

## Preparing Instruments for Transcultural Research: Use of the Translation Monitoring Form with Nepali-speaking Bhutanese Refugees

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**Abstract** Preparing instruments for transcultural research is a difficult task. Researchers typically do not publish their attempts to create equivalent translation. The quality of the translation depends mostly on the translators' ability to be consistent in identifying and correcting incomprehensible, unacceptable, incomplete and irrelevant translated items. This paper presents a translation monitoring form to enhance the methodical preparation of instruments for transcultural use. Use of the form requires the systematic use of strategies advocated by previous translation and adaptation researchers. A detailed example of use of the translation monitoring form with Nepali-speaking Bhutanese refugees illustrates the usefulness of the form as well as the difficulties of creating equivalent translation.

**Key words** Bhutan • Nepali language • refugees • test adaptation • translation

The cultural challenge to psychiatry is to take a much more strenuous, systematic, and contextual approach to translation. (Kleinman, 1988: 28)

Translating and adapting instruments for transcultural research is a difficult task (Brislin, 1976). Over the last 30 years numerous English-language instruments have been translated and adapted for use in different cultures. The quality of these works varies (Parry, 1996) – ranging from lexical translation to involved ethnographic research. Researchers differ in the amount of time they have and are willing to spend preparing instruments.

Translation and adaptation approaches vary in terms of the objectives to be achieved. Flaherty et al. (1988), in a now classic article, described five forms of equivalence between original and translated instruments:

1. *Content equivalence*. The content of each item of the instrument is relevant to the phenomena of each culture being studied.
2. *Semantic equivalence*.<sup>1</sup> The meaning of each item is the same in each culture after translation into the language and idiom (written or oral) of each culture.
3. *Technical equivalence*. The method of assessment (e.g. pencil and paper, interview) is comparable in each culture with respect to the data that it yields.
4. *Criterion equivalence*. The interpretation of the measurement of the variable remains the same when compared with the norm of each culture studied.
5. *Conceptual equivalence*. The instrument is measuring the same theoretical construct in each culture. (p. 258)

Manson (1997), who adapted the Composite International Diagnostic Interview (World Health Organization [WHO], 1993) for use with American Indians, chose different terminology to organize similar objectives. He discusses instrument adaptation in terms of comprehensibility, acceptability, relevance and completeness. Manson (1997) classifies a translated item as *incomprehensible* when its original meaning is not evident. Naturally, translations must be in lay terminology to be understandable to respondents (Westermeyer & Janca, 1997). Using Flaherty et al.'s (1988) terminology, an incomprehensible translation lacks semantic equivalence. Manson (1997) classifies an item as *unacceptable* if it is offensive. For example, asking young, unmarried women about their sexual behaviour is unacceptable in many cultures. Unacceptable items meet Flaherty et al.'s (1988) definition for absence of technical equivalence as the impact of asking such questions varies from culture to culture.

An item is *irrelevant* (Manson, 1997) if it queries phenomena unrelated to the underlying construct. When assessing conduct disorder, it would, for example, be irrelevant to ask a Nepali girl about school attendance as it is

possible that her parents are not letting her attend. Using Flaherty et al.'s (1988) terminology, irrelevant items lack content equivalence.

Incomplete questions (Manson, 1997) do not fully cover equivalents between cultures. Manson shows that querying American Indians about traditional healing services is necessary for a complete assessment of help-seeking behaviour. Incomplete questions can result in lack of semantic, criterion or conceptual equivalence.

With some noteworthy exceptions (e.g. Bravo, Canino, Rubio-Stipec, & Woodbury-Farina, 1991; Flaherty et al., 1988; Kinzie et al., 1982; Manson, 1997; Manson, Shore, & Bloom, 1985; Mumford, Tareen, Bajwa, Bhatti, & Karim, 1991), most researchers who translate or adapt instruments do not publish attempts to meet the aforementioned objectives. There is a tendency to briefly state that instruments were prepared consistent with the methods outlined by Flaherty et al. (1988). The reader is then left unclear as to how the instruments were adapted as Flaherty and colleagues outlined different methods for different problems. Increasingly, researchers publish sophisticated efforts to create a semantic equivalent translation (e.g. Russell & Sato, 1995; Sperber, Develis, & Boehlecke, 1994).

Translators not only differ in their aims during the translation, but also in the steps they take during the translation and adaptation process. One sequence, popular in the field, has been developed by Brislin (1986). He suggested a five-step translation process: (a) translation; (b) blind back-translation; (c) examination of original, translation and blind back-translation; (d) pilot study; and (e) examination of pilot study data and subjects. This sequence can lead to examination of content, semantic, technical and criterion equivalence.

The World Health Organization has expanded Brislin's (1986) first three steps to seven: (a) establishment of a bilingual group of experts, (b) examination of the conceptual structure of the instruments by the experts, (c) translation, (d) examination of the translation by the experts, (e) examination of the translation by a monolingual group, (f) blind back-translation and (g) examination of the blind back-translation by the experts (Sartorius & Janca, 1996). Such expansion allows for improved examination of conceptual equivalence.

Even though the aforementioned approaches are clearly useful, the rigour of the final product depends mostly on the translators' ability to be consistent in identifying irrelevant, incomprehensible, unacceptable and incomplete translation. Even the best translator must sometimes struggle with this complex task (especially if he or she has to translate a lengthy diagnostic interview schedule). A systematic approach is therefore necessary to maintain alertness to all potential difficulties.

### THE TRANSLATION MONITORING FORM

We have developed a translation monitoring form to enhance systematic translation and adaptation of instruments (Figure 1). Use of the form systematizes approaches outlined by Manson (1997) and Flaherty et al. (1988). Through completing one form per item, each item is systematically evaluated. Preparation of instruments proceeds in five steps:

1. After recording the item and its number on the translation monitoring form, a group of bilingual, indigenous translators translate the item and record their result. Furthermore, they record a lexical back-translation, and an evaluation of the comprehensibility, acceptability, relevance and completeness of the translated item. The function of the lexical back-translation is to help translators immediately identify incomplete translation. Also, the lexical back-translation allows for monitoring by involved mental health researchers who are not fluent in the target language.
2. The translation monitoring form is reviewed by a bilingual professional, who, similarly, records his or her evaluation of the translation's comprehensibility, acceptability, relevance and completeness. The professional is instructed to pay special attention to the conceptual structure of the instrument. The professional may record alternative translations on the form.
3. Next, each translated item is evaluated by at least one focus group consisting of relatively uneducated, monolingual, local lay people.<sup>2</sup> The facilitators are instructed to record any newly identified issues related to comprehensibility, acceptability, relevance and completeness on the form. Focus group participants are especially useful in suggesting revisions in lay terminology. Work with the translation monitoring form is complete after the translators, the professional and the focus group facilitators have recorded their observations on the form.
4. Thereafter, the translation process proceeds as suggested by Brislin (1986). All translated items go through blind back-translation, that is the items are translated back into the original language by someone who is unfamiliar with the original version. A comparison of the back-translation and the original items will lead to additional modifications.
5. Finally, the instrument is pilot tested. If possible, the pilot subjects should be evaluated by a local psychiatrist to check the validity of a translated diagnostic instrument. Additional adaptation may prove necessary.

Use of the translation monitoring form, followed by blind back-translation and pilot testing, should result in systematic translation. The thoroughness of this approach can, however, be improved, depending on

Item:	Number:
<p>Translation:</p> <p>Lexical back-translation:</p>	
<p><b>Comprehensibility (Semantic equivalence)</b></p>	
<p>Is the translation understandable in the language known to the local population? Please comment on any difficulties.</p>	
<p>Translators' view:                      Professional's view:                      Focus group results:</p>	
<p><b>Acceptability and other response set issues (Technical equivalence)</b></p>	
<p>Would certain respondents be uncomfortable to respond honestly to this question? Please explain.</p>	
<p>Translators' view:                      Professional's view:                      Focus group results:</p>	
<p><b>Relevance (Content equivalence)</b></p>	
<p>Is this question relevant in the local culture? If not, please explain.</p>	
<p>Translators' view:                      Professional's view:                      Focus group results:</p>	
<p><b>Completeness (Semantic, criterion, and conceptual equivalence)</b></p>	
<p>Would the back-translation relate back to the same concepts and ideas as the original? If not, please explain.</p>	
<p>Translators' view:                      Professional's view:                      Focus group results:</p>	
<p>Comments: (if necessary, use other side of page)</p>	

**Figure 1.** The Translation Monitoring Form.

available resources. For example, instead of employing one focus group and one professional, researchers can choose to organize two focus groups and multiple professionals to evaluate each item. Moreover, researchers can repeat the cycle of back-translating, comparing differences and revising. However, the quality of translation will likely depreciate when a bilingual professional or focus group participants are not available.

The remainder of this paper illustrates the use of the translation monitoring form in Nepal.

## METHOD

### SETTING AND SAMPLE

The translation monitoring form was applied during research into the impact of a man-made disaster among Nepali-speaking Bhutanese refugees living in Nepal (Van Ommeren, Sharma, Komproe, Thapa, Makaju, Cardena, & de Jong, unpublished data). As part of the preparation for this research, a battery of English-language instruments had to be translated into the village Nepali language, that is the relatively simple Nepali spoken by villagers.

The Bhutanese refugees have an ancestral link with Nepal. They are descendants of Nepali settlers who started to move to a previously unpopulated southern Bhutan after about 1880 (Hutt, 1996). Recently, about a third of the settlers' descendants were forced to leave Bhutan after persecution by the Bhutanese government. Most of these refugees arrived around 1991 in eastern Nepal, where they still live in United Nations refugee camps (Hutt, 1996).

Nepali is the first language spoken by most refugees. In a sample of 810 refugees, 92.8% claimed to speak Nepali at home (Van Ommeren et al., unpublished data). In Nepal, a country consisting of more than 60 ethnic groups, only 50.3% of people use Nepali at home (Central Bureau of Statistics, 1996). Ethnic groups in Nepal often have their own language, customs and traditions, and it is not uncommon for a village to consist of one ethnic group, making it possible for people to maintain their culture. This has not been the case in southern Bhutan where the composition of villages has been more mixed, allowing for more extensive blending of groups. As a result Nepali is the first language for most people who were raised in southern Bhutan. There are, nevertheless, cultural differences between the members of the different castes and ethnic groups in the refugee camps. The research team did not take extensive account of these differences. Consequently, a limitation of the research programme is the assumption of homogeneity across all Nepali-speaking refugees.

The instrument translation and adaptation process was preceded by five activities that had heightened the investigators' awareness of the context. First, the investigating organization, the Center for the Victims of Torture, Nepal, had provided medical and psychological treatment to more than 1200 Bhutanese refugee torture survivors over a period of five years (Sharma & Van Ommeren, 1998). Second, as part of a community-based rehabilitation project inside the refugee camps, the organization had employed and supervised 30 Bhutanese community health workers who provided basic psychosocial care to torture survivors. Third, the organization had already conducted a large, epidemiological study on this population (Shrestha et al., 1998). Fourth, the organization had completed

narrative interviews, as well as a case note survey, to elicit local idioms of distress (Sharma & Van Ommeren, 1998). Fifth, the organization had, as suggested by de Jong (1994), conducted focus groups to identify the refugees' coping strategies as well as social and political issues (Sharma & Van Ommeren, 1998).

### *PROCEDURE*

The translation monitoring form was used as an aid in translating and adapting the following instruments: Comprehensive International Diagnostic Interview (CIDI; WHO, 1997a), Symptom Check List-90 (SCL-90; Derogatis, 1977), Bradford Somatic Inventory (Mumford, Bavington et al., 1991), Structured Interview for Disorders of Extreme Stress (Pelcovitch et al., 1997), CAGE questionnaire on alcohol use (Mayfield, McLeod, & Hall, 1974), Social Provisions Scale (Russell & Cutrona, 1984), a questionnaire covering early life events and a social network scale. Some of these instruments were originally designed for self-administration. However, due to illiteracy among many refugees, the instruments had to be prepared for administration by interviewers.

The Nepali-English bilingual translation team consisted of two Nepali medical doctors and five Nepali students in unrelated disciplines. All but one translator had grown up in villages in the hills of central and eastern Nepal. As life in these villages is not unlike life in southern Bhutan, the translators felt familiar with the refugees' preflight way of living.

The translation monitoring form was applied as discussed above. The seven bilingual Nepali translators, as a group, recorded a translation and lexical back-translation for each item. An expatriate mental health researcher read the lexical back-translations to identify jargon that had been misunderstood. Next, a bilingual Nepali doctor with extensive clinical experience with torture survivors evaluated the translation.

Subsequently, the translators facilitated a series of focus groups. Focus group members had been asked to volunteer their time to help the Center for the Victims of Torture determine how to ask questions that are understandable to Bhutanese refugees. The members were uneducated, tortured and nontortured refugees who volunteered their time in return for tea with a snack.

Each item was evaluated by two focus groups. Each focus group was able to cover 10–15 questions per hour. Items related to sex were evaluated with special care as Nepali women are strongly expected to show disinterest in sex. To encourage open discussion these sensitive items were evaluated by female focus groups, which were facilitated by women. The focus group discussions, among other things, led to the identification of differences between the Nepali spoken by the translators and the Nepali spoken by the

refugees. It was found that the southern Bhutanese (both refugees and nonrefugees) spoke Nepali with a relatively small vocabulary while occasionally inserting a few English words. The focus group members were very helpful in suggesting revisions that were more comprehensible to Nepali-speaking Bhutanese refugees.

Subsequently, all items were back-translated by three bilingual staff members who were not part of the research team and who were unfamiliar with the original items. The expatriate mental health researcher identified potential problems, which were resolved after discussion with the translators. Pilot testing identified a few additional problems, which were also resolved after group discussion. Regrettably, we did not collect proper reliability and validity data on our adaptations *before* conducting the study.

## RESULTS AND DISCUSSION

The complete translation and adaptation process took three months full-time work. Although the items came from different kinds of instruments, the process of adaptation was the same. Numerous issues had to be resolved and we will summarize the most illustrative ones.

### COMPREHENSIBILITY

With respect to comprehensibility, a number of adaptations made the items more understandable. Nepali, like many languages in South Asia, has Sanskrit roots, and formal Nepali consists of many words that are Sanskrit. Yet, formal Nepali is not frequently used in the villages. For example, there is no word for suicide in village Nepali. The formal Nepali and Sanskrit term for suicide, *aatmahatyaa*, is not understood by many villagers. Nevertheless, the concept of suicide is well-known. Suicide was translated as 'death by hanging oneself, taking poison, or jumping off a cliff.' Similarly, although there is no word in village Nepali for exertion, the concept is easily explained. The item 'Have you ever had shortness of breath when you had not been exerting yourself?' was translated as 'Have you ever had shortness of breath when you had not been working, running, or climbing up a steep path?'

Sometimes a few extra words were added to clarify a concept. For example, the meaning of trembling was only clear when defined as arms and legs trembling without reason. Accordingly, the CIDI item '[When you were near, or thought you had to be near a snake,] did you tremble or shake?' was translated as '[When you were near, or thought you had to be near a snake,] did your arms and legs tremble for no reason?'

It was especially difficult to find comprehensible equivalents for highly abstract concepts, such as emotional security. Typically, such terms had to



be explained. For example ‘To what extent do you have close relationships that provide you with a sense of emotional security and well-being?’ was translated as ‘How much do you think that you are confident because you have relatives and friends who are with you in good times and bad times?’

Some questions were too long to be understood properly. The CIDI’s *Interviewer’s Manual* (WHO, 1997b) advises interviewers to break up long questions into a series of shorter ones if there is confusion. Yet, rather than allowing the interviewers to break up long questions to their liking, standardization was increased by translating long questions into short sentences and questions. For example, ‘between your periods of depression, were you as able to work and enjoy being with other people as you were before they began?’ was translated as:

A period of depression ended. Thereafter, you were all right. After that, you were depressed again. In this way you were all right between periods of being depressed. During those periods when you were all right, were you able to work, and enjoy being with other people as you were before?

The items of the Bradford Somatic Interview were very well understood. This is not surprising as most of instrument’s items were generated in South Asian countries, including Nepal (Mumford, Bavington, et al., 1991). Only one item had to be changed: ‘Has your heart felt weak or sinking?’ had to be simplified to ‘has your heart felt weak?’ because most refugees were unfamiliar with the idiom *sinking heart*.

#### ACCEPTABILITY AND OTHER RESPONSE SET ISSUES

To avoid offending respondents, questions covering sexual interests and behaviours had to be adapted. Querying respondents about sex is a not a new problem in transcultural research (e.g. Bravo et al., 1991; Flaherty et al., 1988; Westermeyer, 1985). In contemporary Nepal, it is generally absolutely taboo for a female Hindu to have premarital or extramarital sexual activities. Women who are public about their sexual activities and interests risk stigmatizing themselves and their family. The stigma of premarital sex, including rape, can make it difficult for the woman and her unmarried siblings to find a spouse. In both cases of voluntary and nonvoluntary extramarital sex, a husband may choose to leave his wife as she is considered dirty, soiled. Clearly, great care is necessary when asking questions about sex.

Thus, very sensitive questions were introduced and changed to reduce the risk of offending the respondent. For example, the CIDI question ‘during one of those periods [of feeling depressed] was your interest in sex a lot less than usual?’ was translated as:

Now I am going to ask you a private question. Please do not feel bad about answering as it will remain confidential. During one of those periods [of feeling depressed] was your desire of sleeping with your spouse a lot less than usual?

This adaptation violates the aim of translating each concept completely as sexual interest and the desire of sleeping with one's spouse are not necessarily equivalent. Yet, in this case acceptability was deemed more important than completeness.

To increase the comfort level during interviewing, female interviewers were employed to interview female respondents. Many questions related to sexual interests and activities were skipped if the respondent was not married.

Some questions had to be deleted. For example, the CIDI question 'In general has your sex life been important to you, or have you felt you could have got along as well without sex?' is supposed to measure sexual indifference, a symptom of DSM-IV somatization disorder. Yet, in a culture where women are supposed to be indifferent toward sex it is senseless to ask such a question as the resulting response set would give the incorrect impression that most women score positive for the sexual symptom criterion of somatization disorder (see also Bravo et al., 1991). Moreover, in a culture where women are discouraged from enjoying sex it is questionable whether sexual indifference is valid as an indicator of psychopathology.

Another taboo for many Bhutanese refugees is alcohol consumption. Culturally, Brahmins, Chhetris and female Hindus are expected to refrain from alcohol. Many do drink, but prefer to present themselves as abstaining. To encourage honest responses, questions covering alcoholism were introduced as follows:

We know that it is our tradition that Brahmins and Chhetris do not drink alcohol. But nowadays many Brahmins and Chhetris drink. Even though some of us [interviewers] are Brahmin or Chhetri, we sometimes drink. Similarly, many of our Brahmin and Chhetri friends also drink. So if you drink, please tell us. We will keep it secret.

A similar introductory statement was made by the female interviewers to encourage female respondents to be frank about their alcohol use.

Another response set issue was caused by the wording of dichotomous questions. In the Nepali context, dichotomous questions can be problematic. For example, the Bradford Somatic Inventory question 'During the past month have you had severe headaches?' tends to lead to a positive response as it is habit for Nepali-speaking people to respond positively to positive worded questions and negatively to negative worded questions. To

avoid this response set, the format of the Bradford Somatic Inventory items had to be changed. The item on headaches became ‘During the past month have you had severe headaches *or not*?’ Although in English, a ‘yes’ or ‘no’ response to the latter question would be ambiguous, in Nepali, a ‘yes’ or ‘no’ response to the latter question indicates the respective presence or absence of severe headaches. In short, by adding the words *or not* to each question, the acquiescence response set was reduced.

### RELEVANCE

With respect to relevance, a few questions had to be changed to make their content more relevant. For example, the CIDI item ‘Have you ever had a period when you became clumsy or awkward, perhaps losing your ability to lace your shoes or wrap packages?’ was changed to ‘Have you ever had a period when you became clumsy, perhaps losing your ability to lace your shoes, hold a tea cup, sift rice, or tie up your trousers or *Douraa* (Bhutanese dress)?’

Moreover, some questions had to be changed if they held irrelevant assumptions. A few CIDI questions assume universality of the value that sports participation is important. Nepali villagers generally do not share this value. Thus, all references to sports being important were removed from the CIDI. For example, ‘Did drinking ever cause you to give up or greatly reduce important activities – like participating in sports, going to school or work, or keeping up with friends or relatives?’ was changed to ‘Did drinking ever cause you to give up or greatly reduce important activities – like going to school or work, or keeping up with friends or relatives?’

### COMPLETENESS

Nepali and English are both Indo-Aryan languages. Without that commonality, translation would have been even more challenging. Even then, identifying Nepali equivalents that completely cover the semantics, concepts and criteria of the diverse instruments was difficult and at times impossible. Translation of emotion words was especially difficult as in village Nepali only a few words are used to express emotion directly. For example, *naraamro laagyo* (feeling not good) was identified as the closest understandable equivalent for the English idiom *feeling upset*.

It was a challenge to translate the CIDI’s generalized anxiety disorder items that refer to experiences of feeling worried, tense or anxious for months about everyday problems. First, village Nepali does not have an equivalent for the western idiom *feeling tense*. Second, village Nepali does not distinguish between feeling anxious for an extended period and feeling worried for an extended period. In many villages in Nepal, people use the

term *chintaa laagyo*, which means feeling worried (with a possible connotation of sadness). Yet, this term was not well understood by the refugees. A better understood term was *surtaa laagyo*, which expresses a mixture of worry and sadness. For our translation of feeling worried, tense or anxious, we used the idiom *surtaa chintaa laagyo*, a combination of *chintaa laagyo* and *surtaa laagyo*. This idiom is not proper Nepali, but was understood by focus group respondents as feeling worried. However, a connotation of sadness remained in the question. During the research this led to problems. An example is the case of one respondent who answered positively to 'Have you ever had a period of a month or more you felt worried, tense, or anxious, about everyday problems such as work and family?' This respondent revealed that she had been feeling this way when her child died. Apparently, she responded to the connotation of sadness in the translation. Beside the fact that loss of a child is not an everyday problem, *surtaa chintaa laagyo* does not assess those exact emotions that are part of generalized anxiety disorder.

There is no word for stress that is commonly understood in village Nepali. Helman (1995) has called the lay concept of stress a 'folk illness of contemporary Western society' (p. 314). In Nepal's cities, many educated people understand, experience and speak of stress. They either use the English word *stress* or the Sanskrit word *tanaab* (tension). However, some of our focus group participants were unfamiliar with this foreign concept. Several other translations were tried. Nevertheless, the item 'distress due to feeling tense or keyed up' had to be deleted as the translators were not able to identify a comprehensible, equivalent translation.

Focus group participants identified unnoticed, conceptual translation errors. For example, the English word *unreal* can be translated in two ways. One possible translation is *saachchikai hoina jasto*, which relates to the dissociative phenomenon of objects appearing unreal. The other translation is *awaastabik*, which relates not only to dissociation but also to the Hindu philosophical-religious concept of existence. When translating '[During a panic attack,] did you feel that you or things around you were unreal?', the translators had translated *unreal* as *awaastabik*. Focus group participants identified the translation as confusing. (A participant of the priest caste noted that, according to Hindu religion, nothing is real.) The lack of clarity was easily corrected by translating *unreal* as *sacchikai hoina jasto*.

With respect to completeness, special attention was paid to obtaining complete translation of the CIDI criterion of seriousness of symptoms. The CIDI includes four questions to assess the seriousness of symptoms. A symptom meets the criterion of seriousness if the respondent: (a) has told a doctor or other professional about the symptom, (b) has taken medicine more than once for the symptom, or (c) states that the symptom

interfered with his or her life or activities a lot. Yet, as Manson (1997) has argued, in traditional societies people may prefer to go to a traditional healer instead of a western-style professional. In his adaptation of the CIDI for research with American Indians, Manson therefore included a query regarding whether the respondent has ever told a traditional healer about the symptom. In Nepal, the word professional was translated as *jaanne maanchhe* (knowledgeable person), a term that covers both traditional and western-style professionals.

Nevertheless, an adaptation had to be made to assess the seriousness of symptoms. To assess seriousness of symptoms among Bhutanese refugees, the translators had to add an extra question, because in Nepali villages people often try to treat serious symptoms through religious ritual. The question enquired whether the respondent has promised offerings to a God or has performed special *pujaa* (worship) to reduce the distress caused by the symptom.

### CONCLUSION

In this paper we present a translation monitoring form to enhance methodical preparation of psychiatric instruments for transcultural use. We illustrated its use with Nepali-speaking Bhutanese refugees and found it practical. There appears to have been no alternative for our use of focus groups with participants drawn from the target refugee population. As the refugees spoke village Nepali, exclusive use of professionals speaking formal Nepali would not have led to equivalent translation.

The translators experienced that use of the translation monitoring form allowed them to identify a wider variety of problems than would have been possible otherwise. A few days before starting data collection, the translators quickly translated an additional questionnaire without using the described systematic approach. The quality of the resulting translation is poor and data had to be discarded. We believe that preparation with the translation monitoring form can avoid disappointment and that the three-month preparation period was worth the effort.

Although practical in creating a more systematic approach, the translation monitoring form does not lead to perfection. Most likely, many issues were missed by the team. Indeed, we have found translation errors after the completion of the empirical study. Numerous compromises had to be made.

The impact of compromising and missing issues depends on the statistical analyses to be performed. Each compromise, i.e. each lack of equivalency, is a potential bias if one chooses to compare data across cultures. A false rejection of the null-hypothesis is likely to occur if a bias exists and the sample size is large (Malpass & Poortinga, 1986). With respect to the

research in Nepal, the size and direction of each potential bias is undetermined. Consequently, the impact of each compromise for cross-cultural comparisons is unknown. Nevertheless, the impact of compromises should have less effect for analyses on the within-culture level, although for the latter instruments would still have to be validated.

Researchers who use the translation monitoring form may want to evaluate their efforts by comparing final translations with the originals in a bilingual sample (e.g. Mumford, Tareen Bajwa, Bhatti, & Karim, 1991). If such a sample is not available, researchers may examine construct validity by testing whether the adapted scales relate to other instruments as predicted by theory. The instruments adapted for use by the Bhutanese refugees did relate to each other as predicted (Van Ommeren et al., unpublished data).

Of note, we also developed an emic coping scale (Sharma & Van Ommeren, 1998) that did not relate to other scales as predicted by theory (Van Ommeren et al., unpublished data). Developing emic scales, although necessary for many research questions, is in our experience more difficult than translating and adapting existing instruments with the translation monitoring form.

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#### NOTES

1. Researchers often use the term *linguistic equivalence* instead of semantic equivalence (e.g. Mumford, Tareen et al., 1991; Sen & de Jesus Mari, 1986; Westermeyer & Janca, 1997).
2. Both Eva Ketzer and Antonella Crescenzi (written communication, 24 June, 1996) as well as Spero Manson (1997) previously used focus groups for instrument adaptation.

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