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Article

Translation as an Ecological Tool for Instrument Development

Andrey Vinokurov
Macro International

Daniel Geller
Macro International

Tamara L. Martin
U.S. Department of State

Abstract

In this paper the authors outline the translation process involved in Macro International's evaluation of the Department of State's International Visitor Leadership Program (IVLP) in Russia, Ukraine, Kazakhstan, and Georgia. IVLP is a long-running program in which professionals and prospective leaders from around the world participate in funded short-term visits to the United States to learn first-hand professional practices and values of American society and democracy. The authors highlight the importance of attending to the theoretical issues in, discuss contextual factors inherent in, and outline specific phases of the translation process, and present the modified decentering translation technique adapted for the project. They describe the types of translation equivalencies that were addressed and present findings that attest to the quality of the translation. They underscore the importance of the translation process as a qualitative tool for the instrument development that maps the contexts of people's lives, documents emic-etic aspects of cross-cultural research, and fosters collaborations with all stakeholders of the research project.

Keywords: translation, cross-cultural research, program evaluation, emic-etic, ecological model

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The research context of this exploration of cross-cultural issues in the translation of survey instruments involved Macro International's evaluation of the Department of State's International Visitor Leadership Program (IVLP) in Russia and three other countries of the Commonwealth of

Independent States (CIS), Ukraine, Kazakhstan, and Georgia. The IVLP is a long-running program in which established or potential foreign leaders, chosen for their professional merit and leadership potential in a variety of professions, have the opportunity to participate in funded short-term visits to the United States. During these professionally focused group visits, they meet with their American professional counterparts to learn about American practices in the field, travel to several cities to observe American life and culture, and establish informal contacts with Americans. These visits, lasting up to 3 weeks, are intended to improve the professional practices and career positions of participants as well as to provide opportunities for them to learn first-hand how democratic institutions and processes, free-market economies, and other values of Western democracy and American society are manifested in professional and daily life. Thousands of people from all over the world participate in the IVLP each year. The overall objectives of the evaluation of the IVLP were to (a) determine the immediate and long-term outcomes of the program experiences on the participants, their institutions, and their home countries, (b) assess the levels of participation in and the value of the IVLP for alumni and their affiliated organizations, and (c) document alumni demographic and professional characteristics. The project required surveying the respondents in their native languages because the many IVLP alumni do not speak English very well. Therefore, a major task in this project was the translation of the English version of the survey instrument into four languages: Russian, Ukrainian, Kazakh, and Georgian.

Macro International subcontracted the data collection to the Institute for Comparative Social Research (CESSI, based on the Russian acronym), a major research company in the CIS that conducted face-to-face, questionnaire-driven, structured interviews with 90% of the sample as well as open-ended, in-depth interviews with the remaining 10% of the sample. These interviews with the IVLP alumni from the four countries inquired about their views of the program; measured the impact of the program on their perceptions of democracy, American government, its institutions, culture, society, and people; assessed the effects of the program on participants' professional development; and determined how program alumni disseminate acquired professional and cultural information to people and institutions in their native country. The interviewing was done in the respondents' native language and required translation of the structured and the open-ended instruments as well as other supporting documentation to provide valid comparisons across the four countries. The overwhelming majority of the translation issues that we encountered involved the structured questionnaire, whereas the instrument for the open-ended interviews provided enough flexibility to virtually eliminate the translation issues with respect to the precise wording of the items. Therefore, in this paper we focus on the translation issues pertaining to the structured questionnaire, while acknowledging that some of the issues might also be relevant to the open-ended, in-depth interviews.

Issues of translation are long standing and are well addressed in cross-cultural research literature (Brislin, 1976, 1986; Lonner, 1981). Unfortunately, some issues still persist. Studies seldom delineate a clear theoretical framework underlying the translation process, often fail to document and address contextual factors influencing the translation, and still lack consensus regarding the relative importance of various types of translation equivalences and translation techniques. The present paper is an attempt to add to the growing literature on translation issues by delineating a step-by-step qualitative and iterative translation process that could be used as a blueprint for adjusting translation methods to fit a particular cultural context. In this process, we highlight the importance of attending to the theoretical issues in the translation process, outline the phases of the translation process, present a translation technique adapted for the project, describe the types of translation equivalences that were addressed, present findings that support the quality of the translation, and also discuss contextual factors inherent in the translation process.

Theoretical framework for the translation process

The overarching theoretical framework that guided the instrument development and translation is the ecological model. Just as the ecology is the study of the interactions of organisms to their physical environment and to one another, the ecological model conceptualizes individual behavior (including language and cognition) as embedded in the interconnected system of sociohistorical and cultural contexts operating at multiple levels of analyses, including individual, family, community, subculture, culture, and society (Levine & Perkins, 1997; Trickett, 1996; Trickett, Barone, & Buchanan, 1996). From the ecological perspective all hypotheses are true, even contradictory ones; the task is to uncover contexts in which they hold (Trickett, 1996). Similarly, there are no right or wrong translations, just different versions that fit particular contexts (Temple, 1997). Therefore, without theory-driven examination of the culture-specific aspects of meaning, methodological problems with equalizing different language versions of an instrument, and contextual factors influencing the translation process, one might misinterpret some results as support for one's hypothesis or preconceived notions without realizing the contextual nature of the inquiry, which, in turn, would make conclusions regarding cross-cultural differences dubious at best. The ecological model becomes an essential guide for the instrument development and translation by stressing the importance of conceptualizing and measuring phenomena in various contexts to uncover universal versus context-specific aspects of meaning (Trickett, 1996), idea similar to the emic-etic paradigm of cross-cultural research (Berry, 1999; Brislin, 1976, 1986; Helfrich, 1999).

In the emic perspective, culture is conceptualized as being incorporated into an individual; thus, behaviors cannot be separated from their diverse cultural contexts but form their contexts just as individuals collectively form a culture (Berry, 1999; Helfrich, 1999; Trickett, 1996). The etic perspective involves the evaluation of culture neutral aspects of phenomena, which aids in disentangling cultural influences and developing representations of the similarities and differences across cultures (Alegria et al., 2004; Helfrich, 1999). With respect to translation, emic involves the differences in the ways overall constructs are expressed in different cultures and is highlighted by the lack of comparable wording across languages, whereas etic refers to a concept that has the same meaning across cultures and therefore has comparable wording across languages. The main implication of the emic-etic paradigm is to produce instruments that attain the equivalence of psychological phenomena across linguistically, culturally, and contextually different populations, thus enabling comparisons inherent to the etic perspective done in a culturally sensitive way that makes possible the identification of culture specific, emic characteristics within populations (Alegria et al., 2004; Arce-Ferrer & Ketterer, 2003; Helfrich, 1999). The emic-etic conception is not a dichotomy but, rather, a dialectic interaction that highlights interrelationships between individual, situational, cultural, and societal factors unfolding over time (Berry, 1999; Helfrich, 1999). This fluid, ever-changing nature of the interdependence of the individual characteristics and factors operating at the higher levels of analyses (Levine & Perkins, 1997) becomes an essential paradigm for cross-cultural research. Societies and cultures in the contemporary world are becoming less homogeneous and are increasingly dominated by cultural change rather than tradition (Helfrich, 1999) because of the globalization of trade and increasing migration as well as technological advances in communication and transportation. The cultural change is especially evident in the former republics of the USSR currently undergoing changes at multiple levels of society, including, for example, social strata, political and social institutions, and cultural norms and values. (Zaslavskaia, 2002). Many of these changes are characterized as complex processes that incorporate various aspects of a free-market economy and Western democracy with the cultural context of Russia and other countries of the former Soviet Union (Levada, 2003; Romanovich, 2003).[1] Some of the implications of these changes to the translation process are discussed below.

Another main implication of the ecological model for the instrument development and translation involved the need to balance the context-specific and cross-contextual aspects of the study constructs. This process begun with the development of the initial set of items that specifically reflected the cross-cultural translation guidelines (Brislin, 1986; McGorry, 2000). These guidelines highlight the importance of developing items that would be easily translated by attending to such issues as using simple sentences, active voice, descriptive phrases to explain potentially unfamiliar or hard to translate words, and specific rather than general terms, as well as avoiding metaphors, colloquialisms, adverbs, and possessive forms. The preliminary set of items was then revised by the translators, who identified items that tap into emic aspects of cultural phenomena and thus needed further revisions. Because these culturally specific items are unlikely to have equivalent wording in different languages and would be hard to translate, translators helped to revise them by providing additional descriptions and examples of the intended meaning to facilitate the translation. In addition, the focus on contextual factors made us realize that people in other countries might not have much experience in participating in research projects and would need more detailed instructions on how to respond to the questionnaire. Even in the case of the face-to-face interviews, the format of the survey, instructions on how to fill out the items, and the congruency between the stem of the question and the corresponding items can greatly affect the responding among potentially research-naïve respondents. Thus, we sought detailed input from the translators and other stakeholders about the appropriateness of the format of the items of the questionnaire for the flow of the face-to-face interviews, the accuracy of the detailed instructions on how to fill out the items, the applicability of the examples provided for some items, and the usefulness of cards with response options to facilitate responding and reduce burden for some of the items.

Another implication of the ecological model for the instrument development and translation involves the importance of creating collaborative relationships with research participants based on trust, respect, caring, critical reflection, and active participation, which aid in the development of conceptual definitions and measures that are congruent with respondents' experiences and contexts (Kelly, 1986; Trickett, 1996; Trickett, Barone, et al., 1996). In this process qualitative inquiry emerges as the essential tool for the instrument development and translation, as it allows diverse perspectives to emerge, aids in development and fostering of collaborative relationships essential for the research efforts, and helps in understanding context-specific meaning of research constructs. Striking a balance between the etic and emic perspective is made easier if the research group includes culturally diverse researchers and stakeholders who can advocate for an equitable balance between etic-emic aspects of experiences of the different groups represented in the study (Alegria et al., 2004).

Having culturally diverse individuals involved in the research process greatly assists in understanding the extent to which the translation process is embedded in cultural, social, and local contexts. Gaining the contextual knowledge is an important precursor for revising the original English items to capture etic and emic aspects of research constructs. Without developing collaborative relationships and discussing various conceptual and methodological aspects of the project, we might have been perceived as forcing our perceptions and definitions of constructs on the translators, which could then bias the results. For instance, it has been reported that translators in East European countries might be reluctant to disagree with Western researchers (Temple, 1997). To avoid this possibility, we specifically focused on developing rapport and collegial relationships with the translators, as they are the true experts in the language and culture we are studying. Developing and fostering collaborative relationships with the translators was essential for arriving at the final version of the translation, as well as for the overall progress of the research project. Thus, translation, as well as research, becomes a democratic, reciprocal, nonhierarchical, and cooperative process (Temple & Edwards, 2002).

The final implication of the ecological model for the instrument development and translation is the importance of documenting any contextual influences that translators might have brought to the translation process. Given vast intracultural differences, translators are likely to have different attitudes, values, assumptions, and concerns regarding the concepts of the study. As a result, different translators might interpret and translate the meaning of the items differently. Describing the translators involved in the project and documenting the translation-related issues, problems, discussions, and decisions that were used to produce the translated instruments are essential for indicating the cultural, social, and political perspective from which the findings might be interpreted (Birbili, 2000; Temple, 1997; Temple & Edwards, 2002). Furthermore, because of vast intracultural variability, it is highly desirable to recruit into the research project individuals who understand the contextual perspective of the target respondents through personal experiences, exposure, or professional knowledge. This aids in arriving at the culturally, linguistically, and socially appropriate translation, which, in turn, facilitates understanding of the contextual circumstances of the respondents.

Because our research project involved highly educated respondents with high professional, social, and often political status, we purposely recruited highly educated and qualified translators, all of whom were natives of the countries in which the study was conducted, possessed excellent knowledge of English, were aware of the cultural and local contexts, and had been familiarized with the research topics, goals, and, and methodology. The quality of the translation depends heavily on the qualifications, knowledge, and cultural experiences of the translators (Beck, Bernal, & Froman, 2003); therefore, the translators must be knowledgeable of not only the language but also the culture, research goals, concepts of interest, and purpose of the items (Kristjansson, Desrocher, & Zumbo, 2003). Thus, we also recruited as translators people with experience in international exchange programs. In addition, we had input on the translations from staff at the U.S. Embassy's Public Affairs office in each country, particularly from the Foreign Service nationals, who are bilingual natives of the country working for the embassy and participating in many aspects of the IVLP. Our translators also included immigrants to the United States from each of the countries involved. These truly bicultural and bilingual individuals from Russia, Ukraine, Georgia, and Kazakhstan were able to check for the equivalence of cultural nuances of meaning in English as well as the translation, and identify items that had nonequivalent cultural connotations. In addition, one of the researchers was Russian-speaking immigrant from the former Soviet Union who had lived in the United States for over a decade. Without the active involvement of these fully bicultural individuals in the translation process, some cultural undertones in English and the translated versions might have been left unnoticed. For instance, to translate questions about democracy adequately, the translators not only had to be aware of the culturally appropriate expressions of meaning in the translation but also had to be knowledgeable of the original intent and the meaning of the items in English, which required first-hand, in-depth knowledge of various aspects of democracy in the United States.

Translation technique chosen for the project

Traditionally, the technique called for in translation has been the back-translation method, which involves translating the instrument from the original language into another language by one set of bilingual individuals and then getting another set of bilingual persons to translate the translated version back into the original language (Brislin, 1976). This allows the researchers to judge the quality and equivalence of translation and consult with the translators about the possible reasons for any inconsistencies, mistranslations, lost words, and changes in meaning, which then can be used to revise the translated version of the instrument (McGorry, 2000). Although researchers might go through several rounds of the revisions, typically the original-language version is

considered the standard against which the translated version is compared, and therefore materials are translated with as little change as possible from the original version (Beck et al., 2003; Brislin, 1976).

There are two major problems with the back-translation method. First, if the back-translation version appears to lack equivalence in meaning to the original version, it is difficult to determine whether the differences are due to poor translation or cultural and linguistic differences inherent to cross-cultural research. Second, when the translated version is similar to the original, it still leaves room for uncertainty about the equivalence of the nuances of meaning across cultures and languages. Back-translation might lack equivalence in meaning and still demonstrate spurious lexical equivalence, thus giving the researcher a false sense of security (Birbili, 2000; Brislin, 1976). A simple back-translation that forces the translated version to correspond fully with the original might actually lead to semantic differences, as concepts have different meanings and are expressed differently across cultures. Therefore, difference between the back-translated and the original version of the instrument might not necessarily reflect the problem with the intended meaning of the items but, rather, might reflect the culture-specific expression of meaning.

To disentangle the emic and etic aspects of meaning, Macro International staff used a modified decentering technique in place of the back-translation technique. Typically, decentering modifies the back-translation technique to consider the original language and translated versions as equally important (Beck et al., 2003) and therefore does not force the translated version to be the literal translation of the original. Rather, the translated version is designed to reflect linguistic and cultural nuances of the target audience, and the original instrument is revised to incorporate the changes (McGorry, 2000). In this process discussions among the translators as well as the researchers' input are used to reach the consensus regarding the wording, meaning, and cultural appropriateness of the translated, as well as the original versions. Thus, decentering allows for the idiosyncrasies of each language and culture to contribute to the final version of the instrument (Brislin, 1976).

We further modified the decentering method by incorporating a committee approach to the translation process (Beck et al., 2003). Therefore, we did not attempt to translate the translated version of the instrument back into English because we believe that differences could reflect cultural nuances and diverse styles of translators rather than inaccuracies of translation. In our approach, which we call collaborative decentering, groups of translators—one group for each of the four languages—worked independently to translate the instrument into four languages. Then, the second set of translators worked in groups to check for the accuracy of the translation as well as to discuss emic-etic aspects of the meaning of items, identify questionable items on the English-language and the translated versions, and reach preliminary consensus regarding the meaning and wording of both versions. Once the translators revised the translation of the instruments, they discussed the issues with the researchers on the item-by-item basis, focusing on such issues as word choices, grammar, syntax, avoidance of ambiguity, or differences in the underlying meaning (Martinez, Marín, & Schoua-Glusberg, 2006). During these unstructured focus group discussions, the researchers specifically checked the conceptual equivalence of the translated version and discussed with the translators contextual reasons for the items revisions. In many instances the original English version of the instrument had to be adjusted to capture the context specific aspects of meaning for some of the items.

Sometimes, arriving at the consensus was not an easy process, as the translators argued passionately with each other about the specific wording and grammatical appropriateness of some of the items. In Russian and other Eastern European languages, grammatical rules are

complicated, and "official" documents, such as research instruments, have to be fully grammatically accurate. Otherwise, they might be perceived by the respondents as illegitimate. This created some interesting discussions with the translators, who sometimes insisted on changing items to be grammatically correct at the expense of the underlying meaning. The researchers responded to such issues and concerns by specifically focusing the translators' attention to the underlying meaning of the items as well as used their input to further revise original and the translated items. This helped us to resolve these translation issues without giving the impression of being authoritative. Therefore, the main role of the researchers in this process was to facilitate the final consensus among the translators and to ensure that the emerging meaning corresponded to the original intent of the item. That was specifically done to decentralize not only the translation of the instrument but the overall translation process as well (see Table 1). Thus, the translation process became a truly collaborative effort without forcing the translators to blindly accept our research conceptions and definitions of constructs. Qualitative methods involved in the translation process were also essential for the empowerment of the translators by allowing open expression of their knowledge, beliefs, and perspectives, not only about cultural issues involved in translation but also about the overall research project. Insight gained from these discussions was instrumental for our understanding of the cultural issues enmeshed in the administration of the IVLP and greatly assisted in our outcome evaluation of the IVLP.

Translation Description of the Translation Process

Phases

1. The initial English version of the instrument was developed, specifically focusing on the scale development procedures that would facilitate the translation process.
2. The CESSI subcontractors translated the preliminary English version into Russian, Ukrainian, Georgian, and Kazakh languages.
3. English and the translated versions of the instrument were given to small groups of bilingual/bicultural immigrants in the United States. These persons worked in groups reviewing item-by-item English and the translated versions identifying and revising items that were confusing, unclear, culturally inappropriate, lacking equivalent cultural connotations, or requiring respondents to use memories that would be difficult to recall.
4. After reaching a consensus, the group members discussed with Macro International researchers issues on the equivalence of wording, meaning, and cultural connotations. After coming to the final consensus with the researchers, the translators incorporated the suggestions into the translated version of the instrument and also noted suggested changes to the English version, which the researchers then revised.
5. The revised translated versions of the instrument were then given to the subcontractors in each country, who went through the adjusted English and translated versions providing feedback regarding equivalence of the meaning and wording. Also providing feedback were bilingual employees of the U.S. Embassy in each country, including Foreign Service nationals who are employed by the U.S. Embassy in their country and work on international exchange programs, including IVLP. At this point, English and translated versions were further adjusted to incorporate feedback from these stakeholders.
6. Steps 4 and 5 were repeated as required to make sure that all of the involved stakeholders agreed on the equivalence of meaning, wording, and cultural connotations of the items.
7. The final version of the Russian translated instrument was pretested with IVLP

alumni in Russia. Any outstanding issues were resolved by going through another round of discussions and feedback from subcontractors and translators in the United States.

8 Three items of the final version of the instrument that were identified by some translators, pretest participants, and research respondents as being somewhat confusing or difficult to interpret were administered to a randomly selected 10% of the respondents. These follow-up respondents provided their feedback regarding possible reasons for the ambiguity of the items as well as rated the items for their difficulty, cultural appropriateness, recall problems, and any other factors that might have contributed to the difficulty of the items.

Table 1. Outline of the translation process

Types of translation equivalence

Because the validity of cross-cultural comparisons rests heavily on the equivalence of the translated versions, simple back-translation is insufficient for documenting the equivalence of the different language versions of the instrument. Typically, translation equivalence means that two individuals with the same amount or level of the construct being measured have equal probabilities of making the same response to the different language versions of the same item (Mallinckrodt & Wang, 2004). The first step in the process of establishing equivalence involves determining the types of equivalence to be examined. Currently there is lack of consensus on what types of equivalence are crucial for scale development and translation. Many have focused on content, semantic, technical, criterion, and conceptual equivalences (Beck et al., 2003; Flaherty et al., 1988; Mallinckrodt & Wang, 2004). Others have stressed the importance of functional, conceptual, linguistic, and metric equivalences (Helms, 1992; Lonner, 1981). Some have highlighted the importance of conceptual, semantic, syntactic, and experiential equivalences (Kristjansson et al., 2003). Given such a diversity of equivalences that often have overlapping definitions, it becomes difficult to specify the precise types of equivalence that must be established for the instrument to be valid for cross-cultural comparisons. In our efforts to translate the English-language survey into four languages, we decided to focus on equalizing meaning, wording, and scaling of the items, which are similar to the conceptual, linguistic, and metric types of equivalence.

Conceptual equivalence

Conceptual equivalence is concerned with the meaning that persons attach to specific stimuli, such as test items (Lonner, 1981). For our project, conceptual equivalence involved reaching a consensus among the translators regarding the underlying meaning and emotional connotation of the items. Some concepts were not easily translatable into Russian or the other languages, partly because of cultural perspective and partly because of the historical legacy of the Soviet rule, which still lingers in the everyday context of people's lives. For instance, *community* was an extremely difficult concept to translate because it has strong nationality/ethnicity undertones in Russian that it lacks in English. Thus, the items that included the word community had to be revised by providing an alternative wording or by including a description of the specific meaning for the word community (See Table 2; items F1.6 and G4). Another item that had strong emic connotation involved assessing the educational attainment of the respondents. Because of the differences in the postsecondary educational system in the United States and the former Soviet Union/CIS as well as due to the high educational level of the IVLP participants, the item had to be revised to improve its applicability (item A9).

Item Number	*Original Items*	*Revised Items*
A6.5	Government agency, parliament, or court at the **national** level.	Government: executive, legislative, or judicial at the **federal** level
A8	Have you changed work sectors (**public or private**) since returning to your home country following your IVLP visit?	Since returning to your home country following the IVLP visit, did you continue to work in an organization with the same type of ownership (**government or nongovernment**), as before participation in the IVLP, or begun working in organization with a different type of ownership? For example, before you were working in the government sector and now you are working in nongovernment sector, or vise versa.
A9	What is the highest level of education you have completed? 1. High school 2. Trade, vocational, or technical training, after high school 3. Some university, no degree 4. University degree 5. Advanced academic degree, such as candidacy or doctoral degree 6. Other, specify	What is the highest level of education you have right now? 1. Some university (no degree or diploma) 2. University degree—Bachelor's 3. University degree—Specialist or master's or equivalent (five years studying at the university with diploma) 4. Incomplete postgraduate education (without defended dissertation) 5. Completed postgraduate education (candidacy/advanced scientific degree or doctorate) 6. Other, specify
D4.1	Voting is important because **real decisions** are made in elections.	Voting is important because **representatives of the people** are chosen in elections.
D4.5	The Rule of Law is fundamental to a **functioning** democracy.	The Rule of Law is a fundamental principle to the **existence of** democracy.
D4.7	Democratic principles enhance the workplace—Supervisors should incorporate democratic principles into their management practices.	Democratic principles enhance the workplace—Supervisors should incorporate democratic principles into their management practices (**such as treat workers fairly, respect each team member as an individual**).
F1.6	. . . voluntary **community** service.	. . . voluntary **public** service.
F2.9	. . . **social services/welfare** in the United States.	. . . social services system in the United States, **social assistance programs for population groups with limited opportunities** (welfare).
G4	As a direct result of your participation in the IVLP, have you done or received any of the following in your **community**?	As a direct result of your participation in the IVLP, have you participated in the following activities for the good of the **neighborhood/district where you are living** (such as work with school, projects to protect the environment, demonstration of leadership qualities during the decisions or negotiations regarding disputable issues with representatives of the local government)?

Table 2. Revisions of items to establish conceptual equivalence

Other items that could not be translated directly and required detailed descriptions involved concepts that are specific to a given political, cultural, and societal context. These concepts were work sectors, certain democratic principles, and the welfare system. Thus, the translated and the original versions of the instrument were revised to include descriptions specifying the meaning

for public versus private work sectors (item A8), democratic principles in the workplace (item D4.7), and the social services/welfare system in the United States (item F2.9). To establish the conceptual equivalence, researchers asked translators to provide descriptions of these constructs so that the items better reflect respondents' interpretations of the meaning of the constructs.

For instance, it was interesting to learn that the meaning of the democratic principles at the workplace was perceived as supervisors treating workers fairly and respecting each team member as an individual. Additional examples of the context-specific meaning involved items assessing the importance of voting and rule of law (items D4.1 and D4.5). These items were confusing for the respondents living in the CIS, as their definitions and perceptions of these concepts did not directly corresponded with the original intent of the English wording. Thus, the importance of the rule of law was augmented in the translation (changed from "fundamental to a functioning democracy" to "fundamental to the existence of democracy"), whereas the reason for the importance of voting was diminished (changed from "important because real decisions are made in elections" to "important because representatives of the people are chosen in elections"). Such an augmentation of the importance of the rule of law and the relative diminishing of the importance of voting might be attributed to the current situation in the CIS, where government policies and public opinion often stress the importance of establishing the rule of law, political stability, and economic development, frequently at the expense of the democratic freedoms (Levada, 2003; Romanovich, 2003). Public opinion in the CIS is becoming more disillusioned with democratic reforms, principles, and freedoms and more distrusting of the integrity of the voting process while becoming more preoccupied with reducing crime, fighting corruption, restricting private ownership, and establishing economic stability (Arutiunian, 2003; Laidinen, 2002; Levada, 2003; Romanovich, 2003). Thus, the use of collaborative decentering allowed the meaning and the wording on the voting and rule of law to emerge in a way that is congruent with cultural context of the respondents. This demonstrates the utility of the translation process as a qualitative, ecological tool for uncovering cross-cultural variations in the specific meaning of constructs.

Linguistic equivalence

Linguistic equivalence deals with equating words and sentences on survey items so that the same meaning is communicated (Lonner, 1981). In our project, linguistic equivalence became an especially important issue as we tried to equate the meaning and wording of the items for Russian and Ukrainian versions of the instrument. Many Ukrainians, especially those who are college educated, speak and read Russian in daily life. Indeed, only recently has the use of the Ukrainian language begun to expand in response to the government actions. Thus, we expected that the vast majority of respondents in Ukraine would be bilingual Russian and Ukrainian speakers. As a result, great care was taken in equating the meaning and wording for the Russian and Ukrainian versions of the instrument, as respondents might choose to respond to either of the two versions. Although Russian and Ukrainian are closely related languages, there are numerous differences between them that we had to accommodate. We did this through a triangulation process, adjusting the wording and meaning simultaneously for the English, Russian, and Ukrainian versions of the instrument using a group of tricultural, trilingual translators.

Most of the changes required to establish linguistic equivalence involved changing specific words to make sentences more grammatically and linguistically appropriate for the native speakers. The importance of making items grammatically and linguistically correct was specifically stressed by the translators, who pointed out that the high educational level of the respondents might make them frustrated and reluctant to respond to the items that "do not sound right" for a native

speaker. In the process of adjusting the wording, the meaning of some items was slightly changed. For example, views was changed to perceptions (see Table 3, item B4), *experience* was translated as *participation* (item B7), *appreciation* was altered to *respect* (item F5.2), and *communicate* came back as *maintain relationships* (item I4). These and other changes in wording slightly altered the meaning of the items, often by making them more discrete and expressive, which helped to highlight the underlying intent of the items. For instance, *maintaining contacts* points to behavioral involvement and underscores the active role of the alumni, as compared to a more passive version of *remained in contact* (item E1). Similar augmentation in meaning emerged for the words *introduced*, which was changed to *implemented* (item G2.8), *attended* versus *participated* (item I1.1), and *initiate* versus *implement* (item G2). The stronger connotations in the wording actually assisted in reducing ambiguity about the meaning and highlighted the importance of adjusting the original English version of the instrument rather than forcing the nuances of the original version into awkwardly worded and possibly confusing translations.

Item Number	*Original Item*	*Revised Item*
B4	How did your **views** of the U.S. Government and the American people change as a result of your IVLP participation?	How did your **perceptions** of the U.S. Government and the American people change as a result of your IVLP participation?
B7	The IV Program helps to . . .	The IV Program helps to . . .
	B7.4 . . . develop friendly, **sympathetic**, and peaceful relations between the United States and other countries of the world.	**B7.4** . . . develop friendly, **positive**, and peaceful relations between the United States and other countries.
D3	To what extent do you think your IVLP **experience** enhanced your abilities in the following areas?	To what extent do you think your **participation** in the IVLP gave you an ability to make your contribution to the following areas?
D3.4	. . . communicate more **accurate** information about the United States and Americans to people in your country.	. . . communicate more **credible** information about the United States and Americans to people in your home country.
E1	Have you **remained** in contact with people you met during your IV exchange program?	Are you **maintaining** contacts with people that you met during your IVLP visit?
F2	To what extent do you feel your IVLP **experience** helped to increase your understanding of the following aspects of the United States?	To what extent did your **experience participating** in the IVLP help you better understand the following aspects of the U.S.?
F5.2	. . . **appreciation** of the United States and Americans.	. . . **respect** of the United States and Americans.
G2	Have you used the knowledge or experience gained in the IVLP to **initiate** any of these **formal or informal** changes in your organization or work?	Have you used the knowledge or experience gained during the participation in the IVLP for the **implementation** of the following **official or unofficial** changes in your organization or work?

G2.8	. . . **introduced** new policies or procedures.	. . . **implemented** new work methods or procedures.
I1.1	**Attended** events held at U.S. Alumni Resource Centers or IATP (Internet Access and Training Program) Centers for IVLP/DOS exchange alumni.	**Participated** in events held at U.S. Alumni Resource Centers or IATP (Internet Access and Training Program) Centers for IVLP/DOS exchange alumni.
I1.12.	**Mentored** new participants or alumni of the IVLP or other DOS exchange programs.	**Instructed** new participants or alumni of the IVLP or other DOS exchange programs.
I4.	Please indicate which of the following groups of people do you currently **communicate** with?	Please indicate which of the following groups of people you currently **maintain relationships** with?

Table 3. Revisions of items to establish linguistic equivalence

Metric equivalence

Metric equivalence refers to measures in different languages being scored equivalently, thus assessing a construct at the same level across cultural contexts (Lonner, 1981). In our case, issues with the metric equivalence of translation involved overcoming the difficulties in translating the meaning of response options for scales, such as *not at all*, *somewhat*, *moderately*, and *very much*. For instance, in Russian and Ukrainian the translations for *somewhat* and *moderately* are not as distinct as they appear to be in English, thus highlighting the notion that the meaning of scale scores can be different across cultures (Helms, 1992).

To ensure metric equivalence, we revised the response options for the scales by providing a continuum that would be linguistically appropriate and conceptually comparable across the translated versions (See Table 4). For some of the scales this involved changing the wording to provide linguistically and conceptually accurate response options. For example, *very dissatisfied* was changed to *absolutely dissatisfied*, whereas *very satisfied* was translated as *completely satisfied*. Even though it seems that the wording for the response options is not comparable within the scale, the conceptual and linguistic equivalence was actually improved. *Absolutely* and *completely* provided much stronger alternatives to *very* and established linguistically appropriate combinations for the words *dissatisfied* and *satisfied*. The stronger wording for the anchors of the scales actually aided in addressing the issue of response style reported in cross-cultural research. It has been found that ethnically and culturally diverse populations often exhibit differences in response style that consistently skew their use of the extreme ends of response scales (Clarke, 2000). One way to address the response style cross-culturally is to use scales of at least 5 points, which tend to reduce the effects of the extreme response style (Clarke, 2000). However, we also addressed this issue conceptually by wording the extreme anchors for the scale more strongly (*absolutely* or *completely* vs. *very*), which might have made such options more specific, less likely to be used excessively, and more equivalent to the English scale. In translating the response options of the scales, ensuring the linguistic appropriateness of the options in the translated version was more important than establishing the linguistic equivalence to the English version. For example, although the word *very* was changed to address issues of extreme response style when used with *dissatisfied* and *satisfied*, the word *very* was retained for the response scale involving the word *valuable*. *Very valuable* was a linguistically appropriate choice of words, and as a result no changes were implemented (See Table 4).

Type of changes	*Type of scale*	*Response options of the scales*				
Wording	Original scale	Not at all valuable	Slightly valuable	Moderately valuable	Very valuable	
	Revised scale	Absolutely not valuable	Slightly valuable	Valuable	Very valuable	
	Original scale	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
	Revised scale	Absolutely dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Completely satisfied
	Original scale	Strongly disagree	Disagree	Not sure/No opinion	Agree	Strongly agree
	Revised scale	Absolutely disagree	Disagree	Neither agree nor disagree	Agree	Absolutely agree
Incorporating answers into scales	Original scale	Not at all	To a small extent	To a moderate extent	To a great extent	
	Revised scale	Did not help at all	Helped slightly	Helped to some extent	Helped very much	
	Original scale	Not at all	To a small extent	To a moderate extent	To a great extent	
	Revised scale	Absolutely did not enhance	Enhanced slightly	Enhanced to some extent	Very much enhanced	
	Original scale	Not at all	To a small extent	To a moderate extent	To a great extent	
	Revised scale	Did not share at all	Shared slightly	Shared to some extent	Shared very much	

Table 4. Revisions to the response options for the scales to establish metric equivalence

Other changes to the response options of the scales emerged from the discussions with the translators, who suggested that people in the CIS might not be very well versed in responding to the structured questionnaires and might require additional aids for keeping track of the stem of the question, the corresponding items, and the response options. Thus, we revised the response options for some of the scales by incorporating the stem of the question into the scale, which assisted respondents in answering the items. For instance, the original question asked, “To what extent do you feel your IVLP experience helped to increase your understanding of the following aspects of the United States?” For each of the items, respondents rated their perceptions on the scale from “Not at all” to “To a great extent.” However, the translators advocated the revision of the response options to incorporate the answer to the question as an aid to remind respondents that the items should be rated with respect to the change in their understanding. As a result, the revised version of the question read, “To what extent did your experience participating in the IVLP help you better understand the following aspects of the U.S.?” on the scale from “Did not help at all” to “Helped very much.” Other changes of the response options that incorporated the stem of the question into the scale are presented in Table 4. Overall, the changes to the wording and format of the response options for the scales, required for establishing the metric equivalence,

highlighted once again the importance of keeping the original English version of the instrument flexible to allow linguistically and conceptually appropriate changes to emerge.

Additional efforts in documenting equivalence

The whole process of equalizing the instrument across languages creates the paradox of equivalence. Scores of respondents in different countries might represent not only the difference in constructs measured by the instrument but also the differences in perceived meaning attributed to the items of the instrument (Van der Veer, Ommundsen, Hak, & Larsen, 2003). The more effort that is spent equalizing the perceived meaning of the different language versions of the instrument, the less likely cultural differences are to emerge. In contrast, without equalizing the measures, apparent cultural differences that emerge might be due to the inadequacies in establishing equivalence rather than real cultural differences (Lonner, 1981). In an effort to check for the role of translation equivalence in influencing the cultural differences across the language versions of the instrument, we conducted follow-up telephone interviews in Russian with a randomly selected 10% of the respondents from all four countries.[2]

We asked follow-up respondents specific queries about three major questions identified during the pretest and data collection as being potentially confusing. These questions assessed respondents' attitudes about various aspects of American democracy, changes in respondents' views of the U.S. government and American people as a result of IVLP participation, and the extent to which the IVLP experience enhanced respondents' abilities to contribute to their own country's political, economic, and social development (see Table 5). We asked respondents to rate the presented questions, using a 4-point scale (from "Not at all" to "Very much"), on the extent to which a question's difficulty or confusion might be due to the following issues: (a) problems in understanding the meaning and/or wording of the question, (b) difficulties recalling the details of the IVLP experience, (c) cultural inappropriateness of the question, (d) problems in separating the impact of the IVLP from the impact of anything else that might have happened since the IVLP visit, and (e) any other factors contributing to the difficulty of the questions. We also conducted brief cognitive interviews by specifically encouraging respondents to elaborate on their responses and explain reasons why the questions might present problems for them.

Three Questions Included in the Follow-up Assessment

B4. How did your views of the U.S. Government and the American people change as a result of your IVLP participation?

IVLP participation changed your views of the:

B4.1. U.S. government

B4.2. American people

D3. To what extent do you think your IVLP experience enhanced your abilities in the following areas?

Your IVLP visit enhanced your ability to…

D3.1 . . . Contribute to your home country's political processes.

D3.2 . . . Contribute to your home country's economic development.

D3.3 . . . Contribute to your home country's social and/or civil development.

D3.4 . . . Communicate more accurate information about the United States and Americans to people in your home country.

D4 To what extent do you agree or disagree with the following statements?

D4.1 Voting is important because representatives of the people are chosen in elections.

D4.2 Free and fair elections are the cornerstone of democracy.

D4.3 An independent media is important to the free flow of information.

D4.4 All citizens in a country should have equal rights and protections under the law, regardless of circumstances.

D4.5 The Rule of Law is fundamental to a functioning democracy.

D4.6 Individuals and organizations have the right to free speech and to voice opposition.

D4.7 Democratic principles enhance the workplace — Supervisors should incorporate democratic principles into their management
practices, such as treat workers fairly, respect individuals.

Table 5. Questions rated by the follow-up respondents with respect to difficulties

Quantitative as well as qualitative responses to the presented questions revealed that potentially confusing and difficult-to-interpret questions were perceived by most respondents as not at all confusing or difficult. Those who indicated having some difficulties with the questions most often raised issues that were unrelated to translation. Although about 12% of respondents indicated having problems with the meaning and wording of the questions about democracy and views of the American government and/or people, their open-ended responses revealed that these problems were not indicative of poor translation quality (Table 6). People reported being uncomfortable answering these questions mostly because their IVLP visit was focused more on professional and technical aspects of their work rather than democracy and government of the United States. Some respondents mentioned their desires to stay away from politics and politically related conversations and as a result had a difficult time responding to the detailed questions about their perceptions of the various aspects of democracy, American government, and Americans. The nontranslation difficulties were further highlighted by the quarter of the follow-up respondents who indicated that they had problems with the questions about the government and people of the United States due to the numerous events happening in the world since their return from the IVLP, which affected their views.

Difficulties in Responding to Questions	*Percentage Endorsing (%)*
Changes in respondents' views of the U.S. Government and American people (item B4)	
Problems in understanding the meaning and/or wording of the question	12.4
Difficulties recalling the details of your IVLP experience	5.3
Cultural inappropriateness of the questions	3.6
Problems in separating the impact of the IVLP from the impact of anything else that might have happened since	26.4
Any other factors	21.0
Various aspects of American democracy (item D4)	
Problems in understanding the meaning and/or wording of the question	10.6
Difficulties recalling the details of your IVLP experience	3.6
Cultural inappropriateness of the questions	3.6
Problems in separating the impact of the IVLP from the impact of anything	1.8

else that might have happened since	
Any other factors	5.3
Extent to which IVLP experience enhanced abilities to contribute to home country (item D3)	
Problems in understanding the meaning and/or wording of the question	3.6
Difficulties recalling the details of your IVLP experience	5.3
Cultural inappropriateness of the questions	1.8
Problems in separating the impact of the IVLP from the impact of anything else that might have happened since	5.3
Any other factors	5.3

Table 6. Responses to the queries about the potential difficulties in responding to questions

Other issues with the questions mentioned by smaller proportions of the respondents involved the short length of their visit, which prevented them from forming concrete impressions of the United States and its democracy, as well as respondents' modesty in estimating their abilities to contribute to their home countries. Many respondents used the open-ended queries of the follow-up assessment to express their satisfaction with the IVLP and describe their amazement at the politeness and friendliness of Americans as well as to lament not having in their home countries certain aspects of American democracy, rule of law, and social security. Overall, these results suggest that even potentially confusing and difficult-to-translate questions about various aspects of American democracy, changes in respondents' views, and improvement in respondents' abilities to contribute to their country's political, economic, and social development still exhibited good translation quality. Fewer than 4% indicated any cultural inappropriateness of the items.

Suggestions for future research

Overall, in the present paper we have delineated numerous translation issues, including the importance of the theoretical framework for the translation process, differences in emic-etic aspects of the meaning, specific examples of linguistic equivalence, the modified decentering translation technique, and the importance of developing truly collaborative relationships with the translators. In the process of addressing such myriad issues, the whole translation process became a qualitative approach for the instrument development that maps contexts of people's lives, fosters collaborations, and documents emic-etic aspects of research. Human behavior and cognitions are greatly affected by the nature of the cultural, social, historic, and material context of the settings within which they occur, and as a result instrument development must match the experiences, life domains, and settings of importance of people's lives (Swindle & Moose, 1992; Trickett, 1996; Trickett, Watts, & Birman, 1993, 1994). The translation process becomes an important part of the research process by assisting in developing culturally and contextually congruent conceptualizations, instruments, and interpretations of findings. The initial English version of the instrument intrinsically lacks cultural validity and only through the rigorous translation process and iterative changes does it emerge as appropriate for particular cultural, social, and linguistic contexts. It is our hope that the translation process outlined in this paper could serve as a blueprint for adjusting translation methods to fit particular cultural context.

Notes

1. Following the collapse of the Soviet Union, IVLP was greatly expanded in the CIS to encourage appreciation of democratic and free-market principles.

2. Passing IRB was required for all data collection associated with this project. Therefore, all participants gave their informed consent for the overall, as well as for the follow-up study. Without exception, all agreed to participate in the follow-up study about the accuracy of the translation of the instrument, and in many cases they used this opportunity to talk further about their IVLP experiences.

References

Alegria, M., Vila, D., Woo, M., Canino, G., Takeuchi, D., Vera, M., et al. (2004). Cultural relevance and equivalence in the NLAAS instrument: Integrating etic and emic in the development of cross-cultural measures for a psychiatric epidemiology and services study of Latinos. *International Journal of Methods in Psychiatric Research*, *3*, 270-288.

Arce-Ferrer, A. J., & Ketterer, J. J. (2003). The effect of scale tailoring for cross-cultural application on scale reliability and construct validity. *Educational and Psychological Measurement*, *63*, 484-501.

Arutiunian, I. V. (2003). On the social structure of post-Soviet Russia. *Sociological Research*, *42*, 44-61.

Beck, C. T., Bernal, H., & Froman, R. D. (2003). Methods to document semantic equivalence of a translated scale. *Research in Nursing & Health*, *26*, 64-73.

Berry, J. W. (1999). Emics and etics: A symbolic conception. *Culture and Psychology*, *5*, 165-171.

Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137-164). Beverly Hills, CA: Sage.

Brislin, R. W. (1976). Comparative research methodology: Cross-cultural studies. *International Journal of Psychology*, *11*, 215-229.

Birbili, M. (2000). Translating from one language to another. *Social Research Update*, *31*. Retrieved June 21, 2007, from http://www.soc.surrey.ac.uk/sru/SRU31.html

Clarke, I. (2000). Extreme response style in cross-cultural research: An empirical investigation. *Journal of Social Behavior and Personality*, *15*, 137-152.

Flaherty, J. A., Gaviria, F. M., Pathak, D., Mitchell, T., Wintrob, R., & Richman, J. A. (1988). Developing instruments for cross-cultural psychiatric research. *Journal of Nervous and Mental Disorders*, *176*, 257-263.

Helfrich, H. (1999). Beyond the dilemma of cross-cultural psychology: Resolving the tension between etic and emic approaches. *Culture and Psychology*, *5*, 131-153.

Helms, J. E. (1992). Why is there no study of cultural equivalence in standardized cognitive ability testing? *American Psychologist*, *47*, 1083-1101.

Kelly, J. G. (1986). Context and process: An ecological view of the interdependence of practice and research. *American Journal of Community Psychology*, *14*, 581-589.

Kristjansson, E. A., Desrocher, A., and Zumbo, B. (2003). Translating and adapting measurement instruments for cross-linguistic and cross-cultural research: A guide to practitioners. *Canadian Journal of Nursing Research*, *35*, 127-142.

Laidinen, N. V. (2002). The image of Russia in Russian public opinion. *Sociological Research*, *41*, 32-39.

Levada, I. A. (2003). Homo post-sovieticus. *Russian Social Science Review*, *44*, 32-67.

Levine, M., & Perkins, D. V. (1997). *Principles of community psychology: Perspectives and applications* (2nd ed.). Oxford, UK: Oxford University Press.

Lonner, W. J. (1981). Psychological tests and intercultural counseling. In P. B. Pedersen, J. G. Draguns, W. J. Lonner, & J. E. Tremble (Eds.), *Counseling across cultures* (pp. 275-303). Honolulu: East-West Center and University of Hawaii.

Mallinckrodt B., & Wang, C. (2004). Quantitative methods for verifying semantic equivalence of translated research instruments: A Chinese version of the Experiences in Close Relationships Scale. *Journal of Counseling Psychology*, *51*, 368-379.

Martinez, G., Marín, B. V., & Schoua-Glusberg, A. (2006). Translating From English to Spanish: The 2002 National Survey of Family Growth. *Hispanic Journal of Behavioral Sciences*, *28*, 531-545.

McGorry, S. Y. (2000). Measurement in cross-cultural environment: Survey translation issues. *Qualitative Market Research: An International Journal*, *2*, 74-81.

Romanovich, N. A. (2003). Democratic values and freedom “Russian style.” *Sociological Research*, *42*, 62-68.

Swindle, R. W., & Moose, R. H. (1992). Life domains in stressors, coping, and adjustment. In W. B. Walsh, K. H. Craik, & R. H. Price (Eds.), *Person-environment psychology: Models and perspectives* (pp. 1-33). Mahwah, NJ: Lawrence Erlbaum.

Temple, B. (1997). Watch your tongue: Issues in translation and cross-cultural research. *Sociology*, *31*, 607-618.

Temple, B., & Edwards, R. (2002). Interpreters/translators and cross-cultural research: Reflexivity and border crossing. *International Journal of Qualitative Methods*, *1*(2). Retrieved June 2, 2007, from http://www.ualberta.ca/~ijqm/english/engframeset.html

Trickett, E. J. (1996). A future of community psychology: The context of diversity and diversity of contexts. *American Journal of Community Psychology*, *24*, 209-234.

Trickett, E. J., Barone, C., & Buchanan, R. M. (1996). Elaborating developmental contextualism in adolescent research and intervention: Paradigm contribution from community psychology. *Journal of Research on Adolescence*, *6*, 245-269.

Trickett, E. J., Watts, R. W., & Birman, D. (1993). Human diversity and community psychology: Still hazy after all these years. *Journal of Community Psychology*, *21*, 264-279.

Trickett, E. J., Watts, R. W., & Birman, D. (1994). *Human diversity: Perspectives on people in context*. San Francisco: Jossey-Bass.

Van der Veer, K., Ommundsen, R., Hak, T., & Larsen, K. S. (2003). Meaning shift of items in different language versions: A cross-national validation study of illegal aliens scale. *Quality and Quantity*, *37*, 193-206.

Zaslavskaia, T. I. (2002). The socio-cultural aspects of the transformation of Russian society. *Sociological Research*, *41*, 6-19.