

2004

Does Language Influence Response Styles? A Test of the Cultural Accommodation Hypothesis in Fourteen Countries

Anne-Wil Harzing
University of Melbourne

Follow this and additional works at: https://scholarworks.gvsu.edu/iaccp_papers

 Part of the [Psychology Commons](#)

Recommended Citation

Harzing, A.-W. (2004). Does language influence response styles? A test of the cultural accommodation hypothesis in fourteen countries. In B. N. Setiadi, A. Supratiknya, W. J. Lonner, & Y. H. Poortinga (Eds.), *Ongoing themes in psychology and culture: Proceedings from the 16th International Congress of the International Association for Cross-Cultural Psychology*. https://scholarworks.gvsu.edu/iaccp_papers/260

This Article is brought to you for free and open access by the IACCP at ScholarWorks@GVSU. It has been accepted for inclusion in Papers from the International Association for Cross-Cultural Psychology Conferences by an authorized administrator of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.

**DOES LANGUAGE INFLUENCE RESPONSE STYLES?
A TEST OF THE CULTURAL ACCOMMODATION HYPOTHESIS
IN FOURTEEN COUNTRIES**

Anne-Wil Harzing

University of Melbourne
Melbourne, Australia

Country collaborators

Austria: Iris Fischlmayr, Johannes Kepler University, Linz

Chile: Leonardo Liberman Yaconi, Queensland University
of Technology (Australia)

Denmark: Mikael Søndergaard, University of Southern Denmark

France: Cordula Barzantny, Groupe ESC Toulouse Business School

Germany: Katrin Wittenberg, University of Bradford School
of Management (UK)

Greece: Barbara Myloni, University of Bradford School
of Management (UK)

Hong Kong: Wai-Ming Mak, Hong Kong Polytechnic University

Malaysia: Janaka Chee Kong Low, University of Science Malaysia

Mexico: Maria Soledad Gomez Lopez, ITESM

Netherlands: Ayse Saka, University of Groningen

Poland: Aleksandra Grzesiuk, West Pomeranian Business School

Portugal: Francisco B. Castro, CEMPRE, Faculdade de Economia do
Porto, Universidade do Porto

Russia: Graham Roberts, University of Surrey (UK)

Sweden: Lena Zander, Ciara Karlsson, Laurence Romani, IIB,
Stockholm School of Economics

United Kingdom: Alan Feely, Aston Business School

The globalisation of the world economy and the increasing importance of multinational companies has made more and more researchers realise that theories and concepts developed in one part of the world (usually the U.S.A.) might not be applicable across borders. However, in order to find out which theories and concepts are universally valid and

which have to be adapted, cross-cultural research is necessary. Cross-cultural research is plagued by many problems (for an overview see for instance Singh, 1995; Usunier, 1998; van de Vijver & Leung, 2000). This article focuses on one of these problems: the fact that research in more than one country often involves subjects with different native languages.

When confronted with a linguistically-diverse population, the researcher has two basic options. The first option is to translate the questionnaire into as many languages as necessary. This is the only option if respondents are monolingual or if there is no shared second language among respondents. However, translation of questionnaires is not an unambiguous process. An instrument developed in one culture and language has to be translated into the language of the second culture, while at the same time preserving and maintaining the meaning of the original. Brislin (1986) offers a set of recommendations for translation of research instruments. However, translation of research instruments might be a time-consuming and expensive process.

Bilingual (usually English-native language) populations might offer the possibility of a second option: administer the questionnaire in the original language (usually English). However, this leads us to another problem: could the language of the questionnaire influence a person's response? In order to answer this question, we need to look at two different conceptions of the role of language in the study of cross-national differences: the Whorfian and the linguistic position (Hulin & Mayer, 1986). According to the extreme Whorfian position, individuals who speak different languages live in different worlds, rather than living in the same world with different labels for objects, events, and concepts. This position is based on the Sapir-Whorf hypothesis that sees language as a filter between an individual and his environment. Language has such a strong impact that cross-language research is impossible. According to the extreme linguistic position very high fidelity translations from a source to a target language would provide a sufficient basis for cross-language and cross-cultural assessments and comparisons. According to this position, the human race is united through common evolutionary events. This means that languages are simply linguistic symbols for common terms and can be translated into an equivalent set of symbols, a different language, with little loss of meaning (Brislin, 1980, cited in Hulin & Mayer, 1986).

Neither of these positions is likely to be accurate in their extreme forms. Although translation of research instruments might be possible, such translations may not produce scales that are psychometrically equivalent. Although language might influence thought processes and shapes the way we perceive our environment, it seems unlikely that these differences would create cognitive worlds that are so different that cross-language research is impossible. However, a less extreme version of the Whorfian hypothesis suggests that the language of the questionnaire might influence people's responses to the questions. This is especially likely when the instrument assesses cultural norms and values, since language and culture are interrelated. Yang and Bond (1980) suggested that when learning a second language, individuals might be subconsciously influenced by the culture of that language and acquire some of the cultural attitudes and values associated with that language, a process called cultural accommodation. Previous research has indeed found that the language version of an instrument can influence individuals' responses in this fashion (see for instance Bond & Yang, 1982; Botha, 1970; Candell & Hulin, 1986; Earle, 1969; Ralston et al. 1995).

Two other explanations for response differences between different language questionnaires – ethnic affirmation and social desirability – have so far received less support. Our study will therefore focus on testing the cultural accommodation hypothesis in a more controlled setting and on a larger scale than has been done so far.

Studies of Bilingual Populations

Studies on the impact of language on response patterns for bilingual populations have focused on one of two approaches: within-participant comparisons and between participant comparisons. The within-participant approach presents the same questionnaire in two different languages to every respondent. The between participant approach splits up the group of respondents and each respondent answers the questionnaire in only one language. In order to isolate the impact of language all respondents come from the same culture.

Results for within-participant comparisons are mixed. Earle (1969) and Botha (1970) found significant differences between language versions that supported cultural accommodation. Katerberg et al. (1977), Tyson et

al. (1988) and Sanchez et al. (2000) did not find any differences. However, it is possible that many respondents will make an effort to remember their earlier responses. In addition, separating the administration of the questionnaire in time allows for confounding variables to intervene. Depending on the design of the study it might also lead to a smaller sample since some respondents might decline participation in the second study.

The between-participant approach eliminates the potential consistency bias, but puts heavy demands on the comparability between samples. Two studies that applied this approach (Bond & Yang, 1982; Ralston et al., 1995) found differences between language versions that supported the cultural accommodation hypothesis, while one study (Candell and Hulin, 1986) found only very minor differences between language versions. Ralston et al.'s (1995) study illustrates a major drawback of the between-participant approach in comparison to the within-participant approach: it is very difficult to find samples that are matched on all other characteristics apart from the language of the questionnaire. Respondents might differ in terms of demographic characteristics, their position in the company, the type of company they work for etc. Although some of these characteristics were measured in the Ralston et al. (1995) study, they were not included in the analysis.¹

Our Study's Contribution

Since we feel that the "consistency" problem associated with the within-participant approach might hinder meaningful comparisons, we have chosen to use the between-participant approach in our study. However, we have made every effort to avoid the problems associated with earlier studies that used this approach by eliminating self-selection and matching respondents as closely as possible. In addition, our study will improve upon earlier studies in three other areas.

First, we include both questions that relate to cultural values and questions that are more neutral. Earlier studies focused on only one category of questions, either cultural values (Earle, 1969; Botha, 1970; Tyson, 1988, Bond, & Yang, 1982; Ralston et al. 1995) or questionnaires dealing with organisational issues such as job description and organisational commitment (Katerberg et al. 1977; Hulin et al. 1982; Candell & Hulin, 1986; Sanchez et al. 2000). Generally, studies focusing on cultural values found a response effect, while studies focusing on more neutral questions did

not. Since our population consisted of students (see below), our questions on cultural values were supplemented with neutral questions that related to reasons for choosing electives. A third set of questions asked students to assess the importance of various characteristics of their ideal job after graduation. These questions were expected to show *some* language effect, since they might refer to cultural values.

Second, our study compares English with no less than 12 other languages in 14 countries. It therefore includes a much wider range of countries and languages than previous studies that all focused on a comparison between English and one other language only: Chinese (Earle, 1969; Bond & Yang, 1982; Ralston et al., 1995), Spanish (Katerberg et al., 1977; Hulin et al., 1982; Sanchez et al. 2000), Afrikaans (Botha, 1970, Tyson et al. 1988) or French (Candell & Hulin, 1986). Most of the studies that found response effects compared Chinese and English, two languages that are very different and represent countries that are culturally very different. Our study includes West-European (Austria, Denmark, France, Germany, Greece, the Netherlands, Portugal, Sweden), East European (Poland, Russia), Latin American (Chile, Mexico) and Asian (Hong Kong, Malaysia) countries and will therefore allow us to assess whether response effects also occur for languages that are more similar to English and countries that might not be as culturally different from Anglophone countries as countries included in previous studies.

A third aspect that distinguishes our study from most of the earlier studies is that although in most of the countries in our sample there might be a status difference between English and the native language, this is not usually associated with ethnic tensions. These ethnic tensions might be expected for Hong Kong, South Africa or minority groups in the US, the subject of most previous studies. This allows us to focus more clearly on the impact of language as such, rather than including associated cultural tensions. Our study's main hypotheses are reproduced below.

Hypothesis 1: *Within each country the questions on cultural values and ideal jobs will show a significant difference between responses to the English-language questionnaire and responses to the native language questionnaire. This tendency will be more pronounced for the questions on cultural values than for the questions on ideal job type.*

Hypothesis 2: *In cases where there is a difference between responses to the English-language questionnaire and responses to the native language questionnaire, the responses to the English questionnaire will be closer to the responses of native English speakers.*

Method

Sample and Questionnaire Administration

Respondents were third or final year university students following a course in Business Administration, Business & Management or a similar subject.² The average age of students was 19 for the UK, 21 for Hong Kong, Mexico and Russia, 22 to 23 for Chile, Germany, Greece, Malaysia, the Netherlands, Poland, Portugal and Sweden, 24 for Austria, 25 for France and 26 for Denmark. Overall, the average age was 22. The gender distribution varied from 35% female in Sweden to 77% female in Hong Kong, while overall the gender distribution was virtually equal. International students were excluded from our sample so that our comparisons only included students that could be assumed to be representative of the country they studied in. The resulting sample sizes ranged from 58 for France to 210 for the Netherlands. Data were collected between March and November 2001.

Individual collaborators were responsible for the translation of the original English questionnaire. All collaborators are bilingual and translations were conducted using translation-back-translation procedures. After discussions between translator and back-translator, back-translated versions were verified by the project coordinator, which usually resulted in further changes and discussions between translator and back-translator. Collaborators were instructed to make sure that the distribution of the different language versions was as random as possible. In some countries English and native language questionnaires were distributed in the same class. In other countries different classes of the same subject or related subjects were used to separate English and native language questionnaires. Respondents were not told about the aim of the study until after they completed the questionnaire. They were informed the study involved a comparison of values and opinions of students across countries.

To verify whether collaborators had succeeded in the randomization process, we tested whether there was a difference in age and gender distribution between the different language versions. In 10 of the 14 coun-

tries there was no significant difference for either of these demographic characteristics. In Chile, Germany and Poland there was a significant difference in age. However, even though these differences were significant, the practical relevance of the difference for Chile and Poland (8 and 6 months respectively) was considered to be minimal. In Germany the difference was much larger (nearly three years) since the two versions of the questionnaires were distributed in different year groups. However, since the native-language group in this country was much closer to our English control group in terms of age than the English-language group, this would reduce any cultural accommodation effect rather than inflate it. In the Netherlands there was a significant difference in gender distribution. Since in this case the gender distribution in the English-language control group was closer to our English control group, we have to interpret results for this country with some caution. However, it is important to note that there is not a single country in the sample that shows significant differences for both demographic characteristics. Moreover, we also tested whether the two language groups differed systematically on the question: "How typical do you consider your view to be of people who live in the country in which you were born?" We found no significant differences for any of the 14 countries and can therefore be reasonably confident that any differences we find between the language versions are due to language and not to other characteristics.

Instrument

Cultural value questions. With regard to cultural values, we used a revised version of the Cultural Perspective Questionnaire (Maznevski et al., 2002), which is based on the culture framework presented by Kluckhohn and Strodtbeck (1961). Because of constraints in terms of questionnaire length, we chose to focus on only two of the six cultural dimensions that have been put forward by Kluckhohn and Strodtbeck: activity and relationships, each with three variations. The three variations of basic modes of Activity are doing, being and thinking. The three types of naturally occurring Relationships among humans are individualism, collectivism, and hierarchy. Kluckhohn and Strodtbeck clearly identified individuals as the "holders" of the preference for variations and the cultural pattern is defined by the aggregation of individuals' preferences. We can therefore make hypotheses and test them at the individual level of analysis.

Each of the variations was measured with 7 single-sentence items and respondents were asked to record their strength of agreement with each, on a scale from 1 (strongly disagree) to 5 (strongly agree).³ To reduce response bias from proximity of items, items for each variation were randomly distributed, though to preserve a logical structure Activity items and Relationship items were included in separate sections. Scale reliability analysis for the aggregated sample showed that the reliability of the Activity thinking scale was good (Cronbach's alpha: 0.74), while scale reliabilities for the Activity Doing, Relationship Hierarchy and Relationship Individualism scales were lower (Cronbach's alpha: 0.58, 0.56 and 0.56 respectively).⁴ Both the Activity Being variation and the Relationship Collectivism variation had even lower reliabilities (0.48/0.47). Results for these two variations should therefore be considered with some caution.

Neutral questions. As a representative for neutral questions, we asked students why they decided to choose a certain elective, providing a range of eight predefined reasons. A factor analysis resulted in a two-factor solution that grouped: "Because I am interested in the subject" and "Because it is relevant to my future career" on one factor and all other questions on the other factor. The third factor, however, had an eigenvalue only slightly below 1. When we reran the factor analysis with a forced 3-factor outcome, this clearly separated the two questions that related to lecturers from the four other questions. We therefore decided to separate the elective questions in three sets: *Content* (e.g. "Because I am interested in the subject"), *Lecturer* (e.g. "Because I like the lecturer") and *Extrinsic* (e.g. "Because it seems less work than other electives"). Scale reliabilities for the aggregated sample ranged from 0.53 for *Content* to 0.70 for *Lecturer*. Although the scale reliability for the Content scale was relatively low, it was maintained in the analysis as it consistently loaded on a single factor.

Ideal job questions. The third set of questions asked students to assess the importance of various characteristics of their ideal job after graduation and was adapted from Sirota and Greenwood (1971) and Hofstede (1980). Based on the pattern of eigenvalues, factor solutions of 1 to 4 factors were examined. The four-factor solution provided clearly interpretable factors. The first factor included questions that referred to a balance between work and private life and having a job that was not very

demanding (e.g. "have friendly colleagues that help each other"), but allowed good relationships with others. It was labeled *balance and relationships*. The second factor represented mainly *job intrinsic* (e.g. "have challenging work to do") elements and was labeled as such. Factor 3 clearly referred to monetary rewards and advancement (e.g. "have an opportunity for high earnings") and was therefore labeled *money & advancement*. The final factor would seem to refer to an orientation to serve (e.g. "serve your country") and was label *servicing*. Scale reliabilities for the aggregated sample ranged from 0.62 to 0.75 and were deemed acceptable.

Results

Previous research has demonstrated a significant country effect on respondents' tendency to use different parts of the scale (Leung & Bond, 1989; Singh, 1995). A preliminary ANOVA indicated the likely presence of cultural differences in response styles in our sample. The established procedure for removing bias associated with scale response is within-person standardization across the instrument (Leung and Bond, 1989). However, if data are standardized with respect to the instrument as a whole, the scores for one aspect of the questionnaire affect the scores for another, reducing the validity of cross-country comparisons at the level of different aspects of the questionnaire. We therefore chose to standardize the data within-person and within-subject (Activity dimension, Relationship dimension, Electives, Ideal Jobs). A further motivation for within-subject standardization is that for all of the four subjects we were interested in the relative importance that respondents attach to each aspect, e.g. activity doing vs. activity being and thinking. A standardization across the instrument as a whole would lose some of this important information.

Before testing the specific hypotheses, we had to verify whether there were any significant "culture effects" for the variables under investigation. If there is no culture effect, than there can be no accommodation effect. Using t-tests, we therefore first tested whether there were significant differences between UK respondents (who responded to an English-language questionnaire) and respondents in other countries who responded to a native-language questionnaire. These tests indicated that there were no significant "culture effects" for 33 of the 84 comparisons of the cultural

dimensions (6 variations for 14 countries), for 22 of the 56 comparisons of the ideal job type (4 job types for 14 countries) and for 21 of the 42 comparisons of the elective reasons (3 elective reasons for 14 countries). So 40-50% of the variables showed no culture effect in a comparison between the UK and other countries.⁵ This, however, leaves 51 of the cultural dimension comparisons, 34 of the ideal job type comparisons and 21 of the elective comparisons that can be used to test our two hypotheses.

Hypothesis 1. Hypothesis 1 predicted that there would be significant differences between responses to the English-language questionnaire and responses to the native language questionnaire. We also expected that this difference would be more prevalent for the questions on cultural values than the questions on ideal job characteristics and that there would be no systematic differences for the elective questions. As can be seen in Table 1 the cultural dimensions show significant differences in means between the native-language version and the English-language version of the questionnaire for 25 of the 51 comparisons, nearly 50% of the cases. With regard to the ideal job characteristics, Table 2 shows there are significant differences between means of the native-language version and the English-language version of the questionnaire for 16 of the 34 comparisons, also nearly 50% of the cases. With regard to the electives questions, Table 3 shows that there are significant differences in means for 5 of the 21 comparisons, 24% of the cases. We can therefore conclude that Hypothesis 1 finds partial confirmation. The cultural-dimension and the ideal-job-type questions show differences for nearly 50% of the comparisons, a proportion that is certainly too high to be discarded as accidental. In contrast to our hypothesis, there were nearly as many differences for the more applied ideal-job-type questions as for the basic cultural-dimension questions and although the language effect is less pronounced for the elective questions, it is by no means absent.

Hypothesis 2. Hypothesis 2 predicted that if there was a difference between responses to the English-language and native-language questionnaire (a language effect was present), the responses to the English-language questionnaire would be closer to those of British students (cultural accommodation).

Table 1

Comparison of Standardised Mean Scores for Native-Language Questionnaire, English-Language Questionnaire and the UK for Two Culture Dimensions

| Country / Culture Dimensions | Activity Being | Activity Doing | Activity Thinking | Relationship Collectivism | Relationship Hierarchy | Relationship Individualism |
|--|----------------|----------------|-------------------|---------------------------|------------------------|----------------------------|
| Austria (<i>n</i> = 97) | UK ≥ N | — | N > E, UK | E, UK > N | ns | N > E, UK |
| Chile (<i>n</i> = 95) | UK ≥ N | N > UK, E | ns | ns | UK, E > N | ns |
| Denmark (<i>n</i> = 86) | — | — | — | E, UK > N | — | N > E, UK |
| France (<i>n</i> = 58) | — | E, UK > N | — | E, UK > N | — | N ≥ UK |
| Germany (<i>n</i> = 97) | — | — | — | ns | ns | — |
| Greece (<i>n</i> = 113) | — | — | — | — | — | — |
| Hong Kong (<i>n</i> = 108) | ns | — | N ≥ UK | E, UK > N | — | N > E, UK |
| Malaysia (<i>n</i> = 125) | ns | — | N > E > UK | — | — | ns |
| Mexico (<i>n</i> = 98) | ns | N > E, UK | E > N > UK | UK ≥ N | UK, E > N | N > E > UK |
| Netherlands (<i>n</i> = 210) | ns | — | ns | UK > E > N | — | N > E, UK |
| Poland (<i>n</i> = 105) | UK ≥ N | — | N > UK, E | UK > E > N | — | ns |
| Portugal (<i>n</i> = 147) | ns | — | ns | — | UK ≥ N | N > E, UK |
| Russia (<i>n</i> = 86) | UK > N > E | — | — | ns | — | ns |
| Sweden (<i>n</i> = 120) | ns | UK, E > N | ns | UK, E > N | — | N > UK, E |
| No. of countries with language effect | 4 | 4 | 5 | 8 | 3 | 8 |
| Number of countries without any language effect: 2 | | | | | | |

—: There is no significant difference between the native-language mean and the British mean (no culture effect)

ns: There is no significant difference between the native-language mean and the English-language mean (no language effect)

Boldface: full cultural accommodation. There is a significant difference between the native-language mean and the English-language mean and the English-language mean is not significantly different from the British mean, while the native-language mean is.

Underline: partial cultural accommodation. Although there is no significant difference between the native-language mean and the English-language mean, the English-language mean is not significantly different from the British mean either and the native-language and British means are significantly different.

Roman: ethnic affirmation. There is a significant difference between the native-language and the English-language mean, but the English-language mean is significantly different from the British mean.

Table 2

Comparison of Standardised Mean Scores for Native-Language Questionnaire, English-Language Questionnaire and the UK for Ideal Job Characteristics

| Country / Job type | Balance & relationships | Job-Intrinsic | Money & advancement | Serving |
|--|-------------------------|-------------------------|---------------------|-------------------------|
| Austria ($n = 97$) | — | <i>nls</i> | <i>nls</i> | — |
| Chile ($n = 95$) | <u>UK > N</u> | — | — | E > N > UK |
| Denmark ($n = 86$) | — | <i>nls</i> | <i>nls</i> | — |
| France ($n = 58$) | UK, E > N | — | — | N > E, UK |
| Germany ($n = 97$) | E, UK > N | N > E, UK | — | UK, E > N |
| Greece ($n = 113$) | — | — | <u>UK > N</u> | <i>nls</i> |
| Hong Kong ($n = 108$) | — | UK > E > N | — | N > E > UK |
| Malaysia ($n = 123$) | N > E, UK | UK > E > N | UK, E > N | <i>nls</i> |
| Mexico ($n = 98$) | <i>nls</i> | — | <i>nls</i> | <i>nls</i> |
| Netherlands ($n = 210$) | — | <i>nls</i> | <i>nls</i> | — |
| Poland ($n = 105$) | <i>nls</i> | UK, E > N | N > E, UK | <i>nls</i> |
| Portugal ($n = 147$) | — | — | <u>UK > N</u> | N > E > UK |
| Russia ($n = 86$) | UK > E > N | — | <i>nls</i> | E > N > UK |
| Sweden ($n = 120$) | — | <i>nls</i> | — | — |
| No. of countries with language effect | 5 | 4 | 4 | 6 |
| Number of countries without any language effect: 5 | | | | |

—: There is no significant difference between the native-language mean and the British mean (no culture effect)

nls: There is no significant difference between the native-language mean and the English-language mean (no language effect)

Boldface: full cultural accommodation. There is a significant difference between the native-language mean and the English-language mean and the English-language mean is not significantly different from the British mean, while the native-language mean is.

Underline: partial cultural accommodation. Although there is no significant difference between the native-language mean and the English-language mean, the English-language mean is not significantly different from the British mean either and the native-language and British means are significantly different.

Roman: ethnic affirmation. There is a significant difference between the native-language and the English-language mean, but the English-language mean is significantly different from the British mean.

Table 3

Comparison of Standardised Mean Scores for Native-Language Questionnaire, English-Language Questionnaire and the UK for Elective Choice

| Country / Reason | Content | Lecturer | Extrinsic |
|--|-------------------------|-------------------------|---------------------|
| Austria (<i>n</i> = 97) | — | — | — |
| Chile (<i>n</i> = 95) | <i>ns</i> | N > UK, E | <i>ns</i> |
| Denmark (<i>n</i> = 86) | — | — | — |
| France (<i>n</i> = 58) | — | <u>N > UK</u> | <u>UK > N</u> |
| Germany (<i>n</i> = 97) | — | — | — |
| Greece (<i>n</i> = 113) | <i>ns</i> | <i>ns</i> | <i>ns</i> |
| Hong Kong (<i>n</i> = 108) | <i>ns</i> | <i>ns</i> | <i>ns</i> |
| Malaysia (<i>n</i> = 123) | <i>ns</i> | — | <i>ns</i> |
| Mexico (<i>n</i> = 98) | — | E > UK > N | N > UK, E |
| Netherlands (<i>n</i> = 210) | N > UK > E | E, UK > N | — |
| Poland (<i>n</i> = 105) | <i>ns</i> | <i>ns</i> | — |
| Portugal (<i>n</i> = 147) | <i>ns</i> | — | — |
| Russia (<i>n</i> = 86) | — | — | — |
| Sweden (<i>n</i> = 120) | — | <i>ns</i> | — |
| No. of countries with language effect | 1 | 4 | 2 |
| Number of countries without any language effect: | 10 | | |

—: There is no significant difference between the native-language mean and the British mean (no culture effect)

ns: There is no significant difference between the native-language mean and the English-language mean (no language effect)

Boldface: full cultural accommodation. There is a significant difference between the native-language mean and the English-language mean and the English-language mean is not significantly different from the British mean, while the native-language mean is.

Underline: partial cultural accommodation. Although there is no significant difference between the native-language mean and the English-language mean, the English-language mean is not significantly different from the British mean either and the native-language and British means are significantly different.

With regard to the questions on cultural dimensions, Table 1 shows that cultural accommodation takes place for 23 of the 25 cases where a language effect is present. For 19 of these 23 cases the convergence is complete, i.e. British and English-language means are not significantly different from each other, but are significantly different from the native-language means. In four cases, the English-language mean is significantly different from both the native-language and the British mean, but in all these case the English-language mean takes up a middle position. In addition, we find seven cases (underlined in the table) where the native-language mean and British mean are significantly different, while the English mean is in between and is not significantly different from either the native-language or the British mean. These cases show partial cultural accommodation towards to the British mean for respondents completing the English-language questionnaire.

With regard to the ideal-job-type variables, Table 2 shows that for 14 of the 16 cases where we found a language effect, a cultural accommodation effect is present. In 10 of these 14 cases the convergence is complete, i.e. British and English means are not significantly different from each other, but are significantly different from the native language mean. In the remaining four cases, the English-language mean is significantly different from both the native-language and the British mean, but in all these case the English-language mean takes up a middle position. In addition, we find three cases (underlined in the table) where the native-language mean and British mean are significantly different, while the English mean is in between and is not significantly different from either the native-language or the British mean. These cases show partial cultural accommodation towards to the British mean for respondents completing the English-language questionnaire.

With regard to the elective questions, Table 3 shows that for all 5 cases where we found a language effect, a cultural accommodation effect is present. In 3 of the 5 cases this convergence was complete, i.e. British and English-language means are not significantly different from each other, but are significantly different from the native-language mean. In two cases, the English-language mean is significantly different from both the native-language and the British mean. In both these cases the responses for the English-language questionnaire are even more extreme than the British responses. In addition, we find two cases (underlined in the table) where

the native-language mean and British mean are significantly different, while the English mean is in between and is not significantly different from either the native-language or the British mean.

In sum, in all but four cases of the 46 cases the cultural accommodation thesis was confirmed. We can therefore conclude that there is strong support for the cultural accommodation effect, thus confirming hypothesis 2.

Discussion

Language effects are present in about half of the comparisons for both the cultural dimensions and the ideal job type questions and for about a quarter of the elective questions. In all but four cases, these effects confirmed the accommodation thesis. In 80% of the cases where the differences confirmed the accommodation thesis, the convergence was complete, i.e. British and English-language means are not significantly different from each other, but are significantly different from the native-language mean. In 20% of the cases we found "crossvergence": i.e. the English-language mean is significantly different from both the native-language mean and the British mean.

Language effects are quite important in nearly each country in our survey. The three types of questions do differ, however, in the extent that language effects are present "across the board", i.e. in all countries. For the cultural values questions only two countries (Germany and Greece) do not show *any* language effect, while for the ideal job type of questions this is true for 5 of the 14 countries. The elective questions showed a larger language effect than expected. However, this language effect is concentrated in only 4 of our 14 countries. Another way to assess the impact of the language effect is to look at the individual variables within the cultural values, ideal job and elective choice questions. For both the cultural values and the ideal job variables a language effect is present in at least 3, but usually more countries, while two of the elective choice variables only show a language effect for 1 or 2 of the 14 countries. Most of the language effects for elective choice are concentrated in the questions related to lecturers. In contrast to most of the other elective questions⁶ these questions refer to human interaction and therefore might be considered to be more "culture-charged" and hence more susceptible to a language effect than the other questions.

Given that a language effect for elective choice occurred in only four countries and most of the cases concerned the "lecturer" reason, we can be reasonably confident that language effects will not be a major problem in "neutral" questions. Somewhat surprisingly, however, the language effect seemed to be nearly equally strong for the ideal-job-type questions that were hypothesized to be "in-between" the basic culture questions and the "neutral" elective questions. Retrospectively though, this language effect for the ideal-job-type might be less surprising than it would seem at first sight. Many of the ideal-job type characteristics might be considered to have cultural elements. The factors job-intrinsic and serving could be interpreted as approximations of individualism and collectivism dimensions, while the factors balance and relationships and money and achievement could be interpreted as approximations of Hofstede's femininity/masculinity dimensions. In fact some of the questions relating to ideal job characteristics formed the basis of Hofstede's individualism/collectivism and femininity/masculinity dimensions.

A caveat should be added, however. Scale reliability of many scales in our study was low, typically around 0.6. While this is below the generally accepted norms for reliability, we feel that it is acceptable for two reasons. First, it is extremely difficult to design reliable scales in a multi-country setting. Second, our results are very consistent and it is unlikely that they have been substantially influenced by low scale reliability. Our study has one important limitation that we hope to address in a follow-up study: we have only one sample of an Anglophone country and this sample consisted of students that were younger than students in the other countries. Additional, more comparable samples of Anglophone countries would form a stronger test case for our hypotheses.

Conclusion

This study confirmed the result of earlier studies that found that language has an impact on the way bilinguals respond to questions relating to cultural values. It extends earlier studies by showing that this language effect is present even for languages that are closer to English than Chinese is and for countries whose culture is relatively close to the UK. Overall, our study has shown that a decision on the language of the questionnaire should be a key aspect of any cross-cultural study design. Where questions

can be deemed to be "neutral", English-language questionnaires can offer a quick and satisfactory alternative to a lengthy and costly translation process. However, when questions comprise an element of culture – and we have shown that this might be the case even with questions that at first glance would be considered neutral – the use of English-language questionnaires might obscure important differences between countries. If differences between countries are of interest in the study design, as they will be in most cross-cultural studies, researchers seem to have little choice but to accept the cost and inconvenience of questionnaire translation.

References

- Bond, M.H., & Yang, K-S. (1982). Ethnic affirmation versus cross-cultural accommodation. *Journal of Cross-Cultural Psychology, 13*, 169-185.
- Botha, E. (1970). The effect of language on values expressed by bilinguals. *Journal of Social Psychology, 80*, 143-145.
- Brislin, R.W. (1980). Translation and content analysis of oral and written materials. In H.C. Triandis & J.W. Berry (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Methodology* (pp. 137-164). Boston, MA: Allyn and Bacon.
- Brislin, R.W. (1986). The wording and translation of research instruments. In Lonner, W.J. & Berry, J.W. (Eds.), *Field methods in cross-cultural research* (pp. 137-164). Beverly Hills: Sage Publications.
- Candell, G.I., & Hulin, C.L. (1986). Cross-language and cross-cultural comparisons in scale translations. *Journal of Cross-Cultural Psychology, 17*, 417-440.
- Earle, M.J. (1969). A cross-cultural and cross-language comparison of dogmatism scores. *Journal of Social Psychology, 79*, 19-24.
- Hofstede, G. (1980). *Culture's consequences. International differences in work-related values*. London: Sage.
- Hulin, C.L., & Mayer, L.J. (1986). Psychometric equivalence of a translation of the job descriptive index into Hebrew. *Journal of Applied Psychology, 71*, 83-94.
- Katerberg, R., Smith, F.J., & Hoy, S. (1977). Language, time and person effects on attitude scale translations. *Journal of Applied Psychology, 62*, 385-391.

- Kluckhohn, F.R., & Strodtbeck, F.L. (1961). *Variations in value orientations*. Evanston: Row, Peterson & Company.
- Leung, K., & Bond, M. H. (1989). On the empirical investigation of dimensions for cross-cultural comparisons. *Journal of Cross-Cultural Psychology*, 20, 133-151.
- Maznevski, M.L., DiStefano, J.J., Gomez, C.B., Noorderhaven, N.G., & Wu, P.-C. (2002): Cultural dimensions at the individual level of analysis: The cultural orientations framework. *The International Journal of Cross Cultural Management*, 2, 275-298.
- Ralston, D.A., Cunniff, M.K., & Gustafson, D.J. (1995). Cultural accommodation. The effect of language on the response of bilingual Hong Kong Chinese managers. *Journal of Cross-Cultural Psychology*, 26, 714-727.
- Sanchez, J.I. (2000, August). *Linguistic effects in translated organizational measures. A study of bilinguals*. Paper presented at the meeting of the Academy of Management, Toronto.
- Singh, J. (1995). Measurement issues in cross-national research. *Journal of International Business Studies*, 26, 597-620.
- Sirota, D., & Greenwood, M. (1971). Understand your overseas workforce. *Harvard Business Review*, 49, 53-60.
- Tyson, G.A., Doctor, E.A., & Mentis, M. (1988). A psycholinguistic perspective on bilinguals' discrepant questionnaire response. *Journal of Cross-Cultural Psychology*, 19, 413-426.
- Yang, K.S., & Bond, M.H. (1980). Ethnic affirmation by Chinese bilinguals. *Journal of Cross-Cultural Psychology*, 11, 411-425.
- Usunier (1998). *International and cross-cultural management research*. London: Sage.
- Vijver, F.J.R. van de, & Leung, K. (2000) Methodological issues in psychological research on culture. *Journal of Cross-Cultural Psychology*, 31, 33-51.

Notes

- ¹ Assessing the descriptive analysis in Ralston et al. (1995), we find that some of the language differences might have been caused by differences in other variables. Managers who responded to the English version of the questionnaire are closer to the American managers in terms of age, years employed, level of employment and size of the company than managers who responded to the Chinese version.
- ² In Germany data were collected at a "Fachhochschule" to more closely match the profile of students in other countries (university students in Germany tend to be older and Business Administration tends to be more theoretical at universities). In the UK, we were only able to collect data from 1st year students. In France, we were only able to collect data from Masters students, while in Denmark data were collected for both UG and Masters students.
- ³ A pilot study was conducted in the UK in November 2000, where we tested different scale anchors, running from never to always, but these were not well received by the respondents. In addition, the pilot test resulted in the replacement of some items for the cultural dimensions and the introduction of the ideal job questions. This pilot study coincided with a preliminary discussion among collaborators about translatability of items and several items that proved to be difficult to translate were replaced.
- ⁴ For both the Relationship Hierarchy and the Relationship Individualism scales one of the items that had a low item total correlation was removed and scales are based on six items.
- ⁵ This does not mean that there are no country differences as such on these variables, only that the difference between the UK and the country in question was not significant. In fact an overall ANOVA analysis between countries showed that significant differences between countries were present for all variables included in this study with F-values varying from 3.914 for Activity Doing to 42.963 for Job Type serving).
- ⁶ The exception is the "Because my friend are choosing it."

Harzing's e-mail address: anne-wil@harzing.com