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**TRANSLATION ISSUES IN SURVEY RESEARCH:
CONFRONTING LINGUISTIC AND CULTURAL
VARIATION**

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**Translation Issues in Survey Research:
Confronting Linguistic and Cultural Variation**

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September 1990

This is one of a series of working papers produced by the Center for International, Health, and Development Communication at the University of Pennsylvania. Part of the research reported here was done in collaboration with the Guatemalan Ministry of Health. The research was supported in part by the Academy for Educational Development through its Communications for Child Survival contract with the U.S. Agency for International Development, Bureau of Science and Technology, Offices of Health and Education (Contract no. DPE-1018-C-00-5036-00). This paper is the responsibility of the author and may not represent the views of those who have supported the research.

Questionnaire translation is a persistent issue confronting survey researchers in multilingual settings. Because of the subtleties of cultural and linguistic variation, questionnaire translation is seldom as straightforward as it might at first appear. In developing countries where cultural differences are large, the translation process can become even more complex. This note, based on field research from the Health Communications for Child Survival (HEALTHCOM) project, addresses translation issues and related questions of questionnaire administration in multilingual settings.

HEALTHCOM is a five-year communications project designed to assist developing countries use communication strategies to promote the widespread use of effective child survival practices. HEALTHCOM is sponsored by the Office of Health and the Office of Education within the Bureau for Science and Technology of the U.S. Agency for International Development and is administered by the Academy for Educational Development. The project works in some 17 countries, using its research and development approach to promote changes in behavior with regard to child health. The Center for International, Health, and Development Communication at the Annenberg School for Communication, University of Pennsylvania is responsible for the summative evaluation in several countries and for providing assistance in formative evaluation when requested. An example from a HEALTHCOM survey in Guatemala will be used to illustrate the translation issues in survey research discussed here.

In general, designing survey questionnaires involves painstaking attempts to order questions propitiously, to select vocabulary that will not be threatening to the respondent, to word questions precisely, and to anticipate possible responses. Careful attention is paid to word choices; making questions clear and direct reduces the possibility of misinterpretation by respondents. These concerns are compounded when designing questionnaires for use in multilingual settings. The care taken in designing a questionnaire can be undermined if equal care is not taken in translation.

It is by now virtually undisputed that survey interviewers should be "as similar as possible to the respondents in culture, social background, and language" (Ross and Vaughan, 1986:92). There are several reasons for this stipulation. Interviewees are more at ease and more likely to provide straightforward responses to interviewers whom they perceive as similar to themselves. For their part, interviewers from the same cultural background are better able to guide the interview and interpret respondents' answers. As mentioned by Ross and Vaughan, these considerations apply to language as well as social background. However, the steps involved in achieving the desired linguistic similarity between interviewer and respondent have often been overlooked.

Issues in Questionnaire Translation

After a questionnaire is designed, it must be translated into the appropriate language or languages spoken in the target country. The first step in the process is generally to translate from English to the principal or official language of the country to be surveyed, followed by re-translation into English by a different translator to check accuracy and work out discrepancies. The process does not usually stop there, however, because in many countries large segments of the population do not speak the principal language. Taking as given the premise that interviews should be conducted in the respondent's native language (Vaessen et al.:173), the nature of the translation process becomes an important consideration: translated written versions of the questionnaire can be prepared in the other language or languages, the original questionnaire can be administered by bilingual interviewers who translate from the original written questionnaire orally as they go along, or local interpreters can be used to translate for the interviewer.

"The task of the translator," says Joseph B. Casagrande, "is to decode a message presented in one code... and encode that message in a second code... so that the two messages are equivalent, or more accurately, [of] approximate

equivalence" (338). In retreating to "approximate equivalence" Casagrande recognizes that exact equivalence between languages is unattainable. Languages vary in such obvious ways as their systems of categorizing items and events, tendencies to synthesize concepts into words or phrases, and structuring of time and attitude through tense and mood. In addition, the meaning of seemingly universal concepts and even of some nouns can vary with different contexts and between cultures. For example, in the study of diarrheal disease, HEALTHCOM has demonstrated that people of different cultures categorize diarrheal disorders according to varying criteria (Yoder, "Cultural Conceptions":1990). When a North American researcher asks about diarrhea, this apparently straightforward word does not necessarily evoke the same associations in the respondent as it does in the researcher or in members of other cultural groups. As this example shows, careful attention to language and cultural issues is essential. Because of the many and sometimes subtle ways that languages differ, multilingual settings present a distinct set of issues concerning survey comparability.

For survey responses to be comparable across different social and language groups, the questions asked must be comparable. This is a key reason for the insistence that questionnaires be administered verbatim by interviewers. This also leads to favoring written translations of questionnaires in multilingual countries, since a written instrument is assumed to better provide the desired lexical precision.

Translated written questionnaires clearly provide the greatest degree of control over the interview. A written instrument that interviewers are trained to follow exactly ensures that questions will be posed to all respondents using the same words and wording. For this reason, translated written questionnaires are seen as the most reliable way to approach equivalence. For questionnaires that are to be administered in more than one language, ideally the researcher and translator work together through any linguistic complications that may arise in the translation process, and make choices that most closely approach linguistic equivalence.

Although this process would appear to alleviate a significant problem in getting comparable data from different language groups, there is another set of difficulties associated with translated questionnaires. These difficulties often arise from the situation of indigenous languages. Many languages were not written until recent years; many still do not have fixed orthographies. Often, only a few specialists are literate in indigenous languages. Native speakers of these languages may become literate in their society's principal language through formal schooling without ever learning to read and write in their native language. This has implications for the interview setting: although translators can usually be found through government or research agencies, finding interviewers who are not only native speakers but also able to read the written translated questionnaire has proven to be difficult in various countries (McCombie; Vaessen et al.:181).

An alternative to using written questionnaires in such situations is to use bilingual interviewers who work from the original written instrument in the principal language, translating orally as they go along. This option sacrifices the precision of a written translated questionnaire, but in some cases it may be more realistic.

Another interview option, the use of non-native interviewers who speak the interview language as a second language, is generally considered unacceptable because of the need for the interviewer to establish rapport with interviewees and to handle subtleties of idiom and meaning.

The complexity of issues involved in translation decisions is beginning to receive attention and investigations into translation issues in development work have recently been undertaken in several countries. Recognizing the scope of the problem, Vaessen et al. conducted language experiments in the Philippines and the Ivory Coast as part of the World Fertility Survey, a series of national surveys concerning fertility and contraception. The purpose of the experiments was to assess interviewer accuracy in the administration of translated written

questionnaires as compared to on-the-spot translation by bilingual interviewers. Tape recordings of both types of interviews were analyzed as to the number and type of deviations from the written questionnaire. The researchers concluded that "there remains little doubt that the use of verbatim local language versions of the questionnaire results in considerably less interviewer error than the use of on-the-spot translation by the interviewers" (Vaessen et al.:181). In the course of their research, the World Fertility Survey researchers noted another difficulty in multilingual fieldwork, particularly in areas in which more than one language is spoken in a single community. The greatest problem they encountered was matching respondents with interviewers who spoke the appropriate language (188).

An experiment with written questionnaires was carried out by Shanto Iyengar in Andhra Pradesh, India. Iyengar tested linguistic equivalence of English and Telugu questionnaires with different categories of bilinguals. Using data from a survey concerning political socialization, Iyengar analyzed responses of bilingual speakers of English and Telugu who filled out the same questionnaire in different languages at different times. He concluded that the more concrete the survey item, the greater the ease of attaining linguistic equivalence: "linguistic equivalence of conventional, self-administered, specific survey items is not difficult to achieve." But he found the problem of interpretation to be "formidable" for what he interpreted as "more diffuse and abstract items" (Iyengar:181). To reduce this problem, Iyengar advocates advance legwork -- consideration of potential linguistic pitfalls and omission or modification of those survey items that may not hold up across the proposed set of languages.

These experiments indicate some of the complexities of questionnaire translation, but there are still other issues that may loom in the field. For example, in some countries knowledge of which language or languages are spoken in which areas may be lacking. The decision of which local languages to include in the survey sample is significant. Speakers of different

languages may vary widely in customs, ethnicity, and responses to development programs. Results from a survey sample taken from some groups may not be applicable to others. The World Fertility Survey advocates a thorough linguistic survey if necessary to determine the language distribution in the area to be sampled (Vaessen et al.:188). Such a survey could be a demanding and costly undertaking.

Once the languages necessary for the survey have been established, the next step is selection of interviewers and, if a written version of the questionnaire is to be prepared, translators. As noted previously, it can be difficult to find interviewers--even native speakers--who are comfortable reading languages that may have only recently acquired standardized written forms. There are often dialectal differences to contend with as well, as residents of neighboring communities may speak quite distinct dialects.

The Guatemalan Example

These issues surfaced during the HEALTHCOM field experience in Guatemala. It should be borne in mind that the language situation in Guatemala does not approach the complexity of many countries. In Nigeria, for example, three official languages and more than 200 other languages are spoken (Simpson:26). In Guatemala, some 18-22 Mayan languages are spoken in addition to Spanish, the official language (Kluck:52; England:1). All are living languages spoken daily in their communities, with the number of speakers varying from approximately one million for K'iche' to some 1000 for Tektiteko (England:1). Speakers of some of these languages can understand each other with effort, cooperation, and reduced expressive range on both sides, while other languages have diverged widely over the years and are not mutually comprehensible to any degree. In addition, there are numerous dialects of these languages, mutually comprehensible but with recognizably distinct variations of vocabulary or structure. In written form, these languages also diverge. The Academy of Mayan Languages of Guatemala has recently undertaken a project to standardize them (England:5-6).

A survey that HEALTHCOM conducted in four Guatemalan *departamentos* (administrative divisions) provided an opportunity to test different translation methods of the same instrument. The principal languages in the areas of the survey were Spanish and two Mayan languages, Q'eqchi' and Kaqchiquel. The original survey questionnaire was prepared in English and translated into Spanish by HEALTHCOM researchers in the United States. Local project staffers at the program office in Guatemala reviewed the Spanish version and adjusted it for local usage. This version was used for interviewing Spanish-speaking respondents. For the Q'eqchi' language, an experienced bilingual interviewer worked from the Spanish questionnaire, translating on the spot. For the Kaqchiquel language, the questionnaire was translated by professionals at the Guatemalan Indigenous Institute, and two native Kaqchiquel speakers with interviewing experience were hired to conduct interviews from the written questionnaire.

Reviewing the translated questionnaire, both of the Kaqchiquel interviewers disagreed with some of the vocabulary and syntax used, a reflection of dialectal variation within the language. Both interviewers practiced administering the written Kaqchiquel questionnaire, and both had difficulty with it, as they were unaccustomed to seeing their native language in written form. Neither became completely fluent with the instrument, often referring to the Spanish version for clarification.

The first interviews were conducted in a small Kaqchiquel-speaking village in the *departamento* of Sololá. In this community, few residents spoke any Spanish at all. The interviewers were accompanied by local "health promoters," resident volunteers who provide health information to the community. The Kaqchiquel-speaking interviewer's dialect differed from that spoken in the village. Explaining that he feared alienating people or causing misunderstandings with delicate health questions and terminology, he conducted the interviews through the health promoters. He read each question aloud in Spanish, the promoter asked it in Kaqchiquel, the

interviewee responded in Kaqchiquel, and the HEALTHCOM interviewer noted the response on the questionnaire. On several occasions he intervened to clarify a point that he felt the health promoter was not asking correctly or to probe an interviewee's response, but at no time did he conduct an entire interview. This interview situation largely negated any advantage of having a written questionnaire. (It should be noted that in a small, closed community such as this one in which all residents know one another and strangers are viewed as intruders, local escorts would be necessary in any case, whether or not they also served as translators.)

In a larger Kaqchiquel-speaking community outside the capital of the *departamento* of Retalhuleu, the interviewers worked -- with difficulty -- directly from the Kaqchiquel questionnaire. The interviewees understood the questions, but they recognized that the interviewers spoke a Kaqchiquel that was different from theirs. Several vocabulary items elicited discussion, and often considerable amusement. The flow of the interview was interrupted on several occasions as interviewer and interviewee compared the meaning of certain terms in different areas. One child, listening to an interview, informed the interviewer that she was "not talking right."

An alternate interviewing procedure was undertaken with the Q'eqchi' language. Rather than prepare a written translation of the questionnaire, a bilingual interviewer worked directly from a Spanish questionnaire, translating the questions as he went along. Several interviews were tape recorded and later translated verbatim back into Spanish in order to compare the use of the written questionnaire with the on-the-spot translation in the field.

In this case, the actual process of interviewing was smoother than it had been with the written Kaqchiquel questionnaire because the interviewer was comfortable with the written Spanish version of the questionnaire and with the spoken local variant of Q'eqchi'. This is not to deny that there is greater room for variation in an interview without an instrument written in the interview language to work from, as Vaessen et al. emphasize.

Several separate but related issues can be illustrated by examining an excerpt from a Q'eqchi' interview. Although respondents in this survey were to be mothers of children under two years of age, fathers' participation as in this excerpt, was common. The following is a section of the questionnaire and a transcription of the corresponding part of the interview--at one further remove, translated into English.

Questionnaire :

Q: Did you have prenatal check-ups during your last pregnancy?

Q: Who did you see for these check-ups?

Q: How many check-ups did you have during your last pregnancy?

Q: Do you have a radio in this house?

Q: Does the radio work?

Interview transcription:

Interviewer: "Before your child was born, did you go to be seen?"

Mother: "I went to the health center."

Interviewer: "Who saw you there?"

Mother: "I don't know her - an older lady."

Father: "When she went into labor (*cuando se compuso*) with this child we went to Coban. This child was born in Coban."

Interviewer: How many times did you go - when the child hadn't been born yet - when it was still in your heart?"

Father: "Many times."

Mother: "Many times."

Father: "Many times - she was in a lot of pain -- that's why she went there."

Interviewer: "Yes, but how many times did you go?"

Father: "Many times."
Mother: "Many times."
Father: "Maybe six times...like every..."
Interviewer: "Six times."
Father: "At the end of every month -- you have to go
again and they tell you to come next month."
Interviewer: "Six times?"
Father: "Maybe six or more."
Interviewer: "Do you have a radio?"
Father: "She was really in pain."
Interviewer: "But do you have a radio sir?"
Father: "They told her to come back when she was
about to give birth."
Interviewer: "Does the radio work?"
Father: "Yes, it works."

This interview transcription illustrates the often - mentioned issue in questionnaire design and translation of the delicacy of issues related to pregnancy, and the absence of concepts such as "prenatal check-up" in some cultures. Similar problems have been noted elsewhere. For example, AIDS researchers in Africa have noted that due to different norms of social and sexual interaction, the concept of prostitution as understood in Western culture does not exist in the Chichewa culture, or, consequently, in the language. Temporal matters are also handled differently in Chichewa; the absence of the concept of "ever" as in "Have you ever...?" has posed difficulties in questionnaire translation (McCombie, 1990; Yoder, personal communication, 1990).

The Q'eqchi' interview excerpt also highlights an issue not of language differences, but of cultural differences. Questionnaires are written as if they are to be administered in a pristine environment. They do not allow for the fact that interviewees from other cultures may not be accustomed to providing responses that must fit into little boxes. The procedural need to ask questions identically in all cases can be undermined by insufficient anticipation of and respect for cultural differences.

Discussion

These field experiences illustrate some of the complexities of questionnaire translation. The principal conclusion is that while written questionnaires in the relevant languages are important tools, they cannot be relied upon as a panacea for the problems of multilingual surveys. There are several possible pitfalls to be aware of. While Vaessen et al. noted the problems of the absence of linguistic maps of an area and of matching interviewer language to interviewee language, two other issues stand out from our field experience.

The first was the difficulty that the interviewers had in reading a language they were accustomed to using only in spoken form. The second was the great dialectal variation within the same language across communities. This meant that interviewers from one Kaqchiquel-speaking community did not speak the same variation of their language as the linguist who translated the questionnaire from Spanish to Kaqchiquel, or as interviewees from still other communities. Although all Kaqchiquel speakers were able to understand one another, the precision aimed for in a carefully-translated written instrument was simply not achievable under these circumstances.

For survey purposes, one way to deal with dialectal variations of a language would be to treat each area's speech as a different language. But even the idealistic proposal of commissioning written instruments and local interviewers for all speech communities sampled would not be feasible, not only for budgetary reasons but because bilingual translators in numerous dialects probably could not be found. For these and other logistical reasons, as a practical matter the World Fertility Survey employs a rule of thumb that "advise[s] against the preparation of a language version likely to cover less than 10 percent of the sample" (Vaessen et al.: 175).

The issues of unwritten languages and dialectal variation highlighted here are alluded to but not directly addressed by the World Fertility Survey which, in a policy that

could conflict with the above-noted one, advocates that generally "at least 80 percent of the interviews should be conducted on the basis of verbatim questionnaires" (Vaessen et al.:175). Even in the comparatively simple linguistic environment of Guatemala, adherence to such a stipulation could mean either a multiplicity of questionnaire languages or the exclusion of small language groups from the survey. The first option may be logistically and budgetarily impractical; the second is likely to be methodologically unacceptable. Therefore, some combination of translation methods is likely to be used for any multilingual survey. Decisions about which translation method to use in which case will depend on the availability or unavailability of translators, bilingual interviewers, and funds, as well as the researchers' and local experts' judgment.

These issues are important, and the concerns underlying them are significant. Lack of attention to language differences can result in noncomparability of survey answers and misinterpretation of survey data. Solutions are elusive, but one clear imperative is interviewer training. With practice, interviewers unaccustomed to reading their native language can become familiar with a written questionnaire. If there is not a written translated version, interviewers can work together to standardize their oral translation from the principal language. Well-trained interviewers will also be better able to handle interruptions and digressions during the interview, as well as lexical variation

On the part of researchers, awareness of the multilingual intricacies of many developing countries will help reduce surprises in the field and contribute to more reliable data collection. This sensitivity to language issues entails cultural sensitivity and, as with any fieldwork, requires understanding of and respect for the cultures being studied.

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