CHAPTER 9

Hmong and Chinese Qualitative Research Interview Questions: Assumptions and Implications of Applying the Survey Back Translation Method

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Introduction

More than 7,000 languages are currently spoken around the world (Eberhard, Simons, & Charles, 2019). Although researchers are not currently working with all 7,099 languages, cross-cultural research and international collaborations involving researchers and participants from all over the world are increasing. Often, such collaborations are conducted in English, despite the involvement of multilingual speakers, while the research is conducted in non-English-speaking communities. Consequently, translation is necessary for researchers to work with one another.

Translation is used for surveys, standardized interviews, and qualitative interviews. Translation, in general, involves converting one language (the source language—e.g., English) into another (the target language—e.g., Chinese; Bassnett, 2014). Translation can occur at many stages in the research process, including (1) prior to data collection, as the researchers develop interview guides or question items (Epstein, Santo, & Guillemin, 2015); (2) during data preparation, when interviews are translated into transcripts (Chen & Boore, 2010); (3) during data analysis, when codes and themes are translated (Santos, Black, & Sandelowski, 2015); and (4) during the dissemination of findings, including translating quotations (Al-Amer, Ramjan, Glew, Darwish, & Salamonson, 2015).

Back translation is the most commonly used translation approach in research across disciplines (Chen & Boore, 2010; Maneesriwongul & Dixon, 2004; Willgerodt, Kataoka-Yahiro, Kim, & Ceria, 2005) and has been considered the gold standard for decades. Recently, however, back translation

has been viewed as a less than ideal method for assessing translation quality in survey research because of its literal translation procedures (Behr & Shishido, 2016; Swaine-Verdier, Doward, Hagell, Thorsen, & McKenna, 2004; Van Widenfelt, Treffers, De Beurs, Siebelink, & Koudijs, 2005). Nevertheless, we are not aware of prior research that has identified and discussed the inherent assumptions and implications of back translation for qualitative research. Qualitative studies are critical to the development of effective survey items for survey research.

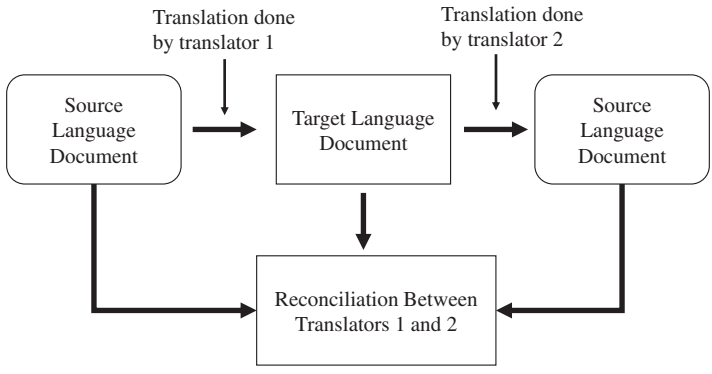
This chapter discusses, for the first time, assumptions and implications related to back translation in qualitative research with the aim of enhancing the survey process. Specifically, the purpose of this chapter is to discuss the challenges that researchers encounter during translation prior to data collection in qualitative studies, using two different study examples of back translation (Brislin, 1970). We discuss translation challenges in designing and implementing qualitative interviews based on the back translation method (Brislin, 1970), and we also identify and discuss this method's inherent assumptions and implications for data analysis and quality. The commonly accepted assumptions underlying back translation are as follows: (1) equivalent words and concepts exist in the source and target languages, (2) grammatical forms of the source language are the same in the target language, and (3) concepts are understood in the same way in both languages. With these assumptions in mind, this chapter makes use of examples from two qualitative studies with Hmong and Chinese samples to identify the challenges of finding equivalent words and concepts; cultural conventions in the target language that require more structured interview questions; and variations in perceived meaning that exist between each translator and between the translators and study participants because of differences in class, age, education level, and gender. We focus on qualitative research for several reasons. First, qualitative research is designed to assist survey researchers in testing their survey items with participants. Second, in qualitative studies, each interview must be translated without the opportunity to question the participants about meanings, and participants' responses in the source language are likely to contain language for which conceptual equivalents in the target language are difficult to identify. Third, it is important to focus on translating interviews prior to data collection because the quality of the data depends on the quality of the translated interview questions.

Back Translation

Back translation involves two bilingual translators working separately, without collaboration, in a process whereby one individual translates from the source to the target language and the other translates "blindly back" (i.e., this standard method is followed, regardless of whether the second translator is aware of the first translation) from the target to the source language (Brislin, 1970). Both translated documents are then compared against the source text to ensure accuracy. Inaccuracy is identified by translation errors and instances in which the two documents are not equivalent in words. In other words, the errors are discrepancies that occur when the source language forms (i.e., the source, target, and back translated texts) are not identical (see Figure 9-1). The researcher discusses discrepancies in the documents with the translators through an iterative process until the meaning of the translated documents is mutually agreed upon. For instance, Brislin suggests that, "if the two source language forms are not identical, [the researcher] can confer with the two bilinguals, clearing up errors" (Brislin, 1970, p. 2). With regard to changes in the vocabulary or concept, he advises that the researcher "will have to revise the original English to be sure of eventual identical items in the foreign and back translation versions" (Brislin, 1970, p. 2). Furthermore, Brislin (1970) states that "[t]he bilingual translating from the source to the target may retain many of the grammatical forms of the source" (p. 2).

The process of back translation described by Brislin assumes that words, concepts, and grammatical forms are equivalent and understood between

Figure 9-1. Back translation process



languages and that the skills of the bilingual translators are adequate in both the source and target languages. However, researchers have not addressed how these assumptions affect qualitative research, specifically during the development of interview questions and in terms of the quality or accuracy of data.

Challenges in Qualitative Studies Using Back Translation

Challenges in the accuracy of back translation in qualitative research have been acknowledged by various researchers (Kirkpatrick & van Teijlingen, 2009; Squires, 2009). Translation challenges in qualitative research occur when there is a lack of conceptual (meaning) equivalence across languages and cultures, when there is no comparable concept, and when context changes the significance of the concept (Chen & Boore, 2010; Lopez, Figueroa, Connor, & Maliski, 2008; van Nes, Abma, Jonsson, & Deeg, 2010). In addition, translation problems can arise as a result of differences in the skill levels of the translators, including a lack of familiarity with the culture of Western countries or that of the target language, which may include generational issues, subtle regional differences, and language proficiencies that are not necessarily recognized in one's own cultural context (e.g., different names for colors; Lor, 2018a; Lor, Xiong, Park, Schwei, & Jacobs, 2016; Squires, 2009; Wallin & Ahlström, 2006). Furthermore, there can be differences in the type or degree of challenge associated with translating different types of interview questions (Fontana & Frey, 2000). For instance, questions in highly structured interviews have been found to be more difficult to translate than those in loosely structured or unstructured interviews because highly structured questions allow less room to address differences between the source and target languages (Fontana & Frey, 2000). However, such differences do not mean that these questions have less of an effect on the translations, particularly if the researcher is unaware of these differences. Despite the acknowledged translation challenges in qualitative interviews, researchers have not focused on how the characteristics of back translation influence such challenges.

Medrano et al. (2010) reviewed 100 studies (39 interviews and 67 surveys) using translated data for analysis and reported that 68 percent of interview studies and 53 percent of the studies that used surveys failed to provide information regarding their translation processes, challenges, and decisions. Despite this gap in information related to translation processes, researchers have not addressed how back translation of interview questions affects the

data quality of qualitative interviews. Therefore, this chapter reports on the inherent assumptions of back translation and discusses the implications of this form of translation for the analysis and data quality of qualitative interviews. We illustrate our points with examples from two qualitative studies: (1) a Hmong cancer disparity study conducted in the United States and (2) a Chinese diabetes self-management study conducted in China. These samples were selected because we have the most experience with these language groups. Our findings have implications for improving the design of interview questions for both surveys and qualitative interviews.

Background: Culture and Language

To understand how concepts, grammatical forms, and translators' skills influence back translation in qualitative studies, it is critical to understand the cultural context of the population(s) of study (i.e., Hmong and Chinese populations). Cultural contexts such as health beliefs and practices are examples of how cultural differences influence translation. Hence, it is important to understand a study population's health beliefs and practices as well as its grammatical structures, because high-quality translation depends on the researcher's or translator's fluency in both the source language and target language and on knowledge of both cultures (Chen & Boore, 2010).

Culture and Concepts

Culture is critical to individuals' experiences of health, well-being, and the provision of health care. Culture can be conceptualized as a set of practices and behaviors (e.g., customs, habits, language, and geography) that groups of individuals share (Triandis, 1994). For example, Eastern countries (e.g., East Asian countries such as China and India) are considered to be collectivist societies, whereas Western countries (e.g., the United States and the United Kingdom) are considered individualistic societies (Hofstede, 1984; Triandis, 1995). Research has suggested that these different societies have different values and behaviors, including the way in which individuals express themselves (Triandis, 2001; Triandis, 1995; Tsai, Knutson, & Fung, 2006).

Although the concepts of individualism and collectivism have been addressed in survey studies, they have not been addressed in qualitative studies. Survey studies have documented that the aforementioned cultural traits affect survey responses. For example, persons from nations with individualistic cultures seek clarity in their explicit verbal statements (Triandis, 1995), indicating that extreme response styles may be more

common among persons from individualistic countries (e.g., Johnson, Kulesa, Cho, & Shavitt, 2005; Johnson, O'Rourke, Burris, & Owens, 2002; Johnson & Van de Vijver, 2003). Conversely, collectivist cultures are associated with greater emphasis on interpersonal harmony and less on individual opinions (Chen, Lee, & Stevenson, 1995; Johnson et al., 2005). Thus, researchers may misreport socially desirable responses as an overstatement of positive qualities or behavior among persons from collectivistic countries (Johnson, Shavitt, & Holbrook, 2011). These findings have implications for any research, including qualitative studies, in which researchers work with individuals from different cultures and societies. In particular, there are implications for collecting health information from culturally diverse populations. Understanding these cultural traits of individualism and collectivism helps researchers determine how these traits affect the experiences of health and illness in culturally diverse populations.

The Hmong Versus Chinese

The Hmong are an ethnic group who originate from a collectivist culture. Many Hmong emigrated from Southeast Asia to the United States in the 1970s (Duffy, 2007). There are over 260,000 Hmong people living in the United States (Pfeifer, Sullivan, Yang, & Yang, 2012). Although some Hmong have converted from their traditional beliefs to other religions (e.g., Christianity), the majority of the Hmong in the United States still engage in traditional healing practices, including animistic folk healing, and believe in the healing power of shamans (Culhane-Pera, Vawter, & Xiong, 2003). The Hmong believe that their health can be altered by spiritual causes, including the loss of a soul or a frightened soul (Culhane-Pera et al., 2003; Lor et al., 2016). It is well documented that the Hmong have a limited understanding of Western medical terminology (Lee & Vang, 2010; Lor, 2018b). Historical knowledge, traditions, and skills are passed orally from generation to generation (Duffy, 2007; Duffy, Harmon, Thao, & Yang, 2004; Lor & Bowers, 2014; Park, 2002). Understanding that the Hmong have an oral tradition is critical to qualitative research and translation involving this population because translators need to ensure the conversation during the interview is conveyed so that it is consistent with the Hmong culture; that is, the translation should not be verbatim or direct.

There are 1.39 billion Chinese people living in mainland China (National Bureau Statistics of China, 2018). Chinese people practice a range of religions and traditional approaches, including Confucianism, Buddhism, and Taoism

(Chen, 2001). Chinese people believe that traditional Chinese medicine (TCM) can mobilize and activate the body's natural resources, such as a vital energy, "qi," and rebalance Yin and Yang to restore health (Xu, Towers, Li, & Collet, 2006) and treat chronic diseases. In the theory of Yin and Yang, Yin represents femaleness, darkness, passivity, absorption, and cold, while Yang represents maleness, light, activity, penetration, and warmth (Kaptchuk, 1983). It is critical for individuals to have a harmonious balance of Yin and Yang throughout their bodies to ensure optimal health. TCM treatment, including dietary manipulation, herbal therapy, and other modalities (e.g., acupuncture), provides solutions to restore an individual's overall balance of Yin and Yang. For example, Yang conditions (e.g., hypertension, infection, stomach upset, and venereal disease) can be treated with Yin herbs and cold foods (here, "cold" relates to the quiet energy and passivity associated with certain foods and does not refer to the literal temperature of a food). For instance, when someone has an ulcer (a Yang condition), they will eat grapefruit or drink green bean soup to restore the Yin–Yang balance (Hwu, Coates, & Boore, 2001). In contrast, Yin conditions (e.g., cancer, menstruation, pregnancy, and the postpartum period) can be treated with Yang herbs and hot foods. TCM is also used as a disease prevention method, which is consistent with the philosophy of Zhi-Wei-Bing. The philosophy of Zhi-Wei-Bing includes disease prevention, treatment, and rehabilitation and is a unique part of traditional Chinese culture (Fen et al., 2018).

Grammatical Structure

The Hmong people have an oral tradition (Duffy, 2007). The Hmong language is commonly spoken using ideophones or "expressive language," which involves feelings, emotions, and images (Williams, 2013). For example, Hmong ideophones are used to describe concepts such as rain falling (*plij plooj*) or a fish writhing on a hook (*nplhib nplhob*). Expressions in the Hmong language are derived from the listener's interpretation of the interplay of pattern, tone, and consonant and vowel choice across the two syllables (Williams, 2013). There are two different Hmong dialects: White and Green. The White dialect is the most commonly spoken language. There are seven major tones in White Hmong. The basic sentence structure of the Hmong language is similar to English: subject-verb-object (Williams, 2013). However, unlike English, the Hmong language lacks all affixes that can indicate a word's grammatical function, such as tense, case, and gender. Because Hmong lacks all affixes, Hmong listeners rely heavily on the exact sentence structure and the context of

the phrase being spoken to derive meaning. Specifically, word order and conversational context in Hmong are critical in determining the grammatical function of a word. For example, consider the following instance of how the time element (aspect) of the verb is inferred by the situational context, even though there is no verb conjugation to indicate tense in Hmong. Assume that you are leaving a friend's house when the friend asks, "Where are you going?" You respond as follows, with the first line being the sentence in Hmong, the second line being a literal translation of each word into English, and the third line being the sentence in colloquial English:

Kuv mus tsev.
I go home.
"I am going home."

By considering the context of this conversation, it is evident that your friend has asked you this question because he has seen you preparing to leave the house. Because you are in the process of "going," you understand the verb to be the present continuous "going" rather than the past tense "gone" or "went."

Written Hmong only recently developed when two Christian missionaries established the Romanized Popular Alphabet for the Hmong language in the 1950s (Duffy, 2007). As such, written Hmong is unfamiliar to most older Hmong individuals, who can neither read nor write this newly developed language (Duffy, 2007).

In contrast, the Chinese have a written language that was established as early as 1500 BC. Chinese (the examples used in this chapter are in standard Chinese/Mandarin [普通话]) has the same sentence constituents as English. As with the majority of English phrases, the basic phrase structure in Chinese is of the subject-verb-object type. However, the basic phrase structure is written and spoken differently than in English. For example, "What is it?" in English is literally "It is what?" (它是什么?) in Chinese. In addition, if a time and place are indicated, the time and location expressions generally precede the verb. The use of these preposed particles in a series varies considerably. The subject-object-verb structure is used more often in Archaic Chinese and in the bǎ-construction. For example, the first line that follows is a sentence in standard Chinese/Mandarin (普通话); the second line is the transcription system—pinyin zimu; and the third line is the sentence in English:

我把他打了。
Wǒ bǎ tā dǎ le
"I hit him."

Bǎ (“把”) in the sentence functions as an objective case marker, and the object “他” (him) preposes the verb “打” (hit).

The official Chinese transcription system, like the phonetic spelling shown earlier, is pinyin zimu. The pinyin system was invented to help people pronounce the sound of the Chinese characters. The characters themselves are often composed of parts that may represent physical objects, abstract notions (Wieger, 1915), or pronunciation (DeFrancis, 1986). The primary language spoken in China is Mandarin (Lin, 2001), which is officially defined as the standard Chinese language.

Back Translation: Assumptions, Examples, and Implications

In this next section, we present how the assumptions of back translation affected two qualitative studies with Hmong and Chinese samples. The Hmong sample of participants had a median age of 55 (age range: 34–70 years) and had been residing in the United States for an average of 20 years (residency range: 8–33 years). All Hmong participants had limited English proficiency; that is, they could speak and read English less than well. The Chinese sample consisted of patients with type II diabetes, with an average age of 55 (age range: 34–78 years). The participants were mostly male and had a literacy level ranging from illiterate to undergraduate level. They had diabetes for an average of 7 years (range: 0.5–22 years), and nearly half of them lived in rural communities.

Assumption: Equivalence of Concepts in Source and Target Languages

Back translation assumes that there are words that represent equivalent concepts in both the source and target languages. However, this is not always the case, and the absence of such equivalence or the cultural context of the concepts could change their meaning in translation.

Absence of Equivalent Concepts

There are some words in the source language (i.e., English) that do not exist in the target language. For example, the word “prostate” does not exist in the Hmong language. Consequently, researchers and translators must find an alternative way to ask questions involving this word. The original English interview question in the Hmong study was “Have you ever done a prostate cancer screening?” Acknowledging that the Hmong come from an oral tradition and the prostate exists as neither a word nor a concept in their language, the interviewer provided a visual that displayed

the anatomy and an oral description of the body part. The interviewer explained,

> This is called the "prostate" [said in English]. It is located below your bladder. It is this thing [interviewer points to the diagram]. People call it a prostate and, most of the time, they check it by drawing your blood to see if you have cancer in your prostate. Have you done something like this?

When the researchers asked this question, one male participant responded: "if it's below your bladder then for us Hmong people, we called it urinary tract infection" (*peb hais tias mob txeeb zis no os*). Another male participant shared: "I don't know." In the first response, the participant associated the prostate with another body part with which he was familiar (i.e., the urinary tract). Therefore, the question about prostate cancer screening could not be translated verbally in a way that participants would understand. In addition, this example illustrates that translation, including back translation, could not be used in this case because there is no word for "prostate" in Hmong, regardless of its delivery format (i.e., visual or verbal).

Cultural Context Changes Meaning

The translation from the source language to the target language may not fit within the cultural context of the participants. In other words, asking questions in certain ways could ultimately change the meaning of the original concept. For example, the question "Where do you have pain?" can have multiple meanings if it is not carefully translated. A common translation of such a question is "*Koj mob qhov twg*?" This translation in Hmong has two meanings: "Where do you have pain?" or "What health condition or illness do you have?" When asked this question, one participant shared, "I have diabetes and high blood pressure," whereas another participant responded, "My left hand hurts." In these examples, the first participant understood the interviewer to be asking about her specific medical conditions, while the second participant understood the interviewer to be asking her to identify where she felt pain. As illustrated here, the word "*mob*" in the Hmong language has multiple meanings, including pain or hurt and illness or health condition.

To specify that the question referred to pain, we revised it to "Tell me where you hurt on your body. For example, does it hurt on your head, shoulder, hands, chest, stomach, and so forth?" Providing examples of locations prompted Hmong participants to think of the location of the pain instead of their illness or health condition. Hence, Hmong participants were

able to indicate their pain location. One participant shared: "The hurting started with my nose, then [moved] to my throat. The doctor said that I had cancer from my nose to my throat."

Implications

If there is no comparable word or a concept does not exist in the participants' culture, researchers must ask themselves how to convey this information. Are there visual, auditory, or sensory examples that can be used to convey the word or concept? Is providing examples of the concept in a question appropriate in the culture? If it is appropriate, how would such an approach affect the quality of the data?

Assumption: The Grammatical Form of the Source Language Is the Same as That of the Target Language

When using back translation, translators also assume that the grammatical form of the source language is the same as that of the target language. However, this assumption does not take into account that there are often cultural conventions in the target language that require more structure than Western participants might be comfortable with if asked in English. For example, a typical question that is asked in qualitative interviews and used across qualitative methodologies is "What is it like for you to have … [the phenomenon or health condition]?" This question may seem understandable to English-speaking participants, but it may not be understandable to non-English-speaking participants from a different culture after it has been translated. For instance, participants from Western cultures may understand this question as an invitation to describe their experiences with the phenomenon. However, other cultures may interpret this differently. In the Chinese study, this phrase was difficult to translate into Mandarin because it is not consistent with the Chinese language structure (i.e., the grammatical style). Hence, we changed the word order in the question to be consistent with the Chinese grammatical style: "Having diabetes is like what?" (得了糖尿病是怎么样的?). When we asked this question, one participant responded, "I don't know. You mean symptoms? Feelings? Which aspects do you want me to share?" This response illustrated that the word "what" is a broad concept, which made it difficult for the participant to understand what the interviewer wanted him to address. In addition, the phrasing of the question does not fit within the Chinese language, as evidenced by the participant's request to clarify a specific domain of experience (e.g., feelings, symptoms).

However, when the interviewer specified the "what" and added a noun to the sentence, this elicited a different response to the initial question of "Having diabetes is like what?" For example, the interviewer replaced "what" with "feelings," which resulted in the following question: "What is your feeling about having diabetes?" (你患了糖尿病有什么感受?). The additional noun elicited a different understanding of the revised question than that of the initial question. To illustrate, after the noun was added, one participant responded: "I often feel sleepy and can't get accustomed to the controlled diet. Besides, it is not convenient to inject insulin in public places sometimes." The participant's response illustrated that he understood the interview question. However, this revision narrowed the scope of the item to focus on the participant's psychological experience; it limited the participant's answer to feelings about having diabetes and thus altered the question, undermining the equivalence of the interview questions and limiting comparison across languages.

Consequently, we used one strategy to address the initial interview question without changing it. To maintain consistency in the meanings of the question, we rephrased it to specify the context. For example, in the Chinese study, rephrasing the question from "Having diabetes is like what?" to "Can you tell me about your *experience* with diabetes?" (您能和我说说患糖尿病的经历/体验吗?) elicited responses that were different from the aforementioned example about feeling. For instance, one participant responded,

> Having diabetes is … I feel a little bit of suffering … As for eating, I feel hungrier compared to before I had diabetes, even when I have normal meals. The main thing is to control my mouth. It is difficult to control my mouth because I don't feel full … After you have diabetes, the most important thing is to control your mouth, but it's difficult.

Another participant responded as follows:

> I didn't feel anything. I had a physical examination and a blood test, the blood sugar showed 16 mmol/L. The doctor told me that I have diabetes. I still had a job at that time. I did business. Well, I drank alcohol every day and kept the routine as usual … Almost 2 years later, I had ketosis. And I was sent to the hospital.

From the responses provided by both participants, it appears that rephrasing the question helped researchers get closer to the intended goal of the original question: "What is it like for you to have diabetes?"

Implications

Despite the alternative solution from the previous example, researchers should consider the following questions: When one uses another word, what is the effect of that word? Does the new word still have the same meaning? How should that new word be described or reported? How does that word affect the responses of the participants? Does the new word indicate a wider possible range of responses from the participants? How will this affect interpretation of responses and the ultimate findings of the study? What claims can be made about the findings?

Assumption: Concepts Are Understood in the Same Way in Both Languages

Back translation also assumes that each bilingual translator interprets words or concepts as their study participants do, disregarding differences in translation based on class, age, education, and gender between each translator and between the translators and study participants (Lor, Xiong, Schwei, Bowers, & Jacobs, 2016; Schatzman & Strauss, 1955). Specifically, translators are often more aware of interlanguage variations in their native language than they are of those in another language, and they sometimes have limited awareness of interlanguage variations. Brislin's concept of equivalence assumes that two translators have the same understanding of the interview questions and also understand the questions in the same way as the participants (Lor, Xiong, Schwei, et al., 2016). Thus, equivalent words would not necessarily convey the researcher's intended meaning because there are subtle differences in some words.

It has long been established that social status conventions influence how people talk to one another (Schatzman & Strauss, 1955). We illustrate this point by comparing how age differences between interviewers influenced their translation of the question "Can you tell me about your experience with menopause?" A young female Hmong translator who was fluent in both Hmong and English (born in Thailand, raised and attended school in the United States) and an older female Hmong translator (born in Laos, raised in Thailand) translated the same question but phrased it in different ways and, therefore, elicited different responses. The young translator posed it thusly: "Tell me about your experience when *your vagina stops bleeding*" (Qhia kuv nws zoo li cas rau koj thaum koj *lub pim tsis los ntshav*). In response to this question from the younger translator, a participant answered with anger: "I don't know how to respond to that. What did you just say?" In this example, when the interviewer directly translated the meaning of the word

"menopause" without knowing the actual word in the participant's language, it created a negative experience for the participant. Specifically, the direct translation of "vagina stops bleeding" created an offensive phrase for the participant because of the lack of cultural sensitivity in the translation. In addition, the translation in the target language was not socially acceptable in the Hmong culture. Such an experience could negatively affect the development of rapport and trust between the interviewer and the participant.

In contrast, when the older Hmong translator, who was born in Laos and raised in Thailand, phrased the same question as "Tell me about your experience with *not menstruating*" (Qhia kuv nws zoo li cas rau koj thaum koj *tsis coj khaubncaws*), the participant said, "My body no longer feels like it is a woman because I don't menstruate anymore. I feel like a man." The participant's response illustrated that the translation of the older interviewer was more culturally sensitive, and the participant was more comfortable with the phrasing used (i.e., *tsis coj khaubncaws*). This example confirms that direct translation can cause participants discomfort, especially when mentioning body parts. Hence, the older Hmong interviewer was able to elicit a more useful response.

Implications

It is clear from our examples that bilingual translators may interpret words and concepts differently from the study participants because of variations in translation related to differences in class, age, education level, and gender between translators and between the translators and study participants. Hence, it is critical for researchers to consider the following implications when they use back translation: How do two bilingual translators agree on a word or phrase that may differ based on attributes such as their class, age, gender, and so forth? Should researchers consider including a representative from the intended study participants in the translation process? Which personal attributes influence meanings and create translation challenges? How many and what type of bilingual translators are needed to achieve content equivalence between the source and target languages? How should translators address interlanguage variations? Are two bilingual translators ever adequate, and how would a researcher determine whether they are?

Discussion

In this chapter, we addressed the assumptions that translators make when performing back translation and provided real-life examples with

implications for researchers to consider when using back translation for qualitative research. As shown in the examples presented in this chapter, certain factors influence the quality of back translation, including language, culture, and the translator. For instance, we provided examples of how different cultures have different concepts; hence, words and concepts in the source and target languages are not always equivalent. These examples of differences in concepts have implications for researchers who are developing and designing cross-cultural questionnaires with regard to the need to understand how participants are communicating their responses and how they might qualify their answers in response to questions asking for the exact qualities of the response.

Furthermore, in survey research, the development of a questionnaire requires a robust process of development and testing that involves using qualitative approaches. For instance, questionnaire design is a multistage process that requires attention to detail, including translation of questionnaires. We illustrated two examples of how the quality or accuracy of translations can be altered if researchers fail to acknowledge that translations are likely to differ according to the class, age, education, and gender of the translators and study participants (Schatzman & Strauss, 1955). Specifically, if the sociodemographic characteristics of the study population or the translator are not considered, the data gathered from the translator could be poor, ultimately leading to a less rigorous qualitative research study that will affect the quality of a questionnaire. This finding highlights the need to consider translators' sociodemographic characteristics when selecting translators to assist in survey translation and when conducting survey interviews.

Our observations of the drawbacks of the back translation method in qualitative interviews are consistent with those of other scholars and researchers who have studied survey translation (Harkness, 2008; Harkness, Pennell, & Schoua-Glusberg, 2004; Harkness, Van de Vijver, & Mohler, 2003). For instance, some have argued that back translation does not allow researchers to detect whether the translation is simple and clear enough for its intended target participants to understand (Harkness, 2008; Harkness et al., 2004; Harkness et al., 2003). Furthermore, some scholars have argued that back translation is not an appropriate assessment tool because translation is not a process of adapting the instrument from the source language directly into a target language (equivalence), but rather a process of adapting the instrument into a target language and culture to measure the same construct in the hope of achieving functional equivalence (Behr & Shishido, 2016;

Harkness, Dorer, & Mohler, 2010; Pan & de La Puente, 2005; Przepiórkowska, 2016). In contrast, others have argued that back translation could be a useful tool for documentation of "good" and "bad" translations (Son, 2018).

Consequently, the dissatisfaction with back translation has led survey researchers to depart from it. Although no translation method has been standardized, we recommend that scholars, students, and researchers consider other translation methods beyond back translation, given the limitations we have illustrated, including its inability to allow translators to find similar or comparable concepts. One translation method that has recently been acknowledged to be the best practice in survey research is called the translation, review, adjudication, pretesting, and documentation (TRAPD) model (Harkness, 2003). The TRAPD model is a team translation approach that involves five steps: (1) translation, which involves the production of two or more independent drafts of translations; (2) review, which involves the translators and a reviewer comparing the draft translations and deciding on the final translation (note that this step is sometimes referred to as expert review, depending on the context); (3) adjudication, which involves an adjudicator (often the reviewer) comparing the reviewed translation with the master questionnaire and approving the translation for the pretest or for fieldwork; (4) pretesting, which involves testing the adjudicated questionnaire in a small-scale study and amending the translation based on the test results; and (5) documentation, which involves documenting the entire process (i.e., draft translations; the exchange of comments between the translators, the reviewer, and the adjudicator; feedback from the pretest; and final translation). Although the TRAPD method has been recommended as the best practice for survey translation, more research is needed to understand how TRAPD can be used in qualitative studies to inform the development and testing of surveys.

Conclusion

We have highlighted assumptions of back translation and provided some real-life examples. In addition, we have raised questions for researchers to consider as they use back translation when working with culturally and linguistically diverse populations and in determining how this approach may affect the quality of their data. The challenges in the examples that we have presented are common among research studies. Thus, it is critical that

international scholars, students, and researchers understand the implications of their choice of translation methodology and the effect of this choice on modifying interview questions in the source language.

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