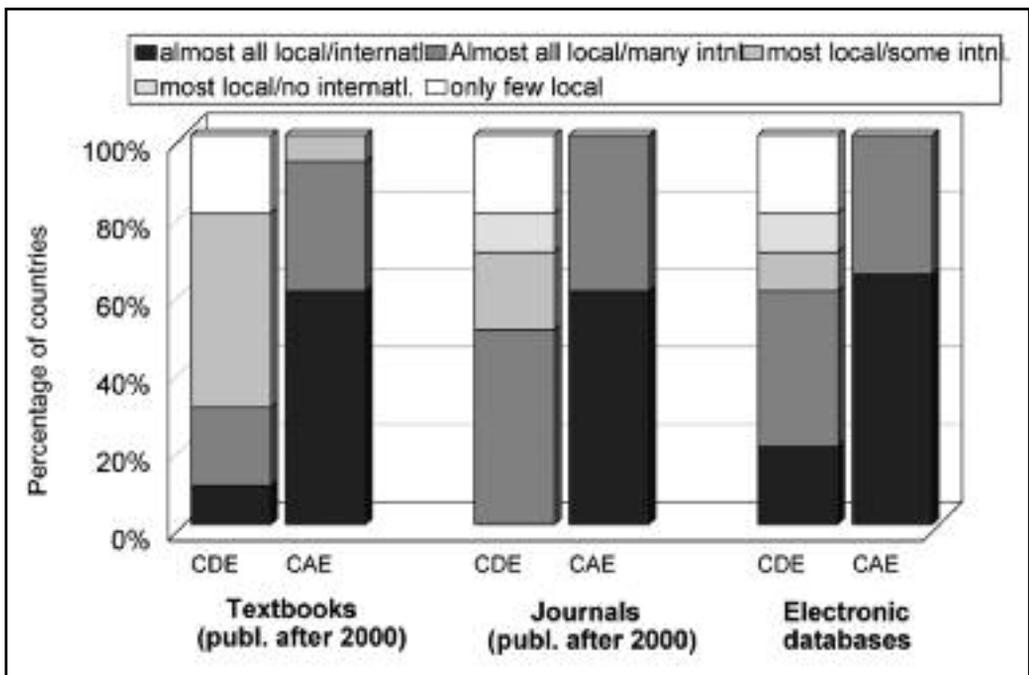
Thirty-one per cent of the respondents from CAE indicated that their programmes at Level 1 would have high reputation compared to psychology programmes of other countries, and another 31 per cent indicated medium reputation. However, only 20 per cent of the respondents from CDE indicated high reputation and another 10 per cent medium reputation. Similar differences emerge with regard to Level 2 degree programmes. Here 55 per cent of the respondents from CAE indicated high reputation of their programmes and another 9 per cent medium reputation. In contrast, only 25 per cent of the respondents from CDE indicated high reputation and 12.5 per cent medium reputation.

Respondents from CAE reported higher percentages of programmes that teach at high quality than respondents from the other countries, and this difference was more pronounced for Level 1 degree than

for Level 2 degree programmes. More concretely, 79 per cent of Level 1 degree programmes as well as Level 2 degree programmes of CAE were estimated to teach at high quality ($SD=23$ and 24). Respondents from CDE indicated that, on average, 44 per cent of their Level 1 degree programmes and 57 per cent of Level 2 degree programmes teach at high quality ($SD=28$ and 26).

The next set of questions focused on more objective criteria of programme quality. First, we asked for the average student-faculty ratio. Because the distribution was skewed, we report the median rather than the arithmetic mean. The median student-faculty ratio of Level 1 degree programmes and non-consecutive programmes is lower in CAE (25:1 and 10:1) than in CDE (40:1 and 35:1). No such difference is observed with regard to Level 2 degree programmes (11:1 and 10:1).

Figure 6: Availability of teaching resources.



Note: CDE=countries with developing economies; CAE=countries with advanced economies.

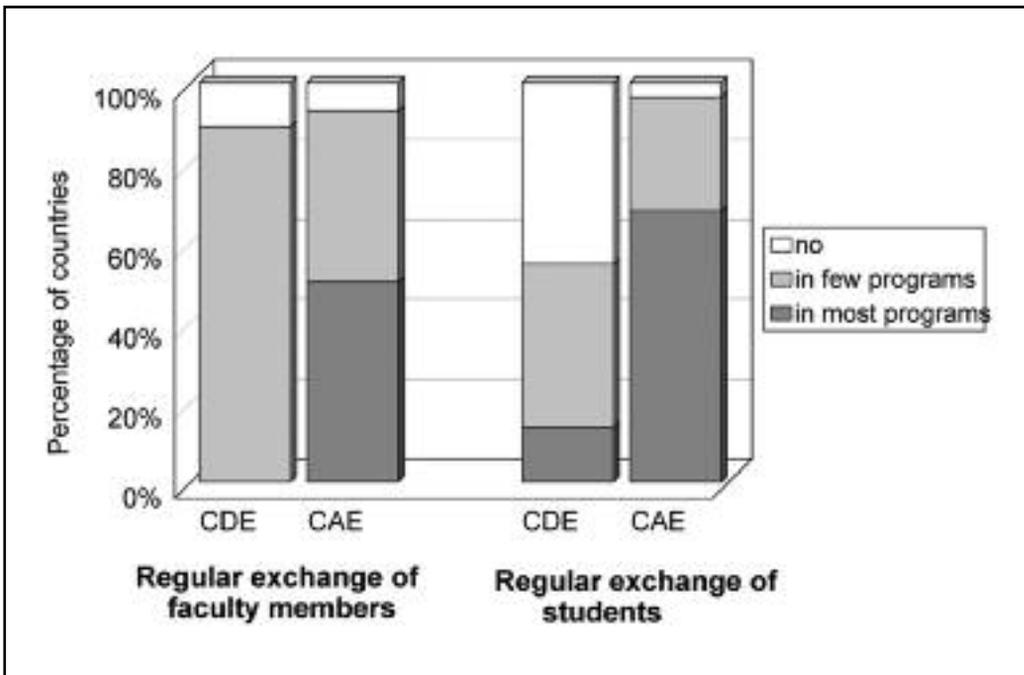
Another criterion of the quality of programmes is the availability of teaching resources (Figure 6). About 60 per cent of the respondents from CAE indicated that almost all recent local and international textbooks, scientific journals, and electronic databases would be available in the educational institutions of their country. However, only between 0 per cent (journals) and 20 per cent (electronic databases) of the respondents from CDE indicated that this would be the case. As 80 per cent of the respondents from CDE indicated that most local textbooks, journals, and databases would be available to their educational institutions, the between-group difference was mainly based on the restricted availability of foreign teaching resources.

A regular international exchange of faculty members and students could also be considered as a criterion of programme quality because it widens the horizon and

gives access to materials that are not taught at the home university or country. Our survey indicates that CAE have more exchange programmes than CDE (Figure 7). We also asked respondents to estimate the average percentage of faculty members who come from foreign countries. This number is also higher in CAE ($M=15.5$ per cent, $SD=16.6$ per cent) than in the other countries ($M=9.2$ per cent, $SD=12.5$ per cent).

The final questions focused on measures for assuring quality of psychology programmes. About three-quarters of the respondents reported that psychology programmes of their country have to be accredited, and the numbers do not differ between CAE and CDE. In about 85 per cent of these cases the accreditation has to be renewed, and reaccreditation takes place after five-and-a-half years ($SD=1.0$) in CAE and after four-and-a-half years ($SD=1.6$) in CDE.

Figure 7: Regular international exchange of faculty members and students.



Note: CDE=countries with developing economies; CAE=countries with advanced economies.

In addition, 38 per cent of the CAE have a national ranking of psychology programmes as compared to 27 per cent of the CDE. Furthermore, 42 per cent of the CAE and 33 per cent of the other countries use a regular evaluation of the programmes by the students. Nonetheless, 29 per cent of the respondents from CAE and 47 per cent of the respondents from CDE indicated that there would be no such measures for assuring high quality of psychology education.

Discussion

When interpreting the results of the survey, we have to be aware that a larger number of IUPsyS members did not respond to the questionnaire, and that some countries are not represented in the IUPsyS. It is likely that psychology education is, on average, less developed in countries that did not participate in the survey, although some countries such as the Netherlands or Sweden with a well developed system of teaching psychology did not respond. In addition, as statistics were not available for some of the assessed aspects, many respondents left some questions unanswered. We could also ask how valid the reports from the countries are. However, we got more than one response from a larger number of countries and these answers per country converged in most cases. In addition, 34 per cent of the respondents reported that they used publicly available information on psychology education, 32 per cent requested additional information from the national psychological society, 32 per cent gathered additional information from colleagues, and 30 per cent requested information from universities that offer psychology programmes. Only in 13 per cent of the cases, the respondents wrote that they answered only according to their personal impression. Although some random error may have occurred this is unlikely to influence the results of the between-group comparisons. Finally, we did not test for statistical significance of between-group differences because of low test power.

What have we learned from the present survey about psychology education? First, we learned that there are more similarities than differences between the two groups of countries with regard to structures and contents of programmes. These similarities probably both reflect an export of the Western psychology to other countries (Valsiner, 2009) as well as the striving for common standards of teaching in some areas of the globe, such as due to the Bologna process of harmonisation of European educational structures (Lunt, 2005) or the development of the European Diploma in Psychology (Bertram & Roe, 2005).

Second, when comparing CAE and CDE we have to be aware that there is also large heterogeneity within each group of countries as well as within the individual countries. While some variation is functional, for example with regard to the selection of different applied fields by different Level 2 degree programmes, other variations indicate needs for change. This is the case with regard to the percentage of programmes that do not fulfill criteria of high quality. This is also the case with regard to the fact that some core disciplines of psychology were lacking in some of the Level 1 degree programmes. According to the criteria of the European Diploma in Psychology, methods of psychology, history of psychology, general psychology, neuropsychology, psychobiology, cognitive psychology, differential psychology, social psychology, developmental psychology, personality psychology, work and organisational psychology, clinical and health psychology, educational psychology, psychopathology, and ethics should be part of all Level 1 degree programmes (European Federation of Psychologists' Associations, 2011). International and national organisations of psychologists will have to discuss and decide about common standards of teaching psychology. Given the fact that, on average, about 20 per cent of the time of Level 1 degree programmes is used for general education, reducing this time would provide space for adding basic disciplines that have not been taught in a programme before.

Third, we found some important differences between the two groups of compared countries. The percentage of completers of Level 1 degree programmes who enter Level 2 degree programmes was about three times higher in CAE. This difference could not be explained by better career opportunities of graduates with a Level 1 degree in CDE. Other factors may play a role, such as lower numbers of places in Level 2 degree programmes or lower financial resources of students from these countries. If the number of faculty members, lecture halls, and other resources are fixed, universities must decide whether to train larger numbers of psychologists for the lowest academic degree or to train larger numbers of students who attain more than one academic degree. Countries with a short tradition of psychology programmes and limited financial resources may first need a sufficient number of psychologists (irrespective of their degree and length of study) before becoming interested in increasing the numbers of psychologists with longer training and postgraduate degrees.

Fourth, another important difference refers to the lower availability of international teaching resources in CDE. Would increasing the availability of these resources mean making the programmes of these countries more US American or Western European? Some contents from Western textbooks are probably not valid in some non-Western contexts (van de Vijver et al., 2011). Nonetheless, there are good arguments for a reduction of the gap in the availability of international teaching resources. Most importantly, cultural differences are not widespread in some fields of psychology, such as general psychology or neuropsychology. Advances in methods and analytic approaches should also be applicable to a wide range of culture-specific phenomena. In addition, availability of knowledge about most recent international research could promote cross-cultural research that tests which results can and cannot be generalised to other cultural contexts. Furthermore,

there is a growing global workplace for psychologists and an increasing need of mutual recognition of qualifications of psychologists from different countries. Thus, psychologists do not only have to gain knowledge about psychological phenomena of their own country or culture but to develop a broader comparative view (see also, Lutsky et al., 2005). This also implies that the flow of knowledge has to go in both directions, with the assumption that we all can learn from each other's experiences, even if these experiences come from less developed circumstances. Psychologists from CDE should be confident about what they can share in terms of psychological knowledge and methods of analysis, as psychologists from CAE should be open to insights coming from psychology communities from other parts of the world.

Fifth, despite cultural variation of many psychological phenomena (van de Vijver et al., 2011) we found that cross-cultural and indigenous psychology did not play a role in most programmes of most assessed countries. Teaching whether phenomena identified in the US or in Western Europe would be similar in the cultural contexts of each country presupposes that this knowledge is available. Thus, the low prevalence of cross-cultural psychology in CDE may either indicate that there is not (yet) enough comparative knowledge available or that the programmes are too much dominated by Western textbooks and research. In fact, 53 per cent of the respondents from CDE reported that mostly or exclusively foreign textbooks would be used in their Level 1 degree programmes and the numbers were even higher in Level 2 degree programmes (64 per cent).

Sixth, with regard to programme contents, we found that differential psychology and neuropsychology/biological psychology tend to play a lower role in CDE than in other countries. The former difference may indicate that individual differences are more important in individualistic than in collectivistic societies and that individualism

is more widespread in CAE (Triandis, 2001). The lower prevalence of courses in neuropsychology and biopsychology in CDE may be explained by lower availability of expensive advanced technologies (Rosenzweig, 1996) and lack of staff trained in these new disciplines (Ratanaliok, 2011). Lower economic resources probably also explain the lower use of online courses, the higher student-faculty-ratio, and the lower share of personnel-consuming lab sessions, seminars, and tutorials in these countries.

Conclusions

In the final section of the paper we will shortly discuss what might be done to reduce the gap between psychology education in CAE and CDE. First, based on the survey results we recommend increasing the mutual international exchange of staff, students, and knowledge (by improving access to international journals, textbooks, and databases and by offering international workshops on teaching psychology). Second, online courses could be used more often. We recommend developing online courses for the international audience (with reflection on whether there are cultural differences and peculiarities) rather than simply providing access to available online courses that were developed for the audience of a particular (Western) country. The effective use of such courses may presuppose an increase of foreign language proficiency of the students. Third, many programmes from CDE would benefit from better financial resources that could be invested in reducing the student-faculty ratio and providing more teaching in small groups, such as lab sessions and seminars. Fourth, there is much room for increasing the numbers of students from CDE who go on to Level 2 degree or doctoral programmes. Fifth, as about half of the programmes from CDE and about 20 per cent of the programmes of the other countries were expected not to fulfill the criteria of high quality, measures are needed for increasing the quality of many programmes.

Regular accreditation and reaccreditation procedures, high standards for (re-)accreditation, and regular rankings of programmes could help with solving that problem. Regional or international accreditation procedures may also be considered.

Our conclusions for reducing the gap between both groups of countries do not indicate that we propose a complete leveling of national differences in programme contents and structures. On the contrary, we recommend that cultural differences as well as cultural peculiarities of psychological processes have to play a larger role in these programmes. Students must recognise that concepts and theories may be influenced by the cultural, social and political systems (Lutzky et al., 2005). This also presupposes more research in the field of cross-cultural and indigenous psychology that provides the knowledge to be taught.

Countries may define distinct goals for psychologists in their national and societal development, and as such, they might have different sets of aspirations for the psychology education system in their respective countries. We should be careful about imposing international standards in psychology education in ways that disregard the specific aspirations and contexts of these countries. As such the international psychology community would need to explore varied forms of engaging and interacting with diverse forms of education and training in the field of psychology that affirm the functionality and value of each national psychology and education system.

Authors' note

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References

- Bertram, D. & Roe, R.A. (2005). Definition and assessment of competences in the context of the European Diploma in psychology. *European Psychologist, 10*, 93–102.
- European Association of Psychologists' Associations (2011). *EuroPsy: European Certificate in Psychology EFPA Regulations on EuroPsy and Appendices*. Retrieved 8 August 2012, from: www.europsy.de/dokumente/EuroPsy.pdf
- Freedheim, E.K. & Weiner, D.B. (Eds.) (2003). *Handbook of psychology, Volume 1: History of psychology*. Hoboken, NJ: Wiley.
- Fuchs, A.H. & Milar, K.S. (2003). Psychology as a science. In E.K. Freedheim & D.B. Weiner (Eds.), *Handbook of psychology, Vol. 1: History of psychology* (pp.1–26). Hoboken, NJ: Wiley.
- Georgas, J. (1998). The psychology curriculum in Greece. *Psychology Teaching Review, 7*(2), 17–20.
- Hartley, J. (2012). Reflections on 50 years of teaching psychology. *Psychology Teaching Review, 18*(1), 3–9.
- International Monetary Fund (2012). *World Economic Outlook April 2012*. Retrieved 20 August 2012, from: www.imf.org/external/pubs/ft/weo/2012/01/pdf
- Karandashev, V. & McCarthy, S. (2006). International practices in the teaching of psychology. *International Journal of Psychology, 26* (Special Issue), 1–71.
- Lunt, I. (2005). The implications of the 'Bologna Process' for the development of a European qualification in psychology. *European Psychologist, 10*, 86–92.
- Lutsky, N., Torney-Purta, J.R., Whittlesey, V., Woolf, L. & McCarthy, M. (2005). *American Psychological Association Working Group on Internationalising the Undergraduate Psychology Curriculum: Report and recommended learning outcomes for internationalising the undergraduate curriculum*. Retrieved 9 September 2013, from: www.apa.org/ed/precollege/about/international.pdf
- McCarthy, S., Newstead, S., Karandashev, V., Prandini, C., Hutz, C. & Gomes, W. (Eds.) (2007). *Teaching psychology around the world (vol. 1)*. Newcastle: Cambridge Scholars Publishing.
- McCarthy, S., Karandashev, V. Stevens, M., Thatcher, A., Jaafar, J., Moore, K. & Brewer, C. (Eds.) (2009). *Teaching psychology around the world (vol. 2)*. Newcastle: Cambridge Scholars Publishing.
- McCarthy, S., Dickson, K.L., Cranney, J. & Trapp, A. (Eds.) (2012). *Teaching psychology around the world (vol. 3)*. Newcastle: Cambridge Scholars Publishing.
- Myers, D.G. (2009). Using new interactive media to enhance the teaching of psychology (and other disciplines) in developing countries. *Perspectives on Psychological Science, 4*, 99–100.
- Nielsen, L. (2011). *Classifications of countries based on their level of development: How it is done and how it could be done*. IMW working paper. Retrieved 20 August 2012, from: www.imf.org/external/pubs/ft/wp/2011/wp1131.pdf
- Newstead, S.E. & Mäkinen, S. (1997). Psychology teaching in Europe. *European Psychologist, 2*, 3–10.
- Nixon, M. (1994). Practices and needs in psychological training: A survey of 28 countries. *Australian Psychologist, 29*, 166–173.
- Pinquart, M. & Bernardo, A.B.I. (2014). Results of the IUPsyS Survey on psychology education and training worldwide. In R.K. Silbereisen, P.L. Ritchie & J. Pandey (Eds.), *Psychology education and training: A global perspective* (pp.21–44). Hove: Psychology Press.
- Ratanaliok, K. (2011). Neuropsychology in Thailand. In D.E. Fujii (Ed.), *The neuropsychology of Asian Americans* (pp.301–306). New York: Psychology Press.
- Rosenzweig, M. (1996). Reciprocal relations between psychology and neuroscience. In M. Sabourin, F. Craik & M. Roberts (Eds.), *Advances in psychological science: Biological and cognitive aspects* (pp.215–236). Montreal: Psychology Press.
- Ruiz, E.R. (2011). Psychology in Mexico. *Psychology Teaching Review, 17*(2), 61–63.
- Sinha, D. (1997). Indigenising psychology. In J.W. Berry, Y. Poortinga & J. Pandey (Eds.), *Handbook of cross-cultural psychology. Vol. 1: Theory and method* (pp.129–169). Boston, MA: Allyn & Bacon.
- Triandis, H.C. (2001). Individualism-collectivism and personality. *Journal of Personality, 69*, 907–924.
- Valsiner, J. (2009). Integrating psychology within the globalising world: A requiem to the post-modernist experiment with Wissenschaft. *Integrative Psychological and Behavioral Science, 43*, 1–21.
- van de Vijver, F., Chasiotis, A. & Breugelmans, S.M. (Eds.) (2011). *Fundamental questions in cross-cultural psychology*. Cambridge: Cambridge University Press.

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