Interpretation of uncertainty expressions

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Methodology

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Research Instrument

To examine the research questions, a mailed survey questionnaire was employed to obtain subjects' interpretations of the IAS uncertainty expressions listed in Table 1. The questionnaire was comprised of three parts and four versions of the questionnaire were developed: an all-English version (E), an all-German version (G), and two mixed-language versions (GE1 and GE2). The all-English language version of the questionnaire is provided in the Appendix.

Part 1 of the all-English questionnaire (E) contained the 16 expressions listed in Table 1. Subjects were asked to assign probabilities to the uncertainty expressions using a scale of 0 to 100. A non-accounting example was provided in the instructions to enhance understanding of the task. To mitigate an order effect, two versions of the questionnaire were created in which the uncertainty expressions were placed in different random arrangements. Part 2 of the questionnaire asked respondents to indicate the range of probabilities associated with 6 of the 16 expressions in Part 1. Pitz (1980) suggests that uncertainty expressions best describe a range of numerical probabilities rather than single values. Demographic information was collected in Part 3 of the questionnaire.

The all-German version was identical to the English version with the following exceptions. Due to there being two translations for "probable" and three for "no longer probable," the German version (G) of the questionnaire included 19 expressions corresponding to the 16 expressions in English. Additional demographic questions asked about English fluency and professional experience working in an English-speaking country. These questions were asked to examine whether exposure to the English language and/or the Anglo culture might influence

perceptions of uncertainty expressions.

Expressions in Parts 1 and 2 of the all-German questionnaire were presented in the same random order as in the English version. To ensure equivalence between the English and German versions of the questionnaire, the German version was prepared first and then translated into English by the researcher with English as his first language. German colleagues then checked the English version for consistency with the German version. One of the advantages of including the German language-culture in this study is that an official translation of IAS exists and any subjectivity introduced by a translation of the uncertainty expressions by the researchers could be avoided.

The third version of the questionnaire (GE1) was comprised of a combination of instructions and demographic questions from the all-German version, and uncertainty expressions taken from the all-English version. Subjects receiving this version of the questionnaire assigned probabilities to uncertainty terms expressed in English. In the fourth version of the questionnaire (GE2), Part 2 of the all German questionnaire (related to ranges) was replaced with the uncertainty expressions from Part 1 of the all English questionnaire. Thus, respondents to GE2 assigned probabilities to the same uncertainty terms expressed in both English and German.

Subjects

Questionnaire E was mailed to CPAs in the United States. The mailing list was obtained from the American Institute of Certified Public Accountants (AICPA) and the sample was randomly drawn from that subset of AICPA members who indicate that they work in public accounting and have auditing as their professional interest. Questionnaires G, GE1, and GE2

were mailed to WPs throughout Germany randomly drawn from the WP Directory published by the Institut der Wirtschaftsprüfer. In addition, to examine whether differences exist between different nationalities that speak the same language, questionnaire G was also sent to a sample of WPs in Austria and Switzerland.

Sample sizes, response rates, and respondent demographics are reported in Table 2. For subsequent analysis, respondents with internally inconsistent responses were removed from the data set. Inconsistent responses were identified by comparing responses to those uncertainty expressions that are direct opposites of each other, such as, "likely/unlikely" and "wahrscheinlich/nicht wahrscheinlich." Those respondents assigning a probability to the second expression in the pair greater than the probability assigned to the first expression were removed from the data set. These respondents apparently did not correctly understand the task.

[Insert Table 2 here]

The German WPs' response rates to questionnaires GE1 and to Part 2 of GE2 were well below the German WPs' response rates for questionnaire G, probably because German speakers were being asked to respond to uncertainty expressions in English.

The most interesting result from the demographic questions is the extent to which the different groups are familiar with and refer to IAS in their work. The majority of U.S. CPAs indicated that they are not familiar and that they never refer to IAS, whereas only relatively small percentages of the various German-speaking WP groups indicated the same. Although this difference has no direct bearing on the current research, it is somewhat surprising to discover that U.S. CPAs have so little contact with IAS.

Research Design

To examine whether nationality alone, controlling for language-culture, affects interpretation of uncertainty expressions, the responses to questionnaire G made by German WPs were compared with responses to questionnaire G made by Austrian and Swiss WPs. To test whether interpretations of uncertainty expressions differ between U.S. CPAs and German-speaking WPs (Hypothesis 1), the mean responses to Part 1 of questionnaire E (CPA) were compared with the mean responses to Part 1 of questionnaire G (WP/German). To test the effect of language-culture (Hypothesis 2), controlling for any translation effect, responses to questionnaire E (CPA) were compared with the combined responses to questionnaire GE1 and the English part of GE2 (WP/English).

To test the effect of translation (Hypothesis 3), controlling for culture, the responses to Part 1 of questionnaire G (WP/German) were compared to the responses to Part 1 of GE1 (WP/English)—a between subjects comparison. Hypothesis 3 was also tested by comparing the responses to GE2-Part 1 (WP/German) with the responses to GE2-Part 2 (WP/English)—a within person comparison. A comparison of WPs' perceptions of those expressions where two different German words have been used for one English word provides additional insight into the effect translation has on the interpretation of IAS.

Responses to Part 2 of questionnaires E, G, and GE1 were also compared across the three groups (CPA, WP/German, and WP/English) to test for overall, culture, and translation effects with regard to the range of probabilities assigned to uncertainty expressions.

ANALYSIS AND RESULTS

Point Estimate Probabilities

The first step in the analysis was to test for differences in the point-estimate